

**Understanding the Links between Information Communication
Technology (ICT) Skills and Employability-
A Model of Work Placement for Third Level ICT Students.**

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Abstract

The focus of this research is to introduce an uncomplicated practical model of work placement for students of Information Communication Technology (ICT) that can be used as a framework by Higher Educational Institutions (HEI's) to improve the opportunities of securing work placement for students on courses that have a mandatory work placement module. The research methods include a review of relevant literature on work placement. The approach adopted in this dissertation is a single case study as the focus of this research is attempting to present an alternative model of work placement and in so doing contribute to existing body of knowledge on the benefits of work placements in improving employability. The case study approach facilitates this aim. The centre of this research study is the gathering of qualitative data the main method of data collection used is semi-structured interviews. The findings from this research show that by there is a potential market for the model being proposed. This dissertation recommends that HEI makes the resources available to pilot this model with next cohort of ICT students seeking work placement.

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Chapter 1

1.0 Introduction

The purpose of this research is to introduce an uncomplicated, practical model of work placement that will allow the concept to be clearly explained, a concept which has the potential to be used as a framework for developing work placement for students undertaking courses in Higher Educational Institutions (HEI's) with a mandatory work placement module. The model was developed from existing research into the benefits of work placement.

The educational reformer John Dewey (1859-1952) believed that learning was active and school was unnecessarily long and restrictive. In the early twentieth century Dewey suggested that students attended school to do things, however he firmly believed that it was through living in their communities and engaging in real life tasks and learning from those around them that children learned how to contribute to society. Dewey believed that the best way to learn was to be involved in real life challenges and tasks (Dewey, 1916, p. 43).

Work placement programmes are not new to Higher Education Institutions (HEI). In fact higher educational institutions (HEI's) around the world have been incorporating work placements programmes into undergraduate courses for decades (Buckley & El Amoud, 2011). Initially work placement was confined to clinical courses such as medicine and nursing, while more recently it has been extended into most academic disciplines (Buckley & El Amoud, 2011). According to Albrecht & Sack (2000) the development in work placements in HEIs can be contributed to the increasing focus on personal transferable skills by universities.

In 2000 the Secretary of State for Education and Employment in the UK called for all students to have a minimum period of work experience. Suggesting that all options be considered including paid and voluntary work and a strategy recommended for increasing the full range of opportunities for all Higher Education (HE) students to undertake work experience in a

way that better enhances their employability (Group, 2002). Sheridan & Linehan (2011) highlight there are many different definitions of work placement however the common thread among all definitions is that work placements involve “gaining experience on the job” and are now recognised as part of third level programmes. A study by OCED highlighted that many students have difficulty in transitioning from education into the workplace (Zitter & Hoeve, 2012). According to Coco (2000) workplacement is a natural bridge between college and the world of work and therefore assist students in preparing for the transition from classroom to the job.

According to the most recent survey published by (GradIreland, 2013) work experience is now a key part of graduate recruitment for the majority of employers. Many companies use work experience to source talent at an early stage. This means that work experience is now of huge strategic importance when looking at the graduate recruitment market. More recently a study by the OECD (Zitter & Hoeve, 2012) recommended the need to change the approach to delivery of educational programmes and suggests the change would see a move away from the educational focus being the individual learners to learning environments. This move if adopted would overcome the challenge faced by students in the transition between education and workplace.

The aim of this dissertation is to set out a work placement model for students of Information Communication and Technology (ICT) that can be used as a framework by HEI’s to improve the opportunities of securing work placement for students. The framework on which this conceptual model is built consists of four pillars:

- Knowledge Users
- Knowledge Providers
- Enablers – Small and Medium Enterprises (SME’s)
- Consumers

It was developed from existing research into how work experience improves the employability of students. Together with challenges encountered by

career service department in a HEI in trying to secure ICT work placement opportunities for its students.

1.1 Definition

The definitions used for the four individual pillars underpinning this framework will now be explained. Each pillar has the capacity to operate independently of the others. The success of the proposed conceptual model however, relies on them working in collaboration to provide a work placement model that will have a real impact in improving the (ICT) employability skills of those who engage with the model.

Knowledge Users.

In this study the term “Knowledge Users” is used to describe unemployed persons in particular those who have lost their job as a result of the recession and who need to re-skill to get back into stable employment (Group, 2011). Learners need to improve their employability skills by overcoming the barrier of having no work experience in the sector, through gaining practical experience while at the same time developing their skills and professional networks. The report on Labour Market Activation and Training acknowledges that while foundation skills are important, the evidence suggests there should be a shift in the direction of higher-skilled training and a greater focus on work placement as part of training offerings (Unit, 2011).

Knowledge Providers

In this study the term Knowledge Provider is used to describe the contribution of third level institutions and Small and Medium Enterprises (SME) who are working to redress the national skills deficit in ICT. The majority of the ICT courses offered under the government re-skill initiative have a built in work experience element (Group, 2011). The up-skilling of learners requires input from both third level institutions and SME’s. This study will explore the opportunity for SME’s to contribute by inviting them to volunteer their time and experience to mentor students. The benefit to the

SME is direct access to talent at an early stage. Many companies use work experience to source talent at an early stage, and in a downturn can often recruit students into work placements when headcount is frozen (GradIreland, 2013). Knowledge Providers working together to create work placement opportunities is critical to the success of this conceptual model.

Enablers

In this study the term “Enablers” is used to describe government initiatives established to address long term unemployment while at the same time trying to close the skills deficit particularly in the ICT sector. A government commissioned report entitled “Comprehensive Review of Expenditure, Thematic Evaluation Series, Labour Market Activation and Training”, recommended that full integration and coordination between providers of state funded training should be achieved. Ensuring enterprise involvement in design of courses which is important to ensure skills are aligned to labour demand (Unit, 2011).

Consumers

The fourth and critical pillar to contribute to the success of this proposed model is the intended consumers who will benefit from the development of the model. For the purpose of this study the consumers are primary schools. The reason for selecting primary schools is that a review of randomly selected primary school websites highlighted the different standards and quality in use. It is not clear to this observer who the intended audiences for the schools’ website are and the majority is poorly designed. By engaging in this model schools have the opportunity to redevelop their schools website at no cost to the school.

Application of Model

Students undertaking an ICT course in Web Development are assigned a mentor from an SME who is in turn assigned a primary school. The school has agreed to participate in the programme as they want to redevelop their website. The student takes responsibility for full project

lifecycle for development of school website for assigned school. The deliverable is a fully functioning website as agreed in statement of requirements. The SME provides a mentor who has responsibility to support students in delivery of their assigned project. Figure 1 illustrates the proposed model which is based on the collaboration of the skills, knowledge and experience to deliver a number of benefits:

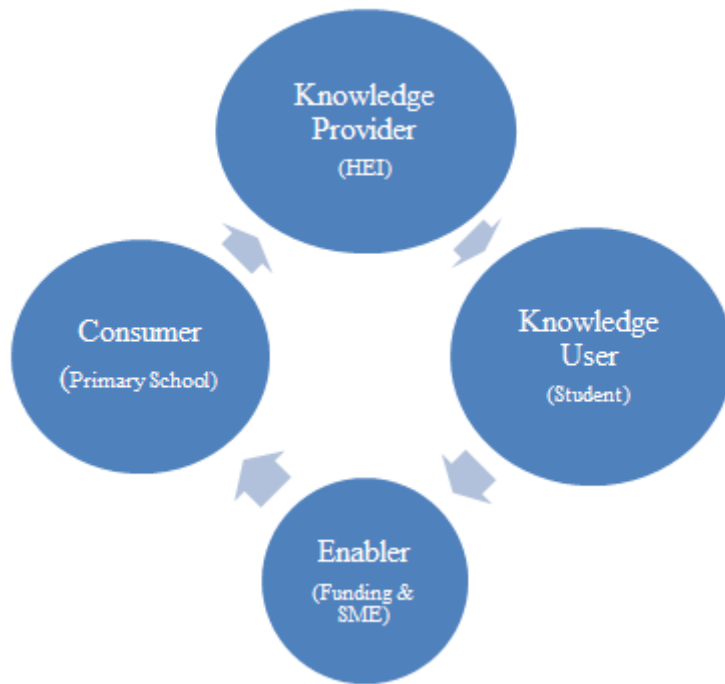


Figure 1 Proposed Model

- **Knowledge Providers** – Open new avenues to explore work experience opportunities to support their academic programmes.
- **Knowledge Users** – Students who previously had no experience in an ICT discipline for example web development get the opportunity to undertake some practical work experience. On completion of their work experience they can showcase their skills to any future employer as the deliverable for the student is a fully functioning Website for their assigned school\voluntary agency. They also build their professional CV, LinkedIn portfolio and gain experience interacting with employers and clients.
- **Enablers** – Government who funds the academic programmes get a return on investment as the student has acquired skills which have the potential to improve their employability and schools that engage get a new website. The

SME's who participate provide resources to mentor the students to ensure delivery of school website. While at the same time the SME has access to new talent and can access their capabilities and future potential of the students.

- **Consumers** – The school reaps the benefits of a new website designed to meet their specific business requirements. Each school retains the control over the functionality and features they wish to enable for their site.

1.2 The Link between Knowledge Providers & Knowledge Users

The Global Technology Sector

According to Whelan (2013), despite the global economy entering its second slowdown in five years, unemployment is high and rising in many parts of the developed world. High volumes of public debt limit the ability of governments to stimulate growth in their economies. According to the Directorate-General for Communication (2012) Europe's companies cannot remain competitive if they do not make extensive use of Information and Communication Technology (ICT). All newly created jobs require good ICT skills. Recognizing the need to accelerate the deployment of advanced ICT in Europe, the European Commission has adopted the Digital Agenda for Europe (DAE) as part of the overall Europe 2020 strategy for smart, sustainable and inclusive growth (Directorate-General for Communication, 2012). There is a surplus of jobs in the ICT sector due to a shortage of people in many countries with the technical skills necessary to fill these roles; an argument supported by Hays, the international recruitment firm; whose study identified a digital skills shortage in Europe (Hays, 2012). The European Commission in its 2012 Digital Agenda identified that half of the European labour force does not have sufficient ICT skills to help them change or find a new job (European, 2012).

1.3 The Irish Governments Recovery Plan

To ensure that Ireland was prepared for when the global recovery began, the government developed an ambitious plan 'Building Ireland's Smart

Economy: A Framework for Sustainable Economic Renewal’ which sets out the Government’s strategy for economic recovery (Taoiseach, 2008). This plan outlines a set of actions to reorganise the economy and to secure the prosperity of current and future generations by building a “Smart Economy” with a thriving enterprise sector, high-quality employment, secure energy supplies, an attractive environment and first-class infrastructure. Some observers likened the government’s recovery plan to the strategy adopted by Finland following their economic crisis in the early 1990s which had similarities to Ireland’s economic crash. After the crisis, Finland became one of the world most ICT-intensive economies (IBEC, 2009). The Irish Government established a task force with responsibility to make the “Smart Economy” a reality. Learning from the Finnish experience the group examined ways of improving the links between institutions, agencies and the public and private sector as companies rarely innovate alone (IBEC, 2009). Some of the strategic objectives identified by the Irish Government to deliver the “Smart Economy” included:

- Providing 160,000 training and work experience places for people who had lost their jobs.
- Government improved co-ordination between Departments and Agencies in order to improve access to job search, training and education.
- Retraining of construction and other workers will be enhanced.
- Ensure Maximum coherence and collaboration between the enterprise development agencies and to identify gaps in support
- A number of initiatives to support life-long learning will be implemented
- Under the strategic Innovation Fund, priority will be given to flexible learning initiatives that can be targeted at up-skilling people in the workforce

1.4 The Context for This Study

According to a study by Barrett & McGuinness (2012) employment fell 14% between 2007 and 2011 and net outward migration resumed despite sectors of the economy booming and struggling to fill jobs. One such sector is ICT which was identified by Government as key to the country's return to prosperity.

Over the past number of years all of the top ten ICT companies have an established presence in Ireland including, Google, Citrix, Facebook, Microsoft McAfee. According to Central Statistics Office (CSO) in 2010, ICT services were Ireland's largest export valued at €28.2 billion. Irish Software firms increased their exports to over €900 million in 2011, an increase of 12% from the previous year (Ireland, 2012). The ICT sector in Ireland is a major contributor to the Irish economy employing over 90,000 people of which 70,000 are in software and ICT services (Department of Jobs, 2012). The growth in employment opportunities in ICT is further endorsed by Forfas in a report of the future need of the economy (Forfas, 2012).

1.5 The Labour Market Activation Fund

Following the global recession of 2008/2009 the scale of the unemployment problem in Ireland was significant given that in the previous ten years the country had experience almost full employment. The unemployment problem was compounded due to fiscal constraints which severely limited any initiatives by Government to address the problem (Barrett & McGuinness, 2012).

The Labour Market Activation Fund (LMAF) was launched in March 2010 at a time of unprecedented social and economic upheaval. Government recognised that there was a need for a much more flexible, tailored and responsive measure to address activation issues. The issues faced by those experiencing long-term unemployment were exacerbated as there were new cohorts from declining industries such as retail, construction and manufacturing services which found themselves on the live register for the first time.

The focus of LMAF was on support for innovative, market-led activation measures aimed at improving the employability of unemployed persons by improving education and skills levels in line with National Skills Strategy and the needs of the SMART economy (Brown, 2003).

Following the launch of LMAF the Government introduced the Springboard initiative in 2011. The aim of this initiative was to strategically target funding on part-time programmes from level 6 to level 9 on the National Framework Qualifications (NFQ) for unemployed people specifically in areas of known labour market skills shortages such as ICT. There was a focus on up-skilling and re-skilling and engagement with employers.

The Evaluation Report (2011) found that those that completed the LMAF programs in 2010, for whom current status is recorded, 29% are in employment, 13% are in self-employment, 43% have progressed to further education or training and 15% were still unemployed. At the launch of Springboard 2013 the Minister for Education and Skills Mr. Ruairi Quinn stated “that Springboard is providing a dynamic pipeline of job-ready graduates with the required skills and qualifications for sectors of the Irish economy that are expanding and recruiting” (Skills, 2013).

The government’s commitment to tailoring qualifications to meet skills were confirmed by Minister For Education and Skills Mr. Ruairi Quinn at the launch of the third Springboard allocation of courses in June 2014 which emphasized the greater focus on delivery the skills required by growing industries through the content and design of the courses being offered to job seekers. Over 80% of courses will offer work placement for participants. This practical initiative, which is part of the Governments Action Plan for Jobs, is tailored to labour-market needs and designed to stimulate economic growth (Authority, 2014).

The success of the Springboard initiative can be attributed to its partnership with an expert panel, which identifies the expertise required in the economy as well as guidance on course content. Chairman of HEA Mr. John Hennessy stated that “Springboard is more than an education initiative; it is

driving culture change within the system. The Springboard approach is transforming how we prepare people for the jobs market. Instead of education administrators designing courses in the hope that they make people employable, we start with industry needs. Courses offer the skills-set employers need from graduates, in conjunction with educators” (Authority, 2014).

Zitter & Hoeve’s (2012) report for OECD argues that to equip the 21st graduates with the skills to enter the workplace requires a change in educational practice which is contributing to the emergence of what is being described as a hybrid learning environment. Tynjala et al. (2003) suggest that to understand hybrid learning environments requires one to acknowledge there are different modes of learning. In broad terms learning in an educational environment is formal and based on planned educational activities in comparison learning situated in the workplace environment which is mostly informal in nature. The educational environment tends to focus on the individuals, while in a workplace environment the focus is more on activities often carried out in a team or within an organisational structure (Zitter & Hoeve, 2012).

In the report of the Higher Education Authority (HEA) in their evaluation of Springboard (2011), stage1 highlights that over 80% of courses will offer work placement to participants (Authority, 2011). The research undertaken by the Roadmap for Employment Academic Partnerships (REAP) project’s 2011 report on “Work Placement in Third Level Programmes” suggest that:

“HEIs, employers and students all agree that work placements make a valuable contribution to third-level educational experience. In particular, work placements were considered to enhance the employability prospects of future graduates as the industry competences gained through formal learning in the workplace make individuals more employment ready” (Buckley & El Amoud, 2011).

The Unit (2011) report recommends that while foundation skills and bridging are important, the evidence suggests that there should be a slight

shift in the direction of the provision of higher-skilled training and a greater focus on work placement as part of training opportunities. A view that is shared by (Hynes, et al., 2011) who argue that for educational institutions to achieve industry ready graduates education must extend outside of the classroom into the industrial arena through interaction with businesses of all sizes, community groups and government development agencies.

The demand on career placement services to secure work placement positions for students on LMAF supported programmes is challenging as available opportunities are not sufficient to service the demand. This view is supported by the REAP project report which expressed concern about the challenge facing Higher Educational Institutions in securing placements for students due to the economic downturn stating that there are not enough work placements available to meet the growing demand from students (REAP, 2011). To advance this view Hynes et al. (2011) suggest that interaction between higher education institutions (knowledge producers) and industry (knowledge users) must be achieved.

Many large multinational companies have established structured work placement programmes specifically targeted at third level institutions (HP, 2014) and (IBM, 2014). The duration and reward packages differ across the sector. The REAP report is a good snapshot of the number of placements which take place in Ireland annually. The 2010 report highlights that 10,577 students per year complete work placements of which only 7% of work placements secured were for students on level 6 programmes (El Amoud, 2010).

A gap is emerging between the numbers of students participating in ICT courses at level 6 on the NFQ requiring work placements in order to improve their employability opportunities and the availability of suitable opportunities. According to (Buckley & El Amoud, 2011) one way to overcome this shortfall is to develop new partnerships with organisations that may not traditionally have been seen as within the reach of the HEI's but are abundant in Ireland. It could be asserted therefore that collaborating with the non-traditional sources of work placement such as schools and the

voluntary sector are central to the success of the alternative work placement model being proposed in this dissertation.

1.6 Aims of the Research

The outcome of this dissertation is the development of a staged-model of work placement. It will detail how learners can be progressed and made job-ready to secure ICT positions based on the information gleaned from the interaction between the four different pillars that underpin the proposed framework. In the following chapters the author will undertake a review of the literature in the area of work placement as a means of improving employability will be presented.

Chapter two will undertake a review of the related literature on work placement.

Chapter three presents the conceptual model

Chapter four introduces the chosen research methodology undertaken to explore the concept of an alternative work placement model will be offered.

Chapter five outlines the framework adopted for data analysis and the findings will be discussed with reference to the relationship to the literature review and research question.

Chapter six will draw conclusions from the data collected together with recommendations from the author for future research.

Chapter 2 – Literature Review

2.0 Introduction to literature review

Following the collapse of the Irish economy in 2008 the Irish government of the day developed a strategy for economy recovery part of the recovery strategy was to develop a “Smart Economy” (Taoiseach, 2008). To enable the “Smart Economy” become a reality the government launched a number of learning initiatives aimed at up-skilling and retraining unemployed people specifically in areas of known labour market skills shortages such as ICT. Research has confirmed that HEI’s, employers and students all agree that courses which include work-placements were considered to enhance the employability prospects of future graduates (Buckley & El Amoud, 2011). The challenge facing career placement services in third level institutions is to secure work-placement opportunities for their students is significant, as there are not sufficient opportunities to service demands (REAP, 2011). To support this proposed model of work placement a review of appropriate literature was undertaken and a number of appropriate and significant themes were examined:

- The Significance of ICT Skills Training
- Employability In Higher Education
- Links Between ICT Skills – Employability
- Workplace Readiness
- Mentoring

The literature review commences with understanding the importance of ICT skills and how workers have had to adapt and incorporate ICT skills into their jobs (Green, 2009) and progresses to gain an insight and understanding of employability. Indeed (Garrido, et al., 2012) identify employment as a critical outcome for participants in basic computer training as employment represents a contribution to economic well-being which brings with it a quality of life. This view is shared by (Hillage & Pollard, 1998) who suggest that as a person enhances their skills their employability improves. According to (Coco, 2000) work placements are becoming increasingly

valuable to both students and employers as the workplacement provides the student with the opportunity to reinforce technical competencies, improve analytical skills but most important demonstrates the need for adaptability and flexibility in a changing world. While at the same time employers have access to new talent and witness the capabilities and future potential of the student. Undertaking a work placement can be the key to securing a job as it provides students with opportunity to demonstrate their capabilities and potential as they take responsibility for a task while working alongside experienced professionals. As we now live in a globally interconnected knowledge economy, with technology skills and processes at the core of economic transactions, ICT skills are key components of employability throughout the world. To improve employment opportunities students and graduates need to develop their personal and professional skills relevant to the world of work by taking advantage of opportunities to develop relevant skills through engagement on work placement programmes (Raybould & Sheedy, 2005) as potential employers prefer to see some evidence of work experience which demonstrates that an individual can operate in a work environment (Garrido, et al., 2012).

2.1 The Significance of ICT Skills Training.

The collapse of the Irish economy in early 2008 has had severe implications for the labour market. Jobs growth and market policies are a high priority for the Programme for Government and key challenges for economic policy (Department of Jobs, 2012). The biggest impact was the collapse of the construction industry which resulted in high unemployment particularly among the 25-44 year olds (Group, 2011). Workers in a wide variety of fields have had to adapt and incorporate ICT into their jobs (Green, 2009). These changes increase the complexity of skills required by today's workforce and threaten the position of low-skilled workers "when they do not succeed in adjusting their skills according to the shifts in the skills demanded in their job or sector of industry" (de Grip & Zwick, 2005).

2.2 Employability in Higher Education.

Dacre Pool & Sewell (2007) suggest that to measure employability simply as to whether or not a graduate has managed to secure a job within six months of graduating only provides a vague and imprecise indication of what the student has gained. The real question is whether or not the graduate is using the skills, knowledge and understanding gained in their studies in a graduate job.

Hillage and Pollard (1998) suggest that: in simple terms, employability is about being capable of getting and keeping fulfilling work. More comprehensively, employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment.

The University of Central Lancashire (UCLan) in the UK – Centre for Employability (CfE) has been engaged in research for over ten years, developing practical solutions to enhance the employability prospects of students and graduates. The main theoretical model that has underpinned the work of (CfE) unit is the **DOTS** model (Law & Watts, 1997), which consists of: **D**ecision Learning – decision making skills, **O**pportunity Awareness – knowing what work opportunities exist and what their requirements are, **T**ransition learning- including job searching and self-presenting skills, **S**elf-awareness – in terms of interest, abilities, values, etc. (Watts, 2006).

More recently (Dacre Pool & Sewell, 2007) define, “employability as having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful”. A definition that underpins their new practical framework for employability entitled “The Key to Employability” model.

“The Key to Employability” model (Dacre Pool & Sewell, 2007) draws together the essential conceptual issues that underpin an understanding of the concept of employability and provides a clear visual answer to the simple question of what employability is:

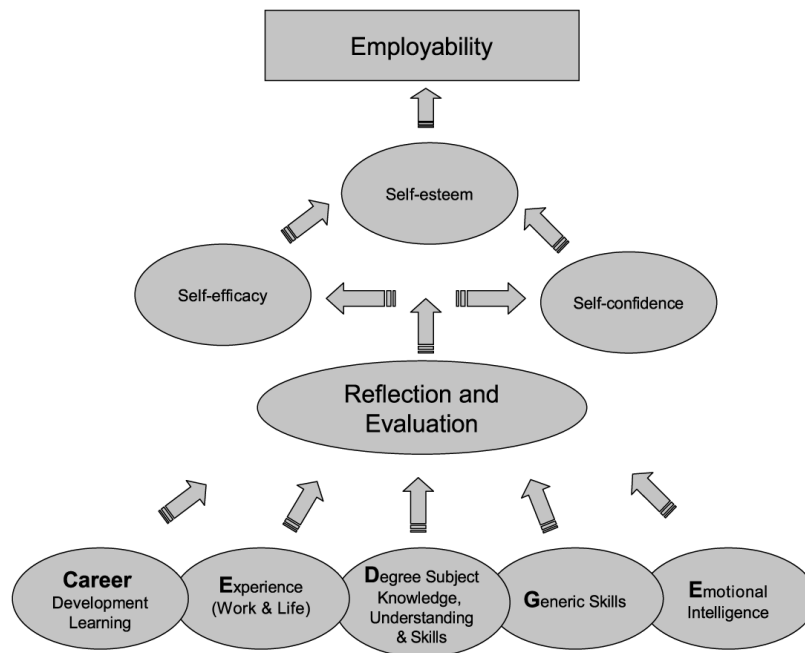


Figure 2 The Essential Components of Employability (Darce, Pool & Sewell 2007)

It is suggested that providing students with opportunities to access and develop everything on the lower tier (Figure 2) is essential and will result in development of higher levels of self-efficacy, self confidence and self-esteem – the crucial links to employability. (Dacre Pool & Sewell, 2007). The conceptual model being proposed in this study will provide Knowledge Users with these opportunities.

Considering all factors “The Key to Employability” (Dacre Pool & Sewell, 2007) is a model that is more applicable and adoptable to the current economy climate as it is a practical framework with a visual representation that connects to a wider audience. Its attraction is in its simplicity and recognition of the important contribution of both life and work experiences as key elements of employability. As the current profile of individuals seeking employment is much wider than original audience for the study, the balance between work life experience and academic achievement will differ considerably. The significance is that both academic achievement and work life experience are recognised as contributors to the development of an individual’s employability skills. One of the components identified as playing a critical role in the development of employability is Experience – work life.

Garrido et al. (2012) identify employment as a critical outcome for participants in basic computer training because employment represents a contribution to economic well-being which brings with it a quality of life. In societies where unemployment is high individuals who possess a variety of skills may not secure a job. Therefore a different approach is required that recognises that interventions are required that may improve the individuals employment prospects. One such intervention is work placement. According to (Hillage & Pollard, 1998) as persons enhance their skills, develop experience, and become more competitive job applicants, their employability improves.

2.3 Links between ICT Skills – Employability.

We now live in a globally interconnected knowledge economy, with technology skills and processes at the core of economic transactions. ICT skills are key components of employability programmes throughout the world. It is important to recognise, the many ways that basic ICT skills' training is delivered and the multitude of factors that interact with training to influence the desired employability outcomes, especially for disadvantaged populations. (Garrido, et al., 2012).

The changing skills demand in today's economy has seen the spread of ICT skills across all industrial sectors, which along with changing business models, has induced " skill-biased organisational and technology change" (Green, 2009). Workers in a variety of jobs have had to change and incorporate ICT into their work (Green, 2009). In today's labour market having a level of competency in ICT alone is not sufficient to secure employment as employers are looking for other skills including communication skills, teamwork, collaboration, critical thinking, decision making, and general social skills (Chapple, 2006).

In times of economic downturns low skilled, long term unemployed are more exposed as they may not have the skills to compete for available positions. These groups of workers must compete with higher skilled workers who are willing to take lower paid jobs. Lower paid workers risk

being “crowded out” (de Grip & Zwick, 2005) of the labour market or stuck in low paid jobs.

2.4 Workplace Readiness.

Students and graduates need to develop their personal and professional skills relevant for the world of work. To improve their chances of employment success they need to take advantage of opportunities to develop relevant skills- for example work experience and part time employment (Raybould & Sheedy, 2005). ICT skills are often considered key to securing employment, it is important to recognise ICT as one key component among a set of skills that makes a difference.

Employers also prefer to see some evidence of work experience to show that an individual can operate in that environment (Garrido, et al., 2012). A view shared by (Dacre Pool & Sewell, 2007) who suggest “Work Experience” as being something that prospective employers value greatly in graduates.

In 2002 the UK Government established the “Work Experience Group” (2002) to look at work experience opportunities in higher education some of their key findings were as follows:

- With guidance, students of all ages can learn from their experiences in the world of work to develop their key competences and skills and enhance their employability.
- Employers value people who have undertaken work experience, been able to reflect upon that experience and then go on to articulate and apply what they have learnt.
- Partnerships between employers and Education are valuable in promoting work-related learning and in improving the quality and quantity of such experiences.

The report of The Pedagogy For Employability Group (Group, 2004), confirms that graduates with work experience are more likely to secure employment than graduates without.

2.5 Mentoring

The success of this proposed model of work placement is dependent on active engagement of SME's and their commitment to undertake the role of a mentor. For the purpose of this study adopt the following definition "Mentoring is to support and encourage people to manage their own learning in order that they may maximise their potential, develop their skills, improve their performance and become the person they want to be." Eric Parsloe The Oxford School of Coaching & Mentoring. Hodgson (2009) suggests to be a successful mentor the relationship must be owned by the mentee and the responsibility of the mentor is to listen, and understand the mentees challenge and by supporting and offering an unbiased opinion can assist the mentee in being more objective whatever the challenge they are trying to resolve. The success of this proposed model is based on the individual student (Mentee) taking responsibility for the full project lifecycle with clearly defined deliverables. According to (McMahon, 2008) mentoring is an invaluable component in the realisation of one's potential. Subscribing to the proposed model, SME's can develop the potential of the mentees while at the sametime they have access to new and emerging talent and can access the capacity, capabilities and potential of the mentee.

2.6 Summary of the Literature Review

It is evident from the literature review that graduates with work experience are more likely to secure employment then those without (Group, 2004). The challenge facing HEI's is to identify work placement opportunities for students as demand increases (REAP, 2011). Due to increased demand for work-placement opportunities career placement in HEI's must seek out new opportunities. The bespoke model being proposed in this thesis offers an alternative framework for work-placement.

Chapter 3 - Model of Work-placement for ICT Students at 3rd level.

3.0 Introduction

The increasing challenge faced by the career service department based in my own 3rd level institution in finding placements for students on ICT programmes with a mandatory work-placement module. To present the conceptual model the following data is applied to the model:

Knowledge Providers – A HEI

Knowledge Users - Students on Web Development Course (Springboard) with a mandatory work placement module.

Enabler – established SME company in ICT sector called company x which has agreed to provide ICT professional to act as a Mentor to student.

Consumer – For the purpose of presenting this conceptual model the target consumer are primary schools located in college A's catchment area as there is already an established relationship. Engage with the schools and offer them the opportunity to redevelop their website to meet the individual requirements of the primary school.

3.1 How the Application of the Model Works

- Knowledge Provider - 3rd Level college recruits SME's as mentors
- Enabler - SME's develop a pre-defined set of website templates
- Knowledge Provider - pre-selects primary schools
- HEAnet provides schools broadband
- Students will be assigned to a school that has volunteered to participate in proof of concept. The deliverable is a website to meet their business requirements that will service the needs of all of their stakeholders e.g. Students, Parents, and Staff.
- Students will be assigned a mentor
- Students will be required to follow a particular project management methodology.
- The solution will include the delivery of some or all of the following website requirements depending on the needs of individual schools:

Requirements Gathering	Develop Personas
Produce Wireframe	Flexible Website Design
Improved User Experience	New Services and Functionality
Responsive Design For Mobile Devices	Good Site Search Facilities
Built for Search Engine Optimisation	Content Management System
Cross Browser Optimisation	News and Events Calendar
Image & Video Gallery	Secure Site
Email, Newsletter Functionality for Improved Communication	On-line Payments Facilities

- Students and mentors will engage weekly to ensure students are progressing with their projects and are not left feeling isolated.
 - Students benefit from the experience of project reporting using a proven project management methodology. Each student will report on project milestones and identify any project risks, and get constructive feedback from their colleagues. This weekly project meeting is critical as it provides students with the opportunity to interact with each other but in a formal manner similar to that of a business environment.
 - Students will use open source software such as Moodle as their development platform which has extensive functionality.
 - HEAnet - provides internet access and hosting services to all schools.
- This proposed concept of work-placement has the potential to address the challenge facing many colleges of finding work placement positions for individuals who are undertaking ICT courses at 3rd level. On completion of the project each student can include details of their website development project in their portfolio. They will have an actual piece of work which they can demonstrate to their potential employers. Students will now be better placed to compete for positions in the workforce where experience in ICT is a requirement. The school will have a website suited to their specific requirements without significant financial investment as illustrated (Figure 3).

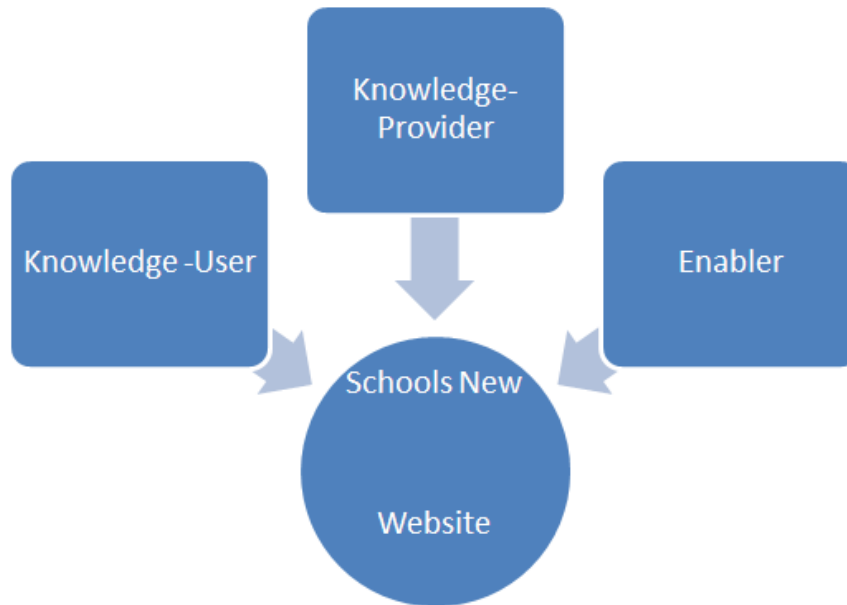


Figure 3 Proposed Solution

3.2 Research Questions:

The European Commission in its 2012 Digital Agenda Scorecard found that: “half of the European labour force does not have sufficient ICT skills to help them change or find a new job” (European, 2012). Indeed it is no secret that unemployment is high and rising not only in Ireland but in many parts of the developed world. Yet there is a surplus of jobs in the Information and Communications technology (ICT) sector as there is a shortage of people in many countries with the necessary technical skills to fill these roles. According to (Pofeldt, 2012) many of today’s workers and graduates do not possess the skills employers are seeking and that governments must take responsibility to ensure their people are ready to work in a technology-based economy.

As of December 2013 the standardised unemployment rate in Ireland was at 12.4% (Office, 2013). Despite high unemployment one area achieving growth in Ireland in these tough times is the ICT sector. In the Governments

2012 Action Plan on Jobs they have specifically identified the ICT industry as an area for growth and part of our return to prosperity strategy.

It is evident from the literature review undertaken for this study that employers prefer to see evidence of work experience to show that an individual can operate in that environment (Garrido, et al., 2012). This view is also shared by Dacre Pool & Sewell (2007) who view “Work Experience” as being something that prospective employers value greatly in graduates.

Finally, the Irish Government has introduced a number of funded initiatives to address the ICT skills deficit. There is an emerging trend from the literature review that a gap is developing as the demand for work placement positions far exceeds supply (Buckley & El Amoud, 2011). Having reviewed and considered the key literature theories of relevance the following research questions and sub objectives can be proposed.

3.3 Research Objective:

To develop a mentored work placement model as a way of increasing the employability of learners in the ICT sector.

Sub objectives:

- To develop a conceptual model of mentored work placement with the different stakeholders, Knowledge Users, Knowledge Providers, Enablers – Business Support Agencies and Consumers.
- To evaluate stakeholders’ perceptions\ views of the mentored work placement model.
- To present a revised model with recommendations as a consequence of this study.

Chapter 4 -Research Methodology

4.0 Introduction

This study has a number of inter related objectives which will contribute to the development of the of the work placement model:

1. To develop a conceptual model of mentored work placement with the different stakeholders, Knowledge Users, Knowledge Providers, Enablers – Business Support Agencies and Consumers.
2. To evaluate stakeholders' perceptions\ views of the mentored work placement model.
3. To present a revised model with recommendations as a consequence of this study.

A critical part to the success of this research study relates to objective 2, therefore the opportunity to gain a variety of stakeholder views should contribute not only to the development of a revised model but highlight the benefits of work placement in improving employability of learners on ICT courses. In chapter 4 the review of the related literature confirms that HEI's, employers and students all agree that courses which include work-placement were considered to enhance the employability prospects of learners (Buckley & El Amoud, 2011). There is evidence that there is a gap emerging between the number of work placement places required by HEI's and the number of work placement opportunities in industry. An important part of this research work is to present an alternative model with recommendations to address the gap in work placement opportunities. Objective 3 takes this research study one step further through the collection and analysis of empirical data obtained from representatives of the stakeholders involved in securing work placement opportunities in a third level institution. Data was gathered on stakeholder's views on the perceived drivers and barriers to the development of the revised model. By comparing the literature review with the research findings the researcher will get a better understanding of the challenges surrounding the implementation of

the proposed model and use this knowledge to recommend a revised model that can be deployed in a third level institution.

4.1 Research Methods

This chapter Research Methods will provide details of the research strategy adopted by this researcher to address the research objectives, including the means of collecting data for analysis, sample selection and the chosen method of data analysis. The rationale for the methodology together with the ethical considerations of the research. Saunders, et al., (2007) suggest research methodology refers to the different steps adopted by a researcher in studying the research objectives in mind. It is an explanation of the method of investigation into the identified subject of study. The researcher has chosen to utilise the concept of the research onion (Saunders, et al., 2007) as a guide to completing this study as a diagram (Figure 4) is best suited to the learning style of this researcher.

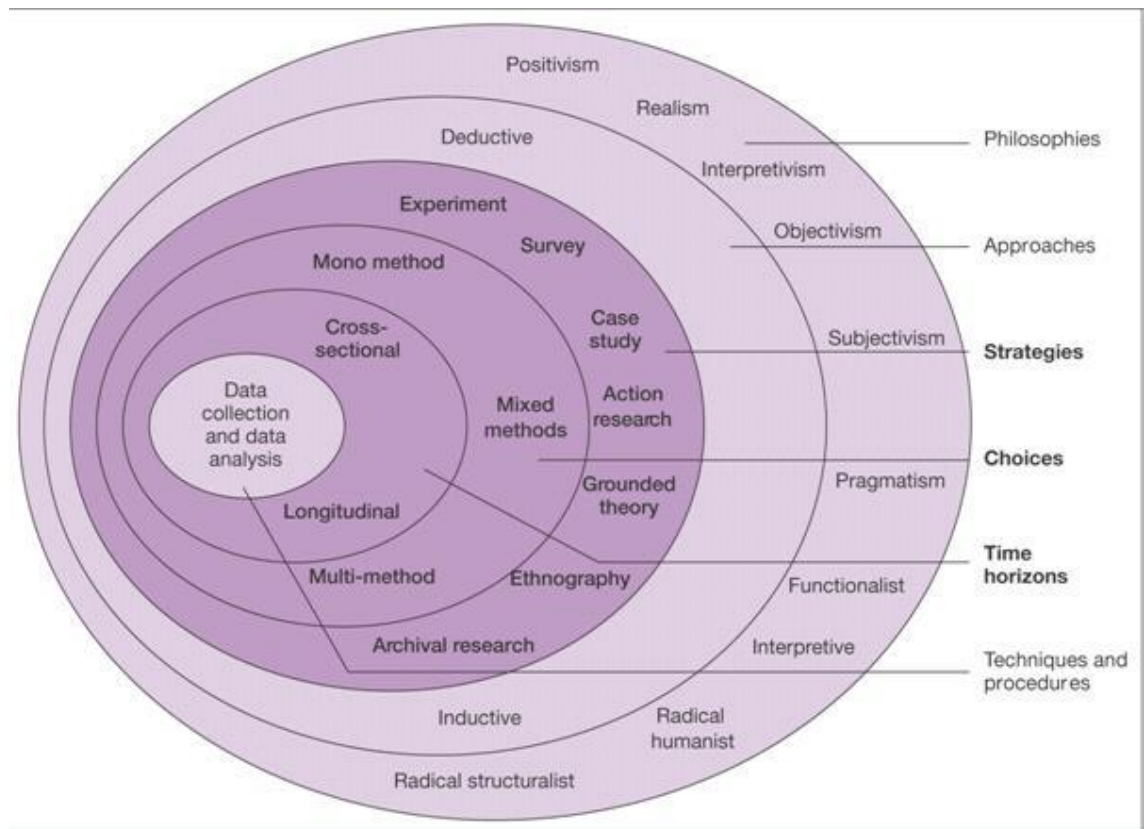


Figure 4 Saunders Research Onion Source Saunders, et al., 2007

4.2 Research Strategy

There are a number of different research strategies which a researcher can employ these include experiment, survey, action research, case study, grounded theory, ethnography and archival research. According to (Yin, 2009) each can be used for exploratory, descriptive and explanatory research. Which research strategy to employ is best described by (Saunders, et al., 2007, p. 135) who emphasise that in selecting a research strategy what is most important is not the label attached to the research strategy, but whether it will enable the researcher to answer their particular research questions and meet research objectives.

The empirical research in this study is concerned with an in-depth study to develop a mentored workplacement model to address a real challenge within a third level college. There are a number of inter related objectives: the Knowledge Providers who are working to redress the national skills deficit in ICT, Enablers – the government initiatives established to ensure skills are aligned to labour demand, Knowledge Users who need to reskill to get back into stable employment (Group, 2011) and Consumers – primary schools who will benefit from the success of this proposed model. The primary stakeholders will be representatives from the identified groups. Other stakeholder perspectives will be gathered to support the revised model.

Which research strategy is best suited for this study? The selected strategy must facilitate an in-depth study of the issue and supports the collection of the different stakeholder perspectives to recommend a workplacement model that can be implemented and meet the needs of the third level college. A historical research strategy is not suitable for this study as it is normally associated with examining non-contemporary phenomena (Biggam, 2011). Experimental is also inappropriate as its purpose is to study causal links: whether a change in one variable produces a change in another variable (Saunders, et al., 2007). Action research was considered but dismissed as action research involves an analysis of a problem that is current and that can be solved by collaboration of the researcher and those involved in the problem area, this is an iterative process as data is collected, analysed and problem is revisited and the process is repeated until a solution is identified

(Biggam, 2011). Survey based research which is based on either electronic or paper questionnaires was deemed unsuitable as it failed to address the needs of the study which in part is to capture stakeholders perceptions, drivers and barriers of the proposed model.

Saunders & Tosey (2013) suggest that a researcher's philosophy is his or hers personal view of what constitutes acceptable knowledge and the process by which this is developed. A researcher with a critical perspective of the world, views that reality is historically based whereas interpretative researchers believe that an understanding of the world can only be accessed through social interaction (Biggam, 2011). The interpretative view of the world is the best fit for this researcher's view of the world for the aims of gathering different stakeholder perspectives on the work placement model being proposed. The research strategy that will be used to implement the empirical research is a case study. Researchers, particularly in the area of social science have made use of this research strategy to examine contemporary real-life situations, issues and problems to provide a basis for the application of ideas and extension of methods (Texas, 1997). Case study research can be based on a single case study or multiple case studies the primary reason for a case study is usually to explore some contemporary issue. There are three types of case study research as illustrated (Figure 5) explanatory, descriptive and exploratory (Yin, 1994).

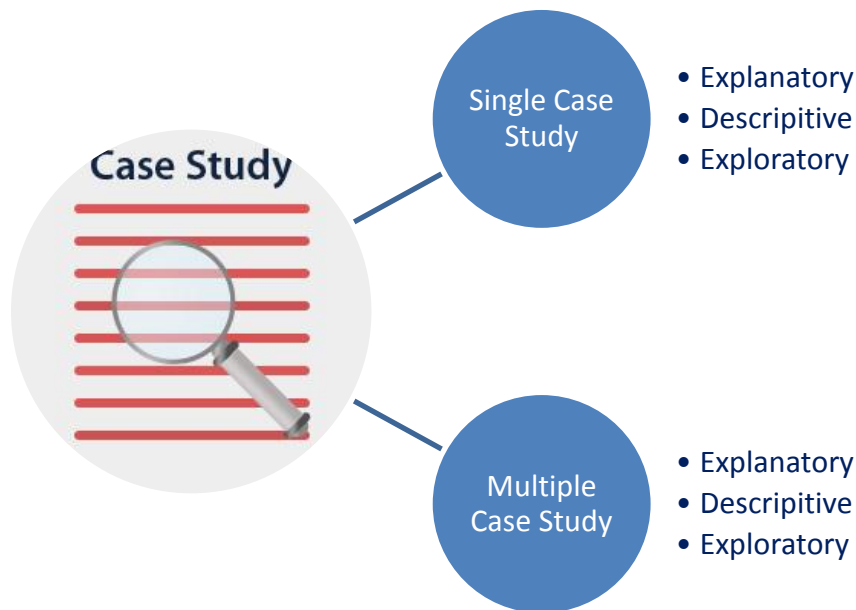


Figure 5 Types of Case Study Research

Robert K. Yin is recognised as a leading authority on case study, in his early publications he defined case study research as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon's are not clearly evident; and in which multiple sources of evidence are used Yin (1984, p.23). In the intervening years this definition has evolved and in his most recent publication (Yin, 2014, pp. 16,17) a twofold definition is presented the first part begins with the scope of the study:

1. *A case study is an empirical inquiry that:*

- *Investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident (Yin, 2014).*

2. *A case study inquiry*

- *cope with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result*
- *relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result*
- *benefits from the prior development of theoretical propositions to guide data collection and analysis (Yin, 2014).*

Based on this definition a case study approach is justified as the focus of this research is an indepth study of the proposed model of work placement to increase the employability of learners on ICT in a third level college. Where a variety of stakeholder perspectives are sought including drivers and barriers to develop the model in a manner that it will increase the employability of the learners. This research is also interested in comparing what was learned in the literature review with the results of a case study. The findings of the case study will be compared with the literature review findings in terms of how workplacement improves employability.

As a research method case study is not without its critics. Critics of the case study method believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings. Others feel that the intense exposure to study of the case biases the findings. (Texas, 1997). In defence of case study method (Yin, 1995) highlights the possibility that people often confuse case study teaching with case study research. In case study teaching the materials may be altered to demonstrate a particular point more effectively. In research any such step would be forbidden. It is the responsibility of the researcher to report all evidence impartially (Yin, 1995). Another criticism of case study research is that generalisation is not always possible from one study (Bell, 2005, p. 11).

In this study the researcher is attempting to present an alternative model of work placement and in so doing contribute to existing body of knowledge on the benefits of work placements in improving employability and if the proposed model was developed it has the potential to deliver additional economic benefits. The case study approach facilitates this aim. According to (Goldrick, 2010) writing a case study is demanding as it is a mixture of subjectivism and objectivisim where the researcher has the responsibility to produce a constructive account that is benifical not only to him or herself but to others who determine future policies or undertake future research in a similar area.

4.3 Data Collection: Site and Sample Selection

A critical but basic decision for any researcher is their research design. Research methods are the tools used by the researcher to gather data therefore the decision on which research methodology to use is critical (Saunders & Tosey, 2013). Researchers must decide to use either quantitative methods, qualitative methods or a combination of both. Quantitative research methods focuses on numbers, generates statistics primarily through the use of survey research (Kothari 2008). In contrast qualitative research explores attitudes, behaviours opinions (Dawson, 2009). A view shared by (Bell, 2005, p. 6) who states that researchers “adopting a qualitative view are more concerned to understand individuals perception of the world”.

The success of this study requires an understanding of the challenges faced by third level institutions in securing work placement opportunities for learners and to seek the individual perspectives of all stakeholders on the proposed model extends beyond the collection of facts and figures. Patton (2002) suggests strength of qualitative methods is that it attempts to be a more holistic understanding of the phenomena being investigated. Dawson (2009) makes the point that one method is not better than the other they are different. Both have their own strengths and weaknesses it is the responsibility of the researcher to make the decision on whether qualitative or quantitative is the most suited for their particular research project. The focus of this research study is the gathering of qualitative data as illustrated (figure 6)

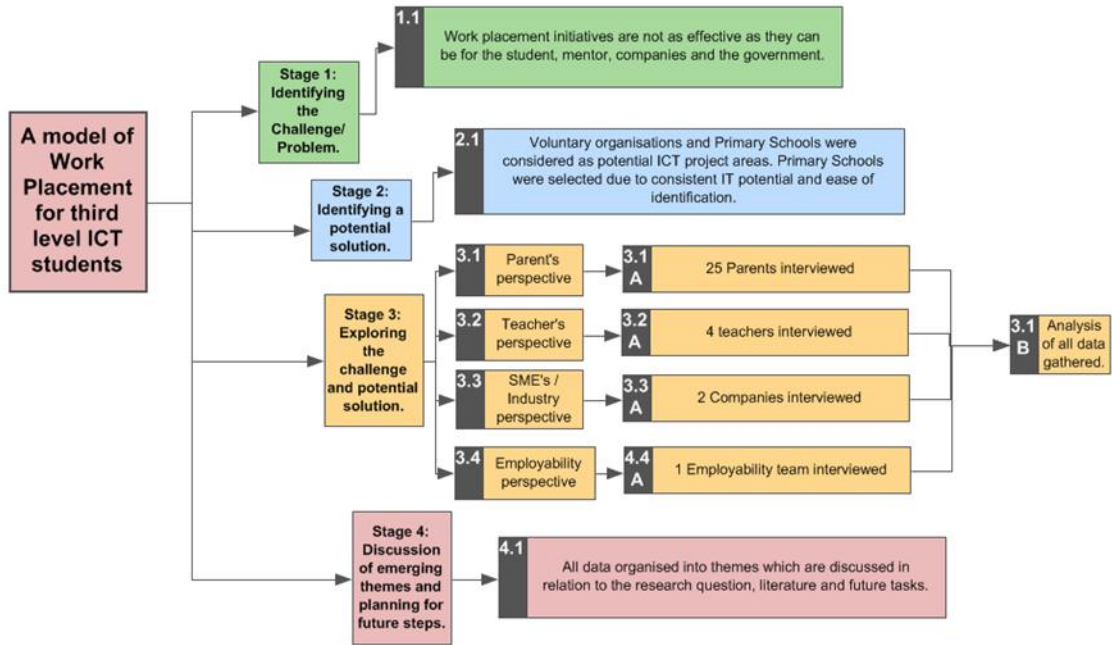


Figure 6 Model of Research Design

4.4 Research Population

All research questions address issues that are of relevance to groups of individuals known as a research population (Dawson, 2009, p. 48) . As it is impossible to collect or analyse all available data for this research question and objectives due to constraints of time, money and access an appropriate sample technique will be adopted. The selected sample will enable this researcher to undertake the study with individuals from within the population so that the results of the study can be used to draw conclusions. The most appropriate sampling technique for this particular study is non-probability sampling. As a single exploratory case study strategy is being used to answer the research question (Saunders, et al., 2007, p. 207).

Data gathering for this study was dependent on gaining access to the appropriate sources within the Knowledge providers, Knowledge users, Enablers and Consumers. To satisfy the research objectives of this case study purposive sampling will be used as it allows the researcher to select cases that are particularly informative and assist in answering the research objectives (Neuman, 2006). The empirical data will be gathered using semi structured interviews the interviewees will be selected from the key

stakeholders. In quantitative research it is suggested that if this sample is carefully selected using the correct procedure it is possible to generalise the results to the whole of the research population (Dawson, 2009). As this study is based on qualitative research the ability to generalise the work is not the goal it is intended to seek the views of a small number of people to fulfil the research objectives of this study.

The consumers within this study are primary schools in Ireland. There are in excess of 3000 primary schools in Ireland (Skills, 2013) as it is not feasible to engage with all primary schools this study will address this issue by selecting a smaller number of participants. Convenience sampling was used to select parents of children attending primary school and workplace advisors. Purposive sampling was used to select the SME's as the study required SME's from the ICT sector. As the samples were not selected at random this researcher acknowledges there can be no claim to achieving representative views from the wider higher education sector. This research is focused on completing a qualitative study to answer the research question "To develop a conceptual model of mentored work placement with the different stakeholders, Knowledge Users, Knowledge Providers, Enablers – Business Support Agencies and Consumers". The review of the literature highlighted the increasing importance of work placement within academic programmes therefore the results of this study should be of interest to the wider higher education community who are tasked with securing work placement opportunities for learners. Another reason for using convenience sampling is because of time constraints and easy access to research participants.

4.5 Data Collection

The main method of data collection was semi-structured interviews. Indeed interviews are recognised as an important source of case study evidence (Yin, 2014, p. 110). According to (Kvale & Svend, 2009) there are different forms of interviews which serve different purposes journalistic, therapeutic and research interviews. They suggest the research interview is not a conversation between two equal partners, as the researcher defines and

controls the situation as they seek to obtain descriptions of the life, world of the interviewee in order to interpret the meaning of the described phenomena (Kvale & Svend, 2009). Seidman (2012) shares a similar view suggesting interviewing as a method is a powerful way to gain insight into educational and other important social issues through understanding the experience of the individuals whose lives reflect those issues. One of the advantages of using semi-structured interviews is that it affords the researcher flexibility in their approach they can change the order of the questions in each interview, or the response to a particular question may lead to another point of interest to the study which may not have previously been considered.

In a face to face interview the researcher has the benefit of being able to dig deeply to get the interviewee's perspective together with being in a position to observe the body language of the interviewee which can provide another insight into a particular situation. This level of interaction with interviewee or flexibility with questions is lost in a questionnaire. Therefore the uses of semi-structured interviews are the most suitable for this study as they permit in-depth discussion with relevant stakeholders on the proposed model of work placement for ICT learners.

This research is interested in obtaining the stakeholder perspectives on all aspects of the proposed model including drivers and barriers. As qualitative studies are descriptive and exploratory the interview will be semi-structured this ensures that the interviewer has a clear direction while at the same time allows stakeholders to express their own views and expand on answers. Interviews afford the researcher the opportunity to probe deeply and have the interviewee expand and build on their responses. The interviewer will commence with a set of interview questions but has the flexibility as the interview proceeds to vary the order of the questions and ask new questions in the context of the research situation (Saunders, et al., 2007).

The interviews would be recorded using a digital recorder. The advantage of recording the interview is that it allows the researcher to capture a complete record of the interview which facilitates the inclusion of detailed quotations

in the report. It also leaves the researcher free to concentrate on listening to what is being said. Unfortunately there are risks associated with recording as equipment can malfunction or the interviewee may not consent to the interview being recorded and if that is the case the researcher must respect their views and not use a recording device. Interviews are time consuming for the researcher. In advance of the first interview for this study the researcher arranged some practice interviews with colleagues to get comfortable with the interview process and ensure the questions were appropriate and stimulating and not biased. The questions were open rather than closed, were concise and there was no jargon. The practice sessions highlighted the importance of making polite conversation at the beginning as it relaxes both parties and allowed the interviewer to ease into the questions. After the practice interview the recording was transcribed to get a sense of how long it would take which helped with planning of data collection and scheduling of interviews as researcher did not regard the interview as complete until the interview was transcribed. The overall aim of this study is get an understanding if the proposed model of work placement is practical; to do so means involving a variety of stakeholders.

4.6 Consumers: Group 1 Parents of Primary School Children

The selection of this group of participants was critical to gather their opinions on their primary school website. Colleagues who have children attending primary school were approached and asked to participate in the study. The initial approach was face to face to explain the purpose of the study. However approaching colleagues did not generate a sufficient sample size. This resulted in asking colleagues to suggest other parents who might consider participating in the study a process that researchers describe as snowballing. After the initial conversation each participant was invited by email to participate in the interview the venue for the interview was a location of their choice at a time that suited them. Each of the parents will be identified in the study as “P” and a number. “P” is used to denote they are from the parents group and the number is the order in which they were interviewed “P1” to “P25”. Details of the schools are available in (Appendix

1). These interviews took place in locations that best suited the participants some were in the individuals homes others took place in the college as they were colleagues.

These interviews took place in locations that suited the participants, some were in the individuals homes, and others took place in the college as they were colleagues. The first interview did not go well, the response to the initial questions were very short and got a sense that interviewee was nervous and realised that while they had agreed to recording of the interview it made them uncomfortable. The recording was stopped resulting in a more free flowing conversation. This change was not expected. The advantage to taking notes was the interview improved the disadvantage was while taking notes it was not possible to maintain eye contact and also lose some direct quotes for inclusion in final report. At the end of the interview took some time to review notes with interviewee to ensure an accurate note of their views had been captured. Notes were transcribed after the session. This prompted a re-evaluation of the decision to record interviews following discussion with participants and understanding their preference decision was taken not to use the recording device. This put some pressure on the researcher as typing skills were not adequate to accommodate typing and maintaining eye contact during the interview. Instead short hand notes were taken. On conclusion of each interview took time to read back notes to each participant and have them agree the notes captured were an accurate account of the interview. The notes were written up immediately after each interview to ensure none of the key points were missed. This was very time consuming for the researcher but was achievable as the research sample in this group was 25 and duration of interview was 20-25 minutes.

The need to include primary school teachers in the study only became evident as the research progressed as primary schools are the consumers in the proposed model. The deliverable is a school website. Therefore the researcher felt it appropriate to obtain the views of teachers as they are stakeholders in the school website. Due to the time of year access to primary school teachers was limited. Initial approach was to a friend, a primary

school teacher who introduced two others from different schools. Each teacher was emailed explaining the purpose of the study and asked if they were willing to participate in the study to suggest a date, time and location that would best suit them. The teachers were interviewed as a group as this was their preference and suited their schedule as they had planned to meet and agreed to extend their meeting to facilitate participation in the study. The interview with the teachers took place in a hotel. At the request of one of the teachers the interview was not recorded. Notes were taken and summarised at the end

4.7 Enablers: Group 2 Small & Medium Enterprises

The selection of this group is drawn from business networks. ICT companies were approached and asked to participate in the study. The initial approach was face to face to explain the purpose of the study and asked them to consider participating after the initial conversation each company was invited by email to participate in the interview the venue for the interview was a location of their choice at a time that suited them. Two companies agreed to participate. Each of the participating companies will be identified in the study as “C” and a number. “C” is used to denote they are from the SME group and the number is the order in which they were interviewed “C1” and “C2”. A profile of each company is available in Include consent form & profile of company (Appendix 2 & 3).

4.8 Knowledge Provider Work Placement Advisor -

The initial approach was to the Career Services Officer of the researchers’ college to explain the purpose of the study, and request permission to engage with the work placement advisor. After the initial conversation the work placement advisor agreed to participate an email was sent requesting a meeting at a time that best suited their schedule. The participating work placement Officer will be identified in the study as “WPA” The interview took place in college and lasted 30 minutes. The interview was not recorded. Notes were taken and summarised at conclusion of interview.

Chapter 5 - Data Analysis

5.0 Framework for Data Analysis.

Biggam (2011) states an important part of research is to analyse the case study data comparing the different stakeholder perspectives and to reflect on the case study results with respect to the literature review. The purpose of this research is to introduce an uncomplicated practical work placement model for students of ICT that will allow the concept to be clearly explained, a concept that has the potential to be used as a framework for developing work placement opportunities. It is developed from existing research into how work experience improves the employability of students.

The first step in this research was based on this researcher's observation of the challenges facing a career service department in a HEI trying to secure work placement opportunities for students. My own background in ICT prompted me to visit a number of a review of randomly selected primary school websites to confirm my own suspicions that the standard was unpredictable. This simple exercise highlighted the different standards of primary school websites in terms of functionality, navigation, out of date content and broken links. Building on my own observations it was important to qualitatively evaluate from a sample user's perspective, parents, primary school teachers, SME's and work placement advisors to gather views to support the concept that an opportunity exists to develop primary school websites.

The data gathered from this qualitative case study was analysed using thematic analysis. Braun & Clarke (2008) describe thematic analysis as a method for identifying, analysing, and reporting themes within data. Through its theoretical freedom, it is a flexible and useful research tool, which can potentially provide a rich and detailed account of the data. Analysis of qualitative data is not a linear process and needs an iterative approach to capturing and understanding themes and patterns (Biggam, 2011). There are six phases to thematic analysis (1) Familiarisation with your data, (2) Generating initial codes, (3) Searching for themes, (4)

Reviewing themes, (5) Defining and naming themes and (6) Producing report. Thematic analysis was selected for use in this study as its flexibility, can highlight similarities and differences across the data set and its accessibility to researchers with no experience in qualitative research (Braun & Clarke, 2008).

The collected data from each of the individual groups interviewed was transcribed. The responses were grouped into emerging themes. The process was repeated until themes and patterns emerged that represented the views of the interviewees. Figure 7 illustrates graphically the approach adopted in this study to analyse the collected data for each of the groups from the Case Study.

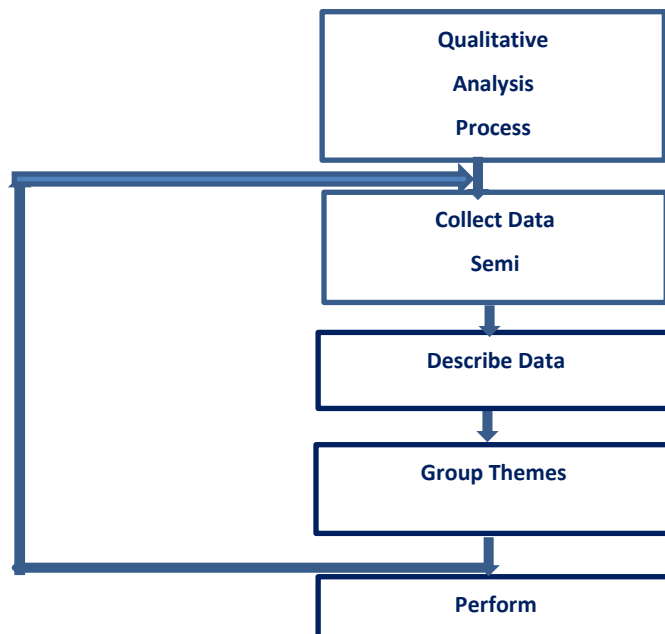


Figure 7 Qualitative Data Analysis Process adopted from (Biggman 2011)

5.1 Consumers: Group 1 Parents of Primary School Children

The sample of 25 parents who participated in the study had children attending primary schools in Dublin, Kildare, Louth and Meath. The profile of parents were a combination of those working both inside and outside the home and had children who were in different primary classes and attending both single sex and mixed schools. The interview data was transcribed and the responses of each parent to each of the interview themes were group

together. (See Appendix x) the data captured in each individual theme was further analysed to identify emerging themes and patterns. It became evident that the initial eleven themes used in the semi-structured interviews undertaken with the parents and teachers:

1. What is the function of a Primary School Website?
2. How up to date is site content?
3. How well is site organised?
4. How well does site layout help you?
5. How often would you visit school website?
6. Who maintains school website?
7. Who is the intended audience?
8. Does your child have an awareness of school website?
9. How would you normally access the website?
10. How does school use Social Media?
11. General comments

could be further refined to five themes that together captured the important views of parents and teachers on the function of school websites which are presented:

1. What is the function of Primary School Website?

The overwhelming response of parents who participated in the study believes the function of the school website is to keep parents informed. School website should be a source of information particularly for parents who are selecting a school for their child. Making decision of which school to send your child is a big decision. As a minimum website should provide details of school enrolment policy, provide a sense of the ethos of the school what they are about what are the after school activities. *“As a parent sending child to school for first time I am new to this where do I buy school books it would be nice if this information was on-line. People take for granted that you know”*. Parents who don't accompany their children to school on a daily basis identified the importance of the school website as being their means of interacting with the school. It was surprising to learn from this small sample

of schools (Appendix 1) that one school had no website and others at time of study were unavailable. *“As a parent who lives-online my daughter’s school does not have a website”* Another parent expressed their frustration *“a school website is important but unfortunately not in its current state as it has no information”*. Working parents rely heavily on the school website to check school calendar, book lists, reading lists and activities. Parents expect the school website to be the main communication tool that can be accessed when required to get timely, accurate information on school activities including School Calendar, Activities, and A One Stop Shop

The views of the parents with regard to the function of school website were echoed by the teachers who see the function of the school website “impart information and news” they suggest the school website should be used as a replacement for sending notes home in school bags. It was interesting to learn that the teachers identified another function of the website as a marketing tool for the school. According to the teachers as competition for new pupils has become a crucial part of the school business the website is the on-line advertisement for a school. The teachers shared the opinion that all schools had a website. As far as they were concerned if a school did not have a website it was regarded as being out of date. This was an interesting observation given that in this small sample one school had no website.

2. How up to-date is site content?

The response to this question varied considerably unfortunately the evidence presented suggests the majority of the sample fell into the out of date category. The response from parents varied from “The site is totally unusable as it has not been updated since 2011” to “Site content is very current” in one instance the school alerts parents by text of any update to school website as this school does not send notes home with students. The sense of frustration among parents when asked about content of school website was evident from the data collected. One parent responded “Not up to date, very old style, very cumbersome looks like something designed in the 1990's, would be a more frequent user if site improved and when visiting site you did not feel abandoned as it looks”. There were also difficulties encountered in locating a school website parents reporting “do a Google

search 3 different URLs returned which are all broken links so realistically school does not have a functioning website” Another parent reported that when her son commenced school at induction meeting parents were informed of the importance of using school website to keep informed of all school activity however the school website has not been updated since 2013. In general navigation of sites appeared poor one parent describing their experience as “Its crap, it is old fashioned brochure-ware site, no deep functionality, out of date, can’t find information” Analysis also highlighted that parents would favour schools using website as main communication channel as it is more environmentally friendly. There was evidence from the data collected that a small number of school websites had very up to date content, site was easy to navigate to locate information. In one school parents reported school website is updated within 24 hours as “Educate Together” is a different model of education encourages parents to be proactive, website is updated by a member of the Parent's Teachers Association (PTA).

The teachers openly admitted that in their experience the content of the majority of school websites is usually out of date by a number of months. The reason for the outdated content was attributed to the fact that in a number of schools responsibilities for keeping the content updated on school website is usually assigned to a member of staff who already has a job. It is seen as a burden and very often it is way down the list of priorities. From the collective experience of the teachers the process of updating the website is clunky and time consuming therefore it is done irregularly.

3. Who maintains school site?

The majority of parents had no knowledge of who had responsibility for updating the school website. In a small number of schools the responsibility for the website was an assigned post rather than another job for a member of teaching staff or school secretary who already has a full work load.

According to the teachers there is total inconsistency when it comes to maintaining school website as it is another job. One teacher shared her experience of updating the website. “In my last school I had to go through

several complicated steps to upload pictures, it meant you would not attempt the process unless you had plenty of time on your hands”. Teachers would like the process of updating the school website streamlined and suggest unless the task of updating the website can be completed with a couple of “clicks” of the mouse it’s not going to happen.

4. Who is intended audience?

Ideally it should cater for three groups (1) Parents of children currently attending the school it should be first point of contact for parents seeking information on school. (2) Students & Parents as an educational resource. (3) Visitors to the site looking for a school should provide a better profile of the school website has huge marketing potential for school. Looking at the school website should be a mirror of how well the school is doing. Parents expressed interest in having a section for parents that contains resources on school curriculum, a means of collaboration. Website needs some level of interactivity and links to other appropriate sites.

Teachers agreed that audience for school website is diverse and each group has different requirements. Teachers stressed that servicing the needs of the different audiences is a challenge for most schools.

5. How does school use Social Media

There was a mixed response from parents to this question; all parents agreed the use of SMS text was acceptable, however other forms of social media such as Facebook or Twitter feeds were deemed inappropriate for primary schools by parents who did not engage in social media. It was suggested that the school website should be used to support the school to parent relationship. Parents who engage in social media advocated that schools should utilise all media channels. One school maintains a Facebook presence which is the responsibility of the PTA. Another school principle adapts a very hard stance on the use of social media. The principle limits the amount of video capture at school events and specifically requests parents

do not post on social media. In another school photographs are limited and only available on-line for short periods of time.

The teachers stated that their schools only used SMS text to contact parents in case of emergency or to alert parents in the event of unexpected events such as school closure due to weather. None of the teachers who participated in the study had any knowledge or experience of schools engaging with Facebook or Twitter. Teachers shared the view that schools were very reluctant to engage in social media as there is generally a lot of negativity surrounding its use in schools and some cautionary tales from around the country were it had been tried.

5.2 Enablers: Group 2 Small & Medium Enterprises

The interview data was transcribed and the responses from the SME's to each of the interview themes were grouped together (Appendix 2 & 3) the data captured was further analysed to identify emerging themes and patterns. It became evident that the initial seven themes:

1. Why are placements important?
2. What are employers looking for?
3. What are benefits of work placements?
4. What are the advantages and disadvantages of work placements for all stakeholders?
5. What improvements can be made?
6. What does mentoring involve?
7. How can a mentored work placement become a reality

could be further refined to five themes that together captured the views of SME's on the proposed model of mentored work placement which are presented.

1. Why are placements important?

Both SME's agreed that work placement was an invaluable and rewarding experience for both student and employer. A short placement of three months particularly for undergraduates gives a student a real life experience

that they can leverage in their final year. Regardless of time period, the commitment by the employer in terms of time, energy, risk and opportunity cost should not be underestimated by the student and it should therefore be seen as an investment by the firm in their potential future. Student gets invaluable 'real world work experience' to include on their CV that has the potential could set them apart from the next candidate when they complete their studies and seek employment. Real world experience, good references and hopefully an accessible portfolio of sample work is a real bonus for the student.

2. What are employers looking for?

ICT is becoming an increasingly competitive environment as barriers to entry over the last number of years are significantly reduced due to the availability of on-line world class training resources and information forums access to information is readily available. According to C1 'levelling the playing field' has resulted in many companies putting relevant 'real world' experience and know-how ahead of qualifications when recruiting in ICT. The student should grab all opportunities enthusiastically. The student should show their employability potential throughout by demonstrating enthusiasm to learn, commitment, responsibility. The students' career destiny is in their own hands and self-motivation and personal drive is essential. Smaller companies, by their nature will be much more 'hands-on' and likely to expose the student to all aspects of the business, from prospecting to sales, product developments (end to end), marketing and client care. This holistic experience can be very valuable and from an employer's perspective, a real bonus to see on a CV.

3. What Does Mentoring involve:

Both of the SME's interpret mentoring as establishing a relationship with the student, communicate with the student encourage to review question, challenge and reflect. The student will not be on-site these sessions with mentor need to be formally planned. This will take time and it's important that the mentor factors the time commitment into their schedule. It is the responsibility of the mentor to set challenges for the student within the

framework of the engagement which tests the students, stimulates thinking and challenges their problem solving skills. The student will have total responsibility for delivery of their project, part of which will involve engagement with the assigned school which should be developed in conjunction with the mentor. It is the responsibility of the mentor to monitor closely the progress of the student assisting the student in solving problems, not by solving the problem but by guiding student to approach with a problem solving mentality.

4. What improvements can be made?

According to the SME's interviewed there is a real need to streamline the process of placement opportunities for students across colleges and universities. It appears somewhat disjointed in places one of the SME's was of the opinion that there is a huge potential for companies to help out in this area. He believes collectively the potential across all institutions to match the student resources with the real needs of businesses from 'start-up' through to international organisations and public sector organisations is substantial. There needs to be a better promotional process across colleges and universities and continuous industry engagement to illustrate the benefits to both parties. When it comes to ICT placements there is a need for robust and comprehensive programme of induction to prepare the students for placement and employment generally. Students should familiarise themselves with the free resources that are available on-line including free software resources, cloud infrastructure, development environments and training material provided to students by most of the large multinational ICT companies. If all of these offerings were consolidated and presented as a 'must have set of tools of the trade' and utilised/leveraged by the students then they could 'hit the ground running' on entering a work placement. It would also send a clear message to the prospective employer that the student means business and is making a real effort in terms of employability. One company advocates that students wishing to work in ICT should develop their own e-portfolio, a prerequisite for employment in ICT. E-portfolios together with a good LinkedIn presence make powerful

statements and will be a differentiator for the student when seeking employment.

5 How can a Mentored Work Placement for ICT Students Become a Reality

This concept based on ICT students working with mentors from SME's to build a web site that can be used by a school has real potential. As the work placement is limited to a defined number of weeks if this model is to be tested a number of pre-requisites must be in place. Mentors would develop an agreed set of website templates. ICT students would develop sites based on a set of core and optional functionality and a set of different design templates. The individual sites would be developed to meet the requirements gathered from individual schools. The sites would be hosted and maintained centrally schools could leverage the benefits of Government supported initiatives. The ICT student would work with the mentor in delivering the end product from initial meeting with schools to determine specific requirements through to delivery of finished product and handover. The mentor would provide good quality work experience providing students with guidance on approach, working with schools, technologies for web development and customisation, working with hosting location

6 What are the Benefits?

Organisations who engage in this proposed model will have access to a pool of talent that they can identify early for employment on graduation thus saving the company on recruitment costs. This proposal is more structured the SME knows in advance the duration and deliverables allowing them to plan each mentor could support three mentees. It provides the ICT student with "real world" unique learning experience, student gains an understanding of how a work place functions not just technology but also the culture. Student can apply college learning in a real world scenario. Opportunity for knowledge transfer improve their communication skills, time management skills together with other business and life skills. Student establishes a network which has the potential to enhance their employment prospects on completion of course.

The proposed model can benefit the college as it is easier to organise than traditional models, requires less companies as each mentor has responsibility for up to three students. This initiative offers a value service to schools. The adoption of the mentor approach is different to “intern” as ICT students are not on site, however core mentor goals are still important, mentor assumes ICT student has basic knowledge but not self-sufficient, understands that this time is 'like' work placement and is to be used by the ICT student to try out, with support what they have learnt, there are a range of skills (not just technical capability) that the programme addresses and which the mentor must support. One of the SME’s suggests there are opportunities to harness the power of student placements/resources at community level on co-ordinated projects to address ‘citizen needs’ in a region /country.

5.3 Work Placement Advisor Analysis

The interview data was transcribed and the response from the WPA to each of the interview themes were grouped together the data captured was further analysed to identify emerging themes and patterns. It became evident that the initial five themes:

1. Why are placements important?
2. What are employers looking for?
3. What are benefits of work placements?
4. What are the challenges facing third level institutions.
5. What improvements can be made?

could be further refined to three themes that together captured the views of the work placement advisor which are presented:

1. Why are placements important?

Basically they are critical to improving the employability of the students on completion of their studies. They are a differentiator on the CV for potential employers. Students who have completed a work placement as part of their course have an advantage over students who don’t when competing for jobs.

Work placement provide student with opportunity to get exposure to real world problems and issues and how they are managed which sometimes are not clearly defined within the academic environment. They help the student transition from the classroom to the work environment. Work placements compliment the student's academic work. Companies who provide work placement opportunities also benefit as they have access to talent at an early stage they can access the individuals potential and see first- hand how they perform. They can road-test a potential employee without having the expense of recruiting. Work placement provides an opportunity for companies to recruit a steady flow of talent into their organisation which brings new ideas, and young blood into the company.

2. What are the challenges facing third level institutions.

Biggest challenge facing third level institutions is securing work placement opportunities for their students. The government has a number of initiatives to help people to upskill and secure employment in growth areas one of which is ICT. Springboard courses include an industry based project which is thirteen weeks in duration. Finding companies willing to engage a student for a short term work placement is a proving a real challenge for WPA. There is a cost to the company, they are being asked to invest time and effort into a student who has limited skills and in most cases will not initially be in a position to make a contribution to the business.

3. What improvements can be made?

Colleges and business need to work together to identify a mutually beneficial solution that can address the gap between supply and demand. In last academic year could not secure enough work placement positions to meet student demand. I had to be creative working with a member of faculty and the voluntary sector developed an initiative that students worked on development of a basic website for a voluntary agency supported by a member of faculty. Program was successful and there is huge potential in this are given the necessary resources and engagement by business community.

5.4 Research Ethics

Ethics is fundamentally a code of conduct on how we live our lives. Blumberg, et al. (2008:92) define ethics as the “moral principles” standards of behaviour that guide moral choices about our behaviour and our relationships with others. Saunders, et al. (2007:178) suggest “Research ethics therefore relates to questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store data, analyse data and write up our findings in a moral and responsible way”. From the outset this researcher personally engaged with all participants clearly explaining the purpose of the research together with details of the researcher including personal biography and details of programme of study. This research was conducted in accordance with the core ethical research principles ensuring transparency, confidentiality, voluntary and impartial (Biggam, 2011). Each participant received an email inviting them to participate which also included a participant consent form (Appendix 4). It is acknowledged that as part of the interview process it is possible that confidential information may be disclosed. Therefore it is intended from the outset that all interviews will be conducted in a confidential manner and participants were assured that none of their responses would be quoted directly for purposes outside of this research study. Other data will be obtained through non-intrusive data gathering methods primarily use of public website.

5.5 Limitations of Study.

There limitations to this research are time, resources, and access to appropriate sample therefore it was legitimate to use contacts. The scope of the study was limited to primary schools. The results of this study cannot be generalised to the wider research community due to the sample size, however the findings will be true for the selected sample. There is also the question of depending on interviews as a data collection technique as an interview relies on personal opinion which can be subject to bias and inaccuracy. When it comes to addressing the issue of reliability of case study research, Yin (2014, p. 38) states that to deal with reliability in case

study the researcher must take as “many steps as possible to conduct the research as if someone were looking over your shoulder”. This researcher addressed the issue of reliability by detailing the appropriateness of the case study strategy together with details of the data collection techniques adopted, the research questions and the method of data analysis. Transcripts are included in appendices. Reliability for this study is achieved through a structured approach using a research strategy and a data collection method that has legitimacy within the research community.

Chapter 6 -Findings and Discussion

6.0 Introduction

This chapter uncovers the results of the case study described in chapter four Research Methods. The research focused on the primary stakeholders required to support the development of a mentored work placement model as a method of increasing the employability of learners in the ICT sector.

The researcher will reveal the findings of the empirical research which will be placed in context with the literature review explored in chapter two

6.1 Findings

The findings of the empirical research will be studied using the common themes that emerged from the interviews with each of the groups. As far back as 2004 the report of The Pedagogy For Employment Group (Group, 2004) highlighted that a graduate with work experience are more likely to secure employment than graduates without. Nothing has changed in the intervening years as the most recent survey published by (GradIreland, 2013) work experience is now a key part of graduate recruitment for the majority of employers many companies use work experience opportunities to source talent at an early stage. Students with work experience are much sought after in the graduate recruitment market. One of the SME's who participated in this research emphasised the importance of incorporating work placement into ICT courses they even suggested that in their experience some organisations rank work-experience higher than academic qualifications. Reap (2011) reported that due to the increased demand for work placement opportunities career placement services must seek out new opportunities. The model being proposed in this case study offers such an alternative framework.

It was important to engage with parents and teachers in a qualitative study to gain an understanding of the quality of the school websites in existence, as at the outset of this study primary schools were identified as the consumers This sample study confirmed the researchers own view that a market exists

to redevelop \ improve primary school websites and it is surprising that in 2014 that there is a school without a website presence not through choice but to lack of resources. This limit study has identified there is a market for this work placement model a captive audience who could really benefit from this proposed model. The data collected from parents and teachers indicate that an opportunity exists to re-develop primary school websites. A study completed by Joan Buckley and Lyndsey El Amoud confirmed HEI's; employers and students agreed that courses which include work placement were considered to enhance the employability prospects of graduates (Buckley & El Amoud, 2011). One of the themes that emerged from the interviews with SME's was "Why are placements important" the SME's agreed that work placements are important as they provide the students with real world work experience the student gets the opportunity to demonstrate their skills and potential. The SME gets exposure to emerging talent and can access ability as the student completes assigned tasks. Another theme discussed with SME group was "Mentoring" Hodgson (2009) suggests mentoring is to support and encourage individuals to maximise their potential and develop their skills. A view supported by the SME's who suggested the responsibility of the mentor is to monitor closely the progress of the student in solving problems, not by solving the problem but by guiding the student to approach with a problem solving mentality which can be achieved with this proposed model of work placement

This research presents evidence to support the researcher's view that a real opportunity exists for HEI's to develop a substantial work placement program by collaborating with SME's, the students and the consumers. An interesting theme to emerge from SME's is the suggestion to streamline the work placement process as it appears disjointed the SME's recognise that they could add value through collaboration between HEI's, industry and students resources could be match the real needs of business. It is the responsibility of the SME's to develop a pre-defined set of templates for website development, HEI's recruit primary schools, assign student to school and then to mentor. Student works under the guidance of mentor and delivers a functioning website to meet the requirements of their assigned

school while at the same time showcasing their own skills and abilities to potential employers.

6.2 Conclusion

It is evident from the findings of this limited study that the key stakeholders recognise the potential of the mentored work placement model. The proposed model has the potential to deliver benefits to each of the contributors. The knowledge users improve their employability skills by overcoming the barrier of having no work experience in the ICT sector, through gaining practical experience while at the same time developing their skills and professional networks. Knowledge providers which include the HEI and SME's working collaboratively for mutual gain the SME's who engage have direct access to the knowledge user and can experience their skills and future potential the SME has access to a pool of emerging talent from which they can recruit without any of the costs associated with recruitment. The enabler (Government) funding gets a twofold return the investment as the individual's employability skills are improved and the consumer – primary school gets a website at no cost to the school.

6.3 Recommendations

The following recommendations are based on the outcome from the research undertaken and are not an exhaustive list but it is the researchers' opinion there is real opportunity to address work placement challenges:

- HEI should test this proposed model by assigning the necessary resources to implement a pilot project to test the model and report outcomes.
- Build relationship with SME's to develop a set of templates for website development.
- The model should focus on development of school websites both primary and secondary as by doing so the schools can leverage the benefits of infrastructure being deployed to all schools.

Government is committed to roll out of high speed broadband to all schools. Schools can reap the benefit of concessions offered to educational organisations from the large ICT multi-nationals.

- This brief study highlights the need for further studies some of which are suggested:
 - A larger study of the proposed model presented in this paper.
 - How many of the mentored work placement student's gain full-time positions.
 - Is the development of an e-portfolio an advantage when seeking employment?

Glossary

CfE	Centre for Employability
CME	Content Management System
CSO	Central Statistics Office
CV	Curriculum Vitae
DAE	Digital Agenda for Europe
HE	Higher Education
HEI	Higher Education Institution
ICT	Information Communication Technology
LMAF	Labour Market Activation Fund
NCI	National College of Ireland
NFQ	National Framework of Qualifications
OCED	Organisation for Economic Co-operation and Development
REAP	Roadmap for Employment Academic Partnerships
UCLan	University of Central Lancashire
UK	United Kingdom
WPA	Work Placement Advisor

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Appendices

Appendix 1 – Demographic of Parents & Schools

Group 1 Parent - Primary School Children												
No	Relationship with School	Subject		Location of School	Name of School	Enrollment (30/09/2013)	Class	Type			School URL	
		Mam	Dad					Boys	Girls	Mixed		
P1	Parent		Y	Knocklyon - Dublin	St Colmcille's Senior National School	696	6th Class			Y	http://www.stcolmcilles.org/	
P2	Parent	Y		Inner City School	St Lawrence O'Toole CBS	77	4th Class	Y			http://www.schooldays.ie/school/naomh-lorcan-o-tuathail-rollnumber-171108	
P3	Parent	Y		Inner City School	St Lawrence O'Toole Girls School	86	1st Class		Y		http://www.stlaurenceotoolesns.ie/	
P4	Parent	Y		Naas	Caragh National School Naas	531	2nd Class			Y	http://www.caraghns.net	
P5	Parent	Y		Drogheda	Le Cheile - Educate Together	450	Senior Infants			Y	http://lecheileetns.com/	
P6	Parent	Y		Longwood- Co Westmeath	St Nicholas National School	270	2nd Class			Y	http://www.stnicholasprimaryschool.com/	
P7	Parent	Y		Longwood- Co Westmeath	St Nicholas National School	270	Junior Infants			Y	http://www.stnicholasprimaryschool.com/	
P8	Parent		Y	Longwood- Co Westmeath	St Nicholas National School	270	3rd Class			Y	http://www.stnicholasprimaryschool.com/	
P9	Parent		y	Longwood- Co Westmeath	St Nicholas National School	270	1st Class			Y	http://www.stnicholasprimaryschool.com/	
P10	Parent	Y		Longwood- Co Westmeath	St Nicholas National School	270	2nd Class			Y	http://www.stnicholasprimaryschool.com/	
P11	Parent	Y		Balinteer - Dublin	St Attracts MeadowsBrook	339	2nd Class	Y			http://www.stattractasjns.ie/	
P12	Parent	Y		Clogher Road - Dublin	The Marist- Clogher Road	220	Junior Infants			y	No Website	
P13	Parent	y		Haddington Road - Dublin	St Mary's Haddington Road	171	1st Class	Y			http://www.stmarysbns.ie/	
P14	Parent	Y		EdenDerry - Co Offaly	St Mary's Primary School	562	Junior Infants			Y	http://www.stmaryspenderry.ie/	
P15	Parent		y	Rathcoole	Holy Family National School	601	Senior Infants			Y	http://holysfamilyns.ie/	
P16	Parent	Y		Marino - Dublin	St Vincent DePaul Infant school	362	Junior Infants			Y	http://www.stvincentdepaulinfantschool.ie/children-first	
P17	Parent	Y		Perrystown - Dublin	St Damians national school	247	Junior Infants			Y	http://www.stcolldamian.scoilnet.ie/	
P18	Parent		Y	Blackrock - Co Dublin	Willow Park Junior School	608	6th Class	y			http://www.willowparkjuniorschool.ie/	
P19	Parent		y	Sandymount - Dublin	Scoile Mhuire - Lakelands	294	3rd Class			Y	No Website Server unavailable	
P20	Parent	Y		Stillorgan - Dublin	St Raphael's Primary school	369	3rd Class			y	http://www.straphaelasns.ie/	
P21	Parent	Y		Killester - Dublin	St Brigid's Boy's NS - Killester	396	6th Class	Y			http://stbrigidsgns.ie/index.php/brigids	
P22	Parent	Y		Killester - Dublin	St Brigid's Girls NS - Killester	431	4th Class		Y		http://stbrigidsgns.ie/	
P23	Parent	Y		Kilnamanagh - Tallaght	St Kevin's Boy's NS	281	Junior Infants	Y			http://www.stkevinskilnamanagh.ie/	
P24	Parent		Y	Terenure - Dublin	St Pius Girl's NS - Terenure	525	1st Class		Y		http://www.plusxgns.ie/ Server Unavailable	
P25	Parent	Y		Seville Place - Dublin	St Laurene O' Toole Girls NS	100	3rd Class		Y		http://www.stlaurenceotoolesns.ie/	

Appendix 2 - Notes from Interview

SME 1: Wholeschool (C1)
Date: 22nd July 2014
Website: <http://www.wholeschool.ie/>
Location of Interview: National College of Ireland

What does Wholeschool do?

Wholeschool are software as a service business focussed on the expanding on-line education marketplace with offices in Belfast and Dublin. Wholeschool have a National contract for every school in Ireland and expect to have 1million registered users on the Island of Ireland by end 2015. We are preparing to replicate our model in Ireland internationally and this includes building on a strong relationship with IBM.

I have had the privilege to work with some of most amazing people in large international companies including KPMG for 13 years and then in the last 15 years with a number of my own businesses.

While I have been in the ICT industry for over 30 years, I can genuinely say that that there has never been a more exciting time to be involved in technology and in particular software and cloud based applications/services. With a global drought in talent in this explosive growth sector, getting the right experience in these areas is a global passport to an exciting and rewarding career... And with the availability of quality on-line ICT training, competition will inevitably hot up as barriers to entry will reduce. Getting this 'real world' experience therefore is essential.

My thoughts are therefore based my experience of employing many placement students and interns, many of which have gone on to work for me ; have moved on to other businesses or indeed set up own their business. I am delighted that many personal friendships have been maintained.

Why are placements important?

I believe the opportunity to have an industrial placement can be a very invaluable and rewarding experience for both the student and the employer.

...and in particular for under-graduate who has yet to gain any experience of work to date.

Even as little as a 3 month placement can potentially give a student that real life experience that they should leverage into their final year and then hopefully into their future career.

Regardless of time period, the commitment by the employer in terms of time, energy, risk and opportunity cost should not be underestimated by the student and it should therefore be seen as an investment by the firm in their potential future.

... And with it appearing increasingly difficult to get placements, such opportunities that are presented need to be treated with respect at all times.

...and of course, if executed well, it is a classical win -win for both parties i.e. ...

- Company gets a chance to work with potential future staff member.
- Goals/objectives , output, projects are achieved
- Student gets that invaluable ‘real world experience’ to add to their CV that could set them apart from the next candidate...
- Real world experience, good references and hopefully an accessible portfolio of sample work is a real bonus for the student.

What are employers looking for?

As mentioned earlier, in terms of ICT, it is becoming an increasingly competitive environment as barriers to entry are reduced by the availability of on-line world class training resources.

It’s becoming ‘levelling the playing field’ and many companies are putting relevant ‘real world’ experience and know-how ahead of qualifications when selecting staff.

A placement can be both a risk and challenge and there are many unknowns but of course hopefully many rewards/opportunities for both parties over the period.

With the interview(s) such a short time to gauge potential and the CV only part of the equation, I would recommend that the student from initial interview through to the completion of the placement continuously strive to: -

- Build confidence and trust that you are making / have made the right decision...
- Listen carefully –try to fulfil – exceed expectations from mentors and staff at all levels in the company. This is effectively an ‘apprenticeship’ – learn as much as possible about every aspect of the business.
- Be helpful – at all times. In particular with smaller companies where agility and flexibility is required with priorities changing quickly. Although this can be frustrating at times, it’s nature of the game.
- Be creative – in my opinion, one of the most important attributes in ICT.

- Show commitment ... e.g. extra 'short notice' hours maybe required to meet deadlines
- Be energetic and genuinely enthusiastic.
- Provide solutions not problems.
- Be passionate and rightly proud for yourself/team when milestones achieved.
- Be honest at all times
- Be generous gracious when help is provided
- Respect company culture/rules ... including dress code
- Be hungry for knowledge – and the source of new ideas ...
- Have a keen interest in companywhere it is going?
- Respect the team and their clients...
- Be flexible
- Have a positive attitude – it's infectious!

Big or Small - organisations?

Regardless of size, it is critical that the student gains as much as possible from the time available they should take opportunity to supplement their knowledge where possible – it's not just 9 to 5... ..

In bigger organisations, the procedures and structures maybe more formalised and departmentalised with rigorous processes and perhaps methodologies to be adhered to.

Perhaps there may also be more opportunities for formal in-house / external training. The student should grab all opportunities enthusiastically.

Smaller companies, by their nature will be much more 'hands-on' and likely expose the student to all aspects of the business - from prospecting to sales, product developments (end to end), marketing and client care. This holistic experience can be very invaluable and from my perspective, a real bonus to see on a CV.

So regardless of size, it is real invaluable experience and the student should try to show their employability potential throughout by demonstrating the qualities mentioned earlier.

Effectively their career destiny is in their own hands and self-motivation and personal drive is essential.

What improvements can be made?

I believe there is a need to streamline the process of placement opportunities for students across colleges and universities. It appears somewhat disjointed in places and I believe there is huge potential for Wholeschool to help out in this area.

Wholeschool for example are actively working on a number of ideas in this space based on our experience of working with a number of cohorts of placements at NCI over the last two years.

I believe collectively the potential across all institutions to match these student resources with the real needs of businesses from 'start-up' through to international organisations and public sector organisations is substantial and indeed can be leveraged across many disciplines not just ICT.

I think across colleges and universities, there needs to be a better promotional process along with continuous industry engagement to illustrate the potential benefits for both parties.

In terms of ICT related placements in particular, I believe there is a lot can be done in terms of preparation prior to placement. I think there is the opportunity to provide a robust and comprehensive programme of induction that could prepare the students for placement and indeed employment generally.

One area is free software resources, cloud infrastructure, development environments and training that are offered by most of the large and international ICT companies and emerging global businesses including social media businesses.

If all of these offerings were consolidated and presented as a 'must have set of tools of the trade' and utilised/leveraged by the students then they could 'hit the ground running' on entering a placement.

It would also send a clear message to the prospective employer that the student means business and is making a real effort in terms of employability.

The environment is also where the student can build up their e-portfolio, again an area that in my opinion should be a prerequisite for employment in ICT.

I believe e-portfolios along with a good LinkedIn presence are powerful make powerful statements and will be a differentiator.

So, given the plethora of resources available to students to build and to maintain such a 'global presence' albeit for personal use then really there can be little excuse.

Other thoughts / opportunities?

I believe there are huge opportunities to harness the power of student placements/resources (perhaps across colleges/universities) at community level on co-ordinated projects to address 'citizen needs' in a region /country.

Schools can also get involved and in Northern Ireland for example I have had the pleasure and the opportunity to work with Government departments on a range of

‘Digital Inclusion’ projects from community organisations and bodies across all sectors under the www.MyGroupNI.com portal that have included : -

- Community Group Web-Sites
- Local Story-Telling
- Digital Archiving
- Health
- Sport
- Telemetry
- Open Data etc...

Internationally scalable platforms to manage and leverage such opportunities are key and it is where we see that Wholeschool’s technology and vision and domain expertise providing the solutions and ideas.

Also with great partners such as IBM, there will be an on-going desire to offer opportunities for student placements into the future.

Appendix 3 - Notes from Interview

SME: Ward Solutions (C2)

Date: 29th July 2014

Website: <http://www.ward.ie/>

Location of Interview: National College of Ireland

Programme based on ICT students building web site / we presence templates which can be used by primary and 2nd level schools.

- Sites would be developed by the ICT student
 - through customisation/development of set of templates
 - based on a set of templates
 - Set of core and optional functionality
 - Set of different design templates
- based on requirements from individual schools
- supported by programme
- hosted and maintained centrally

ICT Students would:

- work with mentor in delivering the end product
 - Initial meeting
 - Regular update meetings
 - Final presentation and handover
- liaise with Schools to determine specific requirements
- agree scope/plan/timelines/deliverables with mentor and the School
- (possibly) deliver support for schools which were established previously
- Train schools in the use of the website

Mentors would:

- Provide good quality work experience based on the programme
- work with students providing guidance on approach, working with schools, technologies for web development and customisation, working with hosting location
- work with between 2 and 4 students simultaneously
- liaise with NCI and programme office

College would:

- establish a programme office to
 - Provide hosting facility
 - Engage interested schools
- Establish a panel of suitable mentors

Benefits - For Mentor and their Organisation

- Access to a pool of talent
- Source or early identify talent which could be employed on graduation / saving on recruitment costs.
- Understand capability / quality of ICT programme.
- Contribution to society and education
- More structured than 'formal' work placement implies
 - Duration known
 - activities known

Benefits - For the ICT student

- Provide with 'real world' experience
 - Unique learning experience
- Understand needs / operation in the workplace, gains insight to all aspects and not just technology i.e. culture

- Knowledge transfer
- Personal Development - communication skills / commitment and dedication / increased perspective / time management other business and life skills
- Makes contacts in the workforce - enhances employment prospects post college
- Improved performance / approach /problem solving
- Applies College learning to the real world
- Give career insight

Benefits - For the Programme

- Easier to organise than formal work placement
- Require less mentors
- Closer control on mentoring activities
- Provides a value service
- Easier to apply formative assessment

Mentor Approach

- Different to 'intern' as ICT students are not on site, however core mentor goals are still important:
- Assumes ICT student has basic knowledge but not self sufficient
- Understands that this time is 'like' work placement and is to be used by the ICT student to try out, with support what they have learnt
- Understands that there are a range of skills (not just technical capability) that the programme addresses and which the mentor must support
- Can view as a form of 'teaching'

Mentoring involves:

- **Communication with the student.** Stimulates topics of relevance, engages student to review/question/challenge/reflect. This will take time and since student is NOT on site, needs to be formally planned. Suggest weekly call, monthly meeting?
- **Set Tasks / Challenges:** Mentor sets challenges within the frame of the engagement which should challenge ICT student. Should stimulate thinking / problem solving approach. The plan for the engagement with a School should be co-planned, primarily by the ICT student and with input from the mentor.
- **Review:** The mentor closely monitors the ICT students' progress, reviews and seeks to see changes
- **Problem Solving:** The mentor should assist in solving problems, not by solving the problem but by getting the student to approach with problem solving mentality.
- **Recording Activities / Progress:** Mentor should record activity progress which may be used for later assessment / marking as appropriate.

Appendix 4 – Interview Consent Form

CONSENT TO PARTICIPATE IN INTERVIEW

Understanding the links between Information Communication Technology (ICT) Skills & Employability – A Model of Work Placement for Third Level ICT Students

You have been asked to participate in a research study conducted by Geraldine Minogue student on MBA year 2 at School of Business National College of Ireland. The purpose of the study is to introduce an uncomplicated, practical model of work placement for third level ICT students. The results of this study will be included in Geraldine Minogue's Master's Thesis. You were selected as a participant in this study because you may access your local primary school's website. You should read the information below, and ask questions about anything you do not understand, before deciding whether or not to participate.

- This interview is voluntary. You have the right not to answer any question, and to stop the interview at any time or for any reason. I expect that the interview will take about 30 minutes.
- You will not be compensated for this interview.
- I would like your permission to record this interview so that I can use the recording for reference while proceeding with this study. I will not record this interview without your permission. If you **do grant** permission for this conversation to be recorded, you have the right at any time to withdraw your permission to record the interview and/or end the interview.

This project will be completed by *31st August 2014*. All interview recordings will be stored for a maximum of one month post interview to facilitate transcription after which all recorded interviews will be destroyed.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

I agree to participate in this interview.

I give my permission for this interview to be recorded.

Name of Subject

Signature of Subject _____ **Date** _____

Signature of Researcher _____ **Date** _____

If you have any questions or concerns please contact: Geraldine Minogue email x12119270@student.ncirl.ie

If you feel you have been treated unfairly, or you have questions regarding your rights as a research subject, you may contact Dr. Colette Darcy, Vice-Dean School of Business, national College of Ireland, Mayor Street, IFSC, Dublin 1.

Email Colette.Darcey@ncirl.ie or telephone: 01 4498500

Appendix 5 – Data Analysis Parent Themes

Subject No	Q1	Q2	Q3	Q4	Q5	Q6
	Function of School Website	How Up To Date Site Content	How Well is Site Organised	How Well Does Site Layout Help You	How Often Would You Visit School Website	Who Maintains The School Website
1	Source of Information	Not good a lot of old content which is about 3 months out of date	Not very well, everything wrong, shortcuts, no map, very basic information. Poor gallery, no new photographs	Not an automatic choice, tend to ring secretaries office. Not a natural choice for information which is unfortunate as it should be the main source for parents.Link to parent association is buried in site very difficult to locate. Navigation of site is very poor	It is crap. A couple of times a year to check term days or during inclement weather to see if school was open but information was not current. Should have been the first place school posted information for parents.	Volunteer teacher- not a priority as they have another job. When it is updated it features the activities of that teachers class rather than the whole school, not fair only one school tour featured
2	Provide information to parents. Communication tool	Very up to date	Very easy to navigate and find information	Easy to find information, good layout, look by class. Simple enough navigation	At least once a month or when get a note home that something has been updated	Special needs assistant has an interest and has responsibility for the site. Pupils from 4th class up have an input. Green school committee. Election of student council
3	Source of Information	Don't know only access when daughter comes home and asks to look as a photo is posted!				
4	Communication tool as a working mum very little interaction with school as do not drop offs or collection. Should keep parents informed of school activities, parent teacher meetings, school calendars, uniforms and books, weekly after school activities, fund raising events	Website not up to date. Basic school timetable is out of date. Scholl relies on paper prints a monthly newsletter, which if lost parents do not have access to information. Would favour using website as main communication avenue. More environmentally friendly	Landing page appears well structured and easy to navigate brochure ware site, no deep built functionality a lot of broken links. Do a Google search 3 different URLs which are all broken	Old Fashioned look. Has a "Teacher Login" but nothing for the parents	Not very often maybe once every two months, nothing there, not current, currently down	Not sure thing school secretary and some teachers who express and interested rather than a job
5	Communication channel, an information tool for parents to be effective must be current, show calenders and up to date	Very current updated within 24 hours. Educate together is a different model of education, encourages parents to be pro-active website is update by a member of the Parent's Teachers Association (PTA). Content is approved in advance by principle. School big into IT. 29 students per class. PTA purchased laptops for school which are shared among the classes . Every classroom is IT Aware	Well organised, went to site when researching what school to send daughter to in September 2013. Most natural thing was to check out website for information on school ethos, policies and procedures - the Natural place to go.	See previous	Weekly during term. No on-line payment facility at this point would add value. Email is currently available	PTA
6	Information source for parents a communication channel for school policies	Up to date. School issue a text when site is updated	More structure to layout. It has improved it does its job	I can always find what I am looking for	A couple of time a year	No idea who updates think it may be school secretary and principle is very active
7	Information source for parents	Very current	It does its job		3 to 4 times a year. More likely to visit after an event to view photograph gallery all photographs posted have prior consent from parents which is good	No idea who updates site at a guess probably school secretary
8	Communication channel source of information for parents. Should be a higher priority for schools as website is access by parents when deciding what school to start their children should be a show case	Information is current and up to date	Well organised site	No notes in school bags. Directed to information on website by text from school. Information is also published on school notice board at entrance doors to school.	Weekly during term.	Presume it is the school principle and secretary
9	Source of information for parents	Good site updated regularly	Very easy to navigate and find information	Can always find what looking for	twice weekly during school term	I think school secretary and principle
10	Information channel for parents, means of keeping parents informed of school activities	Content is up to date	Very well organised	Easy to navigate	During term tend to only visit when receive a text or when chatting to other parents they reference material on site such as photos or details of activities. Class lists are published in June as children prepare to move from one year to another but only available on-line for a very short time	School secretary

Subject No	Q1	Q2	Q3	Q4	Q5	Q6
	Function of School Website	How Up To Date Site Content	How Well is Site Organised	How Well Does Site Layout Help You	How Often Would You Visit School Website	Who Maintains The School Website
11	Information purposes provide parents with details of school activities, school calendar, and extra curricular activities	Not sure how update site content is as usually only go to site to get telephone number to call school directly if I need information.	Have not been on site for ages from what I recall hard to navigate		Twice a year max	No idea who updates site.
12	As a parent who lives-online daughters school does not have a Website					
13	My opinion is school website should be the communication channel for the school to keep parents informed.	Site is not up to date link to news and events shows content from 2011	Don't like structure or colours text is very small		Don't use that often	Think it is the school secretary when time permits. One teacher has an interest in photography and tends to put up some pictures.
14	A source of information for parents on school activities both internal and external together with school calendar a one stop shop	Content is current, great information	Good layout- content is by class which is great go directly to childs class to get required information	grand can find my way round. Easy to navigate latestest information is scrolling across top and information on class available on one page	Access once a quarter as all information comes is contained in school newsletter which each child received tend to rely on newsletter	Not sure think it is school secretary
15	Information sharing an archive of school history. A school website is important but unfortunately not in its current state as it has no information	Not up to date	No very old style	No - very cumbersome looks like something designed in the 1990's	Check once in a while to see if things have changed. Would be a more frequent user if site improved and when visiting site you did not feel abandoned as it looks	School secretary - a job on top of a job, don't think Website is viewed as a priority
16	School website should be a source of information particularly for parents who are selecting a school for their child. Making decision of which school to send child is a big decision. As a minimum school Enrollment Policy, Contact details, Times for Junior and Senior School as they can differ	Yes content at time of visit was up to date	Found it easy to navigate	Yes - Wasn't cluttered like old Ryanair site which displayed 1000's of pieces of information and it is difficult to filter to kind what you were looking for. The site is usable		No idea
17	Keep informed about what is going on in school. Sense of the ethos of the school what they are about What are the after school activities. As a parent sending child to school for first time I am new to this were do I buy school books it would be nice if this information was on-line. People take for granted that you know	Quite up to date	Easy To Navigate	Good layout posted book list very quickly after parents meeting containe a lot of supplementary information which was very useful and di not expect to be included in a booklist. It might be a good idea to separate into different documents as parents looking for information may not check booklist.	A couple of times to check current information and keep up to date. One of the parents has developed a Blog which has a lot more information and is really useful	No idea
18	As working parents rely heavily on school website to check school calendar, book lists, reading lists and activities. Accessed when researching school in advance of sending son to get visibility of enrollment policies and general ethos of school.	Content excellent and up to date	Very well organised	very easy to find what you are looking for	During school term check website very regular as need to check scheduls for activities and keep abreast of what is happening in school	One of the school administrators and a teacher is involved.
19	A communication channel for parents and a profile of the school and its ethos	Disaster - could not rely on content as site is frequently unavailable	No	No	Try to access regulaly during term but site is very often down, currently not available	teacher within school , it is another job for teacher
20	Information book Lists, Calender, Activities, Photos, Parents Association	Good, Teacher Login sense of community	Like how it is organised. It s good	Navigation is good	As a member of the parents association I proably access it more than most during the school term. Over the summennr holidays have been on to get book lists for three daughters	I think school secretary for main site. A member of parents assoication keep parents assoication section current

Subject No	Q1	Q2	Q3	Q4	Q5	Q6
	Function of School Website	How Up To Date Site Content	How Well is Site Organised	How Well Does Site Layout Help You	How Often Would You Visit School Website	Who Maintains The School Website
21	As working parents expect school website to be main communication tool that can be accessed when required to get timely, accurate information on school activities including School Calendar, Activities, A One Stop Shop	Did not know if school had a website as it was never promoted. Checked in advance of this meeting and school has a site but it is relatively new and did have July Newsletter	Looks ok, only had a brief look	Don't know was surprised site existed	Never as what not aware of its existence, would use in the future	Don't Know
22	Main communication tool particularly useful for working parents as a means of keeping up to date and connected to the school	A mature look site but it is up to date. There are some inconsistencies but see they are trying	Clunky	Ok	Daughter very involved in school choir and this section is very current and during term would check daily for rehearsal times etc. This is a very specific activity which is kept current probably done to the teacher.	School secretary get a lot of input from teachers particularly the teacher with responsibility for choir
23	A source of information as much as possible things like dates, holidays, book lists, trips. As a working mom not at school on a daily basis need to know what's happening	Not very up to date. At introductory meeting when son started school a lot of emphasis put on school website and very important parents access. Site has not been updated since December 2013	Good layout	Well mapped could find information the problem is it is not up to date	Visit every couple of weeks in the hope that information will be updated. Just in case I miss something	Don't Know
24	An information source updating parents on events or things happening in the school. Pay for trips etc. Information on school itself ethos, history enrollment policies	Don't know at time of meeting site was unavailable - Server error	Small site very basic not loads of pages. Not particularly attractive	Functional	Couple of times a year	A parent volunteers I think
25	Information, letting parents know what's happening	Don't know don't use	Don't know don't use	Don't know don't use	Don't know don't use	Don't know don't use

Subject No	Q7	Q8	Q9	Q10	Comments
	Who is the audience for school Website	Does your child have an awareness of school Website	How would you normally access website	How does school use social media	
1	Ideally it should cater for three groups (1) Parents of children currently attending the school it should be first point of contact for parents seeking information on school activities, policies book lists. (2) Students & Parents as an educational resource include, games, quizzes on different subjects help students homework tips. Boring for students. (3) Visitors to the site looking for a school should provide a better profile of the school. Website does not do the school justice	Yes - don't use as they think it is rubbish as a lot of information is out of date.	Access is very infrequent, and on the occasions it is accessed usually on laptop but should be accessible on all devices; SMART Phones, Notebooks, and all tablet devices	No Presence. Not something would favour for a school.	Very poor standard for such a big school. Poor search engine optimisation does not help the case as another school with same name appears first in Google search. If it was hacked it would not be the worst thing that could happen, in fact it could benefit the school in that they would get a better site. More information is sent to parents through newsletter. Website does not reflect all of the sporting activity \ accomplishments of the school. GAA activity features which is not fair to all pupils as not all play GAA. Definitely room for improvement. Parents association link is buried in site not obvious. Navigation overall is very poor.
2	Parents and school children	Yes - will often view particularly when they have participated in an activity which is reported on the site or when photos have been uploaded. Recently 4th class history project won a competition great buzz among children as details were up on the site	SMART Phone	No Facebook or Twitter not appropriate. Makes good use of SMS text	Overall good site compared to other schools in locality.
3					After this meeting will go home and look just to see what it like
4	Parents. School should encourage children to access school website given how teaching methods are changing and there is a move to more elearning.	No not at all never mentions it. Daughter has her own device. Each classroom has its own PC. Use of technology encouraged in school. Website only seem to include 4th & 5th Class. It would appear content on site is teacher driven.	SMART Phone	No, definitely not. Websites should be used to support school to parent relationship. School should use all media channels. SMS text currently used for emergencies, not day to day activity. No email and there is nothing in between. As parent would like to be able to email daughters teacher directly, school can control security. Website should be used for School to parent	Would love to see the development of an area specifically for parents. Contain general administration. Complete payment task on-line e.g book scheme, photocopying, student insurance cater for working parents who have no opportunity to see teacher at drop off or pick up. Functionality to allow parents to make an appointment. More developed website would help administration of school. School website should be a showcase for the school particularly for people new to the area looking to identify a school who want to understand the ethos of the school, school policies board of management, visitors to a school website should get a sense of the school which is not the case with this site. Old fashioned structured dated content. Does not do the school justice. It takes two weeks after circulation of newsletter before it is available on site very often content is out of date at that time. Good to see a profile of the teachers.
5	The school community which includes, Parents, Children Teachers and the Community. Website may not be important to children in junior or senior infants but as they progress through school website becomes more relevant	Yes, aware of the internet place where you can go and get information. Has always been exposed to technology and important to develop this knowledge	School website to be effective must be available on all device types and browser neutral	School maintains a Facebook presence responsibility of PTA. It is up to date a communication forum for parents where they debate current topics relevant to the running of the school. Parents are invited to join.	In an educate together school the ethos is that anything outside of the school day is the PTA. Therefore the PTA need to build a community and this community to function requires parents.
6	Parents	Yes and would ask to see it from time to time as photographs of events are posted but only remain on site for a short period of time	SMART Phone	No to social media not appropriate for primary school	
7	Parents & student, a tool to keep parents and students informed of school activities	Yes - only ever asks to view after an event to look at photographs	All devices	Don't think social media is appropriate for primary school, principle adapts a very hard stance on use of social media which I support. Principle limits the amount of video capture at events and specifically requests it is not posted on social media. School photographs are limited and only available for short periods of time as are details of class lists.	
8	Parents	Not at the moment	All devices	No to social media not appropriate for primary school	Should have links for literacy and numeracy programmes particularly for those starting school. Links to Department of Education Site and Drumcondra tests. Should contain base information including enrollment policy it should not include individual profiles of teachers. At the moment one improvement suggest would be ability to pay on-line

Subject No	Q7 Who is the audience for school Website	Q8 Does your child have an awareness of school Website	Q9 How would you normally access website	Q10 How does school use social media	Comments
9	Website is for different groups, Parents, School Children and prospective children if someone is new to the village check website to learn about school. If they had a child ready to start school. Should reflect details of special events in the school	Yes son in 2nd class very aware and has asked to view so that he can see school photos of tour of sports day.	All devices	School uses SMS. School does not have a social media presence not sure if it is necessary or appropriate for primary schools.	would welcome facilities to pay on-line for book rental photocopying etc. My sister is a primary school teacher in Tallaght their school site is very poor compared to St Nicola's in Longwood. Good idea to include learning material. Class lists and teachers.
10	Parents	Yes son looks to access usually to view photos of a school event or activity. Son is excited to see his photo on-site	Can access on Smart Phone or Tablet	No Social Media presence. Principle is very strict on parents capturing school activities on video and requests that they are not posted on-line	Would like to see on-line functions developed such as ability to pay for school activities, book rental on-line. Email would be very useful
11	parents and school children would use move if could rely on content being up to date and accurate. Currently rely on note send in school bag	No	On the occasion that I have accessed the site used a PC	Not a fan of social media	Honestly never think of website as a source of information really it is an after thought. Opportunity for school to use website to share information with parents as currently use a lot of paper when information could be shared on-line can't help but think it has the potential to save time as a lot of effort to copying and distributing notes to each of the school children. As son is to move to senior school in September was looking for information hard to locate had to go to open evening when information could have been made available on line which would have been more efficient. School do not use email which again is something I would like to see introduced. School send text alerts in the event of school closure or sports day. Parents committee should promote use of website and ensure content behind headings as the site in its current format does not promote the school. School admits website is an area of weakness but solving the problem is not a priority at the moment
12					No Website, no on-line presence. School has an appetite for website last september informed that the school website was in development reached end of school year no site. Yet school has embraced technology as each classroom has an interactive whiteboard. Can only presume Website is not a priority
13	Parents and School children Would like to see a section for parents that contains resources on school curriculum particularly in maths as how the basics in maths is taught has changed since I was in school and have found that can cause confusion for child when doing sums together get same answer but different approach. A little video of how for example addition is taught would be great	Yes has awareness of site but only interest is to view the photographs as there is nothing else to hold their interest or encourage them to visit no benefits	SMART Phone - not great	Not sure it is appropriate for schools	Need to move away from notes in school bag as only means of communicating with parents.
14	Parents and school children but also should appeal to wider audience particularly parents who have a child ready to start school and they are trying to make the decision on which school best for their child. Important that website profiles the school and gives a sense of what school is about	Not at the moment	Son in junior cycle, has his own iPad but would not have an understanding of website	Don't know	I think site is good it is fun, creative, colourful and user friendly. Gives correct impression of school. Suggested improvements bring in on-line functionality. School conducted a recent survey to capture parents views on merging of boys and girls schools. This type of functionality should be available on-line more efficient

Subject No	Q7	Q8	Q9	Q10	Comments
	Who is the audience for school Website	Does your child have an awareness of school Website	How would you normally access website	How does school use social media	
15	Parents, school children and also prospective parents an school children. Has high marketing potential for school. Looking at the school website should be a mirror of how well the school is doing. For parents it should contain, Announcements, Events, Photographs, dedicated area for parents acces by login, site map. For students interaction with school, Twitter updates. Information on curriculum, links to resources and as thy come to 5th & 6th class links to 2nd level schools. For prospective parents, background to school, facilities links to league tables Department of education reports, school credentials student body, school priorities	no	Can access site on SMART phone but it does not render therfore not very user friendly	School does not have a social media presence but it should Would be in favour of live updates very useful when school tour is taking place updates informing parents arrived in destiation of tour and when leaving estimate time back in school is one example of how a Twitter account coulbd benefit school	Most primary school websites are very poor my daughters school no different which is a pity as they have huge potential to reach parents but also as a marketing tool for parents. School need to move away from note passing very labour intensive in producing the notes copying and ensuring each one gets into the school bag and on the other end parents have to check for notes each day. A lot of old photos on site which I suggest would be of interest to past pupils but need structure very hard to navigate. Visiting school website should be a quality experience but suggest the poor standards is down to lack of budget and or resources. School smay not be aware of the services available through government agencies such as HEAnet. Visiting website should be a quality experience. parents associaation prensie is limited have a "Guest Book" but does not work
16	Parents, School Children and Prospective Parents	Son uses PC for cartoons would not have an awareness of Website	PC only did not try any other device	Not a user not relevant, not interested, not appropriate	Would like to see more on-line functionality available on website such as application forms, booklists. School should email documents as to access secretary hae to take time off work which is not always feasible for working parents. No idea how they distribute school information. Documents on how to assist students with homework would be useful as this is my first child to go to school. She school clubs what is available in the area does the school have a relationship with a particular sports club that child would meet school friends at if they joined. Links to useful services for parets with children with special needs e.g. Dyslexia Ireland. Information on Anti Bullying, Child Protection who is contact person
17	Parents as a means of collaboration. Website needs some level of interactivity suggest including quiz's and links to other appropriate sites	Son has controlled access to Ipad for puzzles, cartoon. Uses PC at home for CBB	Only ever access on PC	Yes. No email. Text used in case of emergency	Website is importat communication channel. Concern that content will not b ekept up todate as no one person may have responsibility for website content. Concern value of website will diminish. A parent voluteered to develop blog for parents which is an excellent resource as it gives insight into what is happenig in school and parents can then use this information to encourage children to talk about what they did at scholl rather than the "yes" "No" response to questions.
18	Audience for school website is diverse and each shts different requirements. School Children interested in events, activities and school photographs which are well organised by class. Parents need to know whats happening and should have a portal for collaboration and communication. Prospective parents need to know about the school its ethos enrollment policy etc. Important they get a good impression of the school when they visit the website	Yes primarily accesses to look at activities, sports results and photographs	All devices	No	Would like to see separate student & parent portals. On-line payment functionality would be very useful
19	Parents, School Children and prospective parents and children	Daughter never asks while she would have an awareness of other child appropriate sites never asks about school site	PC only did not try any other device	Don't know	Would like to have site on-line with up to date content as a minimum would be fantastic as working parents we do rely on checking information updates online. School send snotes home but if chil forgets parents can miss events. Once site is available development of on-line functionality would be brilliant
20	Properspective Parents - To Sell School. An information resources for parents and children attending the school.	No	PC & Tablet	Yes	School uses email and text to communicate with parents. Very little notes sent home. Scholl emails a monthly newsletter. Parents Association emails newsletter. School sends four to five texts per month. Principle very pro-active.

Subject No	Q7	Q8	Q9	Q10	Comments
	Who is the audience for school Website	Does your child have an awareness of school Website	How would you normally access website	How does school use social media	
21	I see there are three groups to whom school website should appeal and service needs: (1) Parents- A means of keeping parents informed and parents who work keep them connected to school as they are not at the school on a daily bases and do not have interaction with other parents. School issues notes if child does not give note at home child and parents can miss events. (2) Children give them sense of pride in their school would like to see site divided by class, list of resources, links for parents to get in touch with teacher. (3) prospective Parents should get a sense of the ethos of the school access to policies, if site is current I think creates a positive impression of school	No - Never mentioned	Never accessed until agreeing to do this interview and was surprised it worked on PC	Don't know. Do't engage in social media personally would not be interested. School uses Text to communicate with parents critical events or emergency	No point in having a website if school do not alert parents to its existence and promote. More efficient method of communication than paper
22	parents, Children and prospective parents. Should have something for everyone and promote school create a positive impression that school is vibrant	Yes, for Photos and Utube videos for choir. Often oprints out stuff for me	Pc or Phone	Don't actively engage. There is a FACEBOOK page not sure if it is responsibility of Parents Association or school can be a bit up or down.	Useful tool, not used to full potential by school. Would love on-line payment facilities. Email would be greta. Also more efficient than paper and also help with School Greening initiative as it would reduce the use of paper
23	Parents & prospective parents. Maybe when children move into older classes it would have an appeal but not for my son at the moment as he is in junior cycle.	No	Laptop and Phone	No	School send notes in bag which I believe could be at least reduced if website was used. Production of notes is very resource intensive for school. School use text service to notify parents of fund raising event e.g school lottery but this could be the Parents Association
24	Parents, prospective parents and children in senior classes	No	Pc only	Don't use social media. Not aware if school has a social media presence	Use website instead of sending notes. Inform parents of extra curricular activities. Parents Association has a blog which is useful. Has links to school website but could not access school site
25	Parents & Children	Daughter looks at photos	Daughter has an iPad	Don't know	Don't use website

Appendix 6 – Demographic of Primary School Teachers

Group 2		Primary School Teachers						
No	Relationship with School	Location of School	Name of School	Enrollment (30/09/2013)	Type			School URL
					Boys	Girls	Mixed	
T1	Teacher	Ballygarvan Cork	Ballygarvan National School	372			Y	http://ballygarvanns.com/index.php
T2	Teacher	Shanbally Cork	Shanbally National School	244			Y	http://www.shanballyns.ie/
T3	Teacher	Ballinora Cork	Ballinora National School	300			Y	http://www.ballinorans.ie/
T4	Teacher	Gogginshill Cork	Gogginshill National School	196			Y	http://www.gogginshillschool.com/
T5	Teacher	Monkstown Cork	Scoil Barra Naofa	45			Y	http://www.scoilbarranaofa.ie/

Appendix 7 – Data Analysis Primary School Teachers Themes

Teachers Responses to Questions		
Q1	Function of School Website	<p>The function of a school website seems to be generally to impart information and news. This comes under several guises; there are usually reports on events held in the school, sporting and other achievements, fundraising, information on developments in the school e.g. new initiative, building work, etc. Although using the word News, it is never up to the minute news.</p> <p>There is usually a downloads section where parents can access newsletters, booklists, forms, uniform suppliers etc.</p> <p>There is contact information and an introduction to the school: description, history, staffing, and ethos.</p> <p>It seems to be generally a replacement for the school newsletter which would have been printed and sent home on a monthly or termly basis. It is also a replacement for the school handbook which would have been given to new parents. Some schools include policies on the website too.</p> <p>The website would also be seen as an advertisement for the school as competition for new pupils has become a crucial part of the business of a school.</p> <p>There is also the idea that all schools have a website, so you are seen to be out of date if you don't have one.</p>
Q2	How Up To Date Site Content	<p>The information is uploaded by whoever is responsible for the website. So it can be up to a month out of date, depending on how often that person can manage to update it and how much time it takes. It is often done irregularly and in a "clump".</p> <p>The policies, booklists, etc. would be uploaded once a year.</p> <p>The secretary would often be the one to upload the newsletters and this would be done fairly efficiently.</p> <p>It is seen as an extra burden on the specific member of staff responsible, and wouldn't always have priority.</p>
Q3	How Well is Site Organised	<p>Sites vary, depending on what template has been used. A lot of schools would use the same one, with the same menu headings. These are generally easy to navigate as they are exactly what you are looking for. Complications arise with photos, in particular, which can be difficult to view. Some schools use the blog template which is interesting but not as easy to find what you are looking for on it.</p> <p>As a teacher, adding to a website can be extremely easy or very awkward have to go through several complicated steps to upload pictures and text. It meant you couldn't really do it unless you had plenty of time on your hands.</p>
Q4	How Well Does Site Layout Help You	
Q5	How Often Would You Visit School Website	
Q6	Who Maintains The School Website	<p>One member of staff is responsible for the website and IT in general. This teacher could be someone who volunteers, "Is volunteered by the principal" or a teacher who takes it on as part of a post of responsibility for which he/she is paid. Class teachers are generally expected to provide information for their own class, usually in the form of a blog or twitter feed (quite unusual). Have seen new teachers on staff having to do it, learning support teacher doing it, deputy principal in 2 schools doing it, but never the principal or secretary.</p>
Q7	Who is the audience for school Website	<p>The intended audience parents, both existing and prospective. It sends out information to existing parents in an efficient way, and it is used as a showcase to entice parents to enrol their child. Sites would often have a sub heading for parents, which would include forms, booklists to download, links to educational websites, information about standardised testing,</p> <p>They would have an area for children which would generally be photos of recent events. Some schools use Edmodo, Maths High e.g. to provide extra work to do at home and to help the parents get involved with maths in particular.</p>
Q8	Does your child have an awareness of school Website	
Q9	How would you normally access website	As far as know the websites are accessible from all devices.
Q10	How does school use social media	<p>Haven't seen a lot of engagement with social media. There is a lot of negative feeling about getting involved with this and there have been some cautionary tales where it has been attempted. There are stories from around the country that I have read about but I have never seen it myself.</p> <p>One school (Ballinora) had a Twitter account but it had a fairly pathetic response.</p>
Comments		<p>No school has been able to completely depend on the website to communicate with parents, as there are always parents who don't have access to the internet (allegedly). Paper copies of letters, forms, etc. still have to be sent home to these parents. Even where parents can access forms they still have to be filled in by hand.</p> <p>One of the teachers who participated have ever been responsible for a website, and it is not really a priority as a teacher.</p>