

Learning Beyond Competence to Participation

Leo Casey

National College of Ireland, Ireland

Abstract

The essence of progressive education today is a view of learning centered on participation. In adulthood, the quest to participate and the quest to learn may ultimately be regarded as one and the same. Research on the learning journeys of adults undertaking a basic computer course are used to support these ideas. The participants in this study described pathways of learning directed toward useful activities rather than academic qualification or career progression. The notion of this journey as extending beyond competence to participation emerged from the analysis. Participation is a communicative process; framed by sets of assumptions on all sides. These assumptions are, in turn, influenced through participation. This paper considers the relevance of these ideas for the ubiquitous nature of everyday digital technologies and the challenges faced by people who lack the relevant competence to participate. An approach to pedagogy based on the ideals of progressive education is proposed—a shift of focus from the individual to the participant, and from competence to participation as the ultimate goal of learning.

Keywords: progressive education; digital literacy; competence; participation; learning identity; grounded theory practice.

* *Leo Casey* is Director of the Centre for Research and Innovation in Learning and Teaching at National College of Ireland. He is also Programme Director of the Post-Graduate Diploma and Master of Arts in Learning and Teaching at NCI. Leo's research interests are digital literacy, design for blended learning, teacher professional development, and teaching and learning in vocational and further education contexts.

Correspondence: e-mail: leocasey@mac.com

Introduction

What are we to make of learning theories today? The question is seldom framed in this way and yet it succinctly encapsulates the argument of this paper. We need to deal with learning not as some isolated activity that we engage in from time to time but from the perspective of what we do—what we make of it—and, in particular, what it means to live and learn as adults in a world permeated by new technologies. I teach learning theory and like many others in the field, I tell the stories of our changing views of what it means to learn and how ideas emerge, gain popularity, and with time, fade from prominence. Taking a historical view, we can make sense of this ebb and flow of what we deem to be important; positivism emerges with the rise of scientific thinking, behaviorism is popular in an era of industrialization, and humanism becomes fashionable in the liberal counter-culture of the sixties. Of course I over-generalize, but the significant point is often overlooked: views of learning are framed in the perspectives of the time.

It is often easier to make sense of the past, or at least to appear to do so. It is much more difficult to deal with the present; for in the present we are immediately called to account. This, I suggest, is the aspiration of progressive education, to think beyond the moment, to avoid the clutter of current trend and to ask more fundamental questions about what it means to learn. It is in this spirit that I propose we look anew at the connection between participation and learning.

Progressive education as espoused in the writings of Dewey emphasizes this connection. In the opening remarks of *Democracy and Education* Dewey (1916/2008) asks the reader to ponder the difference between organic and inorganic things. He suggests that organisms attempt to control or subjugate their environment and he describes life as a “self-renewing process through action upon the environment” (Dewey, p. 3). This self-renewing process is not limited to individuals—society seeks to renew itself through the transmission of knowledge from the old to the young and from the experienced to the inexperienced. The continuity of society comes from our continued re-adaption of the environment, and to be alive as a human is to learn to participate in this process. Dewey always regarded education and learning as social processes; his belief was that “all education proceeds by the participation of the individual in the social consciousness of the race” (Dewey, 1913 p 77). The identification of learning with participation in society is not unique to Dewey. A similar emphasis can be found in the writings of Vygotsky (1978; Vygotsky & Kozulin, 1986), Habermas (1984) and in areas of scholarship such as activity theory (Engeström, 1987; Roth & Yew-Jin, 2007) and communities of practice (Lave & Wenger, 1991; Wenger, 1998).

In this paper, I will show how these ideas are increasingly relevant for adults as they grapple to deal with the ubiquitous nature of digital technologies and the unexpected learning challenges that arise. Insights from a study using grounded theory practice to investigate the learning journeys of adults undertaking a basic computer course show the purpose of learning as beyond competence to participation.

Beyond competence to participation

Prior to describing this research in detail, it is useful to review the conceptual framework for learning as participation. Lave (1996), following a suggestion by Martin Parker, describes how the characteristics of any learning theory would imply three kinds of stipulations (i) ‘telos’ as the trajectory of learning (ii) subject-world relation as the epistemological conception of how reality is constructed in the mind and (iii) learning mechanisms as the means by which learning changes occur. This is a useful framework to consider conceptions of learning and to compare competence with participation as providing the underlying purpose of learning. Furthermore, the framework prevents the reduction of such a comparison to a simple either or dichotomy.

The competence approach suggests an understanding of the trajectory of learning as directed toward the development of individual skills and abilities. In instructional contexts these are often stated in terms of intended learning outcomes; learning outcomes are defined as “statements of what a learner is expected to know, understand, or be able to do at the end of a learning process” (European Commission, 2011, p. 12). In the European Framework for Qualifications learning outcomes are classified by level of complexity and in terms of knowledge, skills and competence (European Commission, 2011). This approach is widely accepted and underpins much of our pedagogic practice today. The associated model of teaching suggests we focus on specific sub-processes and build from there toward a wider framework of competence. A popular metaphor for the ‘discrete’ approach is the toolbox. This suggests that for each kind of learning to be addressed, there is an appropriate pedagogical tool; thus we need constant practice for routine skills and good explanations to help us learn concepts and so on. The metaphor regards learning as a collection of processes directed toward a particular end goal. In some contexts an instructor or teacher may guide the learner through these processes or in other situations the student self-manages the development of the wider competence. Either way competence is achieved step-by-step through a succession of learning activities.

However, despite the attractiveness of these systematic models, there are many who question their effectiveness. The critique is often expressed in the argument that we cannot learn complex behaviors by simply amassing a collection of sub-routines or skills. Much of what we deem as competence in practice, such as for example, playing music or managing a meeting, is too complex to be learned from the bottom up. The alternative is to advocate an extended notion of competence (for example, Biggs, 1993; Biggs, 1996) that has much in common with participation as discussed here. Illeris (2003, p. 396) proposes:

The modern concept of competence comprises not only relevant knowledge and skills, but also a range of personal qualities and the ability to perform adequately and flexibly in well known and unknown situations. To be up-to-date, the concept of learning must be understood in the same broad sense, and therefore traditional learning theories must be revised.

Beyond competence something else is usually required and we often describe this as experience or participation. To illustrate this ‘missing dimension’ of learning, consider the familiar instructional context of first-time adult computer users. An early challenge is to master mouse and keyboard skills. Many take these abilities for granted but keyboards are a daunting prospect for the first-time user. Similarly, the basic tasks of file and software management are at first slow, deliberate and somewhat tedious. These characteristics of the early stages of skills development are well established in research (Anderson, 2000). It is often argued that for novice computer users these basic skills are not seen as ends in themselves but as means to an end, a price to be paid for future, more engaging computer activities. This argument implies that participation is deferred; it is something that happens later and must be preceded by the hard work of basic skills. The alternative view, proposed here, is that participation is evident from the onset and the need-to-participate is the key driver of learning. Instructional strategies may advance or even hinder the process but adult learners who set out to use information and communication technologies for the first time are essentially engaged in participation.

An appropriate metaphor for this perspective is akin to what happens with an orchestra where the main activity is regarded not as combinations of hand movements or wind on instruments, but rather as the altogether more complete notion of playing a symphony. This involves a blend—sometimes the violins, sometimes the horns, and many times combinations of these with the other instruments. The overarching goal is to play music. The

progression from novice to accomplished musician involves several transitions: from physical to psychical movement in play, from individual to group sensitivity, and the acceptance of shared values and norms of the craft or profession—as Dewey (1916/2008) puts it the participant “becomes saturated with its emotional spirit” (p, 11).

Reverting to framework of stipulations for learning theory introduced above we note that competence and participation offer different telos for learning: competence is a state of affairs whereas participation implies activity. Dewey (1916/2008) distinguished between training based on passive absorption and reinforcement, and education as the “degree in which an individual shares or participates in some conjoint activity” (p. 11). This same split is also evident in the contrast between the notion of education as preparation for life and education as part of life (cf. Dewey, 1938).

The three-part framework also suggests that learning theories stipulate different conceptions of the subject world relationship and mechanisms for learning. As Lave (1996) suggests, the subject-world relationship hinges on the question of how we conceive knowledge: as external and thereby objectively transmitted or as internal and thereby socially constructed. Dewey also discusses these approaches in terms of two competing ideas of learning.

On the one hand, learning is the sum total of what is known, as that is handed down by books and learned men. It is something external, an accumulation of cognitions as one might store material commodities in a warehouse. Truth exists ready-made somewhere. Study is then the process by which an individual draws on what is in storage. On the other hand, learning means something which the individual does when he studies. It is an active, personally conducted affair. (Dewey, 1916/2008 p 268)

Dewey’s own vision was in keeping with the latter active notion of learning expressed above. Much educational debate has centred on the epistemological demarkation outlined above and the two positions outlined by Dewey have significant consequences for how we organise, encourage, measure and research learning. This ideological fracture is ultimately at the root of dualities such as positivism and post-modernism, behaviourism and constructivism, literacy as skills versus literacy as social practice and learning as directed at competence versus learning as participation.

Learning as Participation

To Lave and Wenger (1991) the concept of internalization, and therefore learning, is embedded in the process of participation. They see this as a logical extension of cultural historical theory:

First, the historicizing of processes of learning gives the lie to ahistorical views of “internalization” as a universal process. Further, given a rational understanding of person, world, and activity, participation, at the core our theory of learning can be neither fully internalized as instrumental artifacts or overarching activity structures. Participation is always based on situated negotiation and renegotiation of meaning in the world. This implies that understanding and experience are in constant interaction—indeed, are mutually constitutive. (Lave & Wenger, 1991, p. 51)

Lave and Wenger (1991) describe learning as participation in social practice and they build on the notion of cognitive apprenticeship, put forth by Collins, Brown, and Newman (1986), to look at the way people learn and extend their participation in social contexts. Lave and Wenger (1991) describe the notion of “legitimate peripheral participation” (p. 290). The emphasis is on the learning journey within a community or practice from the periphery to the

center (Wenger, 1998). This process is driven by active participation and important facilitative mechanisms are social structures designed to allow the learner to operate in their zone of proximal development. Wenger (2005) suggests that meaningfulness is at the root of community of practice learning, as learning within social contexts facilitates the negotiation of new meanings.

To illustrate, consider a situation where an inexperienced adult decides to begin to use a computer to send e-mails for the first time to a circle of friends who she knows already communicate by e-mail. We consider this activity not just as the act of an individual sending or receiving e-mail. It is also, a movement towards participation by both individual and group. In the beginning, the new e-mailer may be regarded as operating on the periphery of the community of practice (here the *practice* is friends communicating by e-mail) and over time, she will learn her way into the practice by using the tools, terminology, unwritten rules and protocols of the group. Such a person's competence will gradually be enhanced as she moves from the outskirts to the center of this community of practice. The community thus facilitates transitions of participation from legitimate peripheral participation to central participation and the community itself grows and changes by means of this process.

Literacy

The theoretical underpinnings for this view of learning as participation are shared with the research and scholarship on literacy and the contrast between literacy-as-skills approaches and the movement for situated literacies (Barton & Hamilton, 2000; Tett, Hamilton, & Hillier, 2006) or *multiliteracies* (The New London Group, 1996).

In many policy contexts literacy is conceived as a set of specific and measurable skills. The International Adult Literacy Survey (IALS) reports on levels and distributions of literacy in adult populations in 20 countries (OECD, 2000). This functional model of literacy (Papen, 2005) is characterized by measurement in terms of individual competence levels and the connection with employment and economic potential. Such an approach often focuses on literacy as an individual deficit and skills as a means of addressing such a deficit. This conception also suggests that there are fixed and discrete sets of skills that can be identified and measured by instruments such as the International Adult Literacy Survey.

In contrast, many theorists argue that literacy should be seen as social and situated practice (Barton, 2000; Papen, 2005, 2005b; Tett, Hamilton, & Hillier, 2006). This view interprets literacy as embedded in the activities of everyday life (social practices) and argues that there is little value in thinking about literacy independent of the context in which it is encountered. A social practice and situated view of literacy endorses a broader conception of what takes place when we encounter text or symbols in our everyday lives. Literacy is no longer seen as a set of identifiable and measurable skills; rather, literacy is embedded in participation and practice and is situated within specific social encounters. This also suggests that literacy and power are inter-connected in all societies; and some literacies are more powerful than others.

In particular, basic literacies are associated with important everyday practices and are recognized by the implicit assumption that everyone is capable of full participation in these practices (Casey, 2009). People who lack basic skills are prevented from participation in important everyday practices; in modern economies these practices involve digital and computer technology.

This contrast between functional and social practice approaches to literacy leads to differences in research methodology. Investigating literacy as functional skills suggests experimental research designs involving for example, different instructional interventions,

and individual pre and post-test measurements. Alternatively, a social practice view implies literacy is studied in context, in the everyday circumstances in which people encounter literacy events and this suggests ethnographic and qualitative research approaches.

Background to the study

This research set out to investigate the nature of this form of learning described as pathways to competence and participation in the digital world (Casey 2009). The goal was to investigate adult learning and motivation for basic digital literacy—to ask how we should characterize such learning and to identify influences on a person's decision to learn. The decisions, actions and experiences of students of *Know IT*, a blended learning course intended to enhance basic digital literacy in the Irish workplace, provided the specific context for the research.

The *Know IT* project was a workforce learning intervention designed to improve everyday computer skills in adults. It used a blended learning approach and consisted of a self-instructional CD ROM, a learner's journal and optional attendance at tutorials for direct instruction. The course was free and the flexible delivery model enabled low barriers to entry. In all, 1163 students took the course. A sample of 120 of the students also completed a self-report questionnaire developed by the researcher in order to provide background data for the subsequent grounded theory research reported here (Casey 2009). From the survey findings, a picture emerges of *Know IT* students participating on the course to gain computer competence and not for academic qualifications, career enhancement or out of intrinsic interest.

Method

Qualitative interviews were conducted with nine students and grounded theory practice was used to construct an independent analysis of their conceptions of learning influences, motive and actions. Grounded theory differs from empirical research methods in that the process of theory building is inductive. The approach enabled underlying theory to be discovered through analysis of data using what Glaser and Strauss (1968) call the 'constant comparative method'. Charmaz (2006) citing Glaser and Strauss provides a summary of defining components of grounded theory practice as:

- Simultaneous involvement in data collection and analysis;
- Constructing analytic codes and categories from data, not from preconceived logically deduced hypothesis;
- Using the constant comparative method;
- Advancing theory development during each step of data collection and analysis;
- Memo writing to elaborate categories, specify their properties, define relationships between categories and identify gaps;
- Sampling aimed toward theory construction, not for population representativeness;
- Conducting the literature review after developing an independent analysis. (Charmaz, 2006 p 6)

The components outlined above informed the research approach reported here. Through seven months the student interviews were conducted, transcribed, coded, recoded and analyzed. Data analysis and data collection were intertwined—each informing the other. With grounded theory the challenge for the researcher is to remain open and sensitive

throughout the process and to look for meaning within the data and not from preconceived theories. As suggested by Strauss and Corbin (1990), the term “category” is used to denote a classification of concepts. When denoted as proper nouns as in “Competence Desire” or “Proximate Sites of Engagement” they refer to the categories as defined by this research and not any other meaning of these terms.

In order to make sense of the findings it is necessary to briefly introduce the participants of this research; Table 1 indicates the research pseudonym, age, occupation and dates in which the interviews took place.

Table 1. *Research Informants*

Research Name	Age	Occupation	Date of interview
Mary	53	Retail store	November 2007
Ben	47	Dockland driver	December 2007
Jen	56	Retail store	February 2008
Tracy	45	Retail store	March 2008
Dot	62	Retail store	April 2008
Tess	45	Multiple roles	April 2008
Pat	29	Warehouse worker	May 2008
Marie	62	Retail store	June 2008
Jim	62	Bus worker	June 2008
Tim	65	Bus worker	June 2008

Findings

Three significant concepts emerged from the independent analysis: 1) the Digital World, 2) Competence Desire and 3) Learning Identity. The findings suggested that the interplay between these three constructs provided the impetus and direction for individual strategies for learning. Further conceptualization led to learning described as pathways to competence and participation in the digital world.

The Digital World

Many of the informants implicitly suggest the notion of two worlds as they describe their encounters with technology. These two worlds, the traditional world and the digital world, co-exist. For many years, people are content to live in the traditional world and to read about, or hear about, the digital world through communications and the media. One informant, Ben, describes his view of the world of computers:

It’s just a new world...bit too late [to take up a course] though! ‘07 by right it should

have been about ten years ago when they really started to come out...they were there all the time. It'd just be Oh! We won't be using them in our lifetime. Wow! That was when you were in your thirties...whatever.

From a distance, the Digital World is no threat and although one could broadly appreciate the advantages of competence in the Digital World, the case was not very compelling. This is similar to the way in which people might wish to learn a new language—although they see the advantages, they never quite get around to taking action, as there is no immediate or compelling requirement. Jim, who admits he always had an inclination toward technology, provides a sense of what this might have felt like when he describes his frustration at not doing a computer course earlier in life:

It's just something I wanted to do... Just I never had the time as the fellow would say. But I did have the time ... I'm lying about that. I did have the time! I just didn't have the inclination when the kids were at school, when they had a computer you know.

For a long time the Digital World is admired from afar; considered to be a positive development, generally associated with the young, and with people in senior management in the workplace. There was never really an expectation that someday one would have to participate in this world.

However, the Digital World begins to invade the traditional world. Familiar sites of competence become contested ground between digital and traditional practices. For example, booking a family holiday, which was part of the traditional world, has now largely shifted to the digital world. Finding cheap flights and hotel booking dates and times can be effectively managed over the Internet. The Digital World has also invaded many workplaces and it is difficult to find a job that does not require some level of computer competence. It is no longer sufficient to regard the Digital World as disassociated from everyday life. Worse still, if you are not digitally competent—if you cannot access the technology and thereby you cannot participate—life seems to carry on regardless. All of a sudden, as Mary puts it, 'you're being left behind.' It's not so much that the Digital World is opening up new possibilities; it is rather, that the traditional world, your traditional world, is being swallowed up. Tim puts it this way: "What I can understand of it you can't even...go to a film or go to a show without booking things online and things like that...I would be at a loss there". All the while, younger, digitally competent people are adapting faster, they're booking holidays and using technology effectively in the workplace. Traditional roles and power relationships are being undermined by these changes.

Proximate Sites of Engagement - The Digital World Close-Up

A sub-category of the Digital World emerged as Proximate Sites of Engagement where the informants describe their close encounters with the Digital World. Proximate Sites of Engagement are characterized from the perspective of the individual. They are sites where one encounters practices of the Digital World that have a counterpart, or resonance, with familiar traditional world practices; examples are, Internet holiday bookings, e-mail communication and on-line information seeking. Research participants knew, in a general way, what was taking place at Proximate Sites of Engagement—the basic processes were familiar to them. The analysis suggested a pattern of progressive engagement as moving from simple awareness to active appropriation of the technology to achieve a desired outcome. This progression starts with awareness of computers being used close-by; this awareness is often accompanied by feelings of regret at not becoming involved, as depicted in this statement by Jim:

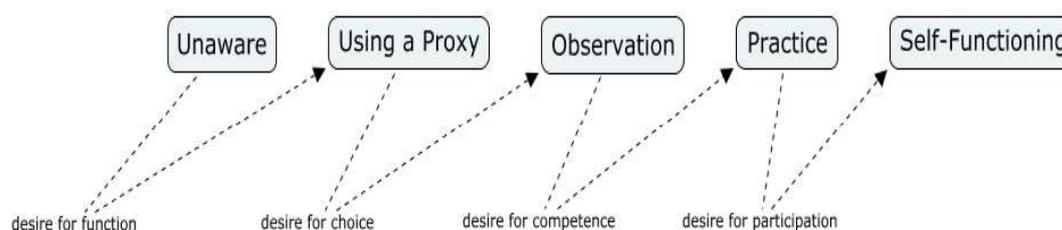
Well the reason I wanted to do [the course] is...I've never done computers you know but the kids have computers in the house but I never went near them all the time when

they were growing up and that.

Some informants described how they used other people as “proxies” to carry out tasks, which allowed them access the advantages of the digital technologies. Figure 1 presents a likely progression path for learning at Proximate Sites of Engagement. To illustrate how this works I refer to the process as described by another informant Tracy. Tracy describes how, in the past, she perceived her daughters upstairs using computers; she reported that she wasn’t really aware of what was going on. This first stage ‘unaware’ is presented at the far left of Figure 1.

Later, Tracy wishes to use computers to book holidays—this creates an impetus, a desire for the functional advantages of the Internet. To progress toward the goal Tracy uses a proxy, her friend Carol, to make holiday bookings. However, it is difficult to completely outsource this task as there are many small decisions connected with the holiday-booking process and therefore Tracy needs to be present as Carol works through the task. Tracy observes Carol as she completes the task. The cyclical dynamic of the Digital World, Competence Desire and Learning Identity is now in play and Tracy begins to feel that she can achieve this specific competence—in her own words “it looks simple enough so I’d like to learn how to do things like that”. Tracy moves toward participation through this mechanism.

Figure 1. *Learning at Proximate Sites of Engagement*



Tracy was not the only informant who reported using a proxy and learning at Proximate Sites of Engagement—Marie uses her daughter as a proxy “if I want to get something I’d say to [daughter] will you just go in and order that for me”. Tess and Dot also report using others in a similar way. However, use of a proxy is just one of many possible mechanisms for learning at Proximate Sites of Engagement. Some informants, such as Mary, tried to learn to use a computer from a son or daughter; this is not necessarily the same mechanism as using a proxy and by Mary’s account, her son did not have the patience for the process to be successful.

Competence Desire

The analysis identified two types of competence desire as General Competence Desire—a general wish to be knowledgeable, literate and to participate in the Digital World and Specific Competence Desire—a wish to be able to perform certain useful ICT related tasks. Jen expresses her desire for computer competence:

To know everything about It’s like reading a book to know everything about a computer to go in ... to wan and ram and ram what all of these mean I’ve an idea but I’m not fully literate in that respect. I want to be able to use it if somebody asked me to do something ok no problem get on to the computer do it and don’t be you know—there’s nothing to it—just like using the telephone just like reading a book to be literate to be fully literate at the computer...get on and do it.

Jen, like many of the informants, expresses her desire in terms of what she wishes to

be able to do and the associated literacies she wants to be able to master. In keeping with many of the desire statements from study participants, Jen expresses her desire in relation to how others might see her: “if someone asked me to do something ok no problem”. Who is this person that says ok no problem? It is the person that Jen desires to be. In the excerpt Jen is expressing a broad desire for competence and in the analysis this was coded as a sub-category, General Competence Desire.

General Competence Desire speaks of a wish to be someone else, a competent and effective person as regards computers. This general wish is expressed in comparison with others. One senses that it is a wish doomed to failure; there are few pathways to instant expertise. Informants regularly expressed frustration when they described their desire in such a generalized manner as they looked back at missed opportunities and unfulfilled potential.

Specific Competence Desire

It is reasonable to ask what exactly is intended, in the context of this grounded theory, when the term competence is used. Participants did not really talk about competence in a single-dimensional way as might be expected. For example, if this research was about the competence associated with driving a car one might expect people to say ‘first I’d like to know about the gears, then how to turn’ and so on. Research participants, on the other hand, present their competence desire in the context of the use of technology rather than the technology itself. Ben is typical:

It is more or less just getting to the ins and outs of it and all that and maybe looking up what’s in your bank account all the time instead of going to an ATM machine or whatever. What’s all there where’s me money going or what’s this! What’s what, where?

What competence does Ben desire? He wants to manage his finances and he wishes to use the Internet to accomplish this more effectively. Going back to the driving-the-car analogy, it’s as if respondents would reply ‘first I want to learn how to drive to the bank, then to the cinema’ and so on. Most participants framed their desire for competence in a similar manner and this was classed as Specific Competence Desire.

All of the interviews yielded evidence of wish-statements that identify specific actions and use-contexts for digital technology. The most common specific competences indicated by participants were 1) to book travel and make holiday arrangements, 2) to use e-mail to communicate with friends and family, 3) to use e-mail in workplace contexts (4) to manage finances on-line, and 5) to use the Internet to find information on areas of interest. Specific competences are associated with extending the effectiveness of an individual to control and manage everyday life. Unlike General Competence Desire, they are not directed at redefining the person as an effective computer user.

Many of the participants report their Competence Desire alongside the sites where they have encountered such competences in others—these are the previously introduced Proximate Sites of Engagement. Several of the informants discuss computers in the home as sites of engagement. In the following extract, Mary captures some of the experiential aspects of Competence Desire—these are ‘feelings’ of exclusion, adopting strategies for ‘coping,’ and the sense of ‘inclusion’ when competence is achieved. The interview extract is segmented into three parts to demonstrate how these three elements relate to each other. In this first section Mary is describing how she *feels* as she commutes and works alongside people who she perceives as computer competent:

Well, you’re left out, you’re out of the loop, totally, because even on your own—the train going home or talking in work or they’re talking about e-mails and they’re

talking with this, that and the other which is common place now, you really don't know what they're talking about.

Mary then presents her strategy for dealing or coping with the situation in the past:

You're pretending you are, you pretend you know what e-mails [are] and you do but how to use them and how to interact in that world you don't really have a clue even though you pretend.

Finally, Mary describes the sense of inclusion that comes with gaining the competence to participate:

And I meant it's great that all of sudden you're there too. Your par, you're included instead of excluded. And it's, very...I was very proud of myself

This is the sense in which the term competence is intended. It can mean different things to different people and it has more to do with activity and participation rather than skills and software. As Mary says when you're competent "you're on a par and included".

In the excerpts above, we have a picture of Mary as she sits on the train, feeling left out when she overhears conversations about e-mail and the Internet. She describes the feeling as one of being excluded. From whom does Mary feel excluded? Consider the hypothetical situation of Mary sitting beside a group of electronic engineers talking about advanced microprocessors—would she have the same feelings of isolation? Perhaps Mary has provided the answer in the text above when she says, "when you're competent you're on a par". Mary does not seek expertise—she does not desire to be better or smarter than others—just on a par. The term *on a par* implies that one is equally competent relative to others. However, a key question is what *others* are they talking about? Mary, like many of the research participants, doesn't want to be someone else—her desire is for a more competent version of herself and she uses other people, whom she sees as computer competent, as reference points. The characteristic of the *others* in this instance is that they are potential co-participants in the Digital World.

Learning Identity

In this section I discuss the category of Learning Identity and, as with the other categories in this discussion Learning Identity means the construct as derived from this grounded theory process. Learning Identity may be regarded as shorthand for 'how I see myself as a learner'; it includes experiences at school and educational courses; achievements such as passing a driving test or being successful at voluntary work and challenges such as imminent retirement, marital problems or coping with alcoholism.

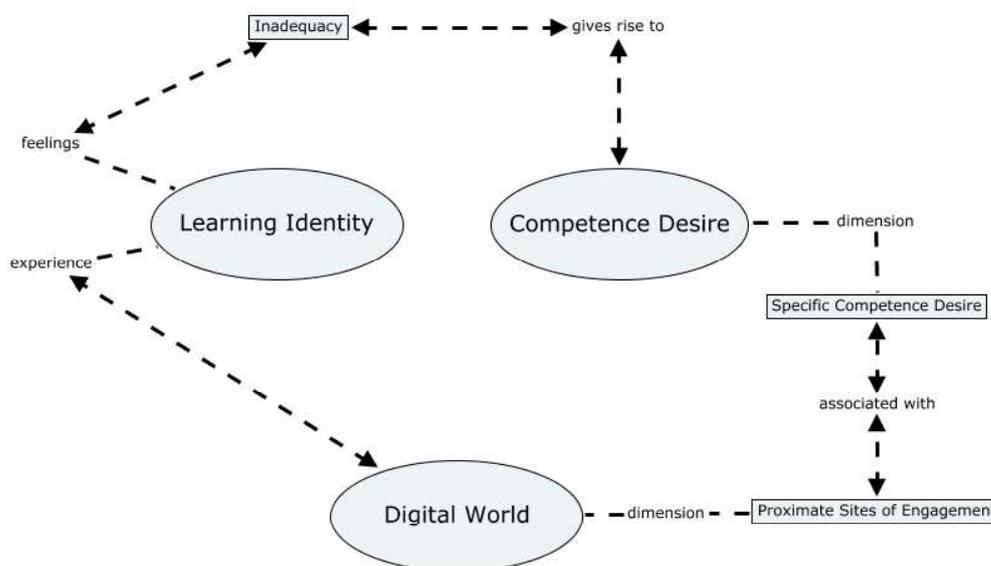
Learning Identity is also manifested in terms of the feelings expressed by informants in relation to these experiences such as regret at missed opportunities—particularly not making the most of previous encounters with technology; feelings of inadequacy, frustration and expressions of a lack of confidence in one's abilities; comparisons with others who are perceived as more competent; and age comparisons related to the perception of young people as being 'good with technology'.

Of course, experiences and feelings as co-constituents of Learning Identity are never isolated from each other—experiences give rise to feelings which in turn influence the nature of experience.

The Digital World, Competence Desire and Learning Identity

In Figure 2 I propose an example of the dynamic relationship between the three main categories the Digital World, Competence Desire and Learning Identity. The dotted line in the lower left of the figure suggests how the Digital World and Learning Identity relate to each other. The Digital World is experienced as part of Learning Identity and consequent feelings, for example, inadequacy, arise as a result (other feelings are omitted for clarity). These feelings, in turn give rise to Competence Desire. There is a constant tension between Learning Identity and Competence Desire—each may stimulate the other—feeling of inadequacy makes one want to be competent but wanting to be competent also contributes to feelings of inadequacy.

Figure 2. *Digital World, Competence Desire and Learning Identity*



I speculate that the interaction may be self-regulating—competence desire is carefully managed by the individual as when left unfulfilled, it gives rise to further feelings of inadequacy and regret. This may explain why so many of the informants report being unaware or passive about technology for long periods of time. An example of this is where Tracy recalls her lack of awareness of her daughters during the time before she wanted to do a computer course: “they’d be tap-tap-tapping away but at that stage I didn’t, I blanked it like, I didn’t notice they were so computer literate like until I started this”.

In Figure 2 the dimension of Specific Competence Desire is shown on the right for clarity as is the sub-category of Proximate Sites of Engagement. As previously discussed, Competence Desire is characterized by two sub-categories General Competence Desire and Specific Competence Desire. General Competence Desire is broad and undefined and remains inevitably unfulfilled. Specific competences are more achievable and less likely to be unfulfilled hence Specific Competence Desire is more useful to the individual. How does Specific Competence Desire arise? Figure 2 suggests that it arises through close-up encounters with the Digital World in scenarios described through its sub-category Proximate Sites of Engagement.

Competence and Participation

In this section I would like to demonstrate how participation rather than competence best describes the trajectory of learning in these contexts. Consider the following excerpts from the participant interviews:

I like going on holidays two or three times a year....and then when you're on holidays you get someone who'd say oh! Send me an e-mail or send me something I'd keep in touch with... (Ben)

My colleagues at work, they were all very encouraging particularly the young people—when they heard that I was doing the course whatever and they all put me down on the e-mail and sent an e-mail to me so I have like six or seven people that keep me going you know back and forward. (Dot)

The first and second levels of conceptual coding for these statements suggested that they are part of the category Competence Desire. They relate to e-mail competence and describe wished-for scenarios. Notice how the expression of these desires transcends functional competence; they are expressions of desire for participation. What Ben really wants is to participate in a connected world. In Dot's case, it is obvious that her colleagues implicitly understand her need to participate and they actively send her e-mails to get her going.

It may be argued that an expanded notion of competence would itself involve participation. However, notice that in the excerpts above informants were not expressing a wish for advanced e-mail competences; they do not say something like "I'd love to send hundreds of e-mails at a time" or "I would like people to regard me as good with e-mails". Rather, they are expressing something like "there are practices out there connected with human communication and I want to be part of them". I wish to participate—e-mail is regarded as the means to this end.

Discussion

Data from this research consistently emphasized a conception of learning as directed toward participation rather than competence. We can regard the trajectory of learning as extending beyond levels of competence to participation. What then is the nature of this extension? As Habermas (1984) suggests, participation is a process involving communicative rationality; framed by sets of assumptions on both sides and these assumptions are, in turn, influenced by the process of participation. This connects also with Lave and Wenger's (1991) notion of communities of practice and their description of the process that takes a person from legitimate peripheral participation to full participation. In the case of a first time adult computer user, this movement may also be mapped by the reframing process of a person's point of view (Mezirow, 2000) of themselves—from "I'm really no good at this I'll keep quiet lest I be humiliated" to "I have standing in this group and I wish to contribute to this debate". This is the nature of participation; it is always connected with changing assumptions.

Why should we describe learning in terms of pathways to competence and participation? I suggest that the pathways metaphor is appropriate to describe the phenomenon that has been investigated by this research. A pathway leads to a new location and in this instance the location is participation in the Digital World. There is no direct or universal route; each pathway is unique. Learning opportunities such as presented by *Know IT* and at Proximate Sites of Engagement are appropriated as paths of least resistance. The drive that compels individuals to pursue the path is a desire to participate in the connected world of digital technologies.

Future Directions

The research described here was designed to answer certain questions and to provide new insights in an area of practice that is both important and under-investigated. Inevitably, the research process and outcomes have resulted in many new questions that fall outside the scope of this inquiry. More research is needed to develop the three constructs that emerged from the grounded theory process—the Digital World, Competence Desire and Learning Identity. The notion of Proximate Sites of Engagement emerged from the narratives of some of the participants in this research. How prevalent is this phenomenon? New studies involving, perhaps, survey instruments, would yield valuable additional insights.

A useful area of further investigation is the intersection of transformative learning and newly found digital competences in older people. The research uncovered some evidence that such competence leads to fuller participation and may consequently, lead to a reappraisal of previously unquestioned assumptions. However, further investigation would be required to establish the extent and nature of this process.

Conclusion

This paper began by asking what are we to make of learning theories today and suggested that we look to participation for part of the answer. There is nothing especially new in the connection between participation and learning—Dewey and others have already identified it. However, instructional practices, particularly those associated with literacy, often ignore or underestimate this connection. Instead we get caught in the rhetoric of discrete learning outcomes and learning by parts.

The ideals of progressive education suggest that we look beyond the way we have always done things and ask more fundamental questions about learning and instruction. One such question is the extent to which our approach to learning and teaching takes account of the need to participate. It is certainly the case that digital technologies give rise to a myriad of opportunities for educational reform. However, to make the most of these we will need a new pedagogy that places learning as participation at the heart of the theoretical underpinnings of how we understand the learning process.

References

- Anderson, J. R. (1982). Acquisition of cognitive skill. *Psychological Review*, 89 (4), 369-406.
- Anderson, J. R. (2000). *Learning and memory: An integrated approach* (2nd ed.). New York: Wiley.
- Barton, D. (2001). Directions for literacy research: Analysing language and social practices in a textually mediated world. *Language and Education*, 15(2), 92-104.
- Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton & R. Ivanic (Eds.), *Situated literacies: Reading and writing in context* (pp. 222). London: Routledge, Chapman & Hall.
- Biggs, J. (1993). What do inventories of students' learning processes really measure? A theoretical review and clarification. *British Journal of Educational Psychology*, 63(1), 3-19.
- Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher education*, 32(3), 347-364.
- Casey, L. (2009). Pathways to Competence and Participation in the Digital World. National University of Ireland Maynooth available from <http://eprints.nuim.ie/1545/>.
- Charmaz, K. (2006). *Constructing grounded theory*. London: Sage Publications.
- Collins, A., Brown, J. S., & Newman, S. E. (1986). Cognitive apprenticeship: Teaching the craft of reading, writing, and mathematics.
- Dewey, J. (1913). *Interest and effort in education*. Boston: Riverside.
- Dewey, J. (1938). *Experience and education* (60th Anniversary ed.). Indianapolis: Kappa Delta Pi.
- Dewey, J. (1916/2008). *Democracy and education*. Newstead Queensland: Emereo Publishing.
- Engeström, Y. (1987). *Learning by Expanding*. Orienta-consultit, Helsinki.
- European Commission. (2011). Using Learning Outcomes Note 4 *European Qualifications Framework Series*. Luxembourg: Publications Office of the European Union.
- Glaser, B. G., & Strauss, A. L. (1968). *The discovery of grounded theory: strategies for qualitative research*. London: Weidenfeld and Nicolson.
- Habermas, J. (1984). *The theory of communicative action* (T. McCarthy, Trans.). Boston: Beacon Press.
- Illeris, K. (2004). *The three dimensions of learning* (Reprint English ed.). Malabar, Fla.: Krieger Publishing Co.
- Illeris, K. (2003). Towards a contemporary and comprehensive theory of learning. *International Journal of Lifelong Education*, 22(4), 396-406.
- Lave, J. (1996). Teaching, as learning, in practice. *Mind, culture, and activity*, 3(3), 149-164.
- Lave, J., & Wenger, E. (1991). *Situated learning : legitimate peripheral participation*. Cambridge [England]: Cambridge University Press.
- Mezirow, J. (2000). Learning as transformation: Critical perspectives on a theory in progress. The Jossey-Bass higher and adult education series. San Francisco: Jossey-Bass.
- OECD. (2000). Literacy in the information age: Final report of the international adult literacy survey . Statistics Canada, Ottawa (Ontario).

- Papen, U. (2005). *Adult literacy as social practice: More than skills*. New York: Routledge.
- Papen, U. (2005b). Literacy and development: What works for whom? Or, how relevant is the social practices view of literacy for literacy education in developing countries? *International Journal of Educational Development*, v25 n1 p5-17 Jan 2005, 13.
- Roth, W.M., & Yew-Jin, L. (2007). "Vygotsky's Neglected Legacy": Cultural-Historical Activity Theory. *Review of Educational Research*, 77(2), 186.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research : grounded theory procedures and techniques*. Newbury Park, CA.: Sage Publications.
- Tett, L., Hamilton, M., & Hillier, Y. (2006). *Adult literacy, numeracy and language: Policy, practice and research*. Columbus, OH: Open University Press.
- The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 10(1).
- Vygotsky, L. S. (1978). *Mind in society : the development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S., & Kozulin, A. (1986). *Thought and language* (Translation newly rev. and edited). Cambridge, MA.: MIT Press.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, UK: Cambridge University Press.