An Examination of the Role of
The ICT Coordinator in the
Secondary School System in Ireland

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**Declaration**

The Author declares that this work has not been previously submitted for any award at any other University or Third Level Institution.

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**Dedications**

I would like to dedicate this piece of work firstly, to all ICT Coordinators everywhere who do such great work, noticed and un-noticed, but more importantly to my family without whose support this thesis would not have been possible.

*Thank you Karen, James and Hazel.*
ABSTRACT

Anthony J. Cleere

“An Examination of the Role of the ICT Coordinator in the Secondary School System in Ireland”

Due to the rise in use and general growth of Information and Communication Technology (ICT) the roles of some ICT Coordinators in the Irish secondary school system have expanded to combine a large number of duties. To further examine this topic and to establish some straight facts an examination of the workload of the ICT Coordinator in the Irish secondary school system was carried out.

Relevant literature about the equivalent positions in such countries as New Zealand, Denmark and Britain was reviewed and issues which arose included ‘Job Description’, ‘Time Availability’, ‘Technical Support’ and ‘Pedagogical Duties versus Technical Duties’. The boundaries of this ICT Coordinator position have been pushed and pushed to include all aspects of technology. In such a dynamically expanding industry the status and position of the person closest to it in schools has remained somewhat unchanged over recent years. Many ICT Coordinators feel under pressure due to the broad scope of duties.

These issues were explored via electronic survey and interview of ICT Coordinators and other personnel with knowledge of ICT in schools in Ireland. The results were then organised and reported. Subsequent comparison with the findings of previous research showed first and foremost that the majority of ICT Coordinators don’t have enough time for what has become expected of them in their position and secondly many felt that too much was being expected of them in a technical capacity. The crucial area of integrating ICT into the education of the students was being left in the shadow of technical support.

Questions about the over-use of the ICT Coordinator for technical purposes and about the general level of importance associated with the role were put forward in the analysis. Conclusions were then drawn under the headings from the literature review mentioned above.
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CHAPTER 1 – INTRODUCTION

1.1 Background

Since the early introduction of computers into places of education in the late 1970’s right through to the Schools’ Integration Project (SIP), as part of the IT 2000 initiative in Ireland, and right up to the present day, government and organisations have tried to steer and integrate the use of Information and Communication Technology (ICT) in schools. The particular roles that the ‘front line’ people took on have over time developed from hobbyist type roles to officially titled coordinators of ICT.

This researcher currently holds a position of ICT Coordinator in a secondary school in Ireland. Prior to carrying out any research in this area, from primarily anecdotal evidence from other ICT Coordinators, this researcher learned that the workload of ICT Coordinators, in the main, seemed heavy, but more importantly from their point of view, somewhat lacking in boundaries. The reasons for this unusually high workload varied from person to person, and from situation to situation. In such a growth area as technology, this role of ICT Coordinator is of key importance to the proper integration of ICT into the school.

While there have been many studies carried out in relation to ICT in schools, somewhat less studies have been done dealing specifically with ICT Coordinators. Furthermore, most of these studies fall under general themes like ‘The impact of ICT on learning’ or ‘Integration of ICT into the school’ etc... This research proposes to examine the various degrees of workload experienced by ICT Coordinators in carrying out their day to day duties, their suitability for the position and their general opinion of the role.
The roll of the school ICT coordinator varies far and wide between different schools in different towns, or cities, or indeed countries. The similarities and differences between the approaches to this very pivotal role in different schools will be examined. This paper will look at the difficulties and obstacles encountered by such ICT coordinators which affect their role as leaders, in their environment, of the integration of ICT into their schools.

It is hoped that this research will give a broad look at the ICT coordinator's role in Irish secondary schools, their counterparts in other countries, and the aspirations of the job versus the factual delivery of the many diverse duties involved.
1.2 Broad Issues of Consideration

1.2.1 Job Description

How clearly defined are the various roles of ICT Coordinator in the many secondary schools in Ireland? The definition of the job, its boundaries and the specific duties involved are all major contributors to the extent of the workload of the position.

1.2.2 Appointment and Suitability

Who is doing the job and how did they get it? There are very many ways to get appointed to various positions. The issues which will have relevance to this research will be:

- Seniority – ‘next in line’?
- Was interviewed for role?
- Competition – ‘only applicant’?
- Relevant skills required or not?

1.2.3 Time

The issue of time will be a major point for examination due to the penetration of ICT not just into schools but into many other aspects of peoples’ lives. The less limits or boundaries set in the job description the wider the net for ‘soaking up’ time.
1.2.4 Support

This issue needs to be defined in the job description also. It may not be very consistent from one school to another because of the variety in the level of expertise of the people appointed to the post (this provides connections to appointment and suitability). ICT Coordinators may be very technically adept or may simply work the position in a non-technical project manager type role.

1.2.5 Technical versus Pedagogical

Broadly speaking, the duties of the ICT Coordinator will fall into one of two major categories - (A) Technical and (B) Pedagogical. The ratio of time spent between these two areas of duty will be examined closely. Issues relating to technical support, on the part of the ICT Coordinator, taking precedence over curriculum and pedagogical matters will be investigated thoroughly in the literature review.
1.3 Aims of the Research

The research will attempt to identify, from a range of sources, the variety and inconsistency in the workload of the ICT Coordinator in secondary schools in Ireland. These inconsistencies will be examined in the various contexts of the specific ICT Coordinators. Given their various positions in their organisations, is the workload commensurate with (a) status (b) reward and (c) time allowed? The literature which will be reviewed will give a better insight into the finer details of the positions and will enable a somewhat sharper focus for the planning of the methodology which will be used to collect current data from ICT Coordinators.
1.4 Structure of Document

This thesis is broken into 6 chapters. These are outlined below.

1.4.1 Introduction

This is the current chapter outlining the background of the research and giving a brief overview of the research undertaken. An outline of the thesis document itself is given here also.

1.4.2 Literature Review

In this section, some of the currently available and relevant literature will be examined with a general focus on the ‘workload’ of the ICT Coordinator. Research previously undertaken, from various parts of the world, will be investigated and key issues which affect the workload of the ICT Coordinator will be considered for inclusion in the methodology to further explore their consequences.

Based on the broad issues detailed in section 1.2, examples of questions which may be relevant include:

How is the ICT coordinator position in the school rewarded?
Is the roll voluntary or Paid?
What is the status of the position – does it carry much authority?
Is the ICT Coordinator used too much for technical support?
Does the position have fixed hours – is there time allowed for the duties?
How did the ICT coordinator get appointed to his/her position?
What support structure is available?
Other research carried out in similar schools around the world will be examined for comparison and contrast. Particular interest will be shown to education systems which demonstrate a more defined position of ICT coordinator, as opposed to the system in Ireland which allows the individual schools to define the position.

Also examined will be education systems which encourage or indeed provide onsite ‘technology assistants’ (to assist the ICT Coordinator in a technical capacity). The current Irish method does have its advantages i.e. the school’s specific needs can be addressed. But there are disadvantages too – namely, over reliance on the ICT coordinator, ICT coordinator being over-used for technical support etc... These ideas will be developed and demonstrated using reference to other papers and research in this area.

1.4.3 Methodology

This section will offer the rationale behind the research. The aims and objectives will be further refined based on the major issues arising from the literature review, and hence the relatively large number of questions being asked up to this point will be reduced to two or three main research questions.

Also in this section, a summary of the various types of (possibly suitable) research methodologies will be offered i.e. case study, survey, interview, action research etc... Their suitability to the task at hand will be measured and the method(s) of choice will be adopted. A breakdown of how each method will be devised and used in the research will follow. Ethical considerations will be offered in the context of the literature reviewed. Qualitative and quantitative styles of research will be investigated and the concept of triangulation will be discussed and considered.
1.4.4 Findings

The findings from the methodologies used – Survey and Interview – will be presented in this section. They will be categorised under the following headings using tables and charts where applicable:

- Job Description
- Time Consideration
- Support Available
- Professional Development / Pedagogical Issues

These headings were decided upon based on the issues arising from the literature review. It is accepted that these categories are not mutually exclusive and that the information offered in each section may directly or indirectly relate to a different section – time is organic to all type of task and hence, its consideration must be held in that regard.

A thematic analysis of the interviews conducted will be presented here with relevant quotations from the interviewees to back up any identified theme. Interviewee quotations will also be used for comparison and contrast with issues from the literature review and the open ended survey responses. For the most part, the analysis of the issues will take place in the following section.

1.4.5 Analysis and Discussion

Comparisons and contrasts will be drawn between chapter 2 (Literature Review) and Chapter 4 (Findings) under the aforementioned headings of:
• Job Description
• Time Consideration
• Support Available
• Professional Development / Pedagogical Issues

Newly arising issues or issues which differ from previous research will be explored and analysed here with due respect being paid to the limitations and validity of the research being examined.

1.4.6 Conclusions

From the analysis and discussion in the previous chapter, conclusions will be drawn. The categories used for structuring this section will be mainly the same as before but they will appear under the two main headings of each research question.

An observations section is included at the end for some general closing comments and recommendations.
CHAPTER 2 – LITERATURE REVIEW

2.1 The ICT Coordinator – General Background

In many different schools, in many different countries the ICT Coordinator position comes in many different forms. It is also called by other names such as technology coordinator. These positions vary from part-time to full-time positions, from voluntary to paid positions and, from positions where time allowances are provided to positions where there is no provision for extra time.

The different educational systems around the world allow for many add-on responsibilities to the standard teaching positions of regular teachers, in order that the schools may function more efficiently. Positions such as Class Tutors, Year Heads, Department Heads, Special Functions, Health & Safety, Career Guidance, Program Coordinator and a long list of many other job descriptions are quite necessary positions and complement the smooth and efficient running of the school. For example, in the Irish system the more common add-on posts have such titles as Special Duties Teacher (SDT), Assistant Principals and specialized Program Coordinator posts. These positions have salary or time allowances associated with them, or both in some cases. (See Appendix E)

The position of ICT Coordinator is not compulsory in Irish schools but it is seen, in the current climate of technological advancement, as a role which is quite important. In 2008 a survey was carried out by the Department of Education and Science (DES) in Ireland relating to the integration of ICT into primary and secondary schools in Ireland. This research was not based
specifically around the role of the ICT Coordinator but was a more general examination of the integration of ICT into teaching in Ireland. The current research undertaken will deal specifically with the ICT Coordinator’s role in this vast area.

In this survey ‘ICT in Schools – Inspectorate Evaluation Studies’, carried out by the Inspectorate for the DES in Ireland in 2008, it was found that there was a wide and varied approach to the role of ICT Coordinator in both primary and secondary schools across the country. The job descriptions of the ICT Coordinators in many schools were quite inconsistent. The people who undertook these roles came from a variety of backgrounds. Some had much technical experience, some had little, some were very keen on the job and some were reluctant about it.

In the “ICT in Schools” report (DES 2008), examples of the various duties which were associated with being an ICT Coordinator were presented. These examples are as follows:-

- Development of the ICT plan and coordinating its implementation
- Involvement in curriculum development
- ICT resources management, to include the auditing/purchasing of resources
- Installing software
- System administration, maintenance, and technical support
- Liaison with subcontracted technical support
- Liaison with the NCTE and other relevant support services
- Networking issues
- Identifying training needs and facilitating staff training
- Developing relevant links with outside agencies.

(Department of Education and Science 2008, p.74)
However, lots of the individual schools had many different approaches to describing the ICT Coordinator role. The report comments on the workload of the ICT Coordinator post, which is of particular interest to this research:

> It was clear from the evaluations, however, that there was little consistency among the different schools in the workload attached to posts.  
> (Department of Education and Science 2008, p.74)

Evidence from other papers examined will show that this seems to be the case in many other countries also. In this literature review, the workload of these ICT Coordinating positions will be examined, with a particular interest in their job descriptions and any time allowances made available.

A study of the role of the computer coordinator was carried out in Otago, New Zealand by Kwok-Wing Lai and Keryn Pratt in 2002. They found that “None of the ICT coordinator positions was a full-time position; rather it was considered an add-on responsibility” (Lai and Pratt 2004, p.465). This is very much the case in many of the schools examined in this literature review. In a related study Lynch, Hobbs and Hollanders (1999) describe how the majority of ICT Coordinator respondents in their study, shared the role with at least one other responsibility. In fact only 1 out of 34 participants in their study had no other responsibility other than the ICT Coordinator role (and his/her teaching schedule).

Despite the widespread growth in the use of ICT in schools over the last 2 decades, the ICT Coordinator position still only exists as an attachment or add-on position. This can leave the ICT Coordinator with a far greater workload, when his/her other school responsibilities (usually among which, is a full teaching timetable) are added to these extra duties of the ICT Coordinator position. In fact, in their particular study, Lai and Pratt (2004) found the position of ICT Coordinator was seldom occupied by junior teachers – teachers, who may indeed have had more time to engage with the role.
They note “that the majority of the ICT coordinators in this study were either senior managers or senior teachers” (Lai and Pratt 2004, p.466). These people would already have had extra responsibilities included in their position prior to taking on this extra role. In Ireland, ICT Coordinators have taken on the role in many different forms, and under many different arrangements. This research will examine these arrangements in detail.

Schools varied in the way they integrated the role of a nominated ICT coordinating teacher in their school management structure. While there was a nominated teacher in only a few of the primary case-study schools evaluated, the work carried out by such a person was usually either part of the duties attached to the post of responsibility of a special-duties teacher (SDT) or the sole duty of such a post.

(Department of Education and Science 2008, p.73)

In the Irish education system, from a recognition and remuneration point of view, there is no compulsory official position within the school set aside for the ICT Coordinator. The ICT Coordinator position must be (a) created, (b) defined and (c) filled from within the school staff. If the role is created outside of the official allowances scheme (See appendix E), then the school may have to fund the role from their own budget unless the role is taken up in a voluntary capacity. The arrangement under which the role is taken has significant time and monetary implications – this will be examined separately.
2.2 Job Descriptions and Duties

The job description, duties and the extent to which these duties are carried out plays a big part in determining whether the planned ICT objectives set out in the school's ICT plan (if one exists!) will be achieved or not. Vague job descriptions and unclear definitions of duties may result in failure to meet objectives.

…efficiency was found to be optimal in those schools where the role of the co-ordinator was clearly defined and the relevant tasks were discharged accordingly.

(Department of Education and Science 2008, p.75)

The broad guidelines to use, when creating the ICT coordinator's job description, offered in the report by the DES (2008) are as follows:-

- co-ordinating the development and production of the ICT plan
- Identifying training needs and facilitating staff training
- Developing strategies for the integration of ICT throughout the curriculum
- Liaison with senior management and advising on ICT strategies
- Evaluating the use of ICT and encouraging greater use by teachers and students
- Developing a means by which the ICT infrastructure can be maintained and upgraded.

(Department of Education and Science 2008, p.75)

What may be of note here is the technical versus pedagogical split. Essentially, the first five points above are of pedagogical or professional development nature. Only the last point refers to technical support which, this research hopes to show, takes up most of the ICT Coordinator's time.

Furthermore, in addition to the guidelines laid down by the DES in Ireland, many other job descriptions have been put forward in many countries and regions throughout the world. In the New Zealand study (Lai and Pratt 2004),
the duties of the technology coordinator were divided into general categories including:-

- working as a computer facilities manager
- working with school administrators and district-level educators
- working with teachers
- working with students

(Lai and Pratt 2004, p.463)

( Note: Only one out of three points above refers to technical support. )

And then these broad categories above were broken down even further to give a closer look at the day to day tasks of the ICT coordinator. These diverse non-exhaustive job descriptions will be major discussion topic in this research.

…technical support, short-term and long-term planning of instructional use of ICT; Helping teachers to develop curriculum materials and lesson plans; providing professional development for teachers; managing hardware and software, and resource budgets; supporting students; and evaluating ICT programs and professional learning.

(Lai and Pratt 2004, p.463)

Moreover, in keeping with the broad scope of responsibilities handed down to ICT Coordinators, Kennewell and Selwood (1997) go on to describe the enormity of the task facing some ICT Coordinators in stating :-

An IT coordinator in the UK secondary school is required to combine a daunting number of roles and skills. No other middle management role carries the same expectations of provision of in-service (INSET) training and cross-curricular support for colleagues, of technical expertise, and of whole-school resource management, frequently in addition to the management of a department responsible for teaching IT. as a specialist subject.

(Kennewell and Selwood 1997, p.340)

It should be noted that the mention of the IT specialist subject above, is in the context of the UK education system. In Ireland, for instance, no such specialist subject exists at present in the state examinations system. The debate for and against such a specialist subject is ongoing and is outside the
scope of this research. Not having this specialist subject in their school does not mean that an Irish teacher/coordinator has any less responsibility or workload. They will simply have a different subject allocation, and possibly less time with the IT facilities – which, for an ICT Coordinator acting in a technical capacity, may lead to unfamiliarity with ongoing technical issues.

An article examining the role of local authorities in the integration of ICT in learning in the Danish school system comments that “the ICT Co-ordinator role was defined as supervisor, technical and educational consultant … ICT infrastructure, ICT teacher training and participating in developmental projects were also outlined in the plan” (Bryderup and Kowalski 2002, p.477).

Furthermore back on the other side of the world, in the New Zealand study, Lai and Pratt (2004) contend that:-

Other than spending a lot of time maintaining equipment (ensuring everything was working), the ICT coordinators also had major responsibilities related to professional development and curriculum support such as:

- Keeping up to date with new innovations in the field
- Deciding Future directions for their schools
- Organizing and offering in-school professional development workshops and seminars, mentoring other teachers, and team teaching with other teachers
- Providing pedagogical support for use of ICT in their schools, envisioning and leading staff
- Presenting in conferences and leading staff development sessions in other schools

(Lai and Pratt 2004, p.464)

Many reports did comment on the ICT co-ordinators actual involvement in planning and professional development (Pedagogical in Nature) but these comments were usually accompanied (and generally outnumbered) by many
comments about the technical and maintenance problems which also became the ICT Coordinator's responsibility.

While it was found that teachers who acted as ICT co-ordinators were key players in schools’ ICT planning, planning duties were not the only ones attached to their role; indeed in some schools ICT planning constituted only a minor part of the role. In general it was found that, while the duties of the ICT co-ordinator were clearly defined in only a small number of schools, there was considerable variety in the tasks undertaken.

(Department of Education and Science 2008, p.74)

On a lighter note, a list of possible duties of an ICT Coordinator is discussed in a study of the English secondary school's system by Selwood and Kennewell (1999). They describe the non-exhaustive list of the duties of the role as “...a daunting list which, it is obvious that only superman/woman could actually perform but many ITCs [ICT coordinators] are expected to fulfil such a role.” (Selwood and Kennewell 1999, p.5).

It can be seen that the job descriptions, while different in some of the specifics, are quite broad and capable of encompassing quite a collection of tasks. It must be noted again that, in Ireland, this ICT Coordinator is, for the most part, an add-on responsibility to what is an already fulltime teaching position.

Despite all of the terms and descriptions of the tasks of the ICT Coordinator, it appears that each task can be placed into one of two main categories:-

- Technical
  - Product Sourcing / Purchasing
  - Configuring / Setting up
  - Maintaining / Fixing
  - Planning (Upgrades and End-of-Life Disposal etc…)
• Pedagogical
  o Resources / Media
  o Professional development for Staff
  o Training
  o Planning (curriculum based)

Much evidence is pointing towards the technical category above being the one that takes up most, if not all of the coordinator’s time. There are many indications that the coordinator’s responsibilities are time consuming, Lai and Pratt (2004) comment how:

One school had recognised this issue, with its board of Trustees funding their ICT coordinator to be employed full-time, but to teach only 12 periods per week (the minimum allowable to be still called a teacher in New Zealand)

(Lai and Pratt 2004, p.471)

This would provide the coordinator adequate time to carry out his/her duties. It would mean the actual work done would be more in line with the recommended list of duties or job description.

Currently in the Irish education system this would be a similar situation to perhaps, someone on job sharing i.e. the position would be tenable as a teacher and the school could subsidise the teacher for the ICT dedicated hours. This would provide some of the much needed time to effectively carry out duties in both the Technical and Pedagogical categories.

There are other add-on positions, which include a time concession on standard timetabling, provided by DES called ‘Program Coordinators’. These positions do get some time allowance in their timetable towards carrying out their duties. There is no such position assigned in the category of ICT Coordinator. This issue will be examined in the next section where a closer look will be taken at the ‘time’ considerations for the role.
2.3 Time Allowance

While the provision of time to carry out such duties is of vital importance to the ICT coordinator, in the literature it was found that it was seldom provided. In New Zealand Lai and Pratt discovered that:

…the ICT coordinator is not a full time position and the majority of the ICT coordinators interviewed in this study received little or no time allocation for their work.

(Lai and Pratt 2004, p.471)

They also comment how “One ICT coordinator had no extra time allocated for his role and he had to use his own time to complete work during holidays.” (Lai and Pratt 2004, p.471). This type of situation is certainly not going to be welcomed by anyone in the role and would no doubt cause stress and anxiety to the coordinator if he/she was ‘expected’ to carry out work during what is clearly personal time. Consider the effect that stress and anxiety would have on this teacher’s class time – taking into account that it’s generally accepted that class contact time is quite energy draining to begin with.

The allocation of time is vital for the coordinator’s work. Heavy workloads can have adverse effects on both the coordinator himself/herself and the people with which he/she is working. In a study on the role of the ICT coordinator in the primary school in the UK, the levels of stress experienced by ICT coordinators were examined.

...whilst it is recognized that a certain amount of anxiety is both inevitable and useful when undertaking a new and challenging task, overmuch anxiety causes distress and reduces the ability to empathize with the struggles experienced by others.

(Lynch et al 1999, p.38)

They go on to describe how “the levels of anxiety discovered in this study where high. The result is likely to be that frustration and criticism replace empathy and support.”(Lynch et al 1999, p.38). A situation like this (where essentially the ICT Coordinator may be unreceptive to requests for
assistance) might cause an otherwise ‘keen to learn’ colleague to refrain from asking the ICT Coordinator for help or guidance.

Furthermore, the effect of the emphasis being on resolving technical issues can be seen on the professional development planning. “...because of their workload, many ITC’s see the professional development of colleagues as a problem rather than an opportunity.” (Kennewell 1997, p.350) In Ireland some coordinators felt that this troubleshooting role “…sometimes distracted them from their teaching duties, especially where colleagues called on them to solve technical issues during teaching time.” (Department of Education and Science 2008, p.75)

These comments point to the need for either (a) time to be granted to the ICT Coordinator to fulfil the role properly or (b) an onsite technology coordinator to be appointed (even in a part-time capacity) to alleviate the workload. Irrespective of the official title attached to the position of ICT Co-ordinator in Ireland, there is no associated time allowance granted for the purpose of carrying out the duties despite the recommendations of the DES.

…school management personnel should ensure that their ICT co-ordinating teacher has adequate time to perform their duties in an effective manner.

(Department of Education and Science 2008, p.75)

This is nothing more than a recommendation and while it may be taken up in some cases, the evidence from this literature review tends to point towards the ICT Coordinator having to ‘create’ the time to carry out even just some of the many tasks which seem fall under his/her collection of responsibilities.

In a U.S. study by Strudler 1994 (cited in Lai and Pratt 2004) he maintains:-

…that without the time allocation for the coordinator to provide the leadership to establish a shared vision and develop a school plan, integrating ICT into the school curriculum is unlikely to occur.

(Lai and Pratt 2004, p.471)
Strudler 1994 (cited in Lai and Pratt 2004) also recommended that schools should consider having on-site technology coordinators to support the ICT coordinators in their task of integrating technology into the school curriculum.

In Kennewell and Selwood (1997), ICT Coordinators were invited to add comments to some open ended questions on the questionnaire, they [Kennewell and Selwood] contend that the comments:-

...revealed that many ITCs [ICT Coordinators] are feeling under great pressure to fulfil a variety of roles, with inadequate time, often no technical support and a lack of understanding of the issues by senior management.

(Kennewell and Selwood 1997, P.343)

Also relevant here was the statement “…for these ITCs [ICT Coordinators] it is not the nature of the tasks which make them difficult but the sheer number of them” (Kennewell and Selwood 1997, P.343) This pressure from the large amount of responsibility on the ICT Coordinator, whether it be ‘put upon’ them or ‘brought upon’ themselves, has repercussions for him/herself, for the surrounding staff and can have adverse effects on the quality of work being carried out. The ICT Coordinator's job “is about co-ordinating both a subject and the people who are being asked to handle that subject.” (Lynch et al 1999, p.39)

Kennewell and Selwood (1997) also note the difficulties encountered by ICT Coordinators in trying to carry out the full complement of duties effectively. “…keeping equipment running from day to day is seen as a necessity, whereas curriculum matters are less pressing.” (Kennewell and Selwood 1997, p.350) The visibility of mal-functioning hardware is immediately obvious (even to the user with very little technical knowledge)) whereas the visibility of curriculum matters being left aside is far less obvious to the teacher in their daily work. These unattended curriculum matters can slip nicely into the background and often remain there until such a time that the ICT Coordinator gets a break from the technical issues to deal with them.
It can be very much the case that what starts out as a challenge for a newly appointed ICT Coordinator (New Technology, New Techniques, The Future etc…), ends up as a chore. It is a mistake for an ICT Coordinator (or indeed a prospective candidate for the role) to look forward, only into the new technology. Schools, like any business, have budgets and very often have to work with below standard hardware.

It is also clear that ITCs see ever more powerful and easy-to-use computer systems coming onto the market, but are expected to use non teaching time to keep old and idiosyncratic equipment running rather than to update their knowledge of new resources.

(Kennewell and Selwood 1997, P.351)

For the ICT Coordinators, the question of ‘time’ seems to far out-weigh the need for extra technical training. The literature is broadly demonstrating that the personnel in these ICT Coordinating positions are enthusiastic and enabled but discontented at the lack of time and support to fulfil the role properly.

The lack of time in supporting colleagues to integrate technology into the school curriculum was clearly an obstacle for these ICT coordinators to provide more effective leadership. Time is needed for planning.

(Lai and Pratt 2004, p.471)

If some way can be found to ‘create’ time for these Coordinators, the ‘effective leadership’, which is required, could be delivered. The appointment of a dedicated technology coordinator would, by default, remove the duties attributed directly to technical support thus granting the required time. Schools could also take a look at the Coordinator’s teaching timetable and re-allocate some teaching classes to other teachers. This situation may be applicable where the coordinator is happy to continue in their technical capacity (which is of more benefit to the school versus external technical support) and he/she requires the extra time to be in a position to include the coordinating of tasks which are pedagogical in nature. This may not suit a situation however, where the ICT Coordinator does not want to take on the technical challenges. External support may be the only option then.
2.4 Professional Development and Planning

While there may be much in the way of planning for the professional development of both the ICT coordinator and his/her colleagues written down on paper in many different establishments, the lack of time described above, negates much of the great work that goes into this planning.

Most of the interviews with ICT co-ordinating teachers revealed that they would like to see their role having a greater emphasis on pedagogy than on the area of systems administration and maintenance.

(Department of Education and Science 2008, p.74)

This issue of time provision recurs often and “instead [of pedagogical related work], Co-ordinators found a lot of their time was taken up with technical or troubleshooting issues.” (Department of Education and Science 2008, p.74)

There exists the possibility of dividing up the technical and pedagogical duties to separate in-house personnel. However, it may turn out, that if communication between the two personnel was poor, a situation may occur where inconsistencies in approach may lead to poor inefficient curriculum integration. There needs to be uniformity of approach.

School based professional development is better organised and facilitated by the ICT Coordinators, who usually have a deeper understanding of integrating computer technologies into the school curriculum and can provide a roll model for teachers.

(Lai and Pratt 2004, p.462)

The professional development of both the ICT Co-ordinator him/herself and the class teacher has to be considered. However, it appears that part of the duties of the ICT coordinator (according to the general job descriptions), is his/her direct involvement in the professional development of his/her colleagues. Some of these key roles that are described as being part of the job of the ICT coordinator, and listed in the previously quoted research,
include identification of training needs, organizing and offering in-school professional development workshops and seminars, mentoring other teachers, team teaching with other teachers and many other similar roles.

Moreover, different teachers have different degrees of ICT skills. In any given classroom situation the teacher must occupy a leadership role. Without the relevant skills, the teacher may not be capable of using the technology most efficiently and the integration of ICT into their teaching classes will be of poor quality, if indeed it is attempted at all. In a paper about the integration of ICT into schools and colleges, the following comment is offered:-

> Teachers themselves are often identified as one of the main limitations on the successful use of IT in the classroom. This is often seen as a result of their fear of the computer or a lack of skilled or understanding of how IT can enhance the educational experience of students.

Lawson and Comber (1999, p.42)

This can be seen to be connected to the availability of the ICT Coordinator, to help to train or organise training of teachers, such that they can equip themselves with the necessary knowledge in ICT. If the ICT Coordinator’s time is taken up with technical issues most of the time, the training and education of staff members can suffer. In this context, a case study on Greenfield College, England (2000) as part of the OECD\(^1\)/CERI\(^2\) ICT Programme, staff ICT competence was contested against infrastructure and student competence. The report claims “that teacher competence was a critical factor in successful implementation in ICT rather than student competence or technical infrastructure … there was an expectation that ICT resources would work.” (Leask and Kington 2000, Section 1.3.3)

In the context of training, could it possibly be the case in some establishments, that in some cases despite the demand for funding for new

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\(^1\) Organisation for Economic Co-operation and Development
\(^2\) Centre for Educational Research and Innovation
technology, the already on-site available technology is being under-utilized because of lack of training? This may be a reference to a regular computer or a computer which is particularly modified for carrying out a specific function or a dedicated piece of hardware which may look a little ‘alien’ to the average teacher. In the Danish study on ICT Integration, one survey respondent commented that “you would never install a new piece of machinery in say, woodwork and expect teachers to use it without having had adequate training.” (Bryderup and Kowalski 2002, P. 477)

However, the training and professional development of an ICT Coordinator and indeed staff of any school should not be viewed in the singular context of how to operate individual pieces of hardware, but rather planned out in a more integrated and ongoing manner. “...self contained and one-off ICT professional development is ineffective.” (Lai and Pratt 2004, p.472)

There is much information and expertise that can be pooled or shared between personnel in different schools. ICT coordinators would benefit from each other’s knowledge – the advantages and disadvantages of systems, hardware and software, specifically relating to its integration into their education environment. “ICT coordinators should therefore be facilitated in setting up an association or network of schools’ ICT. Coordinators” ³ (DES 2008, p.75)

The extent to which the ICT Coordinator plays a part in the planning of ICT in the school has to be of crucial importance to the integration of ICT into the

³ Currently in development by the National Council for Technology in Education(NCTE), is a network of ICT Coordinators. Funding may determine the extent to which it is developed but at least some point of entry to communication exists (in the form of a forum) to facilitate knowledge exchange between ICT Coordinators across Ireland. (Source: ex-ICT Advisor to Schools: Interview 3)

So far, much of what has been discussed is to do with the practical and technical support role which the ICT Coordinator takes on. The ICT Coordinator also needs to have a place at the table where policy is set and planning is done.

…the ICT Co-ordinator also needed to have an appreciation of the curriculum and the pedagogical issues which the new technology raised, and not just a narrow technical view of the problems associated with integration.

(Lawson and Comber 1999, p.51)

…besides supporting the immediate needs of teachers walking around, doing nuts-and-bolts activities similar to what a technician does, the ICT coordinator was also involved in policy making.

(Lai and Pratt 2004, p.464)

While many ICT Coordinators wish for such a position, the reality appears to be that they spend quite a lot of their time ‘doing nuts and bolts activities’. However, an ICT Plan (no matter how complicated it may be when completed) can begin with a few simple steps written down. Many good ideas are passed around between staff members informally or at unrelated meetings. In research on the Integration of ICT into Danish Schools, one Principal said “… while the school’s ICT vision flourished in meetings and debates in the teacher rooms, this vision had not been captured on paper.” (Bryderup and Kowalski 2002, p.477)

Also, the ICT Coordinators who design the ICT Plan for their school (either completely or in part) must be acutely aware that the plan will only be of benefit if it is put into action.
The existence of a written ICT plan and strategy does not guarantee the comprehensive use of ICT in schools, nor does the absence of an ICT plan necessarily equate to the lack of ICT integration in a given school (Bryderup and Kowalski 2002, p.472).

For the ICT Plan to be workable, the person who should be in closest proximity to its implementation (the ICT Coordinator) needs to have ‘bought in’ to all of the parts of the plan. It is then and only then can they ‘coordinate’ its implementation properly. Lawson and Comber in the UK sum this up nicely:-

…at the level of the staff, an independent and proactive ICT coordinator who has both financial responsibility and enough time and status to plan and implement strategies for integration is also important. (Lawson and Comber 1999, p.51)
2.5 Support Provision

It is all very well to have clearly defined duties set down, but in the case of the ICT Coordinator, so many of their non-technical duties are dependent on the operational status of the technology in question. This technology underpins the pedagogical and educational efforts which happen around it. Clearly the support provided to the ICT Coordinator in this capacity is of prime importance.

The ICT Coordinator, with such descriptions of duties as can be found in the DES report (2008) on page 75 (and quoted in section 2.2), clearly cannot manage all of these duties, if the extent of his/her technical duties goes to include all technical support.

It may be feasible to put a system in place for maintenance and upgrades, such as taking out a contract with an external IT solutions company. If funding is available then this is a beneficial option for both the school and ICT Coordinator. However, situations will always arise from day to day, when some small technical problems need solving as a matter of urgency and a call out to a technical contractor may result in a slow response time. In this situation the ICT Coordinator may be asked or indeed expected to step in. Reilly 1999 (cited in Lai and Pratt 2004), compares this roll of ICT Coordinator to that of an ‘Electronic Janitor’.

From such studies as Kennewell and Selwood back in 1999, right through the decade to 2009, it appears that the advancements in technology have not been met adequately enough with advancements in support and provision for this new era of ‘technology everywhere’. “...while there have been major advances in the level of implementation [of technology], little has occurred in terms of either integration, in any depth, into the curriculum or, more
significantly, change in teacher practice.” (Ward 2002, p.587). Also in one of the case studies in the Danish study, it was found that:

The failure of the municipality to provide adequate technical support and ICT resources has resulted in the school striving to meet the Act on the Folkscole [parliament ‘education act’] by finding its own creative solutions...

(Bryderup and Kowalski 2002, p.475)

Lai and Pratt (2004) maintain that a technical support person is needed, such that the ICT Coordinator can “spend their time more effectively in terms of enabling and encouraging the integration of ICT into the curriculum.”(Lai and Pratt, p.469) However, their study did report that 40% of Coordinators said their role was primarily technical, 40% said it was primarily curriculum based and the other 20% said it was evenly split.

Shown below are two relevant quotes from respondents (ICT Coordinators) in comments from the New Zealand study showing the technical type role versus the curriculum based role:

‘[I show them] how to mail merge, clearing paper jams, where the on/off button is! Everything and anything in fact – all day long - at intervals and lunchtimes I’m frequency tempted to hide.’

‘My main role is curriculum based…Mainly getting teachers up to speed, with software and using computers in general, you know, targeting particular software to curriculum needs or immediate needs at the time.’

(Lai and Pratt 2004, p.469)

“ITCs [IT Coordinators] have less than four hours per week on average to support and coordinate IT; much of this may be taken up with relatively technical matters.” (Kennewell and Selwood 1997, p.351) Time and support can be traded off against each other in many ways. If the ICT Coordinator has more time available, he/she can do more support. If support is provided in parallel with the ITC Coordinator then the other non-technical duties can be carried out.
Arising from another of the OECD/CERI programme case studies (Ireland, 2001) is this key statement. “Where good practice exists, positive school leadership, the presence of an effective IT specialist and the availability of professional support and guidance have been important factors in its development.” (Gleeson et al 2001, p.6) The key phrase in this quotation is the ‘presence of’ an IT specialist, not the ‘availability’ of one. This person is required to be present – another indicator of the frequency of technical support issues.

With all the demands mentioned heretofore, particularly on the time of the ICT Coordinator in dealing with technical matters, it is clearly evident that some support in this area would be of benefit to the ICT Coordinator and therefore the school itself. It would allow him/her the time to carry out his/her non-technical duties. Many ICT Coordinators see this shift towards the Pedagogical support as being of prime importance. Lai and Pratt maintain that

A major responsibility for the ICT coordinator is to provide curriculum support rather than technical support to their colleagues … One clear conclusion from the literature is that the ICT coordinators should not end up doing everything related to ICT in the school, simply by default.  

(Lai and Pratt 2004, p. 470)

They argue strongly that ICT Coordinators are primarily teachers and, as such, their main responsibility is teaching and learning – hence, conversely, not being completely responsibility for technical support.

A study on the integration of ICT into schools and colleges in 1999 found “…most of the ICT coordinators were also instrumental in restricting access to some of the facilities of ICT provided. Usually this was because of their fear of losing control over the use and abuse of some of the opportunities.” (Lawson and Comber 1999, p.48) However it could be argued that it was not fear over losing control, but that the ICT Coordinators simply don’t want the technology to be abused to the point where more problems with its operation occur.
(hardware or software issues) and hence the technology becomes unavailable until technical support is provided. A less restricted approach with more open access could be offered if the systems were setup and monitored by a dedicated technology person. This could also lend itself to more efficient systems with less downtime. Dedicated support personnel would have the time and expertise to set systems up and plan their setup properly. Much evidence points to the ICT Coordinator not having the time (if even the expertise) to plan a system properly and often the ‘fast fix’ is used which can ultimately lead to more downtime as software and operating systems malfunction.

In the context of support provision in ICT in general, while stated in 1997, this writer’s use of the word ‘firefighting’ may still ring true today. This research will attempt to find out if much has changed in the last decade.

There is still a degree of ‘firefighting’ in the nature of support of IT in schools which may inhibit ITCs from conceptualising the place of IT either as an element of the curriculum in its own right or as a means of improving teaching and learning generally.

(Kennewell and Selwood 1997, p.351)
2.6 Conclusion

From the Literature examined, many issues have been raised. Clearly one common issue from many of the authors is to do with the scope of the duties of the ICT Coordinator. Within this broad issue, there are several sub-issues and these will need to be addressed during the course of the research.

2.6.1 Time

The issue of ‘lack of time’ occurred very often. It must be noted that there is a direct proportional relationship between the broadness of the scope of duties and the lack of time to carry them out i.e. the issue of ‘lack of time’ for carrying out duties tended only to occur in situations where the scope of the position was quite wide or indeed open-ended (not clearly defined). In other words, ICT Coordinator roles do exist where the person has enough time to carry out their duties because the appropriate arrangements for support etc… are in place – in the reading of the literature, these situations do seem rare however.

In their report, the DES (2008) calls for adequate time to be provided for ICT Coordinator duties. Lai and Pratt (2004) and Kennewell and Selwood (1997) found the ICT Coordinators received very little time for their work and also concluded that without the appropriate time provided, successful ICT integration was unlikely to occur. This lack of time will be addressed in the methodology of the research.
2.6.2 Appointment and Suitability

Another emerging issue is the ‘skill set’ and suitability of the individual for the position. Could the interest in the position, shown by a suitable candidate be poor because of the demands it places on him/her? How the ICT Coordinator may have been appointed to the job in the first place is a crucial question, when you consider such responses as were received by Lynch, Hollanders and Hobbs (1999) when they interviewed seven ICT Coordinators. Of the seven ICT Coordinators interviewed, only one showed an interest in taking on the position. Two others said they’d take the job ‘because nobody else wants it’, two more said ‘if anyone wanted the job I’d give it to them tomorrow’ and one more said ‘Couldn’t turn it down. I was grateful for a permanent contract.’

2.6.3 Professional Development and Planning

It has been shown that most ICT Coordinators would like to be more involved in the pedagogical area of their role. The opportunity to train and educate their peers would be very welcome. The ICT Coordinator has been shown to be in an ideal position to select the type of training required and to have a hand in planning the ICT needs of the school. The methodology will seek current information from candidates in this regard.

2.6.4 Technical versus Pedagogical

One other issue to arise is the technical versus pedagogical argument. Evidence has been shown of ICT Coordinators having many noble ambitions in their job description but when it comes to the reality of the situation the technical issues absorb a lot of the available time,
...it is not the nature of the [technical] tasks which make them difficult but the sheer number of them.  
(Kennewell and Selwood 1997, p.343)

...keeping equipment running from day to day is seen as a necessity, whereas curriculum matters are less pressing.  
(Kennewell and Selwood 1997, p.350)

2.6.5 Support Available

The support available to ICT Coordinators was, indirectly, another key issue. This also has a direct link back to the ‘lack of time’ issue. In the reading of the literature, what emerged often was the ICT Coordinator’s ‘direct’ involvement in support (quite often to a large degree). Also the treatment of the ICT Coordinator as a sort of ‘fix everything to do with ICT’ was evident in the literature. These support issues will be addressed in the methodology also.

While the issues which have emerged can seem discrete and distinct from each other, they are all inter-connected under the broad heading ‘Workload’. This is the key area being examined in this research. A snapshot or picture of the current conditions of ICT Coordinators will be sought and then examined under the previous headings.
CHAPTER 3 – METHODOLOGY

3.1 Rationale

3.1.1 Why this Research?

The expectation, from much of the literature, is that while the ICT Coordinator positions may have job descriptions which define various aspects of training, ICT integration, planning, curriculum development, software reviewing, etc… the ICT Coordinators themselves are in fact spending most of their time doing technical support, and considerably less time on the aforementioned topics. This researcher, from personal experience, tends to agree with this, so a closer study of the ICT Coordinator position in the secondary school system in Ireland was required.

3.1.2 Aims and Objectives

From the literature it emerges that the primary difficulty (although not the only one) experienced by ICT coordinators and indirectly by the teachers they ‘support’, is the lack of provision of time for duties. Moreover, from the literature examined, a lot of the time, which the ICT Coordinator uses for his/her duties, seems to be taken up with technical support. It seems pertinent then, to question research candidates regarding the use of their time. In particular, how much of it is dedicated to pedagogical issues or professional development?
Support for the ICT Coordinator in terms of training (and again, time for training) is another issue and the idea of hiring a technology assistant to work onsite with the ICT Coordinator is relevant too.

Broadly speaking, all data to be collected should be relevant to the ‘workload’ of the ICT Coordinator. To be more specific, the aims and objectives of this research are to collect data on the ICT Coordinator position which can provide answers to the following key questions -

**Research Question No.1**

In the current technological climate, is there too much expected of the ICT Coordinator, in terms of technical support?

**Research Question No.2**

Due to the growing use of ICT, is there a necessity for more recognition of the importance of the position within the school?

The surveys and interviews will be carried out in the following contexts:

- Job Description - Skill Level and Suitability
- Time Provision for Duties
- Support (Internal / External)
- Involvement in Professional Development and Planning
3.2 Research Methods Examined

3.2.1 Qualitative versus Quantitative

One significant difference between these two types of research, according to Francisco et al (2001), is that qualitative methods provide greater depth of understanding about a limited number of subjects, whereas quantitative methods give a less in-depth understanding, but cover a wider scope of subjects. They also comment that the qualitative methods, being less systematic, are less likely to be generalised to a wider population whereas the quantitative systematic approach lends itself to replication.

Altogether, a complementary mixture of quantitative and qualitative data will be sought in the methods chosen, where the strengths of each approach can be utilised to the full. As Merton and Kendall (cited in Cohen and Mannion, 1994, p.40) comment, “Social scientists have come to abandon the spurious choice between qualitative and quantitative data: they are concerned rather with that combination of both which makes use of the most valuable features of each.”

Different types of research methods, both quantitative and qualitative types, perform differently in different situations. The survey will contain quantifiable data i.e. data which can be counted, compared, percented and analysed numerically. However it will also contain qualitative type data i.e. data from open question responses where the candidate can ‘reveal’ their thoughts, ideas or answers in a little more depth. Four types of method were pre-selected for examination of their suitability to the current research. What
follows is a brief summary showing the methods’ suitability or non-suitability for this research.

### 3.2.2 The Case Study

In considering the various tools used in carrying out various types of research, this researcher ruled out a ‘case study’ approach. While case studies can produce valid results in a suitable research scenario, it was felt that an observational role of a limited number of subjects would not be the best course of action in this research. The ICT Coordinator role is a part-time position and it would be hard to accurately predict when the ICT Coordinator would be doing ICT related work. Significant periods of time would need to be spent observing an ICT Coordinator in his/her place of work to establish any valid generalisation.

The purpose of such observation is to probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalisations about the wider population to which that unit belongs.

(Cohen and Mannion 1994, pp.106-107)

It provides the opportunity to ask penetrating questions and to capture the richness of organizational behavior, but the conclusions drawn may be specific to the particular organizations studied and may not be generalizable.

(Gable 1994. p.113)

Also in observing the ICT Coordinator and his/her ICT associated workload would involve periods where the ICT Coordinator would simply be the subject teacher, teaching his/her subject in his/her classroom. For these reasons the ‘case study’ observational type approach is not suitable here.
3.2.3 Action Research

Action research has been defined as “the small scale intervention in the functioning of the real world and an examination of the effects of such an intervention.” (Cohen and Mannion 1994, p.186) Because this researcher's primary objective is to gather data, and as there have been no hypotheses ('What if' type scenarios) formulated regarding intervention in the ICT Coordinators 'real world' in any specific way, this method of research is not suitable right now. It could be said, for this research at the moment, that there are too many variables and undiscovered issues as yet.

Cohen and Mannion (1994) deem action research appropriate, when specific knowledge is required for a specific problem in a specific situation. This researcher's 'specific problem' is the workload of the ICT Coordinator, which has very broad scope and is actually non-specific in relation to Cohen and Mannion's description. Similarly the 'specific knowledge' doesn't exist yet and the 'specific situations' are in fact, non-specific multiple situations.

Cohen and Mannion (1994) offer one more scenario where action research may be appropriate and that is “when a new approach is to be grafted onto an existing system.” (Cohen and Mannion 1994, p.194) No new approach has been proposed in this context as of yet, so this scenario doesn't apply either. If particular 'small scale' issues are subsequently identified in this research as affecters of the ICT Coordinator's workload, an 'action research' follow-up based on the changing of certain approaches, like the scenario mentioned above, could possibly be carried out.
3.2.4 The Survey

The survey tends to gather data at a point in time which describes existing conditions and/or possibly identifies relationships or standards which can be measured (Cohen and Mannion 1994). The survey can be scaled small to large - simple or complex. It can have relational aspects or simply contain discrete data.

Thus, surveys may vary in their levels of complexity from those which provide simple frequency counts to those which present relational analysis. (Cohen and Mannion 1994, p.83)

The strength of the survey is its adaptability. There is wide variety in the type of question which can be asked. At one end of the scale, completely ‘fixed alternative’ options (closed) and at the other end ‘open questions’. Because the questions are pre-set, “Survey research is inflexible to discoveries (relatively poorer 'discoverability') made during data collection.” (Gable 1994, p.114) This helps the argument for a multi-method research approach.

Online Surveys have become increasingly popular with the growth in internet usage. Many features of online survey design are unavailable to the standard paper based questionnaire. These features can help the researcher to enrich the survey experience (with multimedia if required) and gain a better control over it.

If a survey uses the Web, respondents can benefit from the automatic question filtering function. In addition to making the survey experience smoother for the respondent, researchers also realize benefits from this technology. (Woong Yun and Trumbo 2000, section: Literature Review, para.27)

Stanton 1998 (Cited in Woong Yun and Trumbo 2000) reports obtaining less missing data from a Web survey since the program can skip irrelevant questions. Dropout rates may decrease somewhat as this feature may possibly “lessen the respondent's cognitive load to some degree.” (Woong Yun and Trumbo 2000, section: Literature Review, para.27)
3.2.5 The Interview

The interview has been described as “a two-person conversation initiated by the interviewer for the specific purpose of obtaining research relevant material, and focused by him on content specified by research objectives of systematic description, prediction, or explanation” (Cannell and Kahn, cited in Cohen and Mannion 1994) Validity in interviewing is a key issue and the interviewer must make every effort in the design and execution of the interview to “minimise the amount of bias as much as possible” (Cohen and Mannion 1994, p.281) Not alone must the interviewer try to stay objective, but must also try to develop skills, such that the interview itself and the data obtained are in line with the objectives set out. The concept of ‘Theoretical sensitivity’ brings together some of the finer points of the art of interviewing:

Theoretical sensitivity refers to a personal quality of the researcher. It indicates an awareness of the subtleties of meaning of data … [it] refers to the attribute of having insight, the ability to give meaning to data, the capacity to understand, and capability to separate the pertinent from that which isn’t.

(Strauss and Corbin 1990, p.42)

Patton 1990 (cited in Hoepfl 1997) gives three types of qualitative interview (1) informal, conversational interviews (2) semi-structured interviews (3) and (3) standardised, open-ended interviews. An interview guide should be used by the interviewer to keep the interview on track. Kerlinger 1970 (cited in Cohen and Mannion 1994) suggests that questions fall broadly into two categories (a) ‘Fixed Alternative’ and (b) ‘open-ended items’. Type (a) offers the options such as ‘yes’/’no’ or perhaps ‘yes’/’no’/’I don’t know’, whereas type (b) responses are only limited by the question itself and the general context of the interview.

Cohen and Mannion (1994) contend that the overuse of type (a) above could possibly irritate respondents who “find none of the alternatives suitable.” (Cohen and Mannion 19994, p.276) and they suggest mixing type (b) with
type (a). Note that the data from ‘fixed alternative’ questions are of a quantitative type whereas the data from the ‘open-ended items’ are more qualitative and allow for further probing if deemed appropriate by the interviewer. Interviewing can be used stand alone but the measure of its validity can be improved alongside some other research method.

3.2.6 Selected Methods

Having examined the various methods of research available, two methods were decided upon. Since the required objective is to collect data relating to the subject, the survey will be the primary research method. Given the background of the prospective respondents the survey will be carried out online. In addition, some interviews will be carried out with candidates who have relevance to the ICT Coordinator in the secondary school. This information will provide suitable triangulation (See section 3.6) for the research, as the interviewing of these particular candidates, in its organic nature, should provide some interesting qualitative data which can be analysed in the context of the survey responses and literature findings. The survey data will be collected prior to interviewing and in this way the interview will also be used to develop any issues which may arise in the survey responses.

3.2.7 Ethics

Ethics are important in the course of research and it is incumbent on the researcher to see that no breach of standard ethical code is made. “Researchers must strike a balance between the demands placed on them as professional scientists in pursuit of truth, and their subjects’ rights and values potentially threatened by the research.” (Cohen and Mannion 1994, p.347)
All participants in the survey were given guarantees of confidentiality in the first email which they received inviting their participation. It was made clear that it was voluntary and that all information was to be coded for analysis purposes thus maintaining anonymity (external from the researcher as some candidates volunteered their contact details).

The interviewees were informed of (a) the purpose of the research (b) their promise of confidentiality and (c) their right to withdraw at any point. There was an agreement to copy the interviewees with the transcript of the interview when completed. This was duly carried out, and no issues arose from the transcripts.
3.3 The Questionnaire

3.3.1 Design

The medium chosen, based on the sampling strategy and the expected respondent type, was the electronic or online questionnaire. The questionnaire was designed using a subscription based online survey building tool. This survey design tool can be found at:-

http://www.surveyconsole.com

The design features provided in this domain are comprehensive. Of particular interest were conditional branching and a technique called piping along with some nice reporting and cross referencing tools. In-keeping with the guidelines laid down by Cohen and Mannion (1994) the conditional branching will make sure that respondents are not asked irrelevant questions. These questions may unnecessarily lengthen the time taken to complete the questionnaire and may cause the respondent to get irritated and terminate the survey prematurely. It also avoids the issue of empty/blank answers in irrelevant questions. Some of this branching is identified in the hardcopy printout of the questionnaire in appendix A.

The questionnaire has a personal and school details section at the start. This is to gather contact and demographic data. The requests for any specific contact information were left as options to the respondents. Confidentiality

---

4 Conditional Branching allowed for flowchart-type progress through the questionnaire. The pathway in the survey would depend on the answer to the previous question.
5 Piping enables you to carry text from one question to the next depending on the options selected by the respondent.
was guaranteed in the ‘splash page’ and re-affirmed again in some of the questions in this section. Following this section, to address the issues uncovered in the literature review, the survey is broken into three sections:

1. The ICT Coordinator Position – Skills and Time
2. Support Structure
3. Professional Development

The issues arising from the literature review are covered in a somewhat overlapping sense in these three sections. There is a careful mix of ‘closed’ and ‘open’ questions in order not to overly restrict an enthusiastic respondent. The language used is kept as simple and straightforward as possible in order that ambiguity and confusion be minimised. Mutually exclusive answer options were checked for overlap.

“If you want people to understand better than they otherwise might, provide them information in the form in which they usually experience it.”

(Lincoln and Guba 1985, p.120)

3.3.2 Piloting the Questionnaire

Five teachers in the author’s own school along with a further three from other schools agreed to pilot the questionnaire. They each took the survey a number of times – each time taking on different roles (ICT Coordinator / Regular Teacher etc…) and providing different answers and pathways through the survey. Feedback was received and some adjustments were made.

_________________________

6 The opening page of the survey which contains a welcome greeting and other relevant information about the candidates’ rights to withdraw, time expected for completion etc....
These adjustments were broadly to do with the navigation through the questionnaire – it appeared that the consensus was that there was too much ‘jumping about’, so the navigation was simplified. Also arising was the request for some extra ‘Other’ sections on the ‘fixed alternative’ type closed questions. Two teachers commented on the fact that sequential questions of the same context were on separate pages. This was due to the ‘Conditional Branching Logic’ – in situations where the branching was necessary this was left unchanged. The ‘Pilots’ accepted this decision.
3.3.3 Selection of participants

This research adopted a non-probability sampling approach. The candidate sought is part of a closed group – ICT Coordinators. To attempt to get relevant data from a probability (Random) sampling approach would have meant polling a very large population of candidates. The process of selecting candidates' data for analysis, might then introduce various types of bias and error.

There are various ‘non-probability’ sampling approaches such as: convenience sampling, quota sampling, purposive sampling, dimensional sampling and snowball sampling - these are the chief methods according to Cohen and Mannion (1994). Patton (1990) writes that purposeful sampling is the most common strategy used in qualitative research where the researcher seeks out the most relevant cases, to study in depth. For this research snowball sampling was chosen.

Researchers identify a small number of individuals who have the characteristics they require. These people are then used as informants to identify others who qualify for inclusion and these in turn identify yet others – hence the term snowball sampling

(Cohen and Mannion 1994, p.89)

The snowball sampling fitted nicely with the fact that the survey was going to be electronic. The simplicity of forwarding an email with a link to a web-based questionnaire would no doubt improve the snowball effect (sometimes called avalanche effect) and provide adequate sample size. The invitation to survey, which will be sent directly to the ICT Coordinators in secondary schools, will request if possible that the invitation be further extended to other agreeable candidates.

It is intended to survey primarily the ICT Coordinators. However to get a ‘fuller’ picture of how the ICT Coordinator is perceived, non-ICT Coordinating teachers are also invited to comment on the post. Since the primary target
participant was the ICT Coordinator, contact details for secondary schools were sought from a number of sources, education centres, websites etc… An email address list was then compiled and initial contact was made with the ICT Coordinator in thirteen schools. All thirteen were willing to take the survey and eleven more said they would attempt to get a colleague to take the survey also. Based on the positive response thus far and to increase the sample to a workable number - a sample of 30 is the minimum according to Cohen and Mannion (1994) - it was decided to send the email invite with the cover letter to all the remaining school email addresses remaining on the compiled list. The link for the online survey was emailed ‘For the attention of the ICT Coordinator’ and an accompanying cover note requesting their help included a further request to pass the ‘link’ onto any other agreeable teachers. This note also included a general code of ethics relating to the study.
3.4 The Interview

For the second research method – the interview - three key personnel from the same region, were chosen for interview. Person A is an ICT Coordinator in a secondary school in the specific region. Person B is an IT. Consultant who operates in the same region and whose services are used by Person A and Person C is an ex-ICT advisor, appointed by the NCTE, to schools in that region. As can be seen from the information given, there are relationships already in existence between the interviewees.

The guided interview format was chosen for each person. The broad topics addressed in the survey will be addressed in the interview to provide triangulation. The interviews will be transcribed (Appendices B,C,D) and a thematic analysis will be undertaken. This data will be presented in the findings chapter and then, compared and contrasted with the survey responses and the literature in the discussion chapter.
3.5 Validity of Tools

On the subject of the questionnaire, there is a question of validity relating to the respondents’ effort to complete the questionnaire accurately. One limitation of the questionnaire tool is the lack of immediate feedback to the researcher, which one receives in interview, in the form of body language. Another limitation is the anonymity (wholly or partly) which shields the candidate from any responsibility to deliver truthful answers. It is possible that both ends of the accuracy scale (‘survey completed diligently’ versus ‘survey rushed and inaccurate’) will be present in the data.

There is also the concept of ‘Volunteer Bias’ (Belson 1986) which exists in samples developed by ‘snowball’ techniques. This bias is automatically part of the data since the possible survey respondents can be broken into two groups – (A) Those who will do the survey and (B) Those who will not do the survey. The data from group B is equally as valid as group A; however in this research only group A candidates will be responding. Achieving valid data from a ‘non-volunteer’ can prove to be quite difficult.

In the interviews, objectivity may not be as prominent as required due to the researcher’s own ICT Coordinator position and personal experiences thereof. While every effort will be made to remain unbiased and fair to all arguments, it is accepted that some bias will be present in the live interview situation.

7 With more time and resources, a ‘serial number’ or ‘key’ approach could have been used to pre-screen a suitable sample and to ensure that these are the true respondents. Anonymity is not guaranteed with such a system.
3.6 Triangulation

Jick (1979) relates triangulation back to the military strategy of multiple reference points to locate an object’s position. Similarly, researchers can improve their accuracy using different sources of data. Denzin 1978 (cited in Jick 1979) gives a definition of triangulation as “the combination of methodologies in the study of the same phenomenon”. Conversely, if the multiple methods option is not used, “Exclusive reliance on one method, therefore, may bias or distort the researcher’s picture of the particular slice of reality she is investigating.” (Cohen and Mannion 1994, p.233)

Taking the above into consideration, there may still be inconsistencies when mixed methods are used. Different methods have their strengths and limitations and “it is assumed that multiple and independent measures do not share the same weaknesses or potential for bias.” (Rohner 1977, p.134) Various types of Triangulation have been defined, Time, Space, Combined, Theoretical, Investigator and Methodological (Denzin 1978, cited in Cohen and Mannion 1994)

For example Time Triangulation attempts to validate data, either from different groups at the same point in time or from the same group at different points along a timeline. Space Triangulation is to do with locations and culture bias etc... This research is located absolutely in the Methodological Triangulation type where the comparable data in two methods, Survey and Interview, “…enhances our belief that the results are valid and not a methodological artefact.” (Bouchard 1976, cited in Jick 1979)
CHAPTER 4 – FINDINGS

4.1 Introduction

The research findings of both the Online Survey and the Interviews will be presented here in this chapter. It is important that these findings are grouped and structured to reflect the issues that were to be examined. These issues arose out of the literature review and were the key points around which the Survey and Interviews were designed and conducted.

The main issues are:-

- The scope of the position of ICT Coordinator to include
  - The various duties previously discussed
  - The time allowed for them
- The support which is offered both internally and externally
- Pedagogical Issues and Professional Development

Before the detailed breakdown and examination of the results of the questions in the survey, here are some participant statistics:-

Over the period from when the invitations to survey were initially emailed (the emailing took a few days to organise and compile) up until the time when the survey was deactivated (3 weeks later) the following data is noted –

- 107 candidates actually logged onto the survey and, at the very least, took a look at the opening page
- of these 107 candidates, 80 commenced the survey
- of these 80 ‘starters’, 43 completed it
  - 27 ICT Coordinators
  - 16 Non-ICT Coordinators
Note 1: To ‘complete the survey’ means to have taken it to its logical conclusion. Logical branching was used within the survey to reduce the number of irrelevant questions. So, a candidate who is deemed to have completed the survey, has not necessarily answered every question, or indeed viewed every question. They have merely progressed through the survey until their logical pathway brought them to their valid finishing point.

Note 2: Of the 37 drop-outs, 29 of them (78%) had quit very early, i.e. before finishing the first section ‘Details – You and Your School’. One could speculate that the dropouts hadn’t the time to continue – being busy with their jobs etc…. these partial responses will not be examined.
4.2 The Scope of the ICT Coordinator Position

4.2.1 Job Description

A wide variety of answers were collected on this topic. One key question was how well defined the ICT Coordinator position is in the school? – Chart 4.2.1a shows these results. After that, there followed many sub-category questions referring to specific tasks. These are listed below in table 4.2.1b

Chart 4.2.1a
“How clearly defined is the ICT Coordinator’s role?”
Table 4.2.1b

“Indicate the extent to which the job you do covers the following:—“

(1.0 = not at all, 10.0 = fully)

<table>
<thead>
<tr>
<th>Task</th>
<th>Count</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Product Sourcing/Purchasing</td>
<td>26</td>
<td>7.9</td>
</tr>
<tr>
<td>2. Product Configuration/Setup</td>
<td>27</td>
<td>6.8</td>
</tr>
<tr>
<td>3. Product Maintenance/Repair</td>
<td>27</td>
<td>6.7</td>
</tr>
<tr>
<td>4. Upgrades and Disposal</td>
<td>27</td>
<td>7.6</td>
</tr>
<tr>
<td>5. Resources/Software packages</td>
<td>26</td>
<td>7.5</td>
</tr>
<tr>
<td>6. Staff Professional Development</td>
<td>27</td>
<td>6.2</td>
</tr>
<tr>
<td>7. ICT Curriculum Integration</td>
<td>27</td>
<td>6.4</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>7.0</td>
</tr>
</tbody>
</table>

4.2.2 Time considerations

In order to consider the time which ICT Coordinators can give to carrying out their duties, the arrangements under which their positions exist needed to be examined – Chart 4.2.2a
**Chart 4.2.2a**
Under what arrangement does your ICT Coordinator Position come?

<table>
<thead>
<tr>
<th>Arrangements for ICT Coordinator Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
</tr>
<tr>
<td>Special Duties Post</td>
</tr>
<tr>
<td>Assistant Principal Post</td>
</tr>
<tr>
<td>Remunerated Outside of Post Structure</td>
</tr>
</tbody>
</table>

The manner in which the positions are appointed can reflect the degree of status and importance associated with the position – Table 4.2.2b

**Table 4.2.2b**
“ How were you [the ICT Coordinator] appointed to your position? “

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>n=27</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Seniority</td>
<td>5</td>
<td></td>
<td>18.5%</td>
</tr>
<tr>
<td>2 Interview</td>
<td>13</td>
<td></td>
<td>48.2%</td>
</tr>
<tr>
<td>3 No other candidates</td>
<td>5</td>
<td></td>
<td>18.5%</td>
</tr>
<tr>
<td>4 Other</td>
<td>7</td>
<td></td>
<td>25.9%</td>
</tr>
</tbody>
</table>

Note: some candidates selected more than one option.

The seven ‘other’ responses are worth mentioning here on account of the diversity of answers given for such a pivotal role in today’s schools. :-

“Just fell into the job”
“Knew how to switch on a computer”
“Knowledge”
“M.A. ICT”
“Evolved”
“Reallocation of special duties posts and recognition of suitability to the post”
“I found a niche that allowed me hold on to a temp job”

On the Key Question:-
“Do you feel you [the ICT Coordinator] have adequate time for this job?”

21 out of 26 ICT Coordinators (81%) answered “NO”

Some quotes relevant to time availability:-

“…Y’know, anyone that’s an I.T. coordinator will work way beyond the standard time…”

(Interview 3)

“Its a full time job on top of teaching full time”

(Comment by ICT Coordinator in Survey)

From 27 responses from ICT Coordinator candidates, the number of hours per week, on average, to carry out their duties works out at 6.1 Hrs. Only 6 respondents said they had a time allowance for the job. For these 6, this averaged at only 1.2 Hrs per person. This leaves 21 ICT Coordinators with an average workload of approximately 6 Hrs per week and no time granted for duties.

However the arrangement under which these Coordinators hold their position may be a paid post of responsibility (see Appendix E) so a further cross reference of these 21 candidates with their position arrangement is shown in table 4.2.2c.
Table 4.2.2c

"Under what arrangement do you hold your ICT Coordinator position?"
(N = 21 ICT Coordinators with no time allowances)

<table>
<thead>
<tr>
<th>Voluntary</th>
<th>Special Duties</th>
<th>Assistant Principal</th>
<th>Externally Remunerated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>21</td>
</tr>
</tbody>
</table>

From Chart 4.2.2d below (not exhaustive lists by any manner) the extent to which the ICT Coordinators involvement in various tasks or duties is shown and comparison can be drawn between the ICT Coordinators’ average score per task versus the Non-ICT Coordinators’ average score per task for their own ICT Coordinator -

Chart 4.2.2d

ICTs: “Indicate the extent to which, the job you do, covers the following categories – “
Non-ICTs: “Indicate the extent to which your ICT Coordinator position covers the following categories, in your opinion – “

(0%=Not at All, 100%=Completely)
Note: The overall average across all 7 tasks is 70% for the ICT Coordinators and 57% for the Non-ICT Coordinators. This gives a 13% differential between the ways the position is viewed from both groups.
4.3 The Support available to ICT Coordinators.

From the 27 responses from ICT Coordinators regarding the IT support arrangement in the school –

- 12 schools had a flexible ‘call-out’ arrangement with a single provider
- 6 other schools had a fixed annual contract with a single provider.
- In the other 9 responses, comments such as ‘none’, ‘ad hoc basis’, ‘Technician’ and ‘Person employed by VEC full time available once a month and in emergencies’ were featured.

A definition of what constitutes an emergency, if provided, may have raised some interesting issues in the third point!

Table 4.3a

“Please rate the IT. Company/Person with whom you deal.”

<table>
<thead>
<tr>
<th>Response time to Callout</th>
<th>Answer</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>2</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>6</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Very Good</td>
<td>6</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>6</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Success in Rectifying Problems</th>
<th>Answer</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Very Good</td>
<td>7</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>9</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flexibility of Appointment</th>
<th>Answer</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>2</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>6</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Very Good</td>
<td>6</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>7</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value for Money</th>
<th>Answer</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>2</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Very Good</td>
<td>5</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>9</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
From table 4.3a above, the average rating of the company (or individual) that does support for the 22 respondents was 'very good'.

Table 4.3b shows the support from other sources (internal to the school):

Table 4.3b

"How do you rate the support offered by:

<table>
<thead>
<tr>
<th></th>
<th>PRINCIPAL</th>
<th></th>
<th>DEPUTY PRINCIPAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Answer</td>
<td>Count</td>
<td>Percent</td>
<td>Answer</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>4%</td>
<td></td>
<td>Poor</td>
</tr>
<tr>
<td>Below Average</td>
<td>1</td>
<td>4%</td>
<td></td>
<td>Below Average</td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>12%</td>
<td></td>
<td>Average</td>
</tr>
<tr>
<td>Good</td>
<td>12</td>
<td>46%</td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>Excellent</td>
<td>9</td>
<td>35%</td>
<td></td>
<td>Excellent</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100%</td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>OTHER TEACHERS</td>
<td></td>
<td>STUDENT BODY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Answer</td>
<td>Count</td>
<td>Percent</td>
<td>Answer</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
<td>8%</td>
<td></td>
<td>Poor</td>
</tr>
<tr>
<td>Below Average</td>
<td>1</td>
<td>4%</td>
<td></td>
<td>Below Average</td>
</tr>
<tr>
<td>Average</td>
<td>8</td>
<td>31%</td>
<td></td>
<td>Average</td>
</tr>
<tr>
<td>Good</td>
<td>12</td>
<td>46%</td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>Excellent</td>
<td>3</td>
<td>12%</td>
<td></td>
<td>Excellent</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100%</td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

One other source of support was polled. This was an external source - The NCTE - its results are displayed in table 4.3c.

Table 4.3c

<table>
<thead>
<tr>
<th>National Council for Technology in Education</th>
<th>Answer</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Below Average</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>8</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>10</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Excellent</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>25</td>
<td>100%</td>
</tr>
</tbody>
</table>
The mean result for this National organization is 3.12, which translates to ‘just above average’.

Informal support, in the form of assistance in PC configuration etc… by ‘competent’ students from within their own school, was present in 20% (n=26) of the ICT Coordinators’ responses.

One respondent commented – “I have no formal network administration training but still must manage a 400 user network alongside my teaching, I have friends in FULL TIME jobs who manage 40-50 user networks!”

From a support point of view, Chart 4.3d indicates how often the ICT Coordinator (n=27 respondents) is called on for the problems listed:-

**Chart 4.3d**

“How often are you called upon for the following Problems? “
[Shown in ascending order of most frequent]
And Table 4.3e shows how many ICT Coordinators are interrupted during class time and how many other teachers (Non-ICT Coordinators) have actually interrupted the ICT Coordinator during class time.

**Table 4.3e**

*Column 1: Have you ever been interrupted during class time?*

*Column 2: Have you ever interrupted the ICT Coordinator during class time?*

<table>
<thead>
<tr>
<th></th>
<th>ICT Coordinator Respondents</th>
<th>Non-ICT Coordinator Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Yes</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>17</td>
</tr>
</tbody>
</table>

On the question, “Approximately how many times per week are you interrupted in class?” candidates were invited to answer qualitatively as well as quantitatively here. Comments like, “at least once a day” and “occasionally” were present. However, the average answer from the numeric data (n=23) was 4.8. This is approximately a once per day interruption of the ICT Coordinator’s teaching class time.
4.4 Professional Development / Pedagogical

“Who organises or provides for IT. professional development? “

In 23 responses received from ICT Coordinators:-

- 13 said the ICT Coordinator organises IT. professional development training.
- 18 of the 23 responses (78%) responses indicated that training days would only occur one day per year.

**Table 4.4a**

“Do you feel you have the adequate skills and training for this job? ”

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>18</td>
</tr>
<tr>
<td>no</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
</tr>
</tbody>
</table>

Of the 10 candidates in table 4.4a who answered “no” i.e. they did not have adequate skills for the job, table 4.4b shows their specific requests for training.

**Table 4.4b**

“In which areas do you need more Skills? “

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percent of Respondents (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT integration into Curriculum</td>
<td>50%</td>
</tr>
<tr>
<td>PC Configuration</td>
<td>70%</td>
</tr>
<tr>
<td>Networking</td>
<td>90%</td>
</tr>
<tr>
<td>Workstation Security</td>
<td>40%</td>
</tr>
<tr>
<td>Staff Professional Development</td>
<td>30%</td>
</tr>
<tr>
<td>Self Professional Development</td>
<td>40%</td>
</tr>
</tbody>
</table>
Table 4.4c
“Does your school have an ICT Plan?“

<table>
<thead>
<tr>
<th></th>
<th>ICT Coordinators</th>
<th>Non-ICT Coordinators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>77.8%</td>
<td>50.0%</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>22.2%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>31.3%</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 4.4d
“Who Designs the ICT Plan?“

<table>
<thead>
<tr>
<th></th>
<th>Schools with ICT Plans</th>
<th>ICT Coordinators involved in Design</th>
<th>Principals Involved in Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT Respondents</td>
<td>21</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>85.7%</td>
<td>38.1%</td>
</tr>
<tr>
<td>Non-ICT Respondents</td>
<td>8</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75.0%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Total Respondents</td>
<td>29</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>82.8%</td>
<td></td>
<td>37.9%</td>
</tr>
</tbody>
</table>

Reasons given, in survey, for not having an ICT plan, included:-

“Time not given to writing it down”

“We made a plan years ago but it's lost, time constraints over the last two years made it difficult to draw up a plan”

“Money to implement it”

“Couldn’t be bothered”
4.5 Thematic look at Interviews

4.5.1 Theme 1 – General Workload

The first common theme to emerge is the workload of the ICT Coordinators, the broad job descriptions and the awareness of others towards it. This is reflected in the following comments:-

“...I think we’re all in the same boat basically [pessimistic tone] …Yeah, aah It’s [job description] fairly broad, for most principals ICT is ICT, it’s everything to do with computers and technology and it’s down to you. It’s your job basically.”

(Interview 1)

“…I would describe it [the role of ICT Coordinator] [Name], as difficult for them in some respects Emm..because many of them are filling a teaching role and they’re under a lot of pressure to, let’s say, maintain the existing school systems and at the same time perform the teaching role as well… it can be demanding especially in a big school because there’s so many people, we’ll say, many things can go wrong with computers, printers, whatever and they can get pulled and dragged a good bit y’know…”

(Interview 2)

“The job description [of ICT Coordinator] is not clearly defined, y’know, because anything to do with technology … Y’know, anything that’s vaguely to do with computers…and I’ve even visited schools and they’ve asked me about the photocopier…”

(Interview 3)

4.5.2 Theme 2 - Time

The next common theme was the availability of time for duties. All interviewees shared the common view of ‘time shortage’ for the position.

“Well I certainly don’t have near enough the right time, no, to get stuff done…. ‘Tis definitely an area [pedagogical area] I would like to spend a little more time on…. if I had the time that is…”

(Interview 1)
“Well, Busy springs to mind. They don’t strike me as a bunch of guys who have an awful lot of time on their hands … [the ICT Coordinator] probably needs a lot more resources and I don’t mean just financial, I mean more time and flexibility…”  

(Interview 2)

“… if you look at the standard time provision for posts, that doesn’t prevail for IT Coordinators. Y’know, anyone that’s an IT coordinator will work way beyond the standard time …”

(Interview 3)

4.5.3 Theme 3 – Technical versus Pedagogical

There was a common theme of the ICT Coordinator being used primarily for technical support despite job descriptions to the contrary. The second reference given below is from an ex-ICT advisor to schools. His comment must carry serious weight when considered in the context of his position. The first reference is from an ICT Coordinator.

“… Oh I’d say 75% of my time is dealing with technical stuff. You would get requests or questions about the teaching side of it, ahh CDROMs and websites that might be good but most of your time is spent …ah..fixing up computers and printers and internet problems, I’ll not bore ya with the full list [laughs] … But I suppose if someone was available here onsite to sort out technical and hardware issues, I’d have more time to get into the whole pedagogical side of things …”

(Interview 1)

“… again I would say, at least 80% technical and 20% pedagogical … there’s a little hump there [cross subject knowledge] so most of the advice the ICT Coordinator gives is technical …there is an area there where technical and pedagogical, y’know there’s a blurring of the lines…But there does tend to be more technical support however …”

(Interview 3)
CHAPTER 5 – ANALYSIS AND DISCUSSION

5.1 Introduction

While the limitations of the survey tool are considered and care is taken about the validity of all responses, the accuracy of the answers presented specifically by the non-ICT Coordinators about the ICT coordinator position itself, may be prone to speculative responses compared with the answers given by the ICT Coordinators who have first hand knowledge of their own position. Consequently, for the most part, the responses of the ICT Coordinators will be used for analysis unless the other responses are deemed particularly relevant.

The issues arising from the Literature Review (Chapter 2) and Findings (Chapter 4) will be discussed here under the headings used thus far …

• Job Description
• Time
• Support
• Technical / Pedagogical

…with reference, where appropriate, to the research questions:-

Research Question No.1
In the current technological climate, is there too much expected of the ICT Coordinator, in terms of technical support?

Research Question No.2
Due to the growing use of ICT in schools, is there a necessity for more recognition of the importance of the position within the school?
5.2 Job Description Issues

5.2.1 How Clearly Defined?

Comparison between what was discovered by the DES report in 2008 and what was found in this study regarding the job description of the ICT coordinator shows some common ground. The DES report found that job descriptions were very inconsistent between schools and that there was “little consistency among the different schools in the workload attached to posts” (Department of Education and Science 2008, p.74) In the survey, the question “How clearly defined is the ICT Coordinator’s role?” gave a broad selection of answers, however they ‘averaged out’ at a the response ‘Partially Defined’. The mathematical mean of the answers here (n=27) was 4.926 which points towards the - ‘5 > Partially Defined’ - choice. It is worth noting that while two respondents answered ‘Not Defined at ALL’, no respondent answered ‘Completely Defined’.

The ‘blurring of the lines’ in the job description can lead to an over extension of the workload of the ICT Coordinator – It is more likely that an unclear description will have less ‘boundaries’ and hence much more scope. Lai and Pratt (2004) and Kennewell and Selwood (1997) all suggest that the scope of the position is very wide indeed and table 4.2.1b in the previous chapter shows that the ICT Coordinators (n=27) claimed, on average, 70% responsibility for these tasks.

With reference to research question No.1 – these partially defined job descriptions can have implications for the ICT Coordinator in terms of the broader expectations (due to unclear boundaries) of the staff towards him/her
and it can be assumed that at least some of these expectations will fall into the technical support category.

5.2.2 How Appointed?

Table 5.2.2a shows the various ICT Coordinator appointment methods which arose in the survey:

<table>
<thead>
<tr>
<th>Method</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniority</td>
<td>5</td>
<td>16.67%</td>
</tr>
<tr>
<td>Interview</td>
<td>13</td>
<td>43.33%</td>
</tr>
<tr>
<td>No other candidates</td>
<td>5</td>
<td>16.67%</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>23.33%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Of particular note here, is the ‘No other Candidate’ score of 5, which doesn’t necessarily imply that the appointee doesn’t have the relevant skills but certainly leaves room for that possibility. This is in line with what an ex-ICT Advisor, in interview, had to say about the appointment procedures:

“…The newer ones [appointments] can be non-technical, and these are promotional, where someone is in line for a post, literally it’s their turn for a ‘B’ post or whatever the case may be, and they’ve been given this. They’ve arrived at it not out of choice but by default…”

(Interview 3)

The comments from the 7 candidates who chose the ‘other’ option are shown below:

“Just fell into the job”
“Knew how to switch on a computer”
“Knowledge”
“M.A. ICT”
“Evolved”
“Reallocation of special duties posts and recognition of suitability to the post”
“I found a niche that allowed me hold on to a temp job”
These do correlate somewhat with the comments taken from the results of interviews with ICT Coordinators carried out by Lynch, Hollanders and Hobbs in 1999. Of the seven ICT Coordinators they interviewed, only one showed an interest in taking on the position. The others shared these sentiments:-

“I’ll take the job because nobody else wants it.”
“If anyone wanted the job I’d give it to them tomorrow.”
“Couldn’t turn it down, I was grateful for a permanent contract.”

These findings relate directly to research question No.2 as they give rise to some serious questions about the low level of importance assigned, at least in some of the establishments, to the selection procedure for a position which permeates every subject in secondary school.
5.3 Time Provision Issues

The question of ‘time’ arose regularly in the literature examined (or to put it more accurately the ‘lack of time’). Kennewell and Selwood (1997) describe the pressure that ICT Coordinators are under due to time limitations and lack of technical support. Lai and Pratt (2004) found that the majority of ICT Coordinators received little or no time for their work. Strudler (1994) claimed ICT integration was unlikely to occur if correct time allocation was not given to the ICT Coordinator.

In the Questionnaire, 21 ICT Coordinators (n=26) or 81% claimed they hadn’t enough time for the job. From the other findings, 6.1hrs per week was the average time spent doing ICT related duties. Only 6 (n=27) ICT Coordinators were granted any time – this leaves quite a shortfall for the rest. Of these 21, table 4.2.2c (Chapter 4) yields 6 as voluntary positions, 12 as special duties posts, only 2 at assistant principal level and 1 remunerated outside of the post structure (no further conclusion can be drawn on the time expectations of this person as the remuneration is unknown).

The majority (more than 50%) of these positions exist at special duties level. The extra allowance in salary (see appendix E) at this level does not seem commensurate with the time involved in fulfilling the various aspects of the job.

The comments offered in the interview analysis (Section 4.5.2) back up this deficiency in time allocation. The ex-ICT Advisor commented, “Y’know, anyone that’s an IT. coordinator will work way beyond the standard time …” (Interview 3)
This lack of time for the post adds to the case for a ‘yes’ answer to both research questions. In the case of question No.1 this evidence doesn’t point directly to matters of a technical nature (‘technical versus pedagogical’ issues to follow) but the lack of time does point towards a heavy workload, possibly attributed to the over-expectation on the part of staff, management and possibly students. In the case of question No.2 the ‘lack of time’ evidence means certain tasks are not getting done. These ICT tasks in schools are being relegated to second place. This is certainly a case for more recognition of the importance of the ICT Coordinator’s role.


5.4 Support Available to ICT Coordinators

Gleeson et al (2001), Kennewell and Selwood (1997) and Lai and Pratt (2004) all contend that the proper support of ICT Coordinator is an essential part of the successful integration of ICT into the curriculum and school in general. Many of these authors have alluded to the idea of an onsite technician to be available for technical matters. Lynch et al (1999) put forward arguments in relation to the health of the ICT Coordinator due to stress.

The immediate effect of having an onsite technology assistant would be the release of the ICT Coordinator from the time consuming technical support role.

In relation to these arguments, some other points are worth mentioning in the open ended comments in the various stages of the questionnaire. A few of the VEC schools’ ICT Coordinators mentioned a ‘shared’ technician. This seems somewhat a step in the right direction. However some central control over such a scheme would be vital to its successful operation. As the ex-ICT Advisor commented:-

   “But management of these technicians is important. 'tis as important as having them in the first place. I know the local fella here was needed in a school to do a job, and he was off on a week’s holidays, which he’s entitled to, but nobody seemed to know he was going to be away.”

   (Interview 3)

Pre-existing channels of support must be open before any external support structure is going to be able to function properly. This support comes from the Student Body, Peer Colleagues, Deputy Principal and Principal. The survey responses come out positive on average for how these support channels are rated. The most frequent response in the case of each group was ‘Good’. Comments from ICT Coordinators in research by Kennewell and Selwood
(1997) led them to conclude that ICT Coordinators “are feeling under great pressure to fulfil a variety of roles, with inadequate time, often no technical support and a lack of understanding of the issues by senior management.” (Kennewell and Selwood 1997, p.343)

Most of the literature pointed towards schools needing some external ‘arrangement’ in the form of an ICT support contract or similar. 22 respondents (n=27) used some form of ICT support company or person. In survey questions about the level of service from these external contractors, ‘Very Good’ was the average rating given under four headings of response time, rectification of problems, flexibility and value for money. So, while the general feeling is that the external support is good, there is still evidence that the ICT coordinator needs more time for smaller day-to-day technical tasks.

If an external ICT Solutions company is retained by the school, it does not solve the multiple everyday small ICT issues from arising. “[I show them] how to mail merge, clearing paper jams, where the on/off button is! Everything and anything in fact – all day long - at intervals and lunchtimes I’m frequently tempted to hide.” (Lai and Pratt 2004, p.469) Are the indications here that, too much is expected from the ICT Coordinator in terms of technical support? (Research question No.1)

External from the school however there is one other source of support which was polled. This was the NCTE and its results are displayed below. The mean result for this National organization is 3.12, which translates to ‘just above average’. This poses questions about the support structure on offer from the NCTE. However, without any concrete data about its funding, and considering the recent (July, 2008) retirement of the Education Centres’ ICT advisors from the NCTE, it would not be prudent to speculate about this ‘average’ score for support offered.
5.4.1 Demand for Technical Support

In Table 4.4b from Chapter 4 (replicated below) networking (90%, n=10) is cited, by ICT Coordinators themselves, as the most common area where they would like more training, followed closely by PC configuration (70%, n=10). Topics which are found way down the list include professional development and other such areas of pedagogy. This demonstrates a demand for technical support from the ICT Coordinator.

Table 4.4b (Copy)

“In which areas do you need more Skills? “

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percent of Respondents (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT integration into Curriculum</td>
<td>50%</td>
</tr>
<tr>
<td>PC Configuration</td>
<td>70%</td>
</tr>
<tr>
<td>Networking</td>
<td>90%</td>
</tr>
<tr>
<td>Workstation Security</td>
<td>40%</td>
</tr>
<tr>
<td>Staff Professional Development</td>
<td>30%</td>
</tr>
<tr>
<td>Self Professional Development</td>
<td>40%</td>
</tr>
</tbody>
</table>

Interestingly, from open ended responses, it was found that two ICT Coordinators stated they did all the maintenance themselves. Further cross referencing of their position in their respective schools shows (surprisingly) that they hold voluntary positions with no time allocation on their timetable.

Of these two Coordinators, one of them fell into the job with limited experience; however, the other one had some IT knowledge when ‘appointed’ to the position (‘appointed’ does seem a little formal for a voluntary position). They spend between 6 and 10 hours per week doing support and are interrupted in class approximately 5 times per week. These teachers must be very dedicated to hold down these positions in a voluntary capacity. Surely some technical assistance in such cases is required.
5.5 Professional Development and Pedagogical Issues

5.5.1 Technical versus pedagogical

In the New Zealand study by Lai and Pratt, their research reported that the percentage of time devoted to technical versus pedagogical issues was approximately evenly split, with 40% saying primarily technical, 40% saying primarily curriculum based and 20% giving an even split.

“…keeping equipment running from day to day is seen as a necessity, whereas curriculum matters are less pressing.” (Kennewell and Selwood 1997, p.350)

During the course of this research the comparable information, drawn from interview and open ended survey responses, describes a different picture. In interview with the ex-ICT Advisor to schools, he said, in his opinion, the ICT Coordinator job was 80% technical versus 20% pedagogical – he would have had dealings with up to 60 ICT Coordinators. This is backed up by the interview with the ICT Coordinator who mentioned the figure of 75% technical against 25% pedagogical.

On the issue of the various duties 27 ICT Coordinators claimed an average of 73% responsibility for the following tasks:-
(1) Product Sourcing/Purchasing
(2) Product Configuration/Setup
(3) Product Maintenance/Repair
(4) Upgrades and Disposal
(5) Resources/Software Packages
Whilst at the same time only claiming an average of 63% responsibility for the tasks of:-
(1) Staff Professional Development
(2) ICT Curriculum Integration

This is in line with the literature examined earlier with Selwood (1997 p.350) claiming that because of their workload, technical and otherwise, “ITCs see the professional development of their colleagues as a problem and not an opportunity” and also with the comment “…keeping equipment running from day to day is seen as a necessity, whereas curriculum matters are less pressing.” (Kennewell and Selwood 1997, p.350)

Non ICT Coordinators rated the same tasks, but averaged out at only 57% across all categories. From the 13% differential on the averages over all the categories, it appears that the non-ICT Coordinators’ opinions of this Coordinator’s role, differs from the ICT Coordinators’ opinions of their own roles. Of particular note here, are the largest category differentials. These occur in Category 6 (40% versus 62%) and 7 (43% versus 64%). Both of these categories can be described as more pedagogical than technical.

Could it be the case, that the ICT Coordinators generally assume these categories as part of their role, in theory at least, and reported this on the survey? But, in practice, with the time limitations due to technical support issues, these duties may be then neglected somewhat. The non-ICT coordinators then perceive only the technical (visible) tasks as being the major part of the coordinator’s responsibility.

The lack of training available for staff in schools will increase the workload of an ICT Coordinator directly (with teachers needing to know how to do things) and indirectly (with teachers not knowing how to do things properly and causing equipment malfunction and/or software/system errors).
It must be pointed out that training provision does not ensure that training is delivered. Teachers need to be receptive to new technologies and methods. There can be an atmosphere as described below, an extract from the interview with ex-ICT Advisor:-

“…part of the problem is that because the ICT Coordinators are there, in the, kind of, ethos of a secondary school everyone has an area of expertise and they [the ICT Coordinators] are seen as the ‘fix’, sort of like, ‘I don’t need to know about this because ‘Joe Soap’ [the ICT Coordinator] is there and that’s what he looks after…”

[Interview 3]
CHAPTER 6 – CONCLUSIONS

This section will bring together the main conclusions which can be drawn from the research as a whole. The conclusions are shown under the headings of the research questions. Under each question however, there may be some degree of overlap as the areas under which the investigation took place i.e. Job Description, Time, Support etc… uncovered issues which have direct connections to both questions.

6.1 Research Question No.1

In the current technological climate, is there too much expected of the ICT Coordinator, in terms of technical support?

6.1.1 Job Description

In the survey, when asked how clearly defined the job description was, the average response was “partially defined”. The open ended-ness of some of these job descriptions leaves the door open for pretty much “everything to do with computers and technology” (ICT Coordinator, Interview 1) to become part of the duties of the role.

Technical support is a broad term and while it covers such fancy topics as PC configuration, Networking, Systems Administration and so on, one must also bear in mind that printers run out of paper, they need ink or toner replacements, cables get damaged, assistance of a very basic level, is often required by both students and teachers.

If all levels of technical support are considered along with the penetration of all forms of technology into today’s education in schools, an appreciation of
the workload attached to such a role can be realised. This is a substantial workload before either planning, integration or training is considered and definitely contributes to an over-expectation in relation to the role of the ICT Coordinator.

6.1.2 Time

In the questionnaire, 21 ICT Coordinators (n=26) or 81% claimed they hadn’t enough time for the job. This is backed up by much of the literature (Kennewell and Selwood 1997; Lai and Pratt 2004; Strudler 1994). If this time consideration is combined with data from the interviews\(^8\) regarding the technical/pedagogical ratio, this has implications for research question No.1 where the ICT Coordinator is spending substantial amounts of precious available time on technical issues.

6.1.3 Support

89% (n=28) of ICT Coordinators said they get interrupted during their teaching class time to solve technical problems. The average amount of times that this was reported to happen varies from once or twice up to twenty times per week. The average was almost 5 times per week.

In Table 4.4b from the findings chapter (and replicated below) networking (90%, n=10) is cited, by ICT Coordinators themselves, as the most common area where ICT Coordinators need more training, followed closely by PC configuration (70%, n=10). Topics which are found way down the list include

\(^8\) ICT Coordinator in interview gave 75% of his time towards technical issues, but more importantly the ex-ICT advisor to schools (who had dealings with upwards of 60 ICT Coordinators) gave a average figure, for the ICT Coordinators in general, of 80% technical versus 20% pedagogical.
professional development and other such areas of pedagogy. This demonstrates a demand for technical support from the ICT Coordinator.

**Table 4.4b – (Copy)**

“In which areas do you need more Skills?“

<table>
<thead>
<tr>
<th>Topic</th>
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</tr>
</thead>
<tbody>
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<td>Workstation Security</td>
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</tr>
<tr>
<td>Staff Professional Development</td>
<td>30%</td>
</tr>
<tr>
<td>Self Professional Development</td>
<td>40%</td>
</tr>
</tbody>
</table>

6.1.4 Professional Development and Pedagogical Issues

It has been put forward by many of the papers (Kennewell and Selwood 1997; Lai and Pratt 2004; DES 2008; Lawson and Comber 1999) that the ICT Coordinator would like to be more involved in the pedagogical aspect of the role, but that the technical side simply absorbed most of the available time. The ex-ICT Advisor to schools in interview claimed 80% of the Coordinators’ time was spent on technical matters.

Coordinators need to have more of a management and curriculum integration role but “instead [of pedagogical related work], Co-ordinators found a lot of their time was taken up with technical or troubleshooting issues.” (Department of Education and Science 2008, p.74)

**Drawing all the evidence together, it is clear that, for the majority of ICT Coordinators, a lot of their time is in fact taken up with technical support.**
6.2 Research Question No.2

*Due to the growing use of ICT in schools, is there a necessity for more recognition of the importance of the position within the school?*

6.2.1 Workload and Appointment

If account is taken of the broad sense of the workload attached to this post according to the literature and to the status of the positions of ICT Coordinators according to the survey (Table 4.2.2a from chapter 4 replicated below) it seems fair to say that, at least in some establishments, the importance of this roll is not recognised fully.

**Chart 4.2.2a (Copy)**

Under what arrangement does your ICT Coordinator Position come?

![Chart 4.2.2a](chart422a.png)

To have 22% (n=27) of ICT Coordinators surveyed acting in a voluntary role does not equate with the demands and expectations of that position. To quote again from the interview with the ex-ICT Advisor to schools, “… literally it’s
their turn for a ‘B’ post⁹ or whatever the case may be, and they’ve been given this. They’ve arrived at it not out of choice but by default …” (Interview 3). This doesn’t reflect all schools but for the schools where it does (or did) happen the position is ‘handed over’ with no regard to the suitability of the candidate.

Comments made in Lynch, Hollanders and Hobbs (1999) and the comments below, from candidates in the survey about how they were appointed, speak volumes about how important the role was treated in their school.

“Just fell into the job”
“Knew how to switch on a computer”
“Evolved”
“I found a niche that allowed me hold on to a temp job”

In 5 other cases there was no other candidate for the position. This is similar to the ‘seniority’ system discussed previously. The flexibility allowed to schools in appointing the ICT coordinator can sometimes allow for the position to ‘fit’ the candidate rather than finding the right candidate for the position. This evidence all goes to the level of significance which the school administration attaches to the ICT Coordinator role and argues for a ‘yes’ answer to research question No.2.

**6.2.2 Planning**

Considering all respondents (ICT Coordinators and Non-ICT Coordinators) from table 4.4c in the findings chapter (and replicated below) the importance of having an ICT plan to help steer the school in the right direction was lost on between 21% and 33% of the 43 schools. 9 said there school had no plan

---
⁹ A ‘B’ Post is the older name for what is now called ‘special duties allowance’ – See Appendix E
while 5 non-ICT Coordinators “didn’t know” if their school had a plan or not. Clearly, if the school had a plan, it didn’t affect them one way or another.

**Table 4.4c (Copy)**

“Does your school have an ICT Plan?“

<table>
<thead>
<tr>
<th></th>
<th>ICT Coordinators</th>
<th>Non-ICT Coordinators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>77.8%</td>
<td>50.0%</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>22.2%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>31.3%</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The non existence of an ICT plan even in a ‘small’ number of schools indicates a lack of commitment to the role.

**6.2.3 Support**

Lai and Pratt (2004) and Kennewell and Selwood (19997) contend that an onsite technical assistant, of some description, is more of a requirement than an option these days. The ex-ICT Coordinator tended to agree, “…someone on-site would be very beneficial, I think it's coming towards a necessity…” (Interview 3). This would release the ICT Coordinator from the immediate ‘nuts and bolts’ responsibilities encountered every day - not to mention reduce the number of interruptions to his/her teaching class. More importantly it would allow for the pedagogically related tasks, of integration and planning, to play more of a leading role. These comments again point back towards the level of importance of this pivotal role being too low.
6.3 Observations

Dr. Larry Anderson (National Centre for Technology Planning, Tupelo, Mississippi) in a conference paper for the Singapore National Technology Conference (1999) spoke of the expectations placed on schools, and the changes therein. He paid particular attention to the growth in Information and Communication Technology and its broad effect on the expectations placed on schools. At the centre of this growth lies the ICT Coordinator and without the appropriate resources to manage and develop the use of ICT within the school it is likely that the school will remain somewhat ‘stagnant’ in the field of ICT.

Lawson and Comber (1999) put the case forward for sufficient resources (time, funding, training, assistance) to be provided for the ICT Coordinator to carry out their job, while Ward (2002) commented on the major advances in technological implementation over the previous decade but claimed that “little has occurred in terms of either integration, in any depth, into the curriculum or, more significantly, change in teacher practice." (Ward 2002, p.587)

Should schools, as a matter of policy, be looking to fill this post in much the same way as they would look to fill, say, a geography teaching position? i.e. advertise the vacancy and find the person with the correct profile (skill set, interest and enthusiasm) and hire him/her, as against, filling the empty slot from the next person on ‘the list’. One respondent in the survey offered the following insight:-

“The status of the post needs to recognised nationally as, for example, that of a year head. There needs to be greater emphasis on eLearning management and development rather than hardware/network management. Training for the role of ICT coordinator needs investment. Investment in infrastructure by the Dept of education needs to be increased and should allow for maintenance. Basically more investment in schools ICT
infrastructure and maintenance is required in order to allow ICT coordinators to focus on the application of technology rather than its maintenance.”

[ICT Coordinator in Survey]

Technology is advancing continuously and will continue to do so. Different methods of learning through ICT are being developed all the time. To stand still in this advancing era is to go backwards. The ICT Coordinator needs the resources to design and implement a strategic ICT plan for their school.

The complete inconsistency of the position of ICT Coordinator across the system has its problems. ICT has literally permeated every subject area (perhaps depending on the subject teacher to some extent) in schools. ICT can be such a powerful tool. Its equivalent hasn’t been seen since the blackboard was introduced all those years ago. If the position of ICT Coordinator isn’t taken more seriously in today’s schools in terms of its proper recognition, its support structure, its time allowance and the consistency of the job description, much of the money that has already been put into hardware, software and infrastructure thus far, will not be fully capitalised upon.

This research within its limitations of time and resources has only touched on the issues surrounding the post of ICT Coordinator in Secondary Schools in Ireland. Further research - on the scale of the report by the DES 2008, but more specific to the ICT Coordinator role - may help to identify key areas for improvement particularly in the time/workload of the ICT Coordinator. There will of course be limitations with funding etc… however it may be possible for some restructuring of the current system to allow for a more consistent and transparent and clearly defined role which, into the future, can be taken on with confidence, pride and due professionalism.
ACRONYMS

SIP       Schools Integration Project
IT        Information Technology
ICT       Information and Communication Technology
SDT       Special Duties Teacher
DES       Department of Education and Science
INSET     In-Service Training
ITC       IT Coordinator
NCTE      National Council for Technology in Education (Ireland)
NCET      National Council for Education Technology (Britain)
CERI      Centre for Educational Research and Innovation
OECD      Organisation for Economic Cooperation and Development


Strudler, N. B. (1994) The role of school-based technology coordinators as change agents in elementary school programs, Education Resources Information Centre, ERIC# ED381139.


APPENDICES

Table of Appendices

Appendix A  Questionnaire
Appendix B  Interview 1 – ICT Coordinator
Appendix C  Interview 2 – I.T. Consultant
Appendix D  Interview 3 – Ex-ICT Advisor
Appendix E  Salary Allowances - DES
Appendix A – Survey Questions

Hello Survey Candidate

You are invited to participate in this Survey of the ICT Coordinators Position in your school.

THE SURVEY SHOULD TAKE NO MORE THAN 7-8 MINUTES

Confidentiality

Your survey responses will be strictly confidential.
Your information will be coded and will remain confidential.

If you have questions at any time about the survey or the procedures, you may contact the designer at the email address specified below.

tonycleere@gmail.com

Thank you very much for your time and support.

Please start with the survey now by clicking on the Continue button below.
Details - You and Your School

1. Name (Fully Confidential)

2. Email Address (Optional - Not supplied to any 3rd party)

3. School Name - Optional (but Helpful if provided)

4. School Address - Optional (but Helpful if provided)

5. Select Your County Please :-

Drop Down List (26 Counties)

6. How many Students at your school (approx) ?

7. How many Teaching Staff at your school?

8. Which Category does your school fall into?
   - Community School
   - Secondary School
   - Private School
   - Other ________________
9. Is your school......
   Boys
   Girls
   Mixed

10. Are you the ICT Coordinator for your school?
   yes
   no YES → Q.11 NO → Q.42

SECTION 1 - The ICT Coordinator Position - Skills and Time

11. Under what arrangement does your ICT Coordinator Position come?
   Voluntary
   Special Duties Post
   Assistant Principal Post
   Attached to Principal/Deputy Principal
   Remunerated Outside of Post Structure
   Other ___________________________

12. How Clearly Defined is the ICT Coordinator's Role?
   1 > <b>Not Defined at ALL</b>
   2 >>
   3 >>> <b>Vaguely Defined</b>
   4 >>>>
   5 >>>>> <b>Partially Defined</b>
   6 >>>>>>
   7 >>>>>>> <b>Well Defined</b>
   8 >>>>>>>>
   9 >>>>>>>>> <b>Completely Defined</b>

13. Indicate the extent to which the job you do covers the following (1=not at all, 10=Fully)

\[
\begin{array}{cccccccccc}
& 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\
\end{array}
\]
14. Any extra comment about your duties....

15. How were you appointed to ICT Coordinator? Select any that apply.....
   Seniority
   Interview
   No other candidates
   Other __________________________

16. Do you feel you have the adequate skills and training for this job?
   yes
   no   YES → Q.18  NO → Q.17

17. In which areas do you need more Skills?
   ICT integration into Curriculum
   PC Configuration
   Networking
   Workstation Security
   Staff Professional Development
   Self Professional Development
   Other __________________________
18. Do you feel you have the adequate time available for this job?
   yes
   no

19. How much time on average is required per week to carry out your duties? (...to the nearest Hour)

20. Have you been granted any time allowance on your timetable for the purpose of carrying out your duties as ICT Coordinator
   No
   Yes
   NO → Q.22   YES → Q.21

21. How much time have you been granted for carrying out your duties? (...to Nearest Hour)

22. How often are you called upon for the following Problems?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Never</th>
<th>Rarely</th>
<th>Regularly</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing Difficulties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Access Problems</td>
<td></td>
<td></td>
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<tr>
<td>Laptop/Projector Malfunction</td>
<td></td>
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<tr>
<td>Networking Problems</td>
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<tr>
<td>Non School-related IT Problems</td>
<td></td>
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</tr>
</tbody>
</table>

23. Are there any other problems you feel are worth mentioning?
24. Are you ever interrupted during class time to solve technical problems?
   No
   Yes    NO → Q.26    YES → Q.25

25. Approximately, how many times per week are you interrupted in class?

SECTION 2 - Support Structure

26. Which of the following I.T. support scenarios best describes your situation?
   Fixed annual contract with one I.T. Company
   Fixed annual contract with multiple I.T. Companies
   Flexible Call-Out arrangement with one I.T. Company
   Flexible Call-Out arrangement with multiple I.T. Companies
   Other __________________________________________________________

27. Please rate the I.T. company with whom you deal ...

<table>
<thead>
<tr>
<th></th>
<th>Very Poor</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>Very Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response time to Call Out:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility of appointment:</td>
<td></td>
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<tr>
<td>Success in rectifying Problems:</td>
<td></td>
<td></td>
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<tr>
<td>Value for Money:</td>
<td></td>
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</tbody>
</table>
28. How do you rate the support offered by ...

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCTE</td>
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<tr>
<td>Principal</td>
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<tr>
<td>Deputy Principal</td>
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</tr>
<tr>
<td>Teachers</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

29. How many computers in your school are less than 3 years old?

30. How many computers in your school are 3-6 years old?

31. How many computers in your school are 6-10 years old?

32. How many computers in your school are more than 10 years old?

33. Do any (competent) students assist in configuring PCs etc...?
   Yes
   No
34. Does your school have an onsite technology coordinator (other than yourself!)?
   Yes
   No
   Other __________________________________________________

SECTION 3 - Professional Development

35. Who organises or provides for I.T. professional development? Select ANY that apply:-
   Teacher
   ICT Coordinator
   Deputy Principal
   Principal
   Other __________________________________________________

36. How many times per year are training days organised?
   1
   2
   3
   4
   5
   more than 5

37. Does your school have an ICT Plan?
   No
   Yes

38. What would you cite as the main reason for not having an ICT Plan?

39. Whose responsibility is the ICT Plan? Tick ANY that apply:-
   Teacher
ICT Coordinator
Deputy Principal
Principal
Other __________________________________________________

40. How often is the ICT Plan revised?
   Each Term
   Annually
   When deemed necessary
   Other

41. Can you offer up any suggestion as to how the ICT Coordinator Role could be improved?
BRANCHED FROM Q.10

42. Which best describes your position?
   Principal
   Deputy Principal
   Teacher (ICT-Related)
   Teacher (Non-ICT-Related)
   Other ____________________________

SECTION 1 - The ICT Coordinator Position - Skills and Time

43. Under what pay arrangement does the ICT Coordinator Position fall in your school?
   Dont Know
   Voluntary
   Special Duties Post
   Assistant Principal Post
   Attached to Principal/Deputy Principal
   Remunerated Outside of Post Structure
   Other _________________________________

44. How Clearly Defined is the ICT Coordinators Role?
   IF YOU DONT KNOW - SKIP THIS QUESTION

   1 > <b>Not Defined at ALL</b>
   2 >>
   3 >>> <b>Vaguely Defined</b>
   4 >>>>
   5 >>>>> <b>Partially Defined</b>
   6 >>>>>>
   7 >>>>>>> <b>Well Defined</b>
   8 >>>>>>>>
   9 >>>>>>>>> <b>Completely Defined</b>
45. Indicate the extent to which the ICT Coordinator position covers the following categories, in your opinion: (1=No, 10=Yes)

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Sourcing / Purchasing</td>
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<tr>
<td>Product Configuration / Setup</td>
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<tr>
<td>Product Maintenance / Repair</td>
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<tr>
<td>Upgrades and Disposal</td>
<td></td>
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<tr>
<td>Resources / Software packages</td>
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<tr>
<td>Staff Professional Development</td>
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<tr>
<td>ICT Curriculum Integration</td>
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</tbody>
</table>

46. Any extra comment about the ICT Coordinator Position.....

47. Do you feel the ICT Coordinator has adequate skills and training for their job?
   - yes
   - no
   - Don't Know

48. In which areas does he/she need more Skills?
   - ICT integration into Curriculum
   - ICT technical training
   - Staff Professional Development
   - Other __________________________________________________

49. Do you feel the ICT Coordinator has adequate time available for the job?
   - yes
   - no
50. Does the ICT Coordinator Position include any time allowance on his/her teaching timetable?
   - No
   - Yes
   - Don’t Know

51. How often have you called upon the ICT Coordinator for the following Problems?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Never</th>
<th>Rarely</th>
<th>Regularly</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing Difficulties</td>
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<td>Internet Access Problems</td>
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<td>Laptop/Projector Malfunction</td>
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<td>Networking Problems</td>
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<tr>
<td>Non School-related IT Problems</td>
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<td></td>
</tr>
</tbody>
</table>

52. Have you ever interrupted the ICT Coordinator during class time to solve technical problems?
   - No
   - Yes

SECTION 2 - Professional Development

53. Who organises or provides for I.T. professional development? Select ANY that apply:
   - Teacher
   - ICT Coordinator
   - Deputy Principal
   - Principal
   - Don’t Know
   - Other _______________________

University of Limerick
Career Development Institute
54. **How many times per year are training days organised?**
   - 1
   - 2
   - 3
   - 4
   - 5
   - more than 5
   - Don't Know

55. **Does your school have an ICT Plan?**
   - Yes
   - No
   - Don't Know
   - Other ______________________________

56. **Who designs the ICT Plan?** Tick ANY that apply:
   - Teacher
   - ICT Coordinator
   - Deputy Principal
   - Principal
   - Don't Know
   - Other ______________________________

57. **How often is the ICT Plan revised?**
   - Each Term
   - Annually
   - When deemed necessary
   - Don't Know
   - Other ______________________________

58. **Can you offer up any suggestion as to how the ICT Coordinator Role could be improved?**
Appendix B – Interview 1: ICT Coordinator

Interview with ICT Coordinator

Researcher (R): In your interaction with other ICT Coordinators, what differences or similarities have you noticed in the role undertaken?

ICT Coordinator (ICT): Well I haven’t had too much interaction with other ICT Coordinators, but with those that I have.....I think we’re all in the same boat basically [pessimistic tone] You basically go in and you do the work, and if your principal is obliging he’ll let you off and do the work, I think that’s what most people want.

R: How clearly defined are the job descriptions generally?

ICT: Yeah, aah It’s fairly broad, for most principals ICT is ICT, it’s everything to do with computers and technology and it’s down to you. It’s your job basically.

R: Do you feel you have the appropriate time?

ICT: Well I certainly don’t have near enough the right time, No, to get stuff done. I’m involved in other extra curricular activities and it’s hard to get everything done.

R: Do you feel you have the appropriate skills?

ICT: Yeah, for the general stuff, that’s OK but you would obviously need outside help aswell.
R: It just depends on how technical the problem is?

ICT: Yeah, if I feel, or rather if I know I won't be able to solve a particular problem, I'll put in a call.

R: Grand, we'll get back to the technical support in a little while...But from a day to day operations point of view, would you be 'called on' every day for some issue or other?

ICT: Every day without fail, yeah.

R: Ok, would you interrupted in class, or do you have a policy about that sort of thing?

ICT: There's no policy, people come down and take care of your class for you, you go up and sort out the problem, if you can, that's kind of the way it happens.

R: Are the staff sympathetic to you being interrupted, generally?

ICT: Ah yeah, they're good that way, 'twould usually be a pressing matter. If it could keep, most of them wouldn't bother ya in class. [pause] Well actually what I find now is that a lot more staff have become more I.T. savvy [I.T. literate!] these days, y'know staff turnover, younger crowd getting on board, y'know, they don't require as much basic help as before.

R: How would you rate your job satisfaction?

ICT: Generally it's enjoyable, but what's frustrating is when you come up to the computer room at 4 o'clock, we have two computer rooms here, and you
find machines left on, and paper tossed all around the printer area. Y’know that really bugs me. But generally ‘tis satisfying alright.

**Support**

**R:** Do you have I.T. maintenance contracts?

**ICT:** No not as such – we have two people and they’re very good, y’know very reliable and they do lots of work in other schools around here.

**R:** So you’re happy with the service offered then?

**ICT:** Ah yeah, they’re good lads.

**R:** So That’s grand, now we touched on this already but, how supportive are the staff, in general?

**ICT:** Ah they’re very supportive really, most of them are quite helpful to you, but there’s always a couple who don’t cooperate, they’ve basically got no interest in I.T.

**R:** So Are the staff generally aware of, or sensitive to the time you give to this job?

**ICT:** Yeah, most people are but you’d always have a few asking ridiculous questions, y’know.

**Technical versus Pedagogical**

**R:** So What percentage of your time was used for dealing with technical issues versus pedagogical issues?
ICT: Oh I’d say 75% of my time is dealing with technical stuff. You would get requests or questions about the teaching side of it, ahh CDROMs and websites that might be good but most of your time is spent …ah..fixing up computers and printers and internet problems, I’ll not bore ya with the full list [laughs]

R: So In your opinion would an onsite technology coordinator be of significant benefit to you and your schools? If so, What would the main benefit be?

ICT: Ah sure of course, ‘twould be great. I’d say now the fundin’ for something like that isn’t at the top of any agenda any time soon. But I suppose if someone was available here onsite to sort out technical and hardware issues, I’d have more time to get into the whole pedagogical side of things. ‘Tis definitely an area I would like to spend a little more time on…. if I had the time that is…

R: So any other comments you would like to make?

ICT: Not really anything comes to mind just now, we’ve covered a good lot of the main issues there I’d say.

R: So That’s fine so. Thanks for your time and assistance on this project. You’ve been very helpful.

ICT: No problem. Hope it goes well for ya. Good luck

[Interview terminated – 8 min 51 sec]
Appendix C – Interview 2: IT Consultant

Interview with IT Consultant

Researcher: (R):  Hi [ITC], the following questions are all asked in the context of your interaction with ICT Coordinators in secondary schools? Firstly, to your knowledge, is it the ICT Coordinator who you deal with in supporting schools?

I.T. Consultant: (ITC):  Yeah, I’d say so. I mean there always seems to be one person in a school who looks after I.T. and it seems to be a shifting role.

(R):  From your own dealings with ICT Coordinators in Secondary Schools, how would you describe their job?

(ITC):  I would describe it [R], as difficult for them in some respects Emm..because many of them are filling a teaching role and they're under a lot of pressure to, let’s say, maintain the existing school systems and at the same time perform the teaching role aswell. That's one of the things there. Many of them are … they kind of inherit the role because of their interest in I.T.

(R):  …they kind of fall into the job I suppose..

(ITC):  Yeah, they fall into the role, and … it can be demanding especially in a big school because there’s so many people, we’ll say, many things can go wrong with computers, printers, whatever and they can get pulled and dragged a good bit y’know.

(R):  OK, good enough, Ahmm..
(ITC): They're also very competent people as well, you know they're computer aware, they're aware of their budgets and costs and so on…

(R): OK, How many schools do you do work for, approximately?

(ITC): I suppose I do work for maybe 10 or 12 schools at the moment.

(R): When you are called out to a school for a particular issue, broadly speaking, which of the following two scenarios best describes what happens? (a) The ICT Coordinator informs you of the problem and leaves you to it OR (b) The ICT Coordinator informs you of the problem and works with you to solve it?

(ITC): I'm mostly working 'with them'

(R): So there's a general air of 'interest' in fixing the problem?

(ITC): Yeah, we'll say in [name of partner]'s case he generally works at the PC level, whereas I do most of the work at server and router level, and they're a different skill set.

(R): They complement each other no doubt?

(ITC): Yes, very complementary, and you see the ICT Coordinator may have a little knowledge of the server but no knowledge of the routing, and in that case where the work is at this level, the coordinator would generally leave me to my own devices. Whereas in [name of partner]'s case, he would be configuring PCs at the client side and the ICT Coordinator's are generally interested in shadowing this type of job, they would be keen to learn I suppose you could say.
(R): Do they seem busy, relaxed, in control or how might you describe their demeanour?

(ITC): Well, Busy springs to mind. They don’t strike me as a bunch of guys who have an awful lot of time on their hands, but y’know, at the same time most of them get the job done one way or another, with our help or otherwise.

(R): Can you offer any contrast to school consultancy versus the business kind?

(ITC): Well firstly, let me say this, with the developments in technology, in many respects I would classify a school to be a business, because it’s in the business of education. The other thing about it is too, even though we try to treat the education training and business side of things as separate entities, they’re still using the same technology and in many cases the complexity of the technology in schools is far ahead of that in most business’s. Also with the fact that budgets are so tight at the moment, we’re working, with the ICT Coordinators, on imaginative ways, as to how to maintain the existing batch of machines. Because unlike a business that might have 5 or 6 or 10 machines which would have an end-of-life measuring between 4-6 years perhaps, the schools have 50 or 60 or 100 machines of which many may be over 7 years old and they are part of a batch of, say, 30 machines, the school hasn’t got the funds to replace the machines too often. Even with the price of machines coming down, the vast quantities in schools makes for difficulties in upgrading.

(R): So, an interesting comment there about schools essentially being business’s and that they are as complex in many ways as a business?
(ITC): I would go as far as saying in 90% of cases schools have a more complex computer setup than the average business. The other thing too, is the school administration software and how to interface that with the school network and user accounts. This all increases the complexity of the system. Every year a new batch of students arrive, new accounts need to be setup etc. y’know, no business has a turn around of users to match that of a school if ya think about it that way.

(R): Any other comments you would like to make about the ICT Coordinator Role?

(ITC): Well, I definitely think the ICT coordinator plays a hugely important function in the running of the school and should be...or probably needs a lot more resources, and I don’t mean just financial, I mean more time and flexibility and perhaps some better incentives for that person to do a better job. Now, we’re very lucky, myself and [partner name], in that we work very closely with all the ICT Coordinators, y’know we have a good working relationship like with yourself [name of researcher], and that certainly helps things run more smoothly. Having a good ICT Coordinator in a school definitely helps keep costs down, less call outs, more efficient use of equipment and things like that. The most important challenge that faces ICT Coordinators, I see anyway, is that when the technology advances they have to move with it, keep up-skilling themselves in this area and to balance that with their teaching and perhaps their teaching subject is evolving too.

(R): Ok, Thank you [ITC], I appreciate you taking the time to talk to me.

(ITC): Ok [R] glad to help.

[Interview terminated – 10 mins 08 sec]
Appendix D – Interview 3: ex-ICT Advisor

Interview with ex-ICT Advisor

Researcher (R): What do you see as the main differences, in the roles taken up by ICT Coordinators?

Ex-ICT Advisor (ICT): Some ICT Coordinators are hands-on, they actually do the work themselves and they spend their time fixing printers and things like that whereas others are more project managers where they don't actually do the technical work themselves. The technical type bring in outside support when it's needed and the second type [project manager type] are people who got the post [post of responsibility in school] because it was their turn to get a post. They may not be technically minded or have the expertise or know-how to actually do any of the work themselves so they get the technical people in and what they do, I suppose, is they project-manage I.T. they do maybe costing, and purchasing and that type of stuff.

(R): Ok, if we were to proportion those two types of Coordinator what percentage would fall into each category?

(ICT): I’d say 80 : 20, 80% technical, 20% non-technical. The newer ones can be non technical and these are promotional where someone is in line for a post, literally it’s their turn for a ‘B’ post or whatever the case may be, and they’ve been given this. They've arrived at it not out of choice but by default. That’s what I would say there.

(R): I see. On the topic of ICT Coordinator Skills, do you perceive a need for more training and such?
(ICT): The earlier ones [prior to promotional positions], the original ones, the 80% would have come in out of interest, they would have been early adopters, they would have adopted the technology themselves and come into the school with it and em... the later ones often tend to be em... would have less knowledge of the technology but just have arrived because the school has a post for that position at that time. And they were the person who got the post.

(R): Grand, OK. In your line of work have you come across many ICT coordinators who have been granted some form of time allowance for their duties?

(ICT): Time for their duties, Hmmm, well, that’s open ended ahh I mean, I think, if you look at the standard time provision for posts, that doesn’t prevail for I.T. Coordinators. Y’know, anyone that’s an I.T. coordinator will work way beyond the standard time....

(R): [Cut in...] Had you come across anyone specifically who had allocated time or reduced classes for that reason?

(ICT): Emm.. No not really, I haven’t come across anyone who has reduced classes

(R): I see, but they’re generally putting in hours over and above....

(ICT): There is a situation in primary schools where, what they do is, or what they have done in the past is, they have a resource teacher, they’ve been allocated a resource teacher, and the resource teacher spends their time in the I.T. room in the school and classes are sent to them.

(R): Is there a consistency to their Job Description?
(ICT): The job description [of ICT Coordinator] is not clearly defined, y’know, because anything to do with technology, it often comes down to phones. In the same way as myself here in this job, if the phones were out of order – they’d be onto me. Y’know, anything that’s vaguely to do with computers…and I’ve even visited schools and they’ve asked me about the photocopier, an’ I sort of laughed at them. And, often that’s due to emm.. I won’t say a lack of understanding, but people are just dimly aware of things they’re not involved in. They just think, ‘Oh that’s machines’ or ‘That’s computers.’

(R): How do you perceive their Job Satisfaction?

(ICT): Well, I suppose em, I think this is a life cycle. People are generally delighted,[corrects himself] the ‘technical’ people are delighted to think that ICT Coordinator, in some ways it’s their dream job. But, unfortunately, the dream turns to a nightmare. They start off happy, get frustrated due to…. lack of funding was one reason, time is another – the pressures of time and especially as the use of technology has grown in the school, the demands have just spiralled out of all proportion, whereas it [I.T. in general] was more focused on a room, now, y’know it has become a building situation and eh.. their attitude changes over time, where they start out helpin’ everyone and runnin’ around after people and eventually they get so frustrated they say ‘I’m not doin’ that anymore, y’know, because you always expect people to learn by their mistakes and the fact is, as I see it, that part of the problem is that because the ICT Coordinators are there, in the, kind of, ethos of a secondary school everyone has an area of expertise and they [the ICT Coordinators] are seen as the ‘fix’, sort of like “I don’t need to know about this stuff because ‘Joe Soap’ [the ICT Coordinator] is there and that’s what he looks after! “

(R): [cutting in] …there’s a responsibility shift of sorts?
(ICT): Yeah, ‘I don’t need to know that because there’s somebody else to do it!’ People need to take responsibility for what they’re doing, and for some of the equipment they use, even on a very basic scale, y’know.

(R): Very well – Now in the area of support to the ICT Coordinator, do most schools have, for instance, a maintenance contract?

(ICT): Well, I would see it that most schools would have, I would say a maintenance ‘agreement’ rather than a fixed contract as such, whereas they would have, most schools would have maintenance people that they would have an arrangement with, it may not be a contract as such..

(R): cutting in] …more of a ‘call out’ arrangement?

(ICT): Ah, generally the people who work with schools, or the people who work ‘successfully’ with schools are the people who provide a service, not on a contract basis, but they will actually maintain their machines. Generally schools tend to ‘buy’ I.T. support when they need it rather than pre-paying for it.

(R): Would you feel that the I.T. Coordinators are generally happy with the maintenance services offered?

(ICT): Ah, again the issue that comes up there is the lack of funding and in some ways it’s more of an issue with principals rather than with I.T. coordinators. Certainly it is an issue in schools in that there has never been any money allocated for technical support. Any I.T. funding has always been for capital expenditure on hardware and software, but there never has been a technical maintenance grant given to schools.

(R): …So the schools must fund this themselves then..?
Yes, but I suppose that's more an issue for principals than I.T. coordinators.

..none-the-less it affects I.T. coordinators..?

Yeah, the department have looked into it and my understanding of it, I've been told, I'm not sure but there is some sort of a pilot scheme in Cavan for technical support for schools run by the VEC, now whether….lots of VECs have their own technical support like the VEC here in [region] have, I think some of the VECs are looking to expand that out to other schools. But management of these technicians is important. 'tis as important as having them in the first place. I know the local fella here was needed in a school to do a job, and he was off on a week's holidays, which he's entitled to, but nobody seemed to know he was going to be away. Y'know, management is vital.

..possibly to share a technician or something like that?

yeah, to provide that service, now it's still only in the pilot stage, but obviously most ICT coordinators do have a relationship with someone and they're happy or tend to be happy with that. It's more of an issue for smaller schools because people are not interested in...em...the school has 3 or 4 computers and it doesn't pay them to go out, and sort of switch on or plug in the printer...it's more of a handy man they need, but if you have a big school with lots of machines then there's a spin-off with purchasing and there's more economy of scale.

Thanks for that [name], regarding the area of pedagogy versus technology – how do the ICT coordinators balance these duties?
(ICT): Oh to put a figure on it, roughly again I would say, at least 80% technical and 20% pedagogical. And I do think there's a need for pedagogical requests and it's often very difficult for an ICT coordinator to be 'au-fait' with eh....because again I think part of it is down to the tradition of the secondary school where everybody has their own expertise. So, me, as a biology teacher is not going to tell a geography teacher how to teach geography. So the pedagogical advice...so. ah.. there's a little hump there so most of the advice the ICT coordinator gives is technical. But, there should be a little more pedagogical in it, it's the technical support to allow the teacher to do their job, what they want to do, and eh..there is an area there where technical and pedagogical, y'know there's a blurring of the lines, if that's what you call it. There does tend to be more technical support.

(R): Would an onsite technology coordinator be of benefit?

(ICT): Someone on-site would be very beneficial, I think it's coming towards a necessity. The I.T. coordinator would then fall back into a role of project manager, to make sure that things get done. Because, an' I've seen it with some schemes where a technician has been employed, they generally fall down, not because of the technician or the technical expertise of the person but due to a lack of management. There tends to be this attitude of 'Right, we need technical support- put a technician in place!' And the technician may be quite good technically, but they may not be able to manage the support. It's one thing having people going in fixing computers, but it's another thing managing your working day and your working week, and actually putting a structure on it and 'that' to me, would be where the role of the ICT coordinator would be, to insure that the needs of the school are met, by the technician, so that people can actually teach effectively so that the technology is being used to its maximum benefit, that the teachers can actually teach effectively. 'Cause the technician himself can only do what he's asked to do.
(R): So the Coordinator would kick in here in a management role?

(ICT): Absolutely, because there obviously has to be a channelling of tasks, y’know, he can’t be off getting some paper out of a printer when there’s no internet in half the school or something like that. Someone has to tell them, to prioritise or just manage them. I have found, that dissatisfaction with in-house technical support is usually due to a lack of management, proper management, and that’s really where the I.T. coordinator should come in because they have the vision of the teacher and if there’s a ICT Plan there then the school has a vision of how technology should be used in teaching and learning and basically delivering the curriculum. So if the ICT Coordinator knows what the vision of the school is, not the vision of the ICT coordinator, this is where the principal and the teachers come in, they have to buy into the ICT plan. They, then, can use the… especially in a larger school… the technology coordinator if you’d like to call him that, now maybe coordinator mightn’t be the right word there, the technology [pause] assistant maybe, or school technician, they can utilise them to the full, to insure that learning happens in the school and that it’s not that there are technical problems that interfere with learning.

(R): That’s great [Name], thank you very much for your time and insight into this whole area.

(ICT): No Problem [researcher name] I hope I’ve been of some help……

[Interview Terminated – 14 min 06 sec]
Appendix E – DES Salary Allowances

DES Allowances - Add on posts of responsibility

Assistant Principal  €8,968
Special Duties  €3,967

Special Functions Allowances
  1. €3,400
  2. €5,192
  3. €6,863
  4. €8,603
  5. €8,968

Source [www.asti.ie](http://www.asti.ie) [accessed Aug 09]