

# **An Investigation of Primary School Teachers' and Principals' Attitudes towards Online Teacher Training**

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## Declaration

This dissertation is entirely my own work, and has not been previously submitted to this or any other third level institution.

Signed: Sarah Alliton

Date: 28/03/2009

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## Abstract

This study examined the attitudes of primary school teachers and principals towards online learning.

82 primary school principals and teachers completed an online questionnaire examining attitudes towards online learning.

Results revealed a negative attitude towards online learning and qualifications obtained online. Hypothesis 1, which stated that primary school teachers will have a hierarchy of perspectives towards qualifications obtained online and offline, was supported as primary school teachers believe that online course graduates are not as qualified as traditional course graduates.

Hypothesis 2, which stated that primary school principals would choose a person with a qualification from a traditional course before a person with an equivalent online course qualification, was supported with nearly three-fifths of principals reporting that they would recruit a traditional course graduate before an online course graduate.

## 1. Introduction

### 1.1 What is online learning?

Online learning is not a clearly defined term but is interlinked with e-learning, distributed learning, web-based learning, distance learning, technology based learning, collaborative learning and network learning (Wentling et al. 2000). There is still much debate over where it fits into or replaces the traditional methods of learning i.e. classroom learning. According to Cloete (2001) online learning has become a widely accepted learning platform. Online learning includes all teaching and learning that is delivered via electronic media such as the internet, intranet, and hypermedia documents (Govindasamy, 2002). Worldwide, the online learning market has a growth rate of 35.6% (Sun, Tsai, Finger, Chen & Yeh, 2006). The estimated global market for online learning was \$18.5 billion in 2005 (Nicholson and Sarker, 2002). For the purpose of this study the definition of Online Learning that will be used comes from Wentling et al. (2000). Wentling et al. (2000) suggest that online learning is “the acquisition and use of knowledge distributed and facilitated primarily by electronic means” (p.5).

Throughout this study, online learning will be compared to Traditional Classroom Learning (TCL) which is characterized by face-to-face interaction in an environment that focuses on instructors/teachers who have control over class content and the learning process.

### 1.2 Advantages and disadvantages of online learning

Online Learning offers many advantages to learners and teachers alike. James (2007) highlights many advantages such as extendibility, accessibility and suitability. The learners can complete courses at their own pace and can access the learning at any time. Online Learning can be delivered across many platforms and accessed throughout the world. The learners and teachers will save time and expense as the learning is delivered directly to the learner.

McComb (1993) anticipated three main advantages of Online Learning; asynchronicity, efficient information access, and increased social distance. Asynchronicity is undeniably advantageous as it allows students and instructors to work at their own pace. The learners experience more control and flexibility in the learning experience. Asynchronicity also allows students to share their thoughts after they consider they have researched sufficiently and formed an appropriate response. In this way, students have the potential to give the best answer rather than express mixed on-the-spot thoughts. Efficiency of information access is also a positive characteristic of online learning. Not only can information be updated daily in an online environment but also, there is an electronic paper trail of discussions and information which can be saved in a chronological organised manner for future reference or to clarify points in class.

Increased social distance is an interesting aspect of online learning that McComb highlighted in 1993. According to McComb (1993), this increased social distance, in a way promotes democracy within a group of students. In traditional classroom learning, sometimes extroverted and opinionated students take up a larger share of the limited classroom time. In online learning this is not an issue because each individual can post their thoughts and can choose to view or ignore others thoughts. This increased social distance may also give students with opposing viewpoints a forum in which they can express their views with confidence without the fear of face-to-face retaliation or conflict.

Aragon (2002) found that the learning styles of individuals are a key factor in student's motivation in online learning and traditional classroom learning. The fact that learners are self-motivated when undertaking Online Learning may lead to them being more inclined to complete the course on time and with more accuracy. Theoretically, computer based education has a greater potential for reaching the multiple intelligences (linguistic, logico-mathematical, intrapersonal, spatial, musical, bodily kinesthetic, and interpersonal) that Howard Gardner outlines in *Frames of Mind* (Smith, 2002).

According to Burgess and Strong (2003), online learning requires student engagement and online learners have to take a greater responsibility for their learning. Online collaboration is a further advantage of online learning. Collaboration is known to be a very useful pedagogical method of learning (Schellens & Valcke, 2006). Collaborative learning is where students share experiences and exchange ideas in a group setting in order to find solutions to problems and in doing so gain knowledge from each other.

There are however some disadvantages associated with online learning. Online learning requires the learners to have some experience with online environments and those who are uncomfortable using technology will experience many problems (Zhang, Zhao, Zhou & Nunamaker, 2004). New technologies will require time and training in order to take full advantage of its capabilities. Thus, learners will be taking courses in technology before they begin their course of choice. Internet delivery can sometimes frustrate learners because of browser or bandwidth limitations. This can lead to slower performance of sound, video and graphics and so the content and design of some online learning courses is quite basic. Unlike traditional classroom learning where feedback is usually immediate, some online learning platforms do not provide immediate feedback to students. This can cause frustration, anxiety and confusion (Zhang, Zhao, Zhou & Nunamaker, 2004).

### 1.3 Online learning courses Vs. traditional classroom learning (TCL)

Advances in technology since the 1990s have led to an increase in learning and teaching using information and communication technology (ICT) (Rodriquez, Ooms & Montanez, 2008). Online environments enable geographically remote individuals to take part in collaborative learning without either time or space constraints (Brandon & Hollingshead, 1999). Online learning provides students with an opportunity to access higher education that in normal circumstances would be unable to attend traditional courses due to employment, responsibilities or expenses (Hannay & Newvine, 2005).

Nichols (2003) suggests that online learning needs to enhance the teaching and learning process, rather than just be used as a flexible delivery medium.

In a study by Favretto, Caramia and Guardini (2005), the results illustrated that online learners must be active in assimilating as much knowledge as possible to reach a high level of expertise and to attain good grades. They must also take part in and complete many activities together online; thereby increasing their understanding of the concepts they are learning. The researchers suggest that traditional based students may in this same learning situation assume a passive role in a form of dependence on the teacher. Favretto et al. (2005) also found that on average, the online learners' grades were as good, if not better than the marks of the traditional based students.

Turner and Crews (2005) highlighted the importance of the availability of different types of online communications to the learners and teachers. Comparing online and traditional educational settings, Turner and Crew (2005) suggest that online communications forces all students to voice their opinions and contribute to discussions, whereas within traditional classroom learning, some learners may never contribute to discussions. Due to the anonymity of some online communications where students can be known by student numbers, students may also feel more equality with the teachers while contributing to discussions. Christopher, Thomas and Tallent Runnels (2004) found that students who were involved in online learning created more thoughtful responses to discussions primarily because these students had more time to think about and structure their opinions in accordance with what they had previously learned whereas in traditional classroom based learning, students often blurted out responses without thinking about their answers. Turner and Crews (2005) state that although online learning environments require teachers and instructors to facilitate extensive written communications, respond to discussions, evaluate students work continuously and working hours are long, the advantage is that the learning experienced appears more profound and the discussions seem broader and wider.

As online learning courses have proliferated, questions have been raised about the effectiveness of this type of learning in comparison to the traditional classroom learning style. There has been extensive speculation about different factors that may make online learning less effective than traditional classroom learning for students. Carr (2000) suggests that the lack of face-to-face interaction between students and teachers or among the students can be detrimental to the students learning and the success of an educational program. However, the research outlined below emphasises the success of online learning.

Neuhauser (2002) investigated two sections of the same course; one section was in an online learning format and the other was traditional classroom learning. The two sections were taught by the same instructor and the same materials were used for both sections. This study revealed that both groups of students had the same retention rate of 84%. The average test score for the online learning group was 88.1%, and 86.2% for the traditional classroom based group. The mean final grade for the online learning students was 3.5 and 3.35 for the classroom based group. Test scores and final grades were both higher for the online cohort but not significantly higher. 95% of the online learning students thought that the online course was as effective, if not more effective, than the more traditional based classroom learning.

In a similar study in 2006 by Aivazidis, Lazaridou and Hellden, traditional and webbased versions of an environmental education program were compared in order to determine the effectiveness of each program in raising knowledge and attitudes of environmental issues. The research illustrated that there was a significant difference in the scores of the students who received the web based instruction and those students who received traditional instruction with the web based group outscoring their traditional counterparts. Aivazidis et al. (2006) found that the effective use of ICT in a supplementary manner to hands on teaching would benefit the curriculum.

Student achievement in online learning was discussed by Schacter (1999). Schacter found that there was an increase in student's final examinations scores when Online Learning was implemented into traditional classroom learning and summarizes that students may learn more quickly when using Online Learning.

Online learning can be challenging for both teachers/instructors and students. Teachers can sometimes have a negative view of online learning because there is a need for intensive faculty preparation. Shaw and Young (2003) compared an online learning course and a face-to-face learning course and found that the online course required 30% more effort from the teacher/instructor than the equivalent face-to-face course. In some cases, there can also be a lack of two way communication. It can be difficult to track student progress and there is a loss of hands-on demonstrations which are critical for learning. Coomey and Stephenson (2001) stress the importance of constant support and feedback from teachers on an online learning course. If students do not receive this support, they will not experience effective learning.

According to Kim (2004), online learning is opening windows to more educational opportunities for students worldwide. Many of these opportunities are fully accredited courses offered by major universities.

#### 1.4 Online learning courses in Higher Education

An online degree is a term used to refer to a degree program that is completed online rather than by attending traditional classroom lectures. An online degree allows students to complete all relevant course work, tests, examinations and assignments over the internet so the student does not even have to leave their home. According to Learn Source (2008) in the past, online degrees were not regarded with the same value and esteem as traditional classroom based degree programs. However, nowadays, online degrees are accepted by most colleges and universities and also by the majority of

employers when they hold the same merits and accreditations as traditional colleges and universities.

In the last five to ten years, online degrees have become enormously popular and enrolment in online degree programs has been increasing by 30% each year. MIT's attempt to offer all traditional classroom learning courses as online learning courses has illuminated to other academics, the importance of Online learning as a method of teaching (Wu, Tsai, Chen, & Wu, 2006). According to Allen and Seamen (2004), online learning opportunities are rapidly expanding in higher education. Recently, numerous degree, Masters and PhD courses have been made available online (Allen & Seaman, 2005). More than 75% of all universities and colleges in the United States are now offering some kind of online degree programs.

Online learning is becoming popular in Ireland also. For example, the highly regarded Irish Higher Education and Training Awards Council (HETAC), currently accredit a small number of online degree programs such as the BA (Honours) in Applied Social Studies (Disability) in Open Training College and the Higher Diploma in Arts in Primary Education and M.Sc. Pharmaceutical Medicine in Hibernia College. HETAC award equivalent accreditations in face-to-face programs such as the BA (Honours) in Applied Social Studies in Waterford Institute of Technology and Higher Diploma in Education (Primary Teaching) in Froebel College of Education.

Russell (1999) states that students who take part in online courses perform as well as their face-to-face counterparts. Russell refers to this as the "No Significant Difference Phenomenon". Zhao, Let, Yan, Lai, and Tan (2005) found that since 1998, the quality of online learning has improved dramatically and may eventually lead to better outcomes than traditional face-to-face lectures.

In a study by Strickland and Butler (2005), the researchers found that 58% of students who were beginning an online course held positive attitudes towards online learning. On completion of the same online course, 83% of students had positive attitudes towards online learning. Santally (2005) found that students who had taken part in online learning were satisfied with the level of their learning and 81% would prefer not to go back to traditional methods of learning. Samarawickrema (2005) found that independent learners experienced some problems with time management but the main reason for students' negative attitudes towards online learning is due to a lack of computer skills and poor accessibility to computers (McMahon, Gardner, Gray & Mulhern, 1999). Churprakobkit, Hale and Olson (2002) also found that lacking the required technical skills can become a barrier to online learning. Similarly, Stokes (2003) found that students who felt more at ease using the internet were more likely to be satisfied with their online learning experience than students who were not comfortable using the internet. Wright (1999) found that in some cases, students who took part in an online learning course were more satisfied with their learning experience than students who took part in a face-to-face course.

According to Hannay and Newvine (n.d.), some students prefer online learning because it allows them to balance study with other commitments. Furthermore, students believe that they acquire a higher standard of education through online learning and they do not consider choosing online learning over face-to-face education to be a sacrifice in quality.

However, whether or not students enroll on an online course rather than a face-to-face course largely depends on the marketplace. The perception of online learning in the marketplace will determine the future of online learning (Bernard et al. 2004).

### 1.5 Attitudes towards online learning in primary school teaching

According to the Department of Education and Science (2009) and Eirjobs.ie (2009) there are currently five Colleges of Education in Ireland which offer recognised qualifications for primary teaching; The Church of Ireland College of Education, St. Patricks College, Mary Immaculate College, Froebel College of Education and Coláiste Mhuire: Marino Institute of Education. These colleges offer full-time courses which lead to a Bachelor of Education degree and are all face-to-face courses. Graduates of the courses above are now competing for primary school teaching jobs with graduates of an on-line primary teacher training course; Hibernia College's Higher Diploma in Arts in Primary Education. This online course is accredited and fully recognised by the Department of Education and Science.

Hibernia College's Higher Diploma in Arts in Primary Education was originally developed to address the shortage of qualified teachers in Irish primary schools. The main goal of the online course was to encourage more people to consider primary school teaching as a profession by offering a more flexible study option. The course is now in its fifth year and has grown to a point where it is now the leading supplier of primary school teachers in to Irish primary schools. According to Hibernia College (2008), graduates of the Higher Diploma in Arts in Primary Education are highly regarded by the teaching community.

The present study focuses on the attitudes of principals (primary school recruiters) to recruiting graduates from both the traditional classroom based course such as the course offered by Froebel College and the online course offered by Hibernia College. The present study also aims to uncover the attitudes of teachers working with colleagues from the two types of courses.

### 1.5.1 *Primary School Teachers*

Online learning can be challenging for both teachers/instructors and students. Teachers can sometimes have a negative view of online learning because there is a need for intensive faculty preparation. Shaw and Young (2003) compared an online learning course and a face-to-face learning course and found that the online course required 30% more effort from the teacher/instructor than the equivalent face-to-face course. In some cases, there can also be a lack of two way communication. It can be difficult to track student progress and there is a loss of hands-on demonstrations which are critical for learning. Coomey and Stephenson (2001) stress the importance of constant support and feedback from teachers on an online learning course. If students do not receive this support, they will not experience effective learning. This finding will also add to the negative attitude that some teachers have towards online learning.

Most of the research available regarding teachers and online learning focuses on the difficulties teachers experience when trying to change from traditional ways of teaching and teach online. Although this information is important and may affect teachers attitudes towards online learning as a whole, the present study focuses on the attitudes of teachers who are online course graduates or traditional classroom graduates and teachers working alongside online course graduates.

According to Clarke (2008), student teachers are particularly proficient to comment on learning within online contexts and their enthusiasm for learning and education could serve to improve the quality of their own opinions and others opinions of online learning. Loughran (1999) states that teachers at all levels should be attuned to their students experiences of learning and so should be more open and accepting of less traditional types of learning such as online learning. Recent graduates of teaching degrees are more computer literate than ever before (Simpson et al. 1998). As graduates of teaching degrees are becoming more aware of the need and uses of computers in education, attitudes towards online learning graduates may change.

The importance of better attitudes towards online learning does not only lie in attitudes towards online graduates but it could also bridge the divide between teachers and pupils in schools.

“...the single biggest problem facing education today is that our Digital Immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language” Prensky (2001, p. 38).

### 1.5.2 Recruiter - Principal

Although many studies have found that online learning can sometimes exceed face-to-face, some recruiters have worries that it is not as credible and not of the same quality as face-to-face learning (Carnevale, 2003).

Adams and DeFleur (2005) found that applicants who held traditional degrees were preferred by recruiters than applicants who held a degree from blended or online learning. When respondents were asked to choose between an applicant with a traditional degree and an applicant with an online degree, 98% of recruiters chose the applicant who had undertaken the traditional degree. 85% of respondents stated that the main reason for choosing the applicant with the traditional degree was because they had reservations with earning degrees online. In a similar study by Flowers and Baltzer (2005), the research found that recruiters were “significantly less likely to hire an individual to either a tenure or non-tenure track position because his or her doctorate was earned online”. (p. 37)

Even within academic institutions, Defleur and Adams found that graduate admissions directors were biased when offering places on graduate programs. The research shows that even when all other application information is equal, applicants who had studied even partly online were less likely to be recommended for admission. Allen and Seaman (2005) also found that the primary obstacle to the success of online doctoral programs is that those evaluating the credentials of faculty applicants may consider online doctoral degrees substandard compared to face-to-face degrees. However, Allen and Seaman (2005) also mentioned that as online education becomes more prevalent, attitudes of recruiters may change. Although HETAC obviously hold these courses in

the same regard and research also suggests that online learning is at least as effective if not more effective as face-to-face learning (Russell, 1999), it would seem that many recruiters hold a hierarchy of perspectives in that they think online learning courses are inferior to face-to-face courses.

### 1.6 The present study

It is the purpose of the present study to investigate the change in attitudes predicted by Allen and Seaman in 2005. As the field of technology improves so too will online learning courses. Online learning courses today that make use of newer technologies such as podcasts, vodcasts, virtual teaching assistants, virtual environments and collaborative learning platforms may contribute to a change in attitudes towards online learning. Therefore it is important to research attitudes towards online learning in today's technologically advanced society.

Hibernia College (2008) states that graduates of the Higher Diploma in Arts in Primary Education are highly regarded by the teaching community in Ireland. This study aims to uncover the truth behind this statement by focusing on the attitudes of principals (primary school recruiters) in recruiting graduates of online learning courses and traditional classroom learning courses. It will also study primary school teacher's attitudes towards graduates of online courses and online teacher training courses in particular.

As Clarke (2008) suggests that teachers are particularly proficient to comment on learning within online contexts due to their enthusiasm for education and Simpson et al. (1998) states that teacher training graduates today are much more computer literate than ever before, the present study also aims to discover whether computer experience, age and gender of teachers and principals will have an effect on attitudes towards online learning and online learning graduates.

## 1.7 Research questions

Are primary school teachers and principals attitudes towards online teacher training courses for the most part negative ones?

Are online learning courses in particular online teacher training courses seen as inferior to traditional/classroom learning courses?

Will demographical information of primary school teachers and principals such as age, gender and computer experience effect participants attitudes towards online learning?

## 1.8 Hypotheses

*H1 – Primary school teachers will have a hierarchy of perspectives towards qualifications obtained online and offline, and will consider those obtained offline to be superior to those obtained entirely through online learning.*

*H2 – Primary school principals/recruiters would choose a person with a qualification from a traditional classroom learning course over a person with an equivalent online learning course qualification when experience and other educational achievements are controlled for.*

## 2. Methodology

### 2.1 Participants

Purposive sampling was used in order to select participants. 84 participants took part in the study. Participants were divided into two groups; teachers and principals. 48 (57%) participants were teachers and 36 (43%) were principals. 21 (25%) participants who took part in the study were male, 61 (73%) participants were female and 2 (2%) participants did not disclose their gender. All participants were aged 18 years and over (see Table 1 below).

*Table 1: Participant Ages*

	Age				
Age range	18-25	26-35	36-45	46-55	56+
Amount of participants	10 (11.9%)	27 (32.1%)	16 (19%)	17 (20%)	14 (16.7%)

### 2.2 Materials

The attitudes towards online learning survey was created and compiled by the researcher with the view of ultimately supporting/rejecting the hypotheses. Existing research was considered in creating the survey. The survey was divided into four parts; demographics, principal specific / teacher specific questions, online learning experience and attitudes towards online learning scale.

The attitudes towards online learning scale consisted of nine statements and the participant was required to rate each statement on a Likert scale. Each response was weighted with a score from 1-5, depending on the negativity/positivity of the response. An overall score was assigned to each participant on the scale, ranging from 0-45. A

higher score represented a more negative attitude towards online learning.

## 2.3 Procedure

A survey design was employed, using a between participant comparison of primary school teachers and recruiters. The data collected provided both quantitative and qualitative data.

### *2.3.1 Pilot study*

A pilot study was carried out prior to the study in order to identify any unforeseen complications with the Attitudes towards Online Learning Questionnaire. Three participants from each group took part in the pilot study. The Attitudes towards Online Learning Questionnaire was originally created using Google Forms. The pilot study participants found this software to be difficult to use and the researcher also discovered that scoring questionnaires in this format was unnecessarily complicated. Some questions on the questionnaire were reviewed in light of the participant's feedback. The researcher also found that some answers were not appropriate to the question and so these were updated and reviewed. The participants agreed that 15-20 minutes was an adequate indication of how long it would take to complete the survey.

The Attitudes towards online Learning questionnaire was reviewed and all issues that were identified during the pilot study were resolved before data collection began.

### *2.3.2 Attitudes towards Online Learning Survey (Appendix B)*

The Attitudes towards online learning questionnaire was administered in an online setting. Each participant gave their consent prior to participating in the study by clicking "consent" on the first page of the survey (Appendix A). The participants were briefed on the purpose of the study, and how the study was to be conducted before the study began. The participants had an unlimited amount of time to complete the questionnaire and were informed that withdrawal from the study was possible at any stage during or after the data collection. The participants were requested to answer all

questions on the Attitudes towards online learning questionnaire, however it was stated, clearly, to each participant that questions can be left unanswered if the participant wishes. Help was offered by the researcher for any problems that may have arisen throughout the course of the survey by means of email. When the surveys were completed, participants were debriefed (Appendix C).

## 2.4 Ethics

Before data collection commenced, a research proposal was put before the IADT Department of Learning Sciences Ethics Committee. Any concerns raised were examined and rectified and approval was granted. Only participants who gave consent were allowed to partake in the study. Those who did not give consent were directed to the last page of the study and asked to exit the survey. The online survey ensured anonymity and confidentiality of participants during and after the data collection process. There were no known risks to participants. A brief and debrief were presented to participants before and after the study.

### 3. Results

After data collection, raw scores were inputted into SPSS for statistical analysis. Statistics such as Mann Whitney's, Kruskal-Wallis', and correlations were used to test the hypotheses and address the research questions. The descriptive statistics are illustrated below in the form of pie charts, bar charts and scatter plots.

#### 3.1 Education status

Figure 1 describes the education status of participants. 64 (76%) participants were traditional classroom graduates. 3 (4%) participants were online course graduates. 5 (6%) participants were current traditional classroom students, 1 (1%) participant was a current online student and 11 (13%) participants provided no answer.

The current online student and current classroom student response options were originally included with the intention of having participants from online and classroom based teacher training courses. However, due to recruitment difficulties, students were omitted from the study. Any responses that indicate current student status reflect teachers/principals in further professional development.

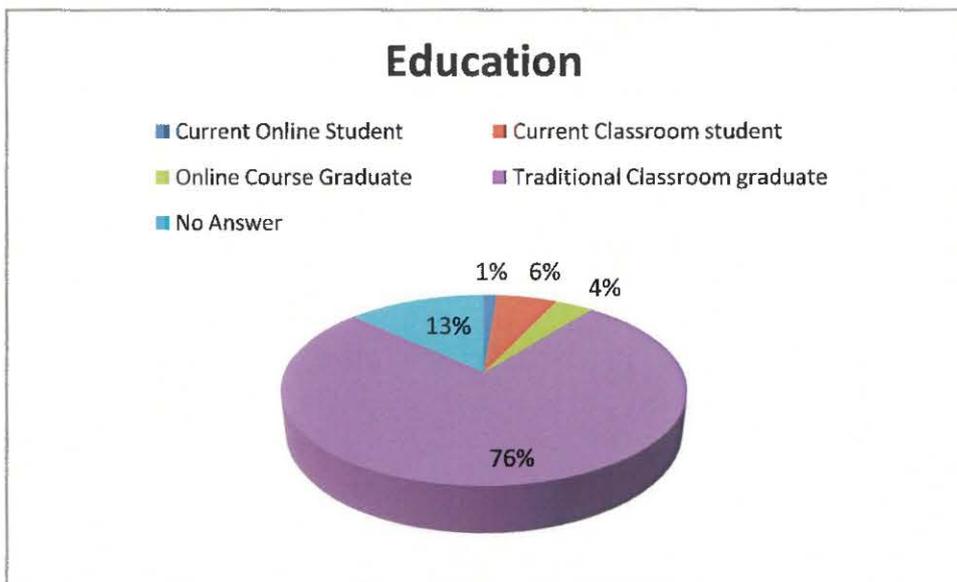


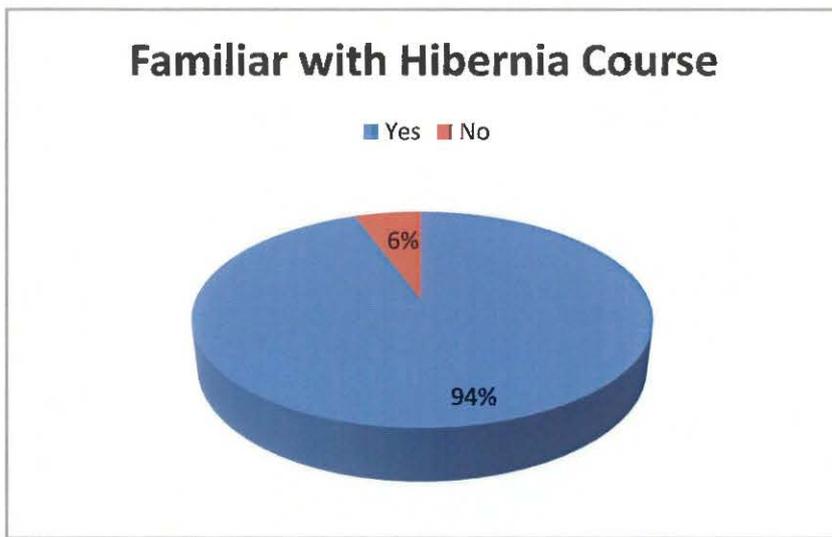
Figure 1: Education Status

### 3.2 Principals / Recruiters

This section reports the findings from the questions in the survey that were designed specifically for primary school principals/recruiters.

#### *3.2.1 Familiar with Hibernia*

34 (94%) principals reported being familiar with the online teacher training course provided by Hibernia College. 2 (6%) participants were not familiar with the course in Hibernia College.



*Figure 2: Principals Familiar with Hibernia Course*

### 3.2.2 Employed online graduate

17 (47%) principals reported that they had employed a graduate of the Hibernia online teacher training course. 19 (53%) principals had not employed a graduate of the Hibernia online teacher training course.

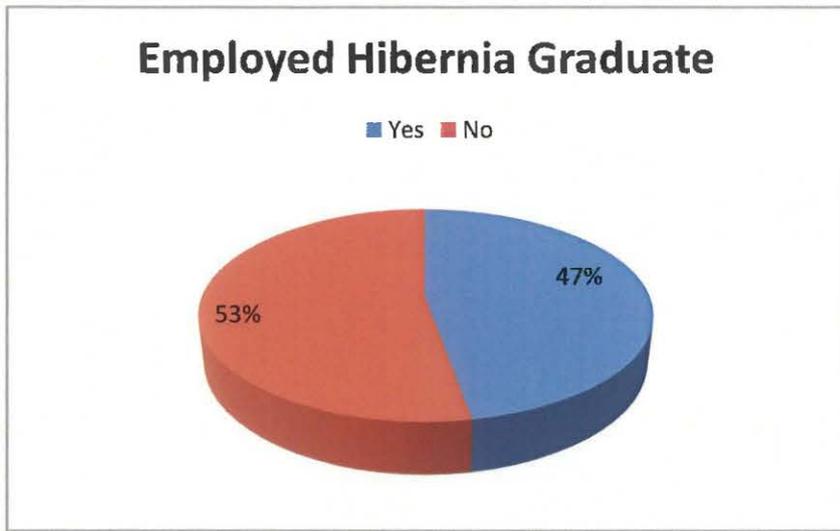


Figure 3: Employed Hibernia graduate

### 3.2.3 Consider online as qualified

19 (54%) principals who completed the survey would not consider an online graduate to be as qualified as a traditional classroom graduate. 16 (45%) principals thought online graduates were as qualified as traditional classroom graduates. No principals considered online graduates to be more qualified than traditional classroom graduates. 1 (1%) principal did not respond.



Figure 4: Principals consider online graduate as qualified as traditional graduate

### 3.2.4 Recruitment

19 (53%) principals stated that they would recruit a traditional graduate before recruiting an online graduate. 13 (36%) principals consider both graduates equal. 1 (3%) principal would recruit an online graduate before recruiting a traditional graduate and 3 (8%) principals did not respond.



Figure 5: Recruitment

### 3.3 Teachers

This section reports the findings from the questions in the survey that were designed specifically for primary school teachers.

#### 3.3.1 Where teachers have trained?

13 (27%) participants trained in St. Patricks College, 10 (21%) participants did their training in Froebel College of Education, 8 (17%) participants studied in Mary Immaculate College, 6 (13%) participants trained in Coláiste Mhuire, Marino Institute of Education, 3 (6%) participants did their training in Hibernia College, 3 (6%) participants in another college within Europe, 3 (6%) participants in a college outside of Europe and 2 participants trained in Church of Ireland College of Education.

As Hibernia was the only online college, in total 3 (6%) participants completed their teacher training online and 45 (97%) trained in traditional colleges of education.

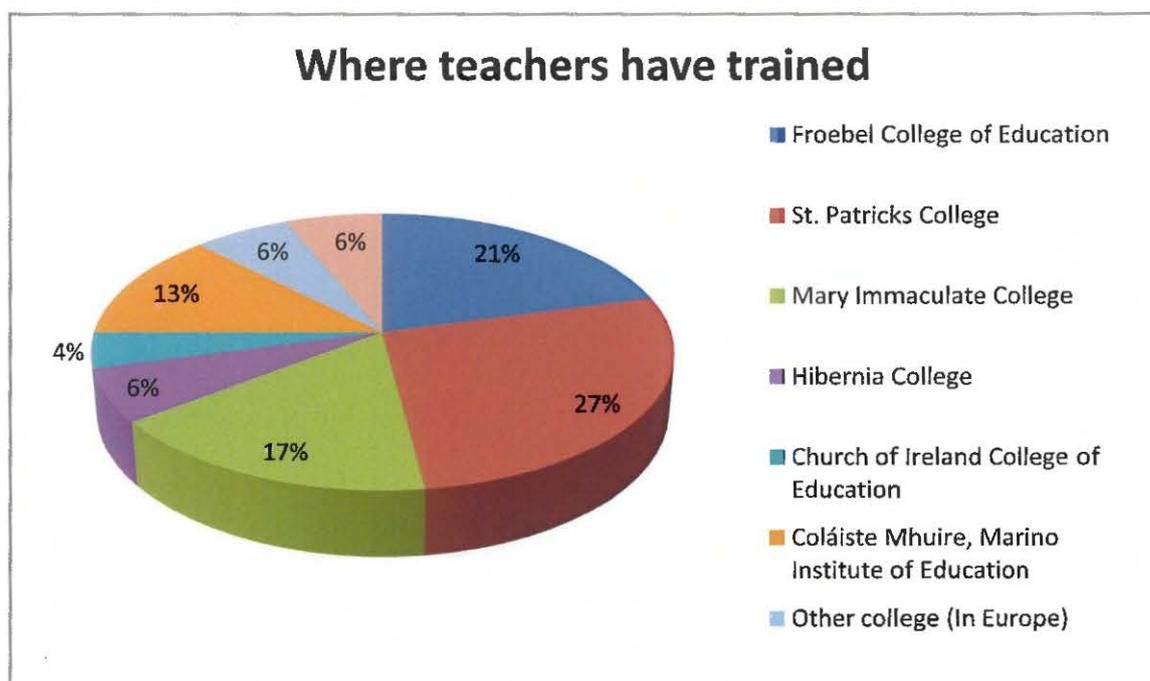


Figure 6: Where teachers have trained

### 3.3.2 Do teachers know where their colleagues trained?

42 (87%) teachers surveyed were aware where their colleagues had done their teacher training while 6 (13%) teachers were not aware where their colleagues had trained.

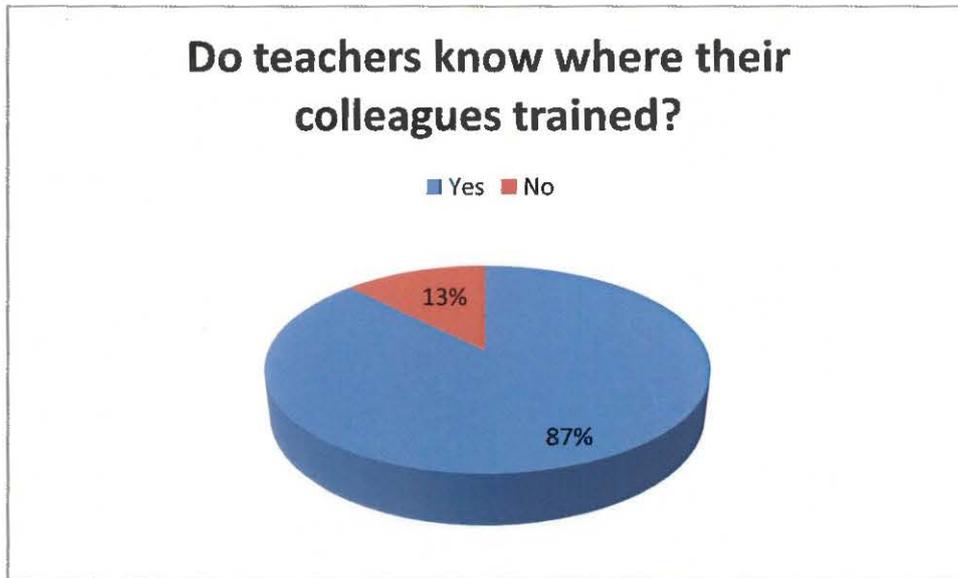


Figure 7: Do teachers know where their colleagues trained?

### 3.3.3 Familiar with Hibernia's online teacher training course

38 (79%) teachers surveyed were familiar with Hibernia's online teacher training course while 10 (21%) teacher participants were not familiar with it.

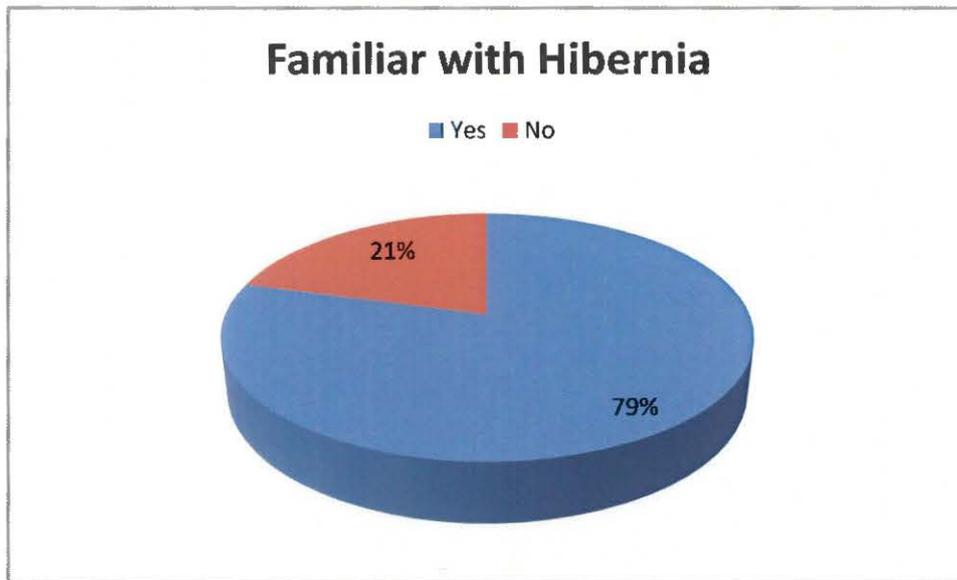


Figure 8: Teachers familiar with Hibernia

3.3.4 *Did any of the teachers' colleagues train in Hibernia College?*

34 (71%) teachers stated that they did have colleagues that had done their teacher training in Hibernia College. 13 (27%) had no colleagues that were Hibernia graduates. 1 teacher did not know whether any of their colleagues did their training in Hibernia College.

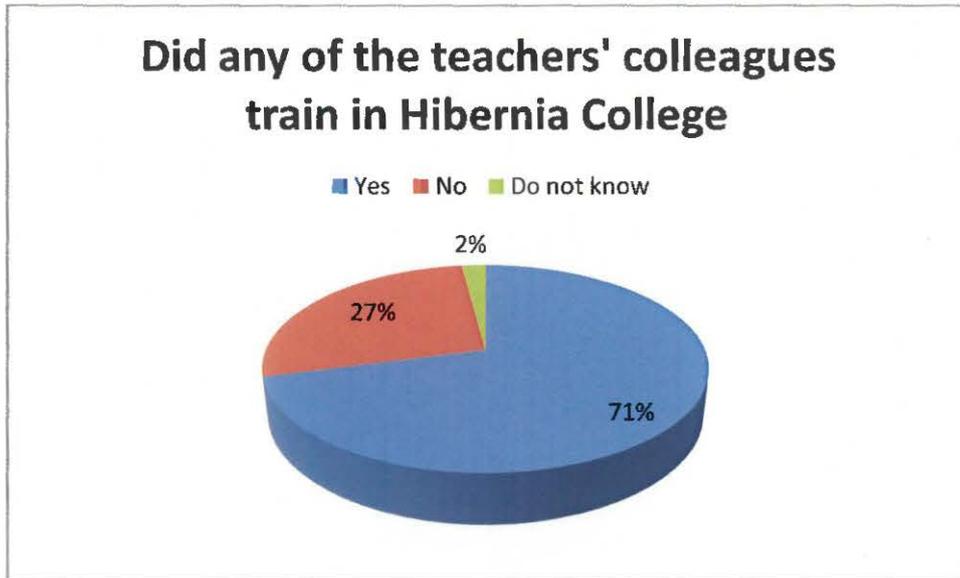


Figure 9: *Did any of the teachers' colleagues train in Hibernia College?*

### 3.3.5 College determines quality of teaching?

26 (54%) teachers surveyed did not think that the institution that teachers train in determines teaching standards and 20 (42%) teachers thought it did determine teaching standards. 2 (4%) teachers did not respond.

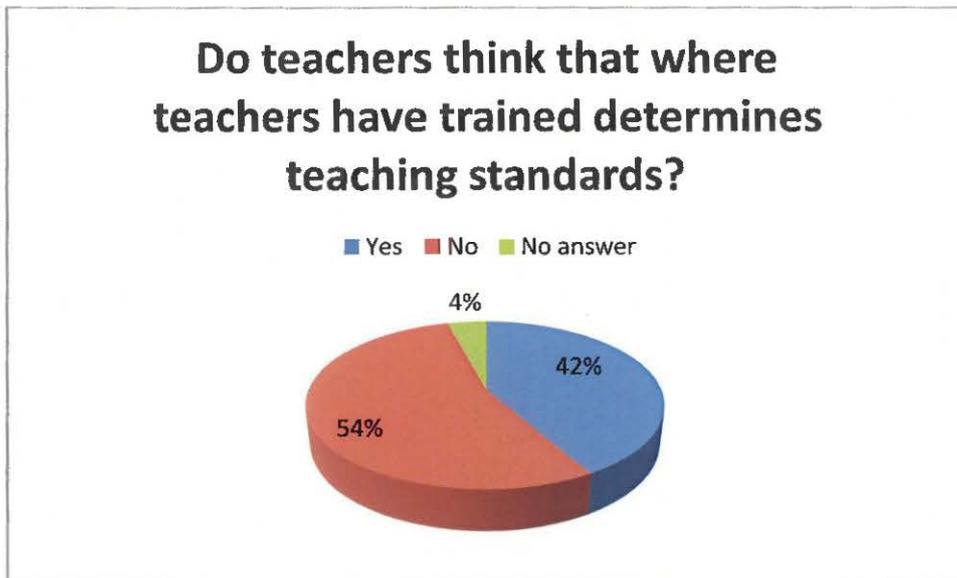


Figure 10: Training determines teaching standards

### 3.3.6 Are online graduates as qualified as traditional course graduates

21 (44%) teachers stated that online course graduates are as qualified as traditional course graduates. 26 (54%) teachers thought online course graduates were not as qualified as traditional course graduates. 1 (2%) teacher did not respond.



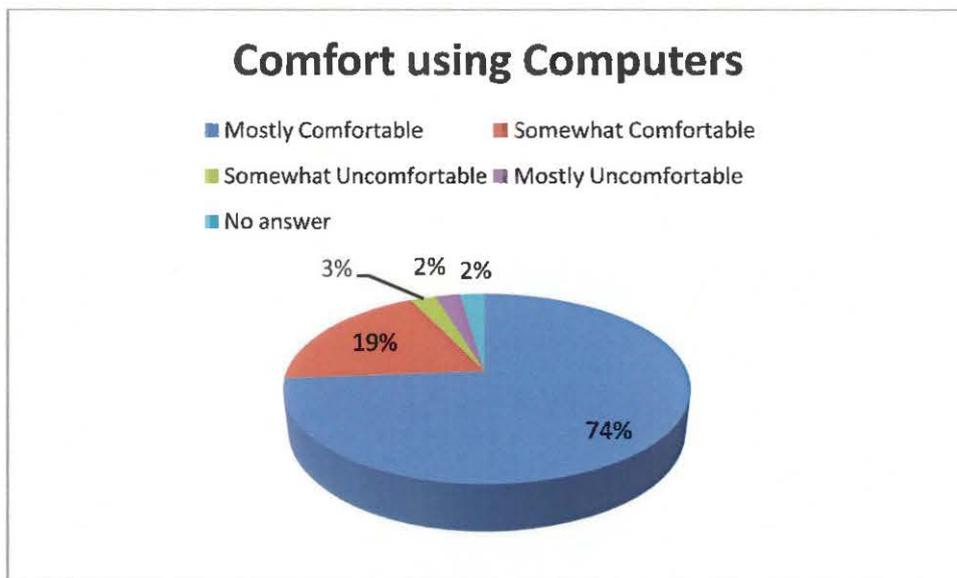
Figure 11: Are online graduates as qualified as traditional course graduates?

### 3.4 Online Learning

Within the online learning section of the survey, all participants were asked questions regarding their use of computers and the internet as a learning tool.

#### *3.4.1 Comfort using computers*

62 (74%) participants were mostly comfortable when using computers. 16 (19%) participants were somewhat comfortable using computers. 4 (5%) participants were uncomfortable using computers. 2 (2%) participants did not respond.



*Figure 12: Comfort using computers*

### 3.4.2 Motivation to learn

46 (55%) participants rated their motivation to learn computer related tasks as Good. 22 (26%) participants rated their motivation as Excellent. 13 (16%) participants rated their motivation as Fair and 1 (1%) participant rated their motivation as Poor. 2 (2%) participants did not answer.

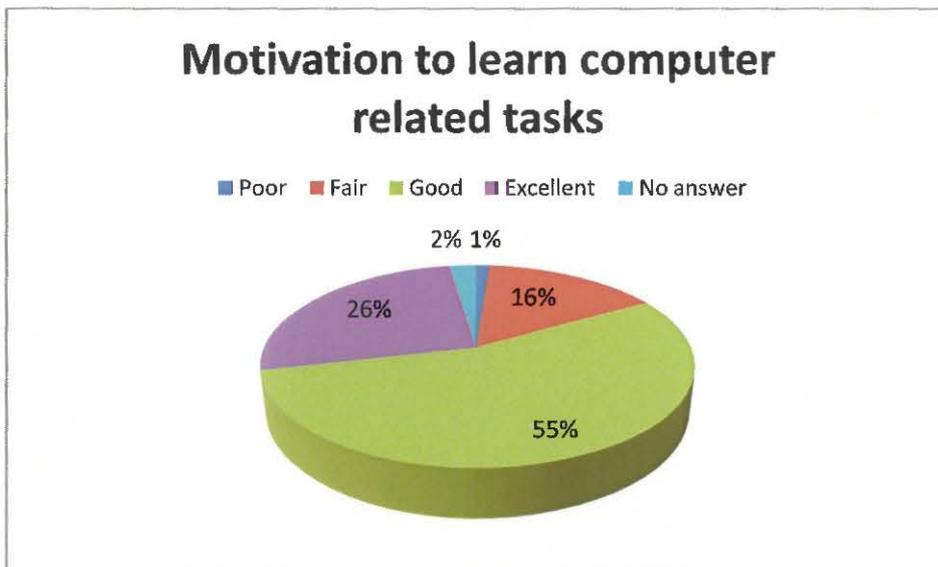


Figure 13: Motivation to learn computer related tasks

### 3.4.3 Used a collaborative learning platform

28 (33%) participants had previously used a collaborative learning platform as part of a class. 53 (63%) participants had no experience using collaborative learning platforms. 3 (4%) participants did not respond.

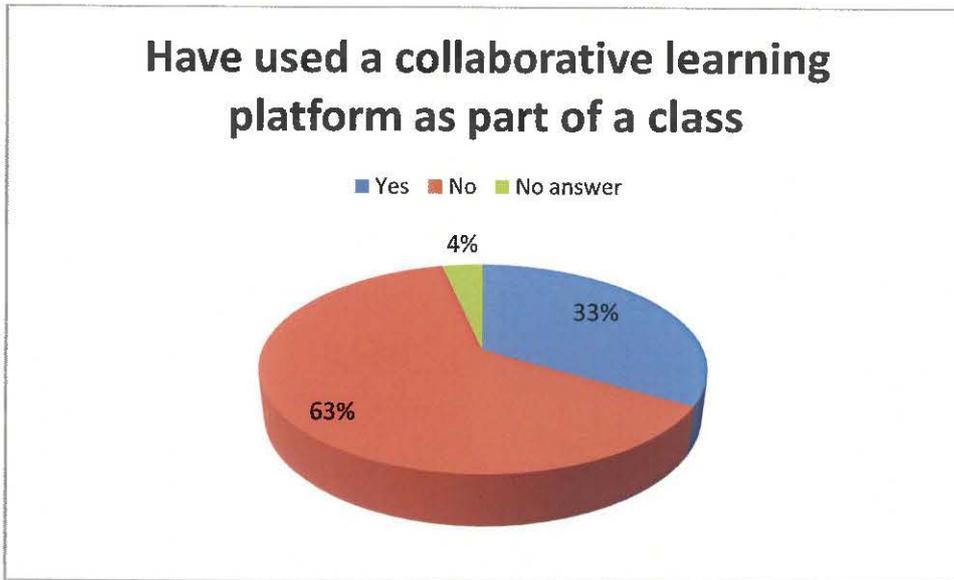


Figure 14: Have used a collaborative learning platform as part of a class

### 3.4.4 Collaborative learning platforms helpful

Of the 28 participants who had previously used collaborative learning platforms, 15 (53%) found them to be very helpful, 10 (36%) found them to be moderately helpful and 3 (11%) found them to be a little helpful. No participants (0%) found collaborative learning platforms to be of no use to their learning.

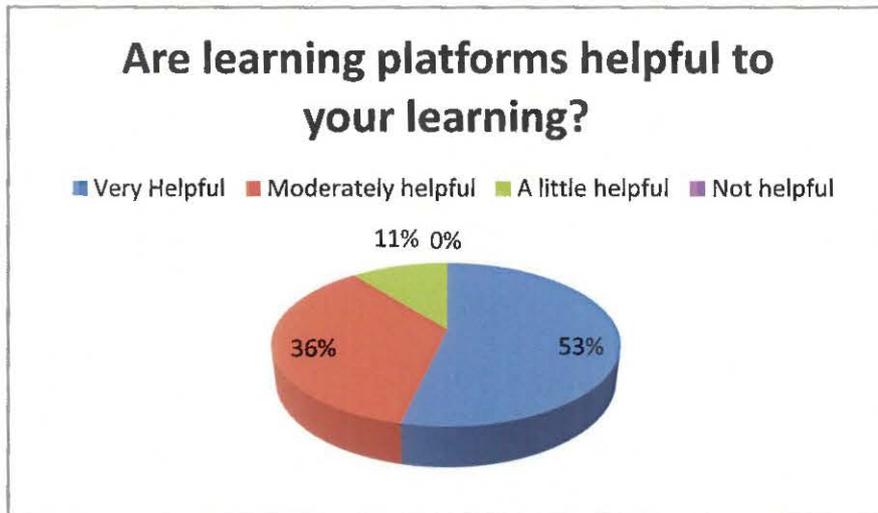


Figure 15: Are learning platforms helpful to your learning?

### 3.4.5 Experience of Online Learning

46 (55%) participants out of 84 had previously taken a course that was conducted primarily online.

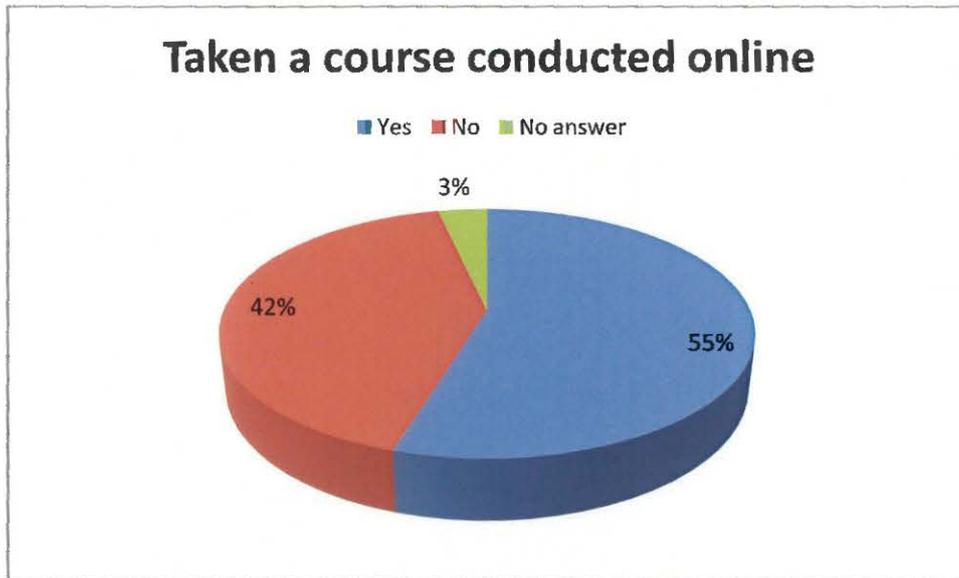


Figure 16: Taken a course conducted primarily online

### 3.5 Online Learning Experience

Participants that answered 'yes' to the final question of the previous section, 'Have you ever taken a course that was conducted primarily online', were asked some further questions regarding their online learning experiences. The responses of those participants are outlined below.

Participants that had not previously taken an online course were directed straight to the final section of the survey as the online learning experience section was not applicable.

#### *3.5.1 Amount of courses taken primarily online*

Of the 46 participants that had previously taken a course online, 11 (24%) had taken 1 course online, 16 (35%) had taken 2 courses online, 8 (17%) had taken 3 courses online and 11 (24%) had taken 4 or more courses online.

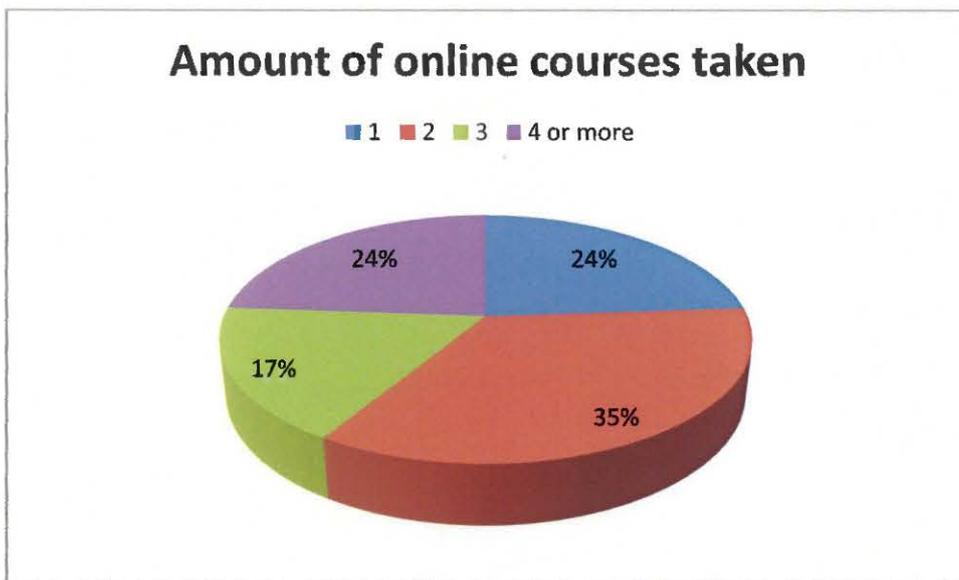


Figure 17: Amount of courses taken online

### 3.5.2 Satisfaction with online course

36 (78%) participants were satisfied with the online courses taken while 10 (22%) participants were dissatisfied with the online courses they had taken.

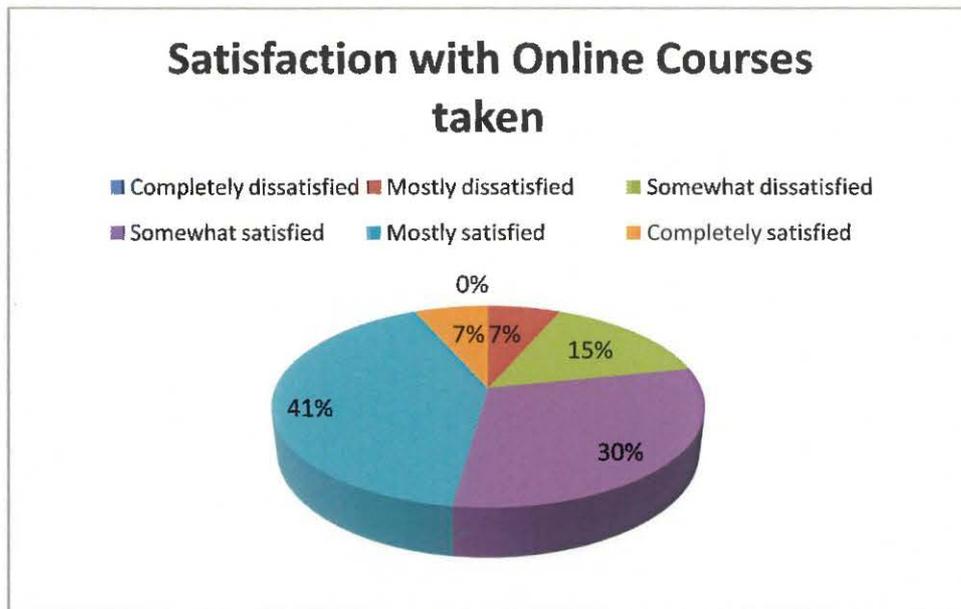


Figure 18: Satisfaction with online courses taken

### 3.5.3 Factors least liked regarding online courses

Participants were asked what they liked least about taking a course online. Limited face-to-face interaction was the most frequent response with 46% of participants. 25% of participants stated that reliance on their own self discipline was what they liked least about online courses. 13% of participants liked the online delivery methods least, 7% of participants dislike spending time on the computer, 7% of participants dislike having less need to go to campus and 2% of participants do not like the flexibility of study location.

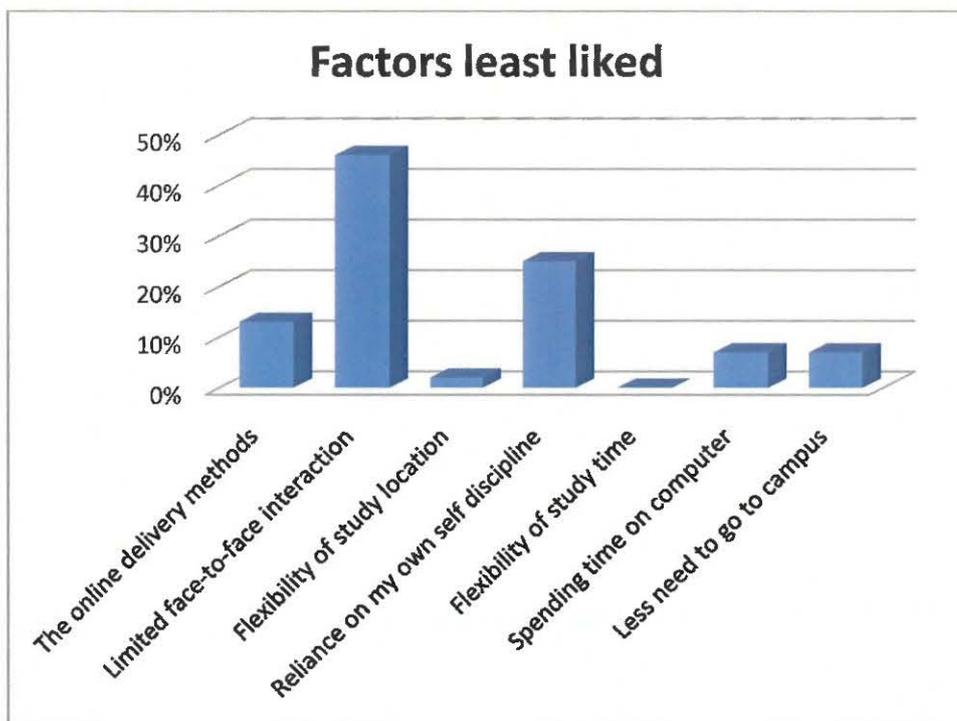


Figure 19: Factors least liked regarding online courses

### 3.5.4 Factors most liked regarding online courses

Flexibility of study time was the most frequent response (50% of participants) when participants were asked what they like most about learning online. 27% of participants most liked the flexibility of study location, 9% of participants liked having less need to go to campus, 6% of participants most liked the reliance on their own self discipline, 4% of participants liked the online delivery methods and 4% of participants liked spending time on the computer.

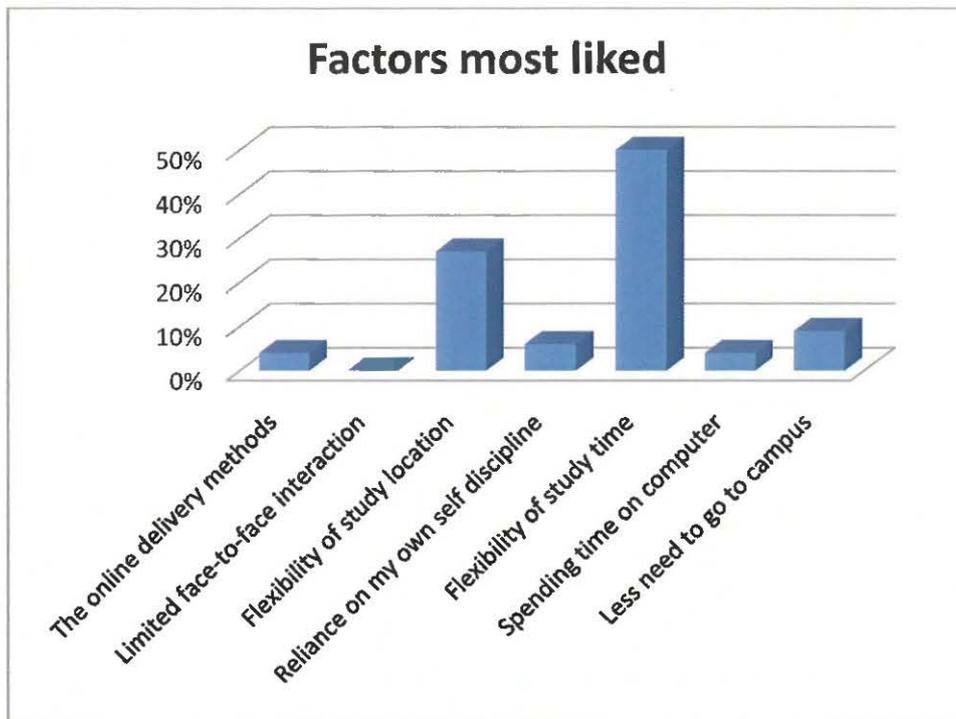


Figure 20: Factors most liked regarding online courses

### 3.6 Attitudes towards online learning

All participants answered were asked to complete the following section on attitudes towards online learning. The section begins with some individual questions and subsequently contains the Attitudes towards online learning scale.

#### *3.6.1 Opinions on standard variance between online and classroom courses*

Figure 21 shows participants' opinions on whether or not there is a difference in standard between online and classroom courses. 15 (18%) participants disagree that courses delivered entirely online meet the same quality standards as classroom courses. 32 (38%) participants tend to disagree. 18 (21%) participants tend to agree with the statement, , 8 (10%) participants agree and 7 (8%) participants do not know . 4 (5%) participants did not respond.

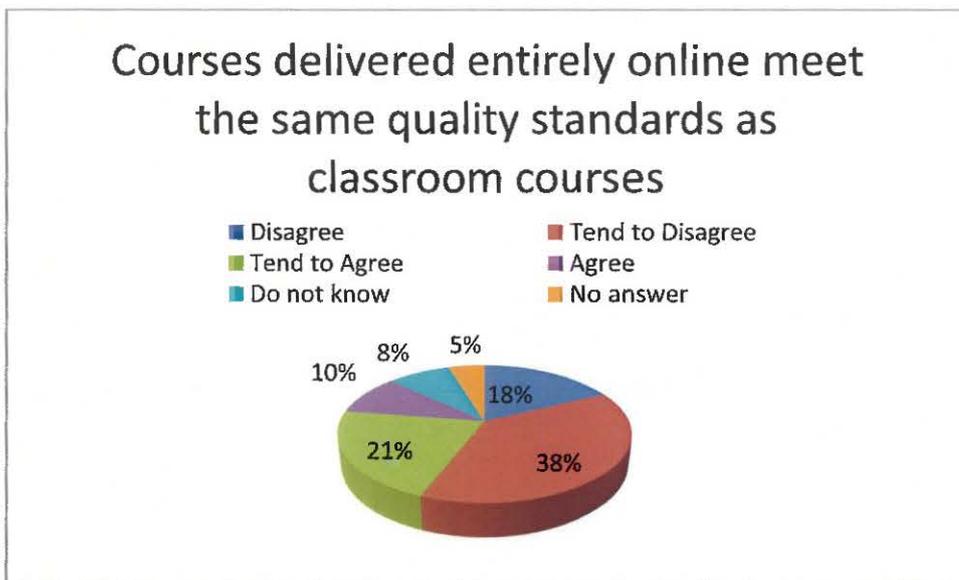


Figure 21: *Opinions on standard variance between online and classroom courses*

### 3.6.2 Preference when choosing a course

When choosing a new course to study, 59 (70%) participants would prefer a face to face course over an online learning course. 19 (23%) participants would choose an online course and 6 (7%) did not respond.

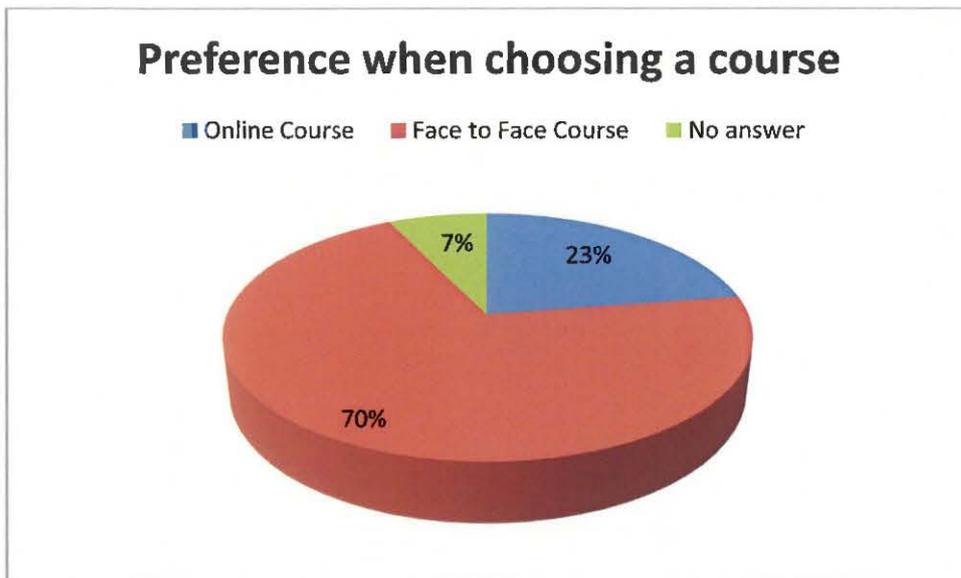


Figure 22: Preference when choosing a course.

### 3.6.3 Advise a fellow student to study online

71 (85%) participants stated that they would advise a fellow student/colleague to take a course online if the topic was of interest to him/her. 7 (8%) would not advise online study to a fellow student/colleague and 6 (7%) did not respond.

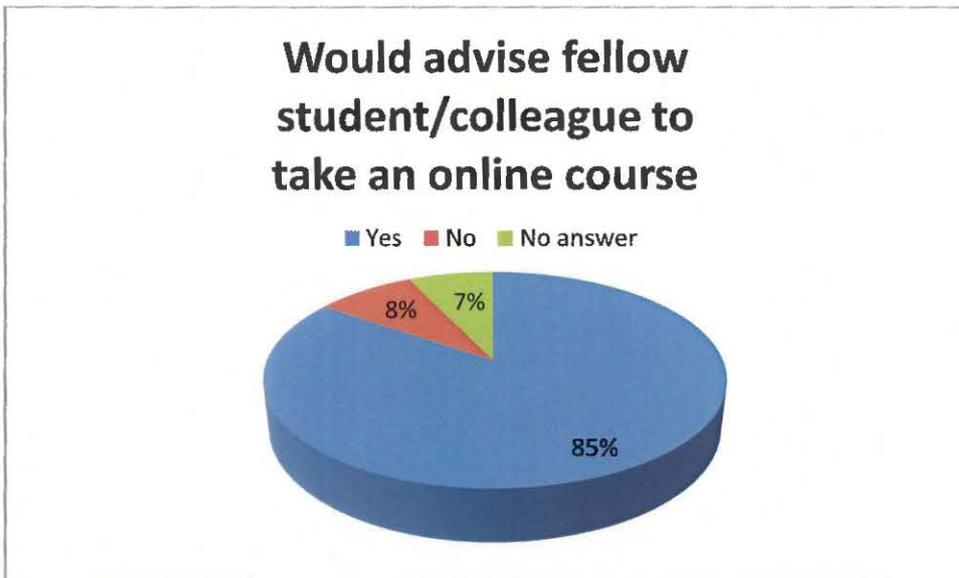


Figure 23: Advise a fellow student/colleague to study online

### 3.6.4 Attitudes towards online learning scale

Figure 24 shows participants' scores on the attitudes towards online learning scale. The scores range from 7 to 42 with a mean of 27.68 and a standard deviation of 5.27. The highest possible score, 45, suggests very negative attitudes towards online learning. Likewise, a low score represents a more positive attitude.

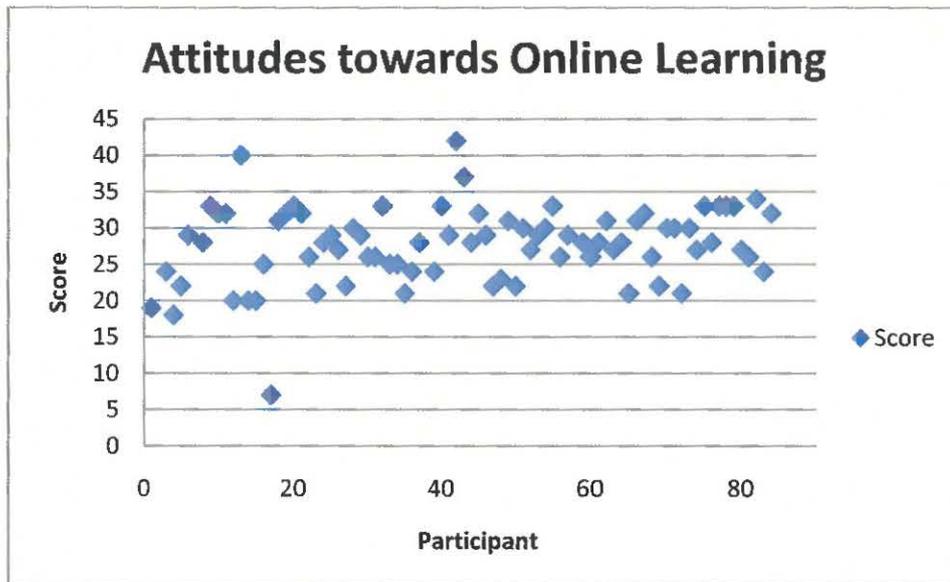


Figure 24: Attitudes towards online learning

### *3.6.5 Difference between teachers and principals attitudes towards online learning*

A Mann Whitney test illustrated no statistical significance between teachers' (mean=36.90) and principals' (mean=45.37) attitudes towards online learning scores (U=616.500, N<sub>1</sub>=46, N<sub>2</sub>=34, p=.106, two-tailed).

### *3.6.6 Comfort with Computers and Attitudes towards online learning*

A significant negative correlation was found between attitudes towards online learning scores and comfort with computers ( $r_s = -.185$ , N=80, p= .050, one-tailed).

### *3.6.7 Taken an online course and Attitudes towards online learning*

A Mann Whitney statistical test revealed that there was a significant difference in attitudes of participants who had previously taken an online course (mean=33.8) and those participants who had not (mean=47.7) (U=500.500, N<sub>1</sub>=44, N<sub>2</sub>=35, p=.008, two-tailed).

### *3.6.8 Age and Attitudes towards online learning*

A Kruskal-Wallis statistical test revealed that there was no significant difference with regard to the effect of age on attitudes towards online learning  $\chi^2(4, N=80) = 2.588$ , p=0.629.

### *3.6.9 Used collaborative learning platform and Attitudes towards online learning*

A Mann Whitney statistical test revealed that there was no significant difference in attitudes of participants who had previously used a collaborative learning platform and those participants who had not (U=672.500, N<sub>1</sub>=28, N<sub>2</sub>=51, p=.670, two-tailed).

### 3.6.10 Principals

A Mann Whitney statistical test revealed that there was no significant difference between the attitudes towards online learning of principals that were familiar with Hibernia's online teacher training course and principals who were unfamiliar with Hibernia's online teacher training course ( $U=23.500$ ,  $N_1=34$ ,  $N_2=2$ ,  $p=.467$ , two-tailed).

A Mann Whitney statistical test between principals that had employed a Hibernia graduate and the attitudes towards online learning scale score showed that there was no significant different in scores of those principals who had employed a Hibernia graduate and those who had not ( $U=122.000$ ,  $N_1=17$ ,  $N_2=19$ ,  $p= .209$ , two tailed).

A Mann Whitney statistical test between principals' opinions of online and traditional graduates and the attitudes towards online learning scale score showed that there was no significant difference in scores of those principals who thought that online graduates were as qualified as traditional graduates and those who did not ( $U=126.000$ ,  $N_1=16$ ,  $N_2=19$ ,  $p= .388$ , two tailed).

A Mann Whitney statistical test between principals' recruitment of teachers and the attitudes towards online learning scale score showed that there was a significant different in scores of those principals who would recruit a traditional graduate before recruiting an online graduate and those principals who would not. Principals who would recruit traditional graduates before recruiting an online graduate scored significantly higher on the attitudes towards online learning scale indicating a negative attitude towards online learning ( $U=30.500$ ,  $N_1=19$ ,  $N_2=13$ ,  $p=.000$ , two-tailed).

### 3.6.11 Teachers

A Mann Whitney statistical test between where teachers have trained and their attitudes towards online learning scale score showed that there was a significant difference in scores of teachers who trained in a traditional teacher training course and teachers that trained online. Teachers who trained in a traditional teacher training course had significantly higher scores on the attitudes towards online learning scale indicating a negative attitude towards online learning ( $U=8.00$ ,  $N_1=45$ ,  $N_2=3$ ,  $p=.011$ , two-tailed).

There was no significant difference between the attitudes towards online learning of teachers that were familiar with Hibernia's online teacher training course and teachers who were unfamiliar with Hibernia's online teacher training course ( $U=178.500$ ,  $N_1=38$ ,  $N_2=10$ ,  $p=.770$ , two-tailed).

A Mann Whitney statistical test between whether teachers believe that online course graduates are as qualified as traditional course graduates and attitudes towards online learning scale score showed that there was a significant difference in scores of teachers who believe that online graduates are as qualified and those teachers who believe that online graduates are not as qualified. Teachers who did not believe online graduates were as qualified as traditional course graduates had significantly higher scores on the attitudes towards online learning scale indicating a negative attitude towards online learning ( $U=165.000$ ,  $N_1=21$ ,  $N_2=26$ ,  $p=.021$ , two-tailed).

The results have now been reported and will be analyzed and discussed in the next section.

## 4. Discussion

### 4.1 Summary of results

The purpose of this study was to investigate primary school principals' and teachers' attitudes towards online learning, in particular their attitudes towards teaching qualifications obtained online. Hypothesis 1 stated that primary school teachers will have a hierarchy of perspectives towards qualifications obtained online and offline. A hierarchy of perspectives would mean that primary school teachers would place qualifications obtained online and offline in a particular order, depending on which they consider to be the superior. The results suggest that primary school teachers do, in fact, have a hierarchy of perspectives towards qualifications obtained online and offline, and consider qualifications obtained offline superior to those obtained entirely through online learning. The researcher discovered that participants who trained in traditional teacher training colleges scored significantly higher than participants who had trained online on the attitudes towards online learning scale indicating a more negative attitude towards online qualifications.

Fifty four per cent of teacher participants stated that online course graduates are not as qualified as traditional course graduates. Furthermore, teacher participants who believed that online graduates are not as qualified as traditional graduates scored significantly higher on the attitudes towards online learning scale once again indicating a more negative attitude.

The above attitudes of the teacher participants towards online qualifications are negative ones. However, previous research has suggested that online learning could produce equivalent qualifications to traditional learning (Neuhauser, 2002; Turner & Crews, 2005; Christopher, Thomas & Tallent Runnels, 2004).

Despite the negative attitude towards online learning exposed in the present study, fifty four percent of teacher participants did not think that teacher training determines an individuals' standard of teaching.

Results supported the hypothesis stating that principals would choose a person with a qualification from a traditional style course over a person with an equivalent online style course qualification when experience and other educational achievements are controlled for. Fifty three percent of principals stated that they would recruit a traditional course graduate before recruiting an online course graduate. In addition to the above finding, principals that would recruit traditional course graduates before an online course graduate scored significantly higher on the attitudes towards online learning scale, indicating a more negative attitude towards online learning.

Fifty four percent of principals did not consider an online graduate to be as qualified as a traditional teacher training graduate. However, there was no significant difference between the scores of principals who thought that online graduates were as qualified as traditional course graduates and those that did not, on the attitudes towards online learning scale.

The findings of the present study support the research of Adams and DeFleur (2005) who found that 98% of recruiters chose the applicant who had completed a traditional course degree rather than applicants who held online course degrees.

Although the present study revealed that there was no significant difference between the attitudes of teachers and principals towards online learning, in general principals did score lower than teachers on the attitudes towards online learning scale. This would indicate that principals may have slightly more positive attitudes towards online learning than teachers. This could be due to principals being more aware of where teaching staff have obtained teaching qualifications with 94% of principals being familiar with Hibernia College's teacher training course.

Interestingly, 78% of participants who had previously taken an online course were satisfied with the online learning experience. The present study discovered that those participants who had taken an online course scored significantly lower on the attitudes towards online learning scale indicating a more positive attitude towards online learning.

Although there was also no significant difference between age groups on the attitudes towards online learning scale, an interesting finding was the relationship between the attitude towards online learning score and comfort using technology tools. Participants who were uncomfortable using technology tools possessed more negative attitudes towards online learning. According to James (2007), to take full advantage of the capabilities of online learning, students require training and experience. This may account for the negative attitudes towards online learning of participants who are uncomfortable using technology.

#### 4.2 Implications

As online learning is becoming more prevalent, attitudes towards online learning should be positive especially because Hibernia (2008) report supplying the largest number of primary school teachers to schools in Ireland. However, from the findings of the present study, it is apparent that this is not the case. This study does not give us indication of change but it does provide evidence of negative attitudes.

Despite Hibernia College's Higher Diploma in Arts in Primary Education being fully accredited by the awarding body, HETAC, participants still hold a hierarchy of perspectives, believing that graduates from traditional courses, are more qualified than graduates from Hibernia College. If online and face to face teacher training qualifications are equivalent, the difference in attitudes discovered in the present study should not exist. Perhaps there is a need for Hibernia College to raise awareness of the course accreditation and to promote the success of their graduates.

Fifty three percent of principals stated that they would recruit a traditional course graduate before recruiting an online course graduate. This may have great consequences for students who are currently enrolled in online education. Despite, Hibernia and Froebel holding the same accreditation, principals are more likely to hire graduates from traditional classroom based courses. This is a disappointing finding and perhaps more information should be available to principals when hiring applicants.

An interesting finding of the present study is that those who have previously taken online courses have more positive attitudes towards online learning. Perhaps, to reduce this prejudice of online learning, it should be compulsory for teachers and principals to take part in some sort of online learning provided by the Department of Education and Science.

This relates to next interesting finding which is that those participants who were comfortable using computers had more positive attitudes towards online learning. It is possible that the participants who had previously taken online courses are the participants who are more comfortable with computers. It is important that all teachers are comfortable using computers because the digital divided between students and teachers that Prensky (2001) speaks about will only widen as time passes. And so the findings of this study have more implications for school teachers than the researcher had initially envisaged.

#### 4.3 Limitations of research

The original intention of the research was to study three groups of participants; students, teachers and principals. Gaining access to students in teacher training colleges proved too difficult within the allocated time frame and subsequently, student attitudes were omitted from the study.

The current research revealed differences in attitudes to teachers who were trained in an offline environment and those teachers who were trained in online environments. It

would have been interesting to research the attitudes of students from each institution in Ireland which offers a teacher training course. Some of these institutions may be more traditional in their opinions than others and perhaps a study of individual institutions would have revealed some interesting results with regard to attitudes towards online learning. In particular, it would have been very interesting to uncover the attitudes of teachers who completed the HETAC awarded Higher Diploma in Education (Primary Teaching) offered by Froebel as this course has the same accreditation as Hibernia College's Higher Diploma in Arts in Primary Education.

#### 4.4 Future research

There are a number of different approaches that could have been taken when conducting this study. Many factors have been disregarded in the current study to avoid confounding variables and as a result of time constraints. However, these factors allow much room for further research on the subject of attitudes towards online learning.

The present study revealed some interesting results about attitudes towards online learning. However, by studying only the teacher training sector in Ireland, the results are not generalisable to other group's attitudes towards online learning. Further research could explore differences in attitudes towards online learning between different institutions in Ireland. It would be interesting to investigate whether individuals studying different topics online such as computer science, international business etc. would have more positive views of online learning.

Another aspect of this study which could be built upon is the use of VLEs in teacher training. It would be interesting to investigate if individuals who had used VLEs in second and third level education would have more positive attitudes towards online learning than individuals who had never used a VLE. Perhaps the use of VLEs as a secondary learning tool could inspire more confidence and competence in individuals

and this may lead to better attitudes towards online learning and more online courses being made available.

To investigate the success of online courses such as Hibernia College's Higher Diploma in Arts in Primary Education, it would be necessary to study this course over a long period of time. A longitudinal study of these teachers training online that highlighted overall success rates would provide some solid evidence that online learning can be successful and these attitudes towards online learning may become more positive. It would also be interesting to implement some blended learning into Froebel Colleges' HETAC awarded Higher Diploma in Education (Primary Teaching) to evaluate the effects on teachers who are training and long term attitudes towards online learning.

#### 4.5 Conclusion

The topic that this research has focused on is an important one as online learning is becoming more prevalent in society. This research aimed to reveal whether primary school principals and teachers had negative attitudes towards online learning, to uncover whether online teacher training courses were seen as inferior to the traditional classroom based courses and to disclose whether factors such as age, gender and computer experience affected the attitudes of primary school teachers and principals. The main aims of the study were to reveal if primary school teachers hold a hierarchy of perspectives towards qualifications obtained online and offline and to uncover whether primary school principals/recruiters would choose a person with an offline qualification over a person with an online qualification.

This research has shown that it is evident that there are negative attitudes towards qualifications obtained online in the education sector. It is important that the reasons for these attitudes are examined and highlighted.

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## Appendices

### Appendix A – Participant Consent

#### Attitudes towards online learning

##### 1. Research information

Dear participant,

This study will examine attitudes towards online learning. This research has been approved by the IADT Ethics Committee. As a participant, you are asked to complete this survey as efficiently as possible. The results of this study will be kept strictly confidential. The raw data will be stored for one year by the researcher, after which will be destroyed. No data collected will be released without your prior written consent. The information you provide will have only your demographic information and not your name on it.

Participation is completely voluntary. There are no apparent risks to the participant from taking part in this study. Please contact me, the researcher, directly at sarahcalliton@gmail.com or my supervisor at marion.palmer@iadt.ie if you experience any discomfort during or after the study. Similarly if you wish to revoke your consent to participate, email one of the above addresses.

The information collected throughout this study may be used for scientific and educational purposes. It may be presented/published/reproduced in books and journal articles. However, anonymity of participants will remain.

**\* I, I have read and understand the information provided by the researcher. I hereby acknowledge the above information and give my voluntary consent to participate in this study. I understand that I may revoke my consent from the study at any time.**

- I consent to partake in this study
- I do not consent to partake in this study

## Attitudes towards online learning

### 2. Demographic information

#### 1. Gender

- Male  
 Female

#### 2. Age

- 18-25  
 26-35  
 36-45  
 46-55  
 56+

#### \* 3. Are you a

- Student in Training  
 Primary School Teacher  
 Primary School Principal

#### 4. Which of the following best describes your current education status?

- Current online student  
 Current classroom course student  
 Online course graduate  
 Traditional classroom based course graduate  
 Secondary School was my last experience of education  
 Primary School was my last experience of education

## Attitudes towards online learning

### 3. Principals/Recruiters

**1. Are you familiar with Hibernia College's Higher Diploma in Arts in Primary Education?**

- Yes  
 No

**2. Have you ever employed a Hibernia College graduate?**

- Yes  
 No

**3. Would you consider a graduate from an online teacher training course as qualified as a graduate from a classroom based teacher training course?**

- Yes, they have equal qualifications  
 No, I consider the classroom based course graduates more qualified  
 No, I consider the online course graduates more qualified

**4. Would you give preference to a classroom based college graduate over an online college graduate when recruiting, supposing their other skills and qualifications were the same?**

- Yes  
 No, I would consider them equal  
 No, I would give preference to the online college graduate

## Attitudes towards online learning

### 4. Teachers

#### 1. Where did you do your teacher training?

- Froebel College of Education
- St. Patrick's College
- Mary Immaculate College
- Hibernia College
- Church of Ireland College of Education
- Coláiste Mhuire, Marino Institute of Education

Other (please specify)

\_\_\_\_\_

#### 2. Do you know where most of your colleagues did their training?

- Yes
- No

#### 3. Are you familiar with Hibernia College's Higher Diploma in Arts in Primary Education?

- Yes
- No

#### 4. Did any of your colleagues do their training in Hibernia College?

- Yes
- No
- I don't know

#### 5. From observing your colleagues, do you think the college in which they have trained determines their quality of teaching?

- Yes
- No

#### 6. Would you consider a graduate from an online teacher training course as qualified as a graduate from a classroom based teacher training course?

- Yes, they have equal qualifications
- No, I consider the classroom based course graduate more qualified
- No, I consider the online course graduate more qualified

## Attitudes towards online learning

### 5. Online Learning

**1. How comfortable are you with computer related tasks?**

- Mostly comfortable
- Somewhat comfortable
- Somewhat uncomfortable
- Mostly uncomfortable

**2. How would you rate your motivation to learn more about using technology tools?**

- Poor
- Fair
- Good
- Excellent

**3. Have you used a collaborative learning platform, such as WebCT, Blackboard or Moodle, as part of a class?**

- Yes
- No

**4. If yes, to what extent do you think the learning platform was helpful to your learning?**

- None
- A little helpful
- Moderately helpful
- Very helpful

**5. Have you ever taken a course that was conducted primarily online?**

- Yes
- No

## Attitudes towards online learning

### 6. Online learning experience

1. How many online courses have you taken?

- 1
- 2
- 3
- 4 or more

2. Overall, to what extent are you dissatisfied or satisfied with the online course(s) you have taken?

- Completely dissatisfied
- Mostly dissatisfied
- Somewhat dissatisfied
- Somewhat satisfied
- Mostly satisfied
- Completely satisfied

3. What do you like LEAST about taking online courses?

- The online delivery methods
- Limited face-to-face interaction
- Flexibility of study location
- Reliance on my own self-discipline
- Flexibility of study time
- Spending time on computer
- Lack need to go to campus

Other (please specify)

\_\_\_\_\_

## Attitudes towards online learning

### 4. What do you like MOST about taking online courses?

- The online delivery methods
- Limited face-to-face interaction
- Flexibility of study location
- Reliance on my own self-discipline
- Flexibility of study time
- Spending time on computer
- Less need to go to campus

## Attitudes towards online learning

### 7. Attitudes

**1. Do you agree or disagree that courses delivered entirely online meet the same quality standards as classroom courses?**

- Disagree
- Tend to disagree
- Tend to agree
- Agree
- Do not know

**2. If you were offered the same course, either online or face to face, which would you choose?**

- Online course
- Face to face course

**3. Would you advise a fellow student to take an online course if the topic was of interest to him/her?**

- Yes
- No

## Attitudes towards online learning

4. Please rate the following statements to the extent to which you agree or disagree:

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
e-Learning lacks credibility.	<input type="radio"/>				
Learning in a classroom is better than learning online.	<input type="radio"/>				
Less academic people take online courses.	<input type="radio"/>				
Learning in a classroom is boring.	<input type="radio"/>				
e-Learning is the future of education.	<input type="radio"/>				
Teachers lecturing students in a classroom is old-fashioned and dated.	<input type="radio"/>				
e-Learning should replace traditional teaching methods.	<input type="radio"/>				
e-Learning should be used alongside traditional teaching methods.	<input type="radio"/>				
A person with a qualification from a traditional course should be recruited before a person with an equivalent qualification from an e-learning course.	<input type="radio"/>				

## Appendix C - Debrief

### Attitudes towards online learning

#### 8. Thank you

Dear Participant,

Thank you for agreeing to participate in this study. The aim of this study is to investigate people's attitudes towards online learning. If you have any questions about this study or your involvement in it, please feel free to contact the researchers at the contact details below.

A copy of the research project will be available upon request at the end of June, 2009.

The researchers would like to ensure you that your involvement in this study is strictly confidential and anonymity is guaranteed. It is also still possible to withdraw your consent for participating in this study and to have the data you have provided destroyed. If you have any hesitations please contact the researchers.

Once again, thank you for participating in the study.

Yours sincerely,  
Sarah Culliton

Primary Researcher: Sarah Culliton  
Email: sarahculliton@gmail.com  
Phone: 006 170 1002

Supervisor: Marion Palmer  
Email: marion.palmer@leeds.ac.uk  
Phone: 01 214 4646

#### 1. Would you like to receive a copy of this research?

If yes, please write your email address in the box below.

Yes

No

Email address

## Appendix D - SPSS Outputs

### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Attitude scale score	80	27.6750	5.26699	7.00	42.00
Teacher/Principal	84	1.4286	.49784	1.00	2.00

### Mann-Whitney Test

#### Ranks

	Teacher/Principal	N	Mean Rank	Sum of Ranks
Attitude scale score	Teacher	46	36.90	1697.50
	Principal	34	45.37	1542.50
	Total	80		

#### Test Statistics<sup>a</sup>

	Attitude scale score
Mann-Whitney U	616.500
Wilcoxon W	1697.500
Z	-1.615
Asymp. Sig. (2-tailed)	.106

a. Grouping Variable: Teacher/Principal

## Kruskal-Wallis Test

Ranks

		N	Mean Rank
Attitude scale score	Used a collaborative learning platform		
	Yes	28	38.52
	No	51	40.81
	Total	79	

Test Statistics<sup>a,b</sup>

	Attitude scale score
Chi-Square	.182
df	1
Asymp. Sig.	.670

a. Kruskal Wallis Test

b. Grouping Variable: Used a collaborative learning platform

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Attitude scale score	80	27.6750	5.26699	7.00	42.00
Used a collaborative learning platform	81	1.6543	.47855	1.00	2.00

**Mann-Whitney Test**

**Ranks**

		N	Mean Rank	Sum of Ranks
Attitude scale score	Used a collaborative learning platform Yes	28	38.52	1078.50
	No	51	40.81	2081.50
	Total	79		

**Test Statistics<sup>a</sup>**

	Attitude scale score
Mann-Whitney U	672.500
Wilcoxon W	1078.500
Z	-.427
Asymp. Sig. (2-tailed)	.670

a. Grouping Variable: Used a collaborative learning platform

### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Attitude scale score	80	27.6750	5.26699	7.00	42.00
Taken an online course before?	81	1.4321	.49845	1.00	2.00

### Mann-Whitney Test

#### Ranks

		N	Mean Rank	Sum of Ranks
Attitude scale score	Yes	44	33.88	1490.50
	No	35	47.70	1669.50
	Total	79		

#### Test Statistics<sup>a</sup>

	Attitude scale score
Mann-Whitney U	500.500
Wilcoxon W	1490.500
Z	-2.668
Asymp. Sig. (2-tailed)	.008

a. Grouping Variable: Taken an online course before?

## Kruskal-Wallis Test

Ranks			
	Age	N	Mean Rank
Attitude scale score	18-25	10	48.75
	26-35	24	35.44
	36-45	16	40.28
	46-55	16	40.94
	56+	14	43.04
	Total	80	

### Test Statistics<sup>a,b</sup>

	Attitude scale score
Chi-Square	2.588
df	4
Asymp. Sig.	.629

a. Kruskal Wallis Test

b. Grouping Variable: Age

## Nonparametric Correlations

Correlations			Attitude scale score	Comfort with computers
Spearman's rho	Attitude scale score	Correlation Coefficient	1.000	-.185
		Sig. (1-tailed)	.	.050
		N	80	80
	Comfort with computers	Correlation Coefficient	-.185	1.000
		Sig. (1-tailed)	.050	.
		N	80	82