Tacit Skills and Prior Learning: concepts, characteristics, issues of recognition and evaluation

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8 October 2014
LLL agenda

- What knowledge is important?
Tacit  Explicit
Tacit skills

- Hidden’ dimensions of the skills and competences that people can learn from a variety of experiences, such as formal education, the workplace, family experience, informal learning;
- Definitions and terminology related to those intangible skills varies from study to study, including terms such as ‘informal skills’, ‘tacit skills’, ‘personal skills’, ‘soft skills’ and ‘interpersonal skills’.
- The benefits of capturing such skills for the purpose of recognition and accreditation may be the most relevant measure of progress for a number of different kinds of learners (specifically in all spheres of post-compulsory education)
Structure of the discussion

...will focus on three broad conceptualisations of tacit skills:

- tacit knowledge in the context of human knowledge development theories (Polanyi (1962, 1966a, 1966b))
- links between tacit and explicit knowledge and conditions that allow tacit knowledge to become explicit; (Nonaka and Takeuchi 1995; Eraut’s 2000)
- significance of various forms of recognition, evaluation and certification of tacit knowledge and skills. (Evans, 2004; Kersh et al, 2006)
Human development and tacit knowledge

Polanyi (1967):

- invoked the idea of human knowledge: “from which a harmonious view of thought and existence, rooted in the universe, seems to emerge”
- put forward a statement: ‘we can know more than we can say’
- employed the term ‘tacit’ as an attribute of human knowledge (in its static form) or knowing (in a more dynamic or continuous process);
- argued that tacit knowing achieves comprehension by ‘indwelling’. - permanent presence in (someone's soul or mind); possess spiritually
Human development and tacit knowledge: Indwelling (Polanyi, 1967)

- Tacit knowing achieves comprehension by ‘indwelling’
- All knowledge is either tacit or rooted in tacit knowledge
- All understanding is based upon our dwelling in the particulars of that which we comprehend. Such indwelling is a participation of ours in the existence of that which we comprehend
Tacit knowledge

- Subsidiary particulars
- Focal target
- Knower
Tacit and Explicit: Nonaka and Takeuchi’s (1995) research

• Their research differentiated between different models of knowledge: **formal, quantifiable, explicit and systematic** on one side, and **tacit and invisible** on the other.

• The focus of their inquiry has emphasised the notions of ‘tacitness’ and ‘explicitness’ for human knowledge classifications.

• Conversion of tacit into explicit knowledge contributes to knowledge creation in an organisational context.

• ‘*explicit knowledge is codified; it can be easily communicated; tacit knowledge is subjective, personal, highly contextual and therefore difficult to articulate*’.
Tacit and Explicit: Four modes of knowledge conversion (Nonaka and Takeuchi, 1995).

- **Socialisation** - from tacit to tacit.
- **Externalization** - from tacit to explicit.
- **Combination** - from explicit to explicit.
- **Internalisation** – from explicit to tacit.
Eraut: situated reconceptualisation of tacit knowledge

- strengthened the link that existed in Polanyi’s original work between settings, contexts and learning (i.e. indwelling)
- drawing on Lave and Wenger’s research, Eraut argued that learning is significantly influenced by the context and setting in which it occurs (Eraut, 2004b).
Eraut’s research found that most learning occurs informally during normal working processes, and that there could be considerable scope to recognise and enhance such learning if it was sensitively elicited.
In different situations: a person’s performance nearly always uses several of types of knowledge

1) Knowledge acquired by implicit learning of which the knower is unaware;
2) Knowledge constructed from the aggregation of episodes in long-term memory;
3) Knowledge inferred by observers to be capable of representation as implicit theories of action, personal constructs, schemas etc;
4) Knowledge which enables rapid, intuitive understanding or response;
5) Knowledge entailed in transferring knowledge from one situation to another; and
6) Knowledge embedded in taken-for-granted activities, perceptions and norms (Eraut 2000, 135).
Eraut (2000): Elicitation

- Building on his argument about the situated and embodied nature of human experience, Eraut argues that people need to be supported to surface their tacit knowledge and skill.
- Elicitation is achieved by facilitating articulation or identifying (illuminating) instances of the nature of the tacit knowledge which is being considered.
Much of Eraut’s work on tacit skills (Eraut 1985; 2000; 2004) focuses on the conceptualisation of tacit skills in the context of specific situations, where such skills could be acquired and/or deployed.

Tacit skills are regarded as context-specific or as those that have been acquired in a specific context and could be elicited in another context.

The acquisition of tacit skills in specific contexts is closely related to the notion of “people's experiences” both prior and on-going.
Eraut (2004, 256) helpfully describes five interrelated stages of knowledge transfer from one context to another (e.g. from education to workplace setting):

1. the extraction of potentially relevant knowledge from the context(s) of its acquisition and previous use;
2. understanding the new situation - a process that often depends on informal social learning;
3. recognizing what knowledge and skills are relevant;
4. transforming them to the new situation;
5. integrating them with other knowledge and skills in order to think/act/communicate in the new situation.
Recognising and assessing prior learning and tacit skills: a retrospective or on-going process?

There is a link between peoples’ experiences and tacit skills acquisition:

- Personal knowing is the capacity to do something that has been learned in the course of experience (Polanyi, 1967);
- An intuitive use of prior experiences in other contexts, such as professional contexts is significant (Eraut, 2004);
Kersh, Evans and Kontiainen 2011 builds…

- on the notion of past experiences and prior skills acquisition from a range of experiences
The official papers of the European Committee through the glossary of CEDEFOP (2000)

- *Formal learning* consists of learning that occurs within an organised and structured context (formal education, in-company training), and that is designed as learning. It may lead to a formal recognition (diploma, certificate). Formal learning is intentional from the learner’s perspective.

- *Non-formal learning* consists of learning embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element. Non-formal learning is intentional from the learner’s point of view.

- *Informal learning* is defined as learning resulting from daily life activities related to work, family, or leisure. It is often referred to as experiential learning and can to a certain degree be understood as accidental learning. It is not structured in terms of learning objectives, learning time and/or learning support. Typically, it does not lead to certification. Informal learning may be intentional but in most cases, it is non-intentional (or ‘incidental’/random). “ (Colardyn, Bjornavold, 2004, p. 71).
Formal learning is always organised and structured, and has learning objectives. From the learner’s standpoint, it is always intentional: i.e. the learner’s explicit objective is to gain knowledge, skills and/or competences: typical examples are learning that takes place within the initial education and training system or workplace training arranged by the employer. One can also speak about formal education and/or training or, more accurately speaking, education and/or training in a formal setting. (OECD Skills Beyond school)
Informal learning is never organised, has no set objective in terms of learning outcomes and is never intentional from the learner’s standpoint. Often it is referred to as learning by experience or just as experience. (OECD Skills Beyond school)
Eraut (2000)- on formal learning

- a prescribed learning framework;
- an organised learning event or package;
- the presence of a designated teacher or trainer;
- the award of a qualification or credit;
- the external specification of outcomes.

Reference is required, If a direct quote, please indicate page numbers.

- According to Eraut‘s perception , any significant learning that does not fit into this definition should be considered as non-formal.
Non-formal learning is described there as learning, which is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner’s perspective.

In comparison with non-formal learning, informal learning results from daily life activities related to work, family or leisure. And it is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification.
Livingstone (2001)-formal/informal

Four types are being described, where the emphasis is put on the type of relationship that exists between the learner and the teacher.

The first type is ‘Formal Education’ and it occurs ‘when a teacher has the authority to determine that people designated as requiring knowledge effectively learn a curriculum taken from a pre-established body of knowledge, whether in the form of age-graded and bureaucratic modern school systems or elders initiating youths into traditional bodies of knowledge’ (Livingstone, 2001, p.3).

Secondly, ‘Non-formal’ or ‘Further education’ happens ‘when learners opt to acquire further knowledge or skill by studying voluntarily with a teacher who assists their self-determined interests by using an organised curriculum’ (Livingstone, 2001, p.3). Hence, it is obvious that formal education is distinguished from non-formal primarily because of its lack of intentionality from the side of the learner.
The third type of learning is ‘informal education/training’ which occurs ‘when teachers or mentors take responsibility for instructing others without sustained reference to an intentionally-organised body of knowledge in more incidental and spontaneous learning situations, such as guiding them in acquiring job skills or in community development activities’ (Livingstone, 2001, p.3).

Finally, the fourth type of learning according to Livingstone (2001), is ‘informal learning’ and it includes all other forms of learning that are characterised by intentionality or tacit learning and in which we engage individually or collectively but there is a lack of an organized curriculum and it happens outside formal institutions (Livingstone, 2001).
Evans, Kersh and Kontiainen 2004;

Kersh, Evans and Kontiainen 2011 builds

- on the significance of recognition of tacit skills and personal competences
- on the benefits of making tacit skills visible
The research aimed to uncover...

- how individuals use tacit forms of personal competences as they move between roles and settings?
- How individuals acquire skills in different learning spaces?
- can these skills be better identified and deployed in learning situations to strengthen learning success?
- how these skills are transformed in new environments.
- do the recognition and deployment of tacit skills result in improved learning outcomes?
Previous research (Kersh, Evans and Waite, 2011) has indicated that the concept of the learning space can be considered from various angles and perspectives

- The learning space can be perceived as a physical space where learning is taking place such as a classroom or any other form of teaching space.
- The learning space can refer to a space where learning occurs unintentionally, such as informal learning, for example at work where employees learn from each other’s experiences (Garrick, 1997; Coffield, 2000; Cross, 2006).
- The recent expansion of digital technologies has resulted in the development and growth of virtual learning spaces that ultimately change the boundaries of learning spaces, making them more flexible and mobile (Felstead & Jewson, 2012).
- Finally, the learning space can be perceived as a combination or overlap of a range of components.
the website redesign and digital marketing.

CHROME DEV TOOLS provides a key virtual space for me to learn by doing. Allowing me to change code and view the results live in the browser. Perfect for learning the detailed niggles that happen in web design.
When ever I’m learning a new system, I like to surround myself with my notes, diagrams and reference material making the whole area focussed on my current problems. This immersion helps keep me focussed.
Some of my best learning is done over a ciggie outside! No problem is too big to be resist the combined forces of nicotine and caffeine.
Recognition of tacit skills

Evans, Kersh and Kontiainen’s (2004) and Kersh and Evans (2005) research...

- has demonstrated how making the tacit skills visible could help to facilitate the learning success of the learners;
- has shown how learning processes could be understood in the context of interrelationships between various aspects of learning
- employed the DCA (Dynamic Concept Analysis) modelling method (Kontiainen, 2002)
1. The concepts need to be entered into *DCA information matrix*, supplied by the software;

2. The concepts’ attributes need to be identified and entered into the matrix. Each of the concepts would have three attributes e.g. $a$ (e.g. positive, high or strong), $n$ (e.g. medium or neutral) and $b$ (e.g. negative or low);

3. Relationships (if any) between the concepts need to be indicated in the matrix, using a special way of coding suggested by the software.

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<th>CONCEPTS</th>
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The approach involves three major stages:

- (1) the selection and definition of key concepts that characterise the phenomenon to be studied;
- (2) the definition of the relationships between the concepts; and
- (3) building conceptual models using the information from concept relations.

The method is assisted by a dedicated computer programme.

http://www.helsinki.fi/ktl/julkaisut/dca/
Mick’s case
Recognition of tacit skills: Evans, Kersh and Kontiainen (2004) research developed an approach to elicit tacit skills

- Drawing on the general principles of Kontiainen’s (2002) approach, Evans, Kersh and Kontiainen’s (2004) research has taken this method further, specifically employing this methodology to elicit the tacit skills of adult learners with the purpose of enhancing their confidence and attitudes towards learning in the workplace or college setting.
DCA process to elicit generic skills

1. A semi-structured interview with the learner to understand better the learning context
   - Importance of personal skills and competences;
   - Skills gained in the college course or work-related contexts;
   - Importance of skills for the learners’ success in the college course or in work-related contexts;
   - Importance of skills gained from life experiences.

2. Self-evaluation by the learner (selection of five attributes to characterise her case);
3. Building an individual conceptual model;
4. The learner’s and/or tutor’s assessment of this model;
The DCA models

- provide an illustration of the learners’ use and recognition of skills, e.g. in relation to specifications of occupational competences;
- help the learners gather evidence about their previous experiences and acquired skills to support their claim for credit towards the new qualification they are seeking;
- indicate links between various skills and suggest scope for their development through simulations.
- enable learners not only to recognise/evaluate their own competences at any moment but also to find various potential positive changes in their competence development.
The research found that: tacit knowledge plays a significant role in the Workplace

- Adults gain tacit skills from a range of life and work experiences
- Positive deployment and recognition of their skills strengthens their learning success
- There is a link between recognition, deployment and development of tacit skills
- Gender differences are important
- Recognising and deploying tacit skills in stimulating, ‘expansive’ workplace or learning environments sustains learning outcomes
- Modelling of individual learning processes can provide better understanding of adult returners’ experiences
- A ‘learning workplace’ is co-constructed.
Discussion

• what is the relation between explicit and tacit knowledge? - what kind of tacit knowledge is important in the knowledge economy?
• what are the benefits of making tacit knowledge/skills visible for individuals/organisations?
• Consider: (possibly – from your own experiences) how could the recognition of tacit skills impact on learners’ outcomes and achievements?
Further Reading

Further Reading