

Selected student and tutor perceptions of ICTs in further and higher education in England.

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By 2008 a total of 87, 339 students were studying on foundation degrees in the UK (Foundation Degree Forward, 2009). This paper reports on the views of selected students and academic tutors about ICTs (Information Communication Technologies) associated with the Early Years Sector Endorsed Foundation Degree (EYSEFD) in England. The students study part-time at five Further Education (FE) colleges working in partnership with a UK Higher Education Institution (HEI). The research project has gathered data on the views of students and programme tutors about ICTs since October 2009. Data has been gathered through questionnaires with students and focus group discussions with selected students and tutors about the perception of ICTs. A main finding is that the students in this study associate ICTs with computers and software whereas their academic tutors focus on the wider pedagogical learning associated with technology. The paper discusses some of the debates that surround pedagogical practice and ICTs in further and higher education. The students' association of computers and pedagogical best practice appears to reiterate current neoliberal educational values as opposed to reflecting the learning goals of their academic programme. This paper presents the findings of this study and the conclusions that are drawn will be of relevance to those involved in the delivery and development of higher education in further education contexts.

Keywords: early years; foundation degrees; ICTs; higher education in further education colleges.

Introduction

This paper reflects on the interpretations of ICTs held by selected students and tutors who are associated with the Early Years Sector Endorsed Foundation Degree in England. As the students are often returning to learning (or ‘mature students’), this can mean that they corroborate what has been referred to as the ‘digital divide’ (between those who have been immersed with technology from a young age and others who have had to acquire these skills later in life (Lankshear and Knobel (2004) and Marsh, Brooks, Hughes, Ritchie, Roberts and Wright (2005)). A consequence of this digital divide may lead to ICTs being interpreted in a limited way by mature students. As the research in this study has explored the perceptions of ICTs held by a research sample of mature students, the findings contribute to the exploration of skill needs within particular student cohorts.

The paper reveals that the students in the research sample need to develop a broader understanding of how ICTs can be applied to their pedagogical practice. The students appear to have a narrow definition of ICTs that focuses on learning with computers and software as opposed to a broader understanding that applies cameras, video, virtual worlds and mobile devices to learning and teaching with children aged up to eight years old. This links the paper to some of the debates over the extent to which children aged up to eight years of age should experience their world through the mediation of electronic media. The content is also relevant in respect of the skills development in ICTs for early years practitioners. The students’ tutors appear to have a broader definition of ICTs that is not restricted to computers and software. These tutors also express reservations about using ICTs in pedagogy and do not simply subscribe to the notion that ‘e is best’.

The paper is supported by current research on applying ICTs to pedagogy in early years. Bers (2008, 2010) recommends using innovative virtual worlds in order to promote children's cognitive development in early years. In contrast, Cook (2004) expresses reservations about using ICTs for pedagogy with young children. Cook (2004, 161) draws attention to the 'inappropriate use of ICTs' resulting when 'computers are used to keep children busy or used as a reward/ motivating tool in order to simply to practise skills.' Other authors offer a balanced view on the pedagogical application of ICTs with children aged up to eight years old (Drotner, Jensen and Schroder (2008), Marsh, Brooks, Hughes, Ritchie, Roberts and Wright (2005), Plowman and Stephen (2005), and Yelland and Kilderry (2010)). Plowman and Stephen (2005, 147) assert that the evidence base for making a judgement on the benefits of pedagogy that applies ICTs to early years ought to draw on empirical study. The irony appears to be that although the students in this research seem to value the importance of ICTs as a vital aspect of their pedagogy, they tend to equate ICTs with 'computers and software'. This understanding of ICTs appears to differ from the definition held by the students' academic tutors. The students' academic tutors seem to have a broader definition of technology that is not restricted to computers and software. Moreover the students' understanding of the pedagogical importance of computers appears to reinforce Clegg, Hudson and Steel's (2010) claim that a narrow definition of ICTs focusing on computers and software is propagated by neoliberal governments in Australia, the European Union, the UK, and the US. This 'narrow definition' of ICTs emerges as a consequence of an interventionist education strategy that is aimed at making the workforce as skilled as possible with computers and software in order to maximise economic wealth. Education is visualised as 'the

acquisition of skills' as opposed to enabling critical reflective practice (Clegg, Hudson and Steel (2010)).

Theoretical background

A number of recent studies have discussed the application of ICTs to learning and teaching within early years (Drotner, Jensen and Schroder (2008), Marsh, Brooks, Hughes, Ritchie, Roberts and Wright (2005), Plowman and Stephen (2005), and Yelland and Kilderry (2010)). These studies appear to suggest that there are both benefits and disadvantages to applying ICTs to pedagogy in early years. Plowman and Stephen's (2005, 147) definition summarises the range of audio-visual devices, 'smart' toys, remote control devices, televisions, photocopiers, fax machines, televisions and computers that are encompassed in the abbreviation ICTs. This broad definition of ICTs includes mobile phones, laptops, cash registers, microwave ovens and barcodes. The above authors all explore how ICTs can enhance learning within early years.

Plowman and Stephen (2005, 147) discovered that the 14 practitioners in their study tend to lack confidence with ICTs. This need to promote the pedagogical application of ICTs by children's practitioners is also reinforced by Yelland and Kilderry (2010) in their longitudinal research study over three years with two Australian schools, 22 teachers and the children in their classes. Yelland and Kilderry (2010, 104) argue that many of the mathematics activities that are facilitated in the traditional curriculum are based on acquiring knowledge and building up a skills base. Their empirical data identifies that the traditional curriculum in mathematics requires much teacher-led activity that gets the children to repeat mathematical tasks. Yelland and Kilderry (2010, 102) refer to this style of pedagogy as a form of 'unidimensional' thinking. The authors recommend transforming unidimensional thinking into

‘multidimensional’ learning by developing activities that enable pupils to apply ICTs to mathematical concepts in a creative way. The study suggests that ICTs do have potential benefits for learning and teaching in early years as long as the children do not just ‘play with the computer’ (Plowman and Stephen (2005, 149)). Plowman and Stephen’s (2005, 153) study of seven early years settings in Scotland identifies that although ICTs have the potential to enhance children’s learning, the low level of practitioner confidence with ICTs restricted the application of this form of learning. Moreover, the practitioners in Plowman and Stephen’s (2005) study associate computer skills with their perceived value for future schooling and employment.

This view appears to reinforce Clegg, Hudson, and Steel’s (2010) argument that ICTs are portrayed by neoliberal governments as a vital component of education. It is argued that ICTs are associated with what Clegg, Hudson and Steel (2010, 41) refer to as a ‘high skills strategy’ that is regarded as giving the national economy a competitive edge in the global market (Coffield 1999; Schuller and Burns 1999). With these themes in mind the research project has explored the perception of ICTs held by students and tutors associated with the EYSEFD. The subsequent sections of the paper outline the research background, the methodology and the main findings. These findings complement the research of the above authors as well as revealing the main finding that the practitioners in the research sample associate ICTs with computers and software whereas their academic tutors share the broader definition of ICTs provided by Plowman and Stephen (2005).

Research background- The students and their learning experiences

The research sample is based on 330 students studying the EYSEFD programme part-time and five programme leaders who are academic tutors working on the programme. The majority of the 330 students in the research sample (94%) are

currently in full-time employment working with children aged up to eight years. The remaining 6% of the students work part-time. Most of the students on the programme are 'mature' as the average age is 36 years. 30% of the students are aged over 40 years. 98 % of the students in the research sample are female and all of the students in the research sample work with children and families in a variety of statutory and private child care settings. 60% of the participants are employed in the statutory (or state) sector whereas 40% are based in private settings. These child care settings include statutory schools, Sure Start centres, private nurseries and statutory health settings. The predominantly female composition of the mature students in the research sample appears to suggest that age and gender are factors influencing the research participants' views of their own ICT abilities. Gender is important because it is claimed that women are treated differently in the labour market generally as they are often marginalised, excluded and required to do gendered low paid work (McKie, Bowlby, and Gregory 2001, 233). The low self-esteem that may result from this process possibly helps in accounting for the lack of confidence that can exist within these pedagogical practitioners' perceptions of their own abilities. This point is supported by Simpson (2011, 700) and Osgood (2005, 290) with their claim that the childcare profession is frequently 'trivialised' and 'positioned' as a 'default career'. Even though critical reflection of practice is encouraged by the students' tutors with respect to the pedagogical application of ICTs, low self-esteem and a lack of confidence can mean that the students are reluctant to engage in reflective practice.

The five programme leaders working on the academic programme are female. All of these academic tutors have previously worked in health, education and social care contexts prior to teaching in higher education. The gender balance of both students and staff confirms what Parker-Rees et al. (2004, 128) refer to as 'the

overwhelmingly female' children's workforce in the UK and beyond. The key difference between the students in the research sample and the academic tutors appears to be that the academic tutors are immersed within the 'cultural capital' of their higher education teaching contexts (Bourdieu (1993)). It is the familiarity with the higher education context that appears to enable the students' academic tutors to apply their critical reflection to the application of ICTs to pedagogy. Table 1 outlines the specific employment settings of the pedagogical practitioners who constitute the research sample.

INSERT TABLE 1

The academic programme studied by the students in this research project has eight modules that are taught over two years. Six of the modules are delivered through a combination of lectures and seminars. The other two modules require the students to develop a 'Professional Development Portfolio' (or PDP) where they reflect on aspects of the academic programme in respect of their professional work. These professional development portfolio modules enable students to consider how ICTs are applied within early years. The module assessments require students to reflect on how ICTs are used in their professional work with children. As noted previously, the students' academic tutors encourage reflective practice within the programme. This reflection requires students to think about how they use ICTs with children as well as considering the range of devices that are included within ICTs. To exemplify this point, one of the partner Colleges recently submitted a formal funding bid to develop resources for digital literacies with its EYSEFD students, so the exploration of innovative application of ICTs is a part of the academic programme. The programme's module content is based on sociological, psychological, pedagogical and social policy content. Each of the initial modules introduces content that is

reinforced by the modules that are studied in the second year of the programme. The programme is assessed through a combination of essays, reports, case-study reflections and portfolio reflections. It is, however, worth noting that the programme's students have their formal studies during one twilight taught session each week of term and that the main influence on their professional practice appears to come from their work settings.

Methodology

The research methodology addresses the following research question:

‘What are the perceived skills needs of students studying the EYSEFD in five FE Colleges?’

The specific research objectives that have been considered are:

1. Identification of perceived skills needs held by students and academic tutors associated with the EYSEFD.
2. Analysis and appraisal of the perceived skills needs held by students and academic tutors on the EYSEFD in five FE Colleges.

The research project was approved by Research Ethics Committee of the HEI coordinating the academic programme in October 2009. The author took into consideration the nature of the research sample alongside the policy landscape informing the research context by applying Maxwell's (2005) interactive model of research design. Maxwell (2005, 5-6) recommends considering how key research areas mutually inform and shape each other. In other words it is important to consider how the research goals and research concepts inform the research questions, methods and validity. According to Maxwell (2005, 5-6) it is important to pilot research strategies that are based on previous studies with different participants within differing research contexts in order to ‘eliminate ambiguities’ within the research

process. A pilot questionnaire was issued to the five student programme representatives prior to issuing the 330 questionnaires. Purposive sampling was used to select these five students. As the five students had been chosen by their peers to be student cohort representatives, the researcher deemed them to be 'reliable programme students'. Once the pilot questionnaires were completed by all the students, analysed and in turn identified as appropriate for use, they were issued to the student research sample. All 330 questionnaires were returned completed. As the researcher is the HEI programme coordinator for the EYSEFD, access to the programme students is straightforward. All of the research sample were informed of the voluntary nature of the research and given an explanation of the ethical protocols associated with the research. The participants were told that the research data would be confidential and that they had the right to withdraw from the research process at any time.

The author mirrored previous research processes that appear to have been successful in identifying student and tutor perceptions of aspects of pedagogy. These studies include Brookes (2005), Ingleby (2010, 2011), Ingleby and Hunt (2008), and Simpson (2010, 2011). The methodologies employed in these studies combine a variety of quantitative and qualitative data gathering strategies ranging from the mixed methods approach of Brookes (2005), Ingleby (2010, 2011) and Ingleby and Hunt (2008) to the more phenomenological approach of Simpson (2010, 2011). Consulting these previously published studies informed the design of the questionnaire in appendix 1. The questionnaire applies Bailey's (1994, 118) recommendation by immediately asking closed questions in order to generate data that can be coded differently to word based data. Basic descriptive statistics were generated from the closed questions at the beginning of the questionnaire to mirror the research design of Brookes (2005), Ingleby (2010, 2011) and Ingleby and Hunt

(2008). The open questions in the questionnaire enabled the generation of articulate reflections from the respondents in the early stages of the research (Wilson and McLean's (1994, 21)). The nature of the study (student and tutor perceptions of ICTs) resulted from the initial questionnaire. Three main themes were commented on by the participants in the open questions. The respondents commented in particular on the importance of developing ICT skills to help to develop children's learning. ICT does however appear to be associated with 'using computers and software' as opposed to being broadened to include a variety of digital media. ICT is also associated with pedagogical best practice by these practitioners. The respondents also commented on the perceived importance of raising awareness of how computers impact on children's future schooling and employment prospects. These reflections were used to help develop the themes that were discussed in the two focus groups.

The application of 'quota and dimensional sampling' that occurs in Brookes (2005), Ingleby and Hunt (2008), and Ingleby (2010, 2011) was also mirrored within the research design. Bryman (2004) explains quota sampling as representing the attempt made to gather the views of all the research participants. Although the participants all work in early years, they work in a variety of contexts (statutory schools, Sure Start centres, private nurseries and statutory health settings). Quota sampling was used in order to gather a range of participant views from different settings. The dimensional sampling was used for the focus group discussions. Bryman (2004) explains dimensional sampling as representing the attempt made by researchers to select key participants who can comment on the main emerging research themes. The five College programme leaders were selected for the focus group discussions as they were deemed as being the most appropriate research participants owing to their extensive knowledge and understanding of the academic

programme. This rationale was also followed in selecting the five programme students who took part in the first focus group. These students were the official 'student representatives' for their College cohort so they were again envisaged as being the most suitable students to comment on the programme curriculum.

The two focus group discussions developed the main themes emerging from the questionnaire data. Whereas Brookes (2005) develops his questionnaire data with a series of one-to-one informal interviews with six participants, this research process applied a focus group approach in order to generate a discussion forum about meeting CPD needs. This is because the author agrees with Kreuger (1994) and Munday (2006) who argue that focus groups can facilitate a permissive, non-threatening environment in order to generate rich discussions about CPD. The first focus group included the five HE in FE programme leaders, the HEI programme coordinator and the five student representatives of the programme. The questions that were used to structure this focus group discussion are in appendix 3. The second focus group occurred with the five FE programme leaders and the HEI programme coordinator. The questions that were used to structure this focus group are in appendix 4. This discussion was centred on how the programme's level 4 and 5 PDP modules could be developed to meet the CPD needs of Early Years pedagogical practitioners. These PDP modules had been identified previously by the programme's student representatives, programme leaders and programme coordinator as essential components of the academic programme as they represent a combination of academic tasks alongside reflection on professional practice. Developing the formal curriculum content is a responsibility of the programme leaders and the programme coordinator and not the programme's student representatives so this is why these individuals were

chosen for the second focus group. Content analysis was used to interpret the data from these focus groups.

Research Findings

The research findings that are presented in this section of the paper are a product of questionnaire data from 330 students and data from both focus groups. A summary of the findings of the 330 questionnaires is given in appendix 2. The students appear to have a limited definition of ICTs that equates pedagogical technology with computers and software. ICTs appear as a type of ‘holy grail’ of pedagogical excellence whose essence needs to be found. A number of interesting reflections were given in the focus group discussions that develop the emerging themes from the questionnaire data.

These reflections reveal a fascinating tension that appears to exist between the students’ understanding of ICTs and the broader understanding of technology that is shared by the students’ academic tutors. As noted earlier, the academic tutors’ immersion in HE appears to enable them to apply more critical reflection of the application of ICTs to pedagogy within early years. The following transcripts represent a summary of the key themes acknowledged by all the participants.

I think that my main professional development need is to improve my ICT skills. By this I mean that I’m not all that confident about working on the computer or facilitating learning activities that use computers and computer software. This might be because I’m not from a generation that is familiar with using computers. (Kirsty, a nursery practitioner).

The focus group discussions appear to reinforce the students’ perception of the importance of ICT for the Early Years curriculum within the UK. This links to the argument that ICTs are presented by British government policy as ‘giving the national economy a competitive edge in the global market’ (Coffield (1999), Schuller and

Burns (1999) and Clegg, Hudson and Steel (2010, 41)). This view is reinforced by the following reflection from the first focus group:

Many of the sessions that I deliver have some sort of computing theme associated with them. If you think about it you can't get a decent job these days without being aware of how to work the computer. We're trying to improve three areas in particular (literacy, numeracy and ICT) but I'd say that computer skills are as important as anything. (Lesley, Sure Start Employee).

The students appear to expect to be instructed about skills development as opposed to directly influencing the process of professional development. This aspect of 'professionalism' complements Urban's (2008, 135) argument that skills development for children's practitioners in the European Union is typically characterised by a 'hierarchical mode of producing and applying expert knowledge that is not necessarily appropriate to professional practice'. It is also interesting that the students in this project equate 'professionalism' with 'good computing skills'.

My main professional priority is to be able to use a computer well in my teaching activities. There are lots of employment opportunities in early years but many of these jobs need people who can work computers and software. I think you would appear as very unprofessional if you can't work the computer. Mistakes do happen but you can make some really big mistakes if you can't work a computer! (Stephanie, a nursery practitioner).

This reflection is supported by the following student practitioner who identifies that 'lacking confidence with ICT' is a critical professional development concern.

A main theme that emerged from our recent OFSTED (Office for Standards in Education) visit was that the children's individual learning needs should be addressed. There are some children who struggle with computing and we are

expected to develop individual learning plans for these students. It's not that I disagree with doing this but it's more that I'm not very confident about being able to make this happen. (Laura, a classroom assistant).

This respondent appears to be adhering to a perception of 'good practice' as opposed to demonstrating what Urban (2008, 147, and 2009) phrases as 'creating understandings' of professional practice. The irony seems to be that although the students appear to value the opportunity of developing reflective practice, there is a lack of awareness of the key pedagogical issues associated with ICTs (Drotner, Jensen and Schroder (2008), Marsh, Brooks, Hughes, Ritchie, Roberts and Wright (2005), Plowman and Stephen (2005), and Yelland and Kilderry (2010)). This point is alluded to by 'Katherine' with her reflection on her pedagogical priorities.

I associate ICTs with computing and software. We are trying to make sure that the children develop these skills so that they can do well in later schooling and University and then get jobs that will be well paid. I suppose we're responding to what the children need. (Katherine, a nursery practitioner).

The students' view of the merits of ICT does not appear to be balanced with an awareness of some of the pedagogical limitations of ICTs. Sandholtz (2001) argues that effective use of computers within the classroom takes time and cannot be guaranteed even with experienced teachers. This more balanced awareness of the pedagogical strengths and limitations of ICTs is however commented on by the students' academic tutors.

We do encourage critical reflection in the academic curriculum. The challenge is that the students are bringing their own experiences to the academic programme. Most of the students have study skills needs as they have been away from formal education for a number of years. Many of them lack confidence with ICTs so they see this as a professional development priority.

We have discussed this in the formal programme teaching and hopefully they will continue to grow as reflective practitioners. (Michael, a programme coordinator).

The programme leaders also commented that the students' own perception of pedagogy appears to be most dominant in developing pedagogical priorities.

I think that a reason why we get this association of technology with computers and software is because the students appear to interpret pedagogical priorities according to what skills they need to develop as practitioners. (Sue, a programme leader).

Jones-Thompson (2001) refers to this emphasis on the importance of ICTs as a 'Hype Cycle' that can be characterised by a view that 'e is best' and result in a 'peak of inflated expectations' that ultimately ends in a 'trough of disillusionment'. This 'trough of disillusionment' may be a consequence of using ICTs in a restricted way as opposed to facilitating creative pedagogy with technology. The students' narrowing emphasis on computers and software appears to be an example of this process.

There is some great learning and teaching that uses technology but my concern with associating technology with computers is that you end up doing what you would do anyway but with technology as opposed to facilitating more creative learning. I'll give an example of this with our VLEs (Virtual Learning Environments). We tend to use them as a place to store lecture notes and learning activities as opposed to facilitating ICT interaction. My worry is that this can happen if you equate ICTs with computers and software. (Jackie, a programme leader).

This reflection links to the second research objective (analysis and appraisal of the perceived skills needs held by students and academic tutors on the EYSEFD). The academic tutors appear to share similar pedagogical views regarding the application of ICTs to pedagogy as Drotner, Siggard Jensen, and Christian Schroeder (2008),

Plowman, and Stephen, (2005), and Yelland and Kilderry (2010). The tutors appear to accept the importance of using ICTs in an innovative way. This point is made by Yelland and Kilderry (2010) with their recommendation that ICTs should be used in maths pedagogy in order to generate creative thinking in children as opposed to computing answers to mathematical problems. This is because assuming that 'e is best' without necessarily thinking about how to use technology creatively can result in what Robbins and Webster (1999) refer to as a supplementary pedagogy that is supportive of existing practice. The social context of learners and teachers appears to influence whether or not this supplementary pedagogy occurs.

The students I work with are generally excellent and they tend to give the programme very high satisfaction ratings. Like all students they also have their particular social characteristics. They are mature learners and many are anxious about using technology and these social characteristics influence the learning process. (Sally, a programme leader).

The challenge of developing the skills of children's practitioners in HEIs appears to be influenced by a range of factors such as wider government policy, the perception of these policies and social circumstances that can vary across student cohorts.

It's also worth noting that although I would expect future cohorts to have similar needs no student cohort is ever the same. I would also expect to see the association of technology with computers and software to change over time as more people become familiar with wider ranges of technology. (Joanne, a programme leader).

In summary the following main findings resulted from the questionnaire and focus group discussions:

1. The students in the research draw attention to the importance of developing their ICT skills and mirror wider UK educational policies emphasising that 'e is best' (Coffield (1999), Schuller and Burns (1999) and Clegg, Hudson and Steel (2010)).
2. The limited definition that the students have of ICTs (equating ICTs with computers and software) is not shared by the programme leaders who have a more balanced interpretation of the pedagogical merits of ICTs.

Implications for further and higher education

In the second focus group, the academic tutors observed that it is particularly important to facilitate reflective practice in students in order to develop their limited understanding of ICTs. Lindon (2012) is one of a number of authors emphasising the importance of reflective practice in early years (alongside Hale (2008), Parker-Rees et al. (2004) and Urban (2008, 2009)). The challenge of developing reflective practice is commented on by a number of authors (Ingleby and Hedges (2012, 543), Minott (2010), and Tigelaar, Dolmanns, Grave, Wolfhagen, and Vleuten (2005)). It is all very well to talk about the importance of reflective practice. The challenge comes in enabling the possibility of reflective practice.

Minott (2010, 329) emphasises the importance of linking teaching theory and teaching practice if successful teaching is to occur. This equates to the reflections given by the programme leaders in the focus group discussions in this research. The challenge in achieving this self-directed reflective practice is revealed by the work of Coldron and Smith (1999) who argue that professional identity is neither 'isolated' nor 'totally personal'. The process occurs 'within the socially and culturally constructed context of the world of education'. The reality may mean that the emphasis that is placed on the importance of ICTs by governments influences whether

or not this 'ideal' is ever achieved. The skills development needs of the students also appear to influence what are in turn interpreted as pedagogical priorities.

'Michael', 'Sue', 'Jackie', 'Sally' and 'Joanne's' broader awareness of the issues surrounding pedagogy with technology can be considered alongside some of the academic critiques of using ICTs with children. These critiques draw awareness to the pedagogical challenges of developing ICT skills for children's practitioners (Drotner, Jensen and Schroder (2008), Marsh, Brooks, Hughes, Ritchie, Roberts and Wright (2005), Plowman and Stephen (2005), and Yelland and Kilderry (2010)). These authors all note that ICTs can be used in a positive way in order to develop children's learning. 'E' truly could hold the potential to be 'best' were ICTs applied in an innovative and creative way. This appears to be the way forward in applying ICTs to pedagogy. The challenge appears to be ensuring that ICTs are not used for the sake of accepting that 'e' is 'best'. Mumtaz and Hammond (2002) reveal that despite the availability of word-processors in UK primary schools, they are still predominantly used to teach ICT skills as opposed to developing writing skills. Goldberg, Russell and Cook (2003) also argue there can be the sort of pedagogical limitations with ICTs that Karamarski and Feldman (2000) exemplify in their empirical study of 'web pages'. The authors argue that although web pages may help to motivate learners, this learning strategy can be less successful than traditional ways of improving reading by using books. In other words as opposed to chasing a 'holy grail' of computing pedagogy it might be best to try to generate a shared vision of developing skills within the early childhood profession that is characterised by an acceptance of 'difference, diversity, and the messiness of human life rather than seeking, in the first instance, to resolve it' (Schwandt, 2004, 40). Schwandt's (2004) work emphasises the importance of accepting reality as opposed to illusion. If this recommendation is applied to

pedagogy using ICTs we may see electronic resources being used for creative pedagogical purposes as opposed to being viewed in a limited way as ‘computers and software’. For this to happen, it is important that the practitioners in the research sample are enabled to apply the same critical reflection demonstrated by their academic tutors. Perhaps more could be done to develop the professional identity of the practitioners if the HEIs had responsibility for the practitioners' future professional development beyond their foundation degree studies?

Conclusion

This paper has explored some of the perceived skills needs of a sample of students who are working as children’s practitioners in England alongside studying HE programmes in FE colleges. The study has revealed the following main findings:

1. Some student practitioners in early years appear to need a broader understanding of how to apply ICTs to pedagogy with young children.
2. The student practitioners appear to have a less critical awareness of how to apply ICTs to pedagogy than their academic tutors.

It seems ironic that ‘Stephanie’ remarks ‘mistakes do happen but you can make some really big mistakes if you can’t work a computer!’ This appears to reflect a current educational theme within the UK that ‘e is best’. Perhaps it might be better if the practitioners in this research sample focused on the reflective practice that Lindon (2012) recommends by applying a broader understanding of ICTs within their pedagogical practice?

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Appendix 1

Study Skills Questionnaire for EYSEFD Pedagogical Practitioners

1. Do you think it is important to have access to study skills support both **before** and **during** your academic programme?

Yes

No

(please circle)

2. Do you think that your confidence in your study skills has increased during the programme?

Yes

No

(please circle)

3. Please tick which of the following 'study skills words' you think you understand:

Study Skills Word	
Identify	
Recognise	
Analyse	
Assess	
Appraise	
Discuss	
Conclude	
Summarise	
Reflect	

4. What further skills do you hope to develop?

5. What do you think are the main professional development actions that need to be taken if your pedagogical practice is to improve?

Appendix 2: Questionnaire Summary

1. 100% of the participants think that it is important to have access to study skills support both before and during the academic programme.
2. 84% of the participants think that confidence in study skills has increased at the end of two years of the programme.
3. The following percentage of the students in the research sample understood the following study skills words by the completion of their level 5 studies:

Study Skills Word	
Identify	90%
Recognise	74%
Analyse	66%
Assess	56%
Appraise	42%
Discuss	88%
Conclude	86%
Summarise	78%
Reflect	86%

4. Respondents commented in particular on the importance of developing ICT skills/confidence in using ICTs to help to develop children's learning. ICT does however appear to be associated with 'using computers and software' as opposed to being broadened to include a variety of digital media. ICT is also associated with pedagogical best practice by these practitioners.

5. Respondents commented on the perceived importance of raising awareness of how computers impact on children's future schooling and employment prospects.

Appendix 3

Questions for EYSEFD Programme Coordinator Programme Leaders and Student Representatives Focus Group

1. What could be done to make pedagogical practitioners in Early Years more confident about using ICTs with children?

2. How can educational policies within Early Years enable innovative pedagogy within this area of learning and teaching?

3. How can ICTs be used ‘creatively’ (in other words helping to develop children’s physical, intellectual, emotional and social abilities) within pedagogy in Early Years?

4. What further ICT skills could be developed within pedagogical practice in Early Years?

5. How might these skills be facilitated?

Appendix 4

Questions for EYSEFD Programme Coordinator, Programme Leaders PDP Focus Group

1. How can the programme's PDP modules be used to meet the CPD needs of pedagogical practitioners in Early Years?
2. How can the PDP modules enable innovative pedagogy within Early Years?
3. How can the PDP modules be used to facilitate the creative use of ICTs?
4. What further developments could be made to the current PDP?
5. How can the PDP modules encourage the development of self-directed professional development?

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