How can I encourage my pupils to think critically through collaborative online-learning?

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Abstract

In this paper I show how I study my teaching, as a student on a Masters degree (M.Sc.) programme in Education and Training Management (e-learning strand) at Dublin City University. As I explain my teaching as a History teacher, I show how I locate myself within Information and Communications Technology (ICT) and within education in Ireland. The source-literature examines critical thinking, social software and collaborative online-learning environments. These help me to understand the processes in my research question. I seek to explore my embodied educational values, and use them as a standard of judgement for my research. I work in a collaborative-dialogic way with all the research participants, establishing an online-classroom in order to help them to think critically. I come to several conclusions about collaborative online-learning, critical thinking and my own educational values. I believe I create a space for students to think critically through my enthusiasm and the students' ease in an online-environment. I show that positive educational change is possible when using a collaborative dialogic approach to teaching and learning.

Keywords: eLearning; Critical Thinking; Action Research; Living Theory; Teaching History.

1. My context

1.1. Portmarnock Community School

I am a teacher in Portmarnock Community School with a particular interest in ICT and education. Portmarnock Community School is a co-educational secondary school in North County Dublin, Ireland. The History students I worked with were about seventeen years of age.

At the start of my research both the students and I were new to encouraging critical historical thinking through the medium of eLearning. By the end of the research, we were engaging critically with each other in an online-environment.

Figure 1.   Gavin Brennan and Denise McKenna with Donal O' Mahony – all new to encouraging critical thinking in an online-environment.

1.2. ICT in Irish education

Seven rationales are used by governments to justify expenditure on ICT resources in schools (Hawkridge, Jaworski and McMahon, 1990, pp.16-26). These rationales are the vocational, catalytic, social, pedagogic, industrial, cost effective and special needs. Historically, the Irish government's ICT policy for education is found in the 1997 document, Schools IT2000: A Policy Framework for the New Millennium (Department of Education, 1997). Four of these rationales: the social, catalytic, pedagogic and industrial, are referenced in this paper. Two rationales are especially relevant to my context. They are the pedagogical and catalytic, since the purpose of my research is to enhance the quality of teaching and learning.

In order to achieve the pedagogical and catalytic rationales there is a need for teachers to change their practice in relation to ICT. This is a challenge because, as Prensky

(2001) outlines, students are digital natives, while teachers are digital immigrants. Richardson (2006) addresses teachers at high-school level in the United States of America and concludes that they will have to re-define themselves in five ways: as connectors of people, as creators of content, as collaborators with their own students, as coaches in the new literacies and as agents of change.

The National Council for Curriculum and Assessment (NCCA) who advise the Irish Government on curriculum issues, argue that change is a necessary challenge if we are to allow ICT to add 'value to the curriculum' (2004, p31).

The NCCA outline that value is added in several ways, summarised as:

- student's active involvement in their own learning and in their own assessment;
- enhancement of student interest and development of higher order thinking skills, and
- the possibility of working in an authentic environment in both a differentiated and collaborative manner.

Continued financial support for such development in teaching practice was promised in the National Development Plan. In the section entitled ICT in Schools Sub-Programme, the Department of Finance promises two hundred and fifty two million euro in funding to schools, over the period of the plan, 2007–2013. They specifically target teaching and learning, saying that their strategy will deal with, 'developing an e-Learning culture in schools that will ensure that ICT usage is embedded in teaching and learning across the curriculum' (p. 200).

This promised funding coincided with the completion of the Schools' Broadband Programme in 2007 (connecting most Irish classrooms to the Internet) and subsequently led to the publication of two documents by the Department of Education and Science (DES) in 2008: ICT in Schools (2008a), a report of the Inspectorate of the DES and Investing Effectively in Information and Communications Technology in Schools, 2008-2013 (2008b), a report from the Minister's Strategy Group appointed by former Minister, Ms. Mary Hannifin.

Both documents encourage teachers and students to exploit the potential of ICT.

1.3.   My understanding of the nature of ICT

My particular interest in ICT is in its communicative rich characteristics as understood by Farren (2006a) in which she shows how such characteristics can support a dialogic-collaborative approach to learning, 'ICT and emerging media technologies can support a dialogic-collaborative approach to learning and bring us closer to the meanings of our educational values as they emerge in the course of our practice' (p. 22). This is the approach I used with the students in my research into collaborative online-learning with them.

1.4.   The Leaving Certificate History examination

The Leaving Certificate is the terminal examination Irish Students take at the end of their second-level education. The Leaving Certificate History syllabus was revised in 2003, with both the content of the course and the terminal examination undergoing considerable change. The syllabus encourages students to develop the ability to think critically. The aims and objectives of the Department of Education and Science syllabus (2003) specifically highlight that: 'Through their study of History, students should acquire a unique combination of skill and understanding, which will contribute to their personal growth as individuals and help to prepare them for life and work in society' (p. 4).

It asks that students be able to look at controversial issues from more than one point of view and that students learn that their own judgements 'be subjected to the most searching analysis and criticism' (ibid, p. 2).

1.5.   My concern as I research my practice.

My concern is to engage with students in critical thinking as they undertake their Leaving Certificate History studies, not just for the purposes of completing the course, but also to engage with what the syllabus calls issues of life and citizenship. I will use technology for the purposes of teaching and learning, and examine whether technology can encourage critical thinking amongst the students.

1.6.   My research question

This concern led to the development of my research question, how can I use Moodle, a collaborative online-learning environment, to improve my practice as a History teacher, as I encourage my pupils to think critically?

A number of terms are used when describing online technology to assist teaching and learning. These include learning-platforms, collaborative-online-learning environments, virtual-learning environments and technology-mediated learning environments.

Moodle is one such online technology. It is built on the principles of constructivism and is open-source, meaning that there is open access to the source code of the software and a commitment to free redistribution of the software. Thus, the software itself is without charge, and schools and colleges can choose to serve it themselves or use a Moodle partner to do it for them.

Moodle is the online-learning platform for Dublin City University, which was where I first came to use it. I also subscribe to the ideas of constructivism, open-source software and the community of practice that has developed around Moodle users.

2. Literature

I examined three themes in the literature in order to inform my understanding of my research question. They are

- Critical Thinking and Democratic Education
- Social Software as a Key to Students' Learning with Technology
- Collaborative Online-learning Environments.

2.1.   Critical thinking and democratic education

In education, much discussion of critical thinking requires students to examine the credibility of evidence, to develop and assess arguments, resolve dilemmas and look at issues of logic, presumption and fallacies. The value of critical thinking is that students develop a range of thinking skills, enhance their meta-cognition and are better able to live in a world in which flawed arguments often hold sway (Larsen and Hodge, 2005; Chapman, 2006).

This approach places the emphasis on the student's ability to live in the world but it does not speak of any vision of what living in that world is actually for. A review of some of the seminal literature written on education and critical thinking provides a framework for this vision. Two authors in particular inform that vision: John Dewey and Paulo Freire.

Dewey (1916) believes that democracy provides us with a better type of human experience. It is a form of life, a way of living together, with opportunity accessible to all, on equitable terms. He argued that progressive education is democratic, as opposed to traditional education which is autocratic. In the autocratic classroom, order was of 'the teachers keeping' (1938, p. 61) while in the democratic classroom order 'resided in the shared work being done' (ibid).

Like Dewey, Freire believes that knowledge emerges through invention and reinvention (Freire, 1970). Freire believes in 'creating pedagogical spaces' (Freire and Macedo, 1999, p. 53) in which students are afforded the opportunity to be critical. This is done in a dialogue between students and teachers who are co-investigators in the process of critical thinking. This approach is very important because it is value-driven. People are empowered. A skills approach to critical thinking, found in the competency model of education is not enough (Hatton and Smith, 1995; Veugelers, 1996; Bertrand, 2003).

Both Dewey and Freire rebel about teaching a set of techniques or a boxed piece of knowledge. Dewey rebels against the 'static, cold-storage idea of knowledge' (1916, p. 129), because it is contrary to the development of thinking. Similarly Freire (1970) rejects what he calls the banking concept of education in which knowledge is the property of the teacher, rather than an act of knowing between teacher and student. This act of knowing is what Freire calls dialogue, where teachers and students empower each other and fulfil each other's vocation to be more fully human (Freire, 1970).

2.2. Teaching and evaluating critical thinking

The challenge is to find a way of evaluating the teaching and learning of critical thinking, which is open to the democratic concept of education argued for by Dewey and Freire.

Garrison and Anderson (2003) discuss critical thinking in the context that there must be cognitive outcomes. Drawing on Dewey, they use the concept of cognitive presence which they define as: 'The intellectual environment that supports sustained critical discourse and higher order knowledge acquisition and application' (p. 55).

In order to assess critical thinking, it is necessary to have some criteria to judge students' standards of reflection i.e. the cognitive presence of the students within the online-environment. I settled on the work of Australian educators Hatton and Smith (1995) as both clear in thought and emancipatory and reflecting the values of Dewey and Freire. Hatton and Smith put forward a five part framework to examine what constitutes evidence of critical thinking.

1. Technical Reflection – reports on events or reports on literature.
2. Descriptive Reflection – provides reasons based on personal judgements or reasons based on reading literature.
3. Dialogic Reflection – exploring alternatives with oneself or others.
4. Critical Reflection – giving reasons for decisions, taking into account broader social, historical and political contexts.
5. Contextualisation of multiple viewpoints – drawing from the previous four and applying them to situations as they actually occur. (Hatton and Smith, 1995.)

Hatton and Smith's work is with trainee teachers, while the context of this literature-review is a Leaving Certificate History class in Portmarnock Community School. I believe that the first four criteria have validity in the secondary school classroom and I will use them to examine critical thinking in the collaborative online-learning environment I create for the purposes of this research.

2.3. Social software

Social software is defined as 'software that supports group interaction' (Shirky in Owen et al, 2006, p. 12). There are many examples of social software, and all allow people to communicate in a variety of ways e.g. blogs, wikis, social-networking etc. There are a number of reasons why social software is so popular with young people: interaction with friends, the generation of online identity and reputation, constant feedback in an environment that can be accessed anywhere or anytime (Boyd, 2005; New Media Consortium, 2007; Anchor, 2007).

Through their use of social software, students are becoming creators of knowledge and information: 'Current social software allows users to communicate, collaborate and publish in a number of ways, in a variety of media, and it also helps learners act together to build knowledge bases that fit their specific needs' (Owen et al, 2006, p. 28).

The literature concludes that as students create this knowledge and information they are doing so in a social process. Their learning is thus essentially social in nature, as minds and ideas come into contact with each other (Sefton-Green, 2004; Owen et al, 2006; Rudd, 2006).

2.4.   Collaborative online-learning environments

The educator and computer programmer, Martin Dougiamas developed a collaborative online-learning environment using the pedagogical goals of constructivism. Constructivism allows learners to come to understand the world they live in. It looks less at the teacher, as the traditional provider of content, but as the creator of a social process in which learning takes place (Bertrand, 2003; Oliver and Herrington, 2003). Dougiamas addresses the role of the teacher and argues that constructivism and its associated ideas:

> …help[s] you to focus on the experiences that would be best for learning from the learner's point of view…Your job as a 'teacher' can change from being 'the source of knowledge' to being an influencer and role model of class culture, connecting with students in a personal way that addresses their own learning needs, and moderating discussions and activities in a way that collectively leads students towards the learning goals of the class. (Moodle, 2006)

Dougiamas called his collaborative online-learning environment, Moodle.

The introduction of an online-learning environment requires hard work and commitment. The learning experience does not just happen. It needs to be organised and well planned. Dougiamas and Taylor (2003) record how an analysis of their teaching using Moodle over two years, resulted in a need to examine moderation practices in the online-environment.

Bonk et al (2004) comment on the lack of pedagogical tools for online education, resulting in the loss of its transformative potential. Salmon (2002) promotes 'e-tivities' as the key to active online-learning, while Richardson (2006) encourages the pedagogical use of the most recent resources of the internet; blogs, wikis and podcasts.

In choosing Moodle as a collaborative online-environment, the teacher is adopting an approach to knowledge and an approach to pedagogy. The effectiveness in teaching and moderating on Moodle will depend on how committed teachers are to the social construction of knowledge that underpins it. Once committed, the teacher/moderator's online personality, technical skills and level of organisation become important. The literature suggests, that it is in this way, that the moderator in a collaborative online-learning environment will create and support a learner-centered experience, leading to its institutionalisation within the school (Kukulaska-Hulme, 2004; Packham *et al*, 2004; Donnelly and O' Rourke, 2007).

I began by examining what I believe is the purpose of education, namely, a democratic activity conducted by students and teachers who think critically together, for the purpose of creating a just society. I then sought to find a framework to achieve the possibility of teaching and assessing critical thinking and found the work of Garrison and Anderson (2003) and Hatton and Smith (1995) particularly instructive for my context.

My interest is to achieve this in an online-environment. I reflected therefore on the students' use of social software and its educational implications for collaborative online-learning environments. I concluded by examining issues of teacher moderation in such an environment, in order to achieve an online cognitive presence in teaching and learning.

During the Masters' programme I practiced many of the activities described above, particularly in the area of Moodle and online collaboration. Examining the literature affirmed my own developing practice both as a student and as a teacher. It is important to understand that that I did not find the literature review static. I returned to it when I became dissatisfied with my research. I was particularly challenged to examine my understanding of cognitive presence and how critical thinking could be encouraged in discussion forums in Moodle.

3. Research methodology

3.1. Action research – living educational theory

A seminal definition of action research is, 'a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out' (Carr and Kemmis, 1986, p. 162).

McNiff and Whitehead say that the result of self-reflective enquiry enables practitioners 'to create their own theories of practice' (2005, p. 1). My action research methodology involved asking, researching and answering the question 'how do I improve my practice'? I generated my own living educational theory as I explained my answer to this question through clarifications of my educational influences in learning.

My decision to choose action research is influenced by my democratic values, very much in the Jefferson mould as explained by Chomsky (1994) in which people share power together (as democrats), rather than leaving power in the hands of the few (as aristocrats).

In developing my living educational theory I am engaging with my 'I', and am reflecting on my experiences as they happen. I understand living educational theory as looking at my personal and educational values, and seeing if I can live them through a piece of practical educational research in my own context. As I began to examine my practice, I came to an understanding that my research is personal, value laden, practice based, rigorous, unique, singular to my context and open to new possibilities.

Developing my own living educational theory is a challenge, because as Whitehead says, we are living contradictions 'holding educational values while at the same time negating them' (1989, p. 4). This understanding is integral to a living methodology, as contradictory experiences become a source of transformation within our educational practice.

3.2.   Action plan

The action plan I used in my research is the one developed by Jack Whitehead. His plan helps researchers ask, research, and answer questions about how they improve practice. The action plan is a cycle of research in which I:

- experience a concern when some of my educational values are denied in my practice;
- imagine a solution to the concern;
- act in the direction of the imagined solution;
- evaluate the outcome of the solution;
- modify my practice, plans and ideas in light of the evaluation. (Whitehead and McNiff, 2006, p. 91)

3.3.   Data collection

McNiff and Whitehead (2006) see data being collected in two distinct areas. On the one hand, data will be collected from episodes of my own practice that show my own learning; while on the other hand, data will be collected from episodes of practice that show the practitioner's influence in the learning of others.

In looking for data that shows the influence in my own learning I examined practices that I carried out intentionally and in an informed way. These episodes of practice took place during the course of my research and showed (or perhaps otherwise) that I am turning my research-question into reality.

 The data that I collected explained what I learned from these episodes of practice. My learning journals, and in particular my own critical reflection on the online-classroom I set up, are examples of data sources. McNiff and Whitehead (2006) write about this 'You are now looking for data that show how your practice (informed by your learning is influencing the learning of others (as is manifested in their practice)' (p. 134).

3.4.   Turning the data into evidence

There are four steps taken in generating evidence from data:

- The action researcher must make some claim to knowledge.
- There must be a standard of judgement to examine that claim to knowledge.
- The data must now be examined to see if there is evidence of the claim to knowledge using the standard of judgement as set out.
- Evidence is generated to back up the claim to knowledge. (McNiff and Whitehead, 2006)

In making a claim to knowledge, I am not only making a claim to have improved my practice, I am also making a claim to have a new theory about that practice. This theory is

my claim to knowledge. The standards of judgement I set for that claim to knowledge are ones that emerged during the course of my research.

3.5. Validating the evidence

The action researcher allows their research to be subject to public critique in a validation group and with a critical friend.

A validation group examines the research-conclusions in the light of the researcher's standards of judgement. The group is essentially a community of equals who, whether they are 'participants, practitioners or judges' (Whitehead and McNiff, 2006, p. 102) equally apply 'criteria of social validity' (ibid, p. 138), that Habermas (1986) says are necessary to address the truth of a claim to knowledge. These criteria are that the account of the research presented to the validation group is comprehensible, truthful, sincere and appropriate. The group, including the researcher, can be made up of between three and ten people. Validation is a process with the group meeting at regular intervals. McNiff and Whitehead define a critical friend as 'a person who will listen to a researcher's account of practice and critique the thinking behind the account' (2006, p. 256).

4. Implementation and Evaluation

4.1. Introduction

I engaged in this research because I value education as a democratic activity conducted by students and teachers who think critically together. I also value that I encourage my own students to think critically, but am aware that my didactic approach to teaching sometimes negates this. I examined whether, a collaborative online-learning environment might become a space to encourage critical thinking and help me overcome that particular contradiction in my practice. There were three cycles in my research that evolved from my concern:

- creating the pedagogical space for teaching and learning in Moodle
- consolidation and questioning
- encouraging deep learning

These cycles evolved over the course of the research.

4.2. Research cycle one – creating the pedagogical space for teaching and learning in moodle

There are two important elements in how I came to understand how best to use Moodle. Both involved its discussion forum feature. A forum is an online activity where a lecturer or teacher can place a topic for discussion and moderate and direct it as required.

The first element was that, through my own use of Moodle, I found the experience of using online forums pivotal in shaping my own learning in the Master's programme. The

underlying philosophy of this programme comes from the idea of a 'web of betweenness' found in the writings of John O' Donohue. He writes; 'True community is an ideal where the full identities of awakened and realized individuals challenge and complement each other. In this sense individuality and originality enrich self and others' (2003, cited in Farren, 2006b, p. 21).

In her Ph.D. thesis, Margaret Farren, the Chair of the Masters programme, showed how the communications-rich characteristics of ICT can support a dialogic-collaborative approach to learning: 'ICT and emerging media technologies can support a dialogic-collaborative approach to learning and bring us closer to the meanings of our educational values as they emerge in the course of our practice' (ibid, p. 22).

As I started to post contributions to the discussion forums and receive responses from fellow participants and former students in the Master's class, deep personal learning began to occur, as the interconnectivity of the 'web of betweenness' began to emerge. Not alone was I discussing, for example, an educational theory with fellow teachers but also with trainers from the public service, who deal with clients from a variety of social background, or with nurses bringing their particular healthcare perspective to the debate. This is an example of one such discussion.

The course philosophy of a web of betweenness, was empowering me to begin to identify and understand my own educational values. I then started to clarify the educational value central to this research. The following is a response from Darragh Power, a graduate of the Master's course to a posting I had made on Paulo Freire.

> Donal you said: 'It is a fine balancing act to a degree, but Secondary school education has to be more than 'learning' in a narrow sense – more than how many points did you get? It has to transform students, so that they move outside of themselves towards their communities and be active in them. Difficult in these materialistic times.
>
> This is an educational value that you hold, which to my mind is a very positive one. I think this transformational value is a nice idea, and the challenge from a living theory action research perspective, is how can you integrate this value into your practice? (D. Power, personal communication, April 24, 2006)

This posting represented an important moment in my understanding of my own learning.

The second element was an unplanned forum the students created themselves, within days of their Moodle class going online (October 19, 2006). Roger Jones posted a video entitled 'Nazi Propaganda Village People' from YouTube, the video-sharing website, to the online-classroom. This video parodies Leni Riefenstahl's documentary, Triumph of the Will, which records the 1934 Nuremberg Rally in Nazi Germany. This created an online-discussion between some of the students and myself, initially about who controls the forum, but subsequently and more importantly, it developed into a discussion about the appropriateness or otherwise of making fun of historical personalities, when the consequences of their actions resulted in the deaths of millions of people. This is an extract from that discussion. The video was subsequently removed from YouTube for a copyright violation.

These two elements: my own learning on Moodle and the students' unprompted and enthusiastic online debate, are fundamental in my decision to use the forum facility on Moodle as a central part of my research.

As a teacher, I always try to relate the historical topic I am teaching to the real world. This concern would be no different in the online-classroom. The democratic value of participation and discussion that I encourage in my real classroom (but often negate in practice) could now be reflected in my Moodle classroom. I began to realise that I was creating a new pedagogical space for the students. Could this space become what Freire and Macedo (1999) spoke of, a space where students are afforded the opportunity to be critical, in a dialogue between students and teachers as co-investigators in the process of critical thinking?

Cycle one had helped me realise that this was a possibility. It also helped me understand how my own learning on the Master's programme was developing as I gained insights from my own use of Moodle in my study and from its use in school. I realise now that I was becoming responsive to my own learning from my participation in the Master's forums and also from working with the students in my class. I was now prepared to explore this responsiveness and imagine a way forward with the class I teach.

4.3. Research cycle two – consolidation and questioning

In Cycle Two, I set up three online forums for the class (Table 1), worked on moderating them and examined four themes that then emerged.

Table 1. Original online forums.

Moodle Forum:	Were the Americans right to drop the Atomic Bomb?
Historical Context:	The technology of warfare
Forum Start Date:	November 2006.
Moodle Forum:	**Was Parnell the Author of His Own Downfall?**
Historical Context:	Charles Stewarts Parnell's affair with Catherine O'Shea and his subsequent refusal to resign from the Irish Parliamentary Party.
Forum Start Date:	January 2007.
Moodle Forum	**What Does It Mean to be Irish in 2007?**
Historical Context:	The Irish Ireland movement of the late nineteenth and early twentieth centuries.
Forum Start Date	February 2007.

I examined the student's contributions to these three forums and saw four themes develop in their online discussions (this is the discussion on what it means to be Irish in 2007):

1. argument about historical issues;
2. expanding the topic for discussion;
3. moving away from the context of the discussion;
4. making moral judgements.

The criterion I then used for examining these themes was the Leaving Certificate History Syllabus, particularly the sections on the nature of the history, the nature of the syllabus and the aims and objectives of the History programme. I now asked two important questions that sent me back to the literature review:

- What is going on in the three forums?
- Are the forums encouraging critical thinking?

I could see that I had successfully implemented Moodle and had judged properly that social software ensured students ease in an online-environment. I was unhappy, however, that I was interpreting the forums in a meaningful way. I could see that they were encouraging critical thinking, but as I isolated the four themes above, I understood I was not adequately expressing my educational values in examining them.

I was taking the Leaving Certificate History Syllabus as my criterion and looking for phrases from it that backed up some of the discourses in the forums. It was not however establishing, in a meaningful way, that dialogue and critical thinking were taking place.

As I re-engaged with the literature, I came to understand that it was possible to explore different levels of critical thinking, using ideas developed by Hatton and Smith (1995). These were explained in the literature-review. This realisation was developed through discussions with my own supervisor, presentations of work in progress to dissertation supervisors other than my own, and discussions with my fellow students on the Master's programme. There was no one moment of sudden realisation, but a slow understanding that I needed a more rigorous framework to look at the online-discussion forums.

I now revisited the three forums I had examined using the Leaving Certificate History syllabus as a criterion, and looked at them in the light of Hatton and Smith's (1995) understanding of critical thinking. I concluded that some critical thinking was taking place and that students had engaged in dialogue with each other.

As I reflected on the student online discussions I realised that I could possibly improve the quality of these as the students interacted with each other.

This would involve pre-teaching the students about learning and critical thinking. This realisation became the basis for moving forward into cycle three.

4.4.   Cycle three - encouraging deep learning

I now decided to teach the students about two issues in relation to my research. The first was in regard to learning. The other was in regard to critical thinking. When I returned to the literature, I found that in order to ensure a greater understanding of what they were at, students should be taught about the processes involved. Students needed to make metacognitive sense of where they were going, in order to achieve a cognitive presence in the online-environment (Garrison and Anderson, 2003).

I therefore planned and taught the students a lesson about learning and critical thinking. This is a copy of the presentation. On reflection, this was the first time in twenty

five years of practice that I had ever really spoken to students about 'learning'. I recorded the class, as a visual attempt to show the lived expression of my interest in bringing the students forward in learning and critical thinking.

I told the students that I would now organise two further forums (Table 2):

Table 2.   Further online forums.

Moodle Forum:	**Using the study of the Church in Nazi Germany, comment on the role of the Christian Churches when faced with Fascism.**
Historical Context:	Church State relations under Hitler.
Forum Start Date:	Tuesday 24 April 2007.
Moodle Forum:	**Socialism and Capitalism.**
Historical Context:	The Dublin Strike and Lockout 1913
Forum Start Date:	Monday 16th April and Wednesday 9th May 2007.

Cycle Three was significant because I pre-taught my students about learning and critical thinking. This was a new development in my own practice. Pre-teaching reinforced my value of developing critical thinking in the online History class. Pre-teaching was also indicative of my enthusiasm to move my students' school-work to a new level, both in terms of the Leaving Certificate and in terms of their own critical thinking abilities. This interest was commented on by my critical friend who saw my sense of excitement, as I told him how I developed my research project in this way.

Cycle Three was also significant because it generated some student learning reflecting Hatton and Smith's (1995) fourth criterion of critical thinking: giving reasons for decisions, taking into account broader social, historical and political contexts.

4.5.   Reflection on my research

I believe that through this research I have influenced my own learning and that of the students'. I began this research because I value critical thinking. I also value that I encourage students to think critically. I am aware that my didactic approach to teaching sometimes negates this. In order to engage with this contradiction I explored different ways of using technology, reflecting on my own learning and on the learning of others.

Technology afforded many possibilities e.g. blogs, wikis, podcasts, digital video. Online-discussion forums constituted the route I took with this research.

I now believe that it is possible to create a space to encourage critical thinking in a History class using a collaborative online-learning environment. I enjoy teaching, and engaging with the students in a new and personally exciting way allowed me to make the most of this. In reflecting on the reasons for that excitement I came to understand that I am living out my educational values. Technology, in the form of collaborative online-learning environments, afforded me this opportunity.

4.6.   The validity of my research enquiry

During the research process, I formally presented my work on three occasions to participants in the Masters programme. I met twice with my critical friend, Seamus Ó' Braonáin. I engaged with my research supervisor, Margaret Farren and further met with Teresa Hennessy and Yvonne Mulligan (students from the Masters Programme also engaging with action research) as we clarified, in particular, our educational values. Mary O'Mahony, a primary school teacher, read my work for meaning. I increasingly began to use digital video, to try and capture moments of enthusiasm and insight (Farren, 2008), in order to support the validation process.

4.7.   Conclusion

I believe that my research shows that I discern and demonstrate how my embodied values have become a living standard of judgement (Laidlaw, 1996), as my thinking developed through engaging in a dialogic, collaborative approach to learning. My dialogues with the various partners in the validation process strengthened the social validity of my research and gave me the confidence to state the source of my enthusiasm, which is my love for teaching. My ontological values have therefore become the living epistemological standard of my work. My love of teaching moved my research along.

I believe I have shown that I am a reflective researcher demonstrating the rigour necessary in an action research project and that I have made evidence of this available. I have engaged with my living contradiction (Whitehead 1989), of encouraging critical thinking while negating it through a didactic approach to teaching, by engaging with the part of my research question that asks 'how do I improve my practice?' Risk comes from one of my conclusions, my explicit statement of my love of teaching. After twenty-five years of practice, I find it surprising to describe such a conclusion as a risk. But I could not explain my enthusiasm without its articulation.

I worked in collaboration with the students in Portmarnock and acknowledge their influence in my learning. I also acknowledge my work with all the participants in the Masters programme, and my willingness to change as I engaged with them. This was a project revealed in many media, for example, through video, online dialogues, and reflection. It resulted in a genuine interplay between theory and practice. An interplay drawing together critical thinking, collaboration, dialogue and online technologies, resulting in a transformation of my understanding and practice of teaching and learning.

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