T10 Situated Learning Theory of Lave and Wenger

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Legitimate Peripheral Participation: Community of practice

Situated learning was first proposed and described by Jean Lave and Etienne Wenger (1991) as a theoretical description of learning in a *community of practice*. Their immediate definitions related to non-school based learning with adult learners. A situated learning space is one where learning and its application takes place in the same location. The community implies a group of people willing to work together and prepared to support each other's *coming to know*. Some members will be core, long-term leaders, while others will be newcomers often with a peripheral role, at least for a time.

The type of learning characterised by Lave and Wenger is highly influenced by socialisation and imitation. Transmission models of teaching as experienced in schools are not the key ones focused on by the authors. The community typically comes together to solve a problem (e.g. alcoholism, problems of midwifery and antenatal care, etc.). Learners who seek communities of enquiry do so because they have shared interests and seek to benefit from the knowledge of others who may be more experienced or more knowledgeable.

There are connections between Lave and Wenger's work and earlier observations by Margaret Donaldson (1978) reported in *Children's Minds.* Donaldson critiqued some of the experimental work of Piaget whilst broadly supporting his constructivist theories. What she argues is that young children are highly sensitive to social contexts and classroom dynamics, so much so that they will suspend commonsense, logic and "what they know to be true" in order to comply with what they think teachers want and expect. Even to the point of absurdity, children will ignore knowledge and experience in order to "fit in" with the classroom culture.

Donaldson skilfully created versions of Piaget's experiments which he used to establish a theory of children's development. By manipulating the social and cultural contexts whilst leaving the essential logic of the problem unchanged – Donaldson showed that many children were perfectly able to complete tasks that were supposedly beyond them. What mattered was the context. And it is contexts for learning that are the core of Lave and Wenger's work.

Richard Skemp, a mathematical pedagogue, introduced the idea of relational vs. instrumental learning, arguing from a different perspective from Donaldson, but in a similar way, that learning is more powerful and leads to more securely held knowledge when it is acquired in terms of relational elements, i.e., in terms of its associations.

Zoe Evans's work, much of it with enjoyably tactile fabrics and toys, which children delight in handling, shows from yet another perspective that very young children can solve complex logic tasks using these attractive resources, because the children identify with them as toys to play with and to which they (the children) can ascribe rules. For many children, this freedom for rule-making is distinctly different from the teacher's classroom artefacts, which only the teacher knows how to control and to which teacher-laws apply. Children can quickly solve problems of deciding which (logically different) toys "want" to be together long before they can perform the same mathematical task with formal classroom objects. Again, context is the key in shaping the quality of the learning.

Legitimate Peripheral Participation (LPP) is a phrase emerging from the work of Jean Lave and Etienne Wenger, that helped them to theorise their data on a number of adult groups (groups of non-drinking

members of Alcoholics Anonymous, groups of armed forces personnel, groups of midwives, etc.). LPP seeks to describe and account for learning in participatory groups.

In his later work on communities of practice, Wenger (1998) replaced LPP with the idea of a yin and yang-like *duality*. However, LPP is still widely used in theorising educational settings and practices. There are connections between Lave and Wenger's notion of LPP and situated learning, critical pedagogy and teaching for social justice, all of which we draw on to some extent within the pages of *The Really Useful Maths Book.*

We use LPP to make political statements about democracy and justice in the classroom, as well as arguing from a psychological perspective that LPP is important when considering how to promote effective learning. Educators have turned the work of Lave and Wenger inside out; a perfectly proper thing to do if one wants to use it to debate the development of pedagogy.

Whereas Lave and Wenger observed LPP in the groups that they studied, many educators argue that ensuring LPP is part of children's experience in school "is a good thing". From this starting point they then seek to develop pedagogical strategies to create situations where LPP occurs.

LPP cannot function effectively in authoritarian, teacher-dominated and syllabus-dominated classrooms. For reasons which will become evident from reading below, it is in EY practice that there is the greatest opportunity for pedagogical interventions that allow LPP.

1. Children and teachers both need to exercise choice when it comes to joining and *not* joining groups.
2. Child-led and teacher-led groups need to respect the newcomer's wish to remain peripheral, even though some group members might invite more central involvement in the group's activity.
3. LPP is about *know-how* rather than *know-what* and is therefore most easily supported in group activities which have a strong practical element (which is why this theoretical perspective is attractive to us – RUM firmly advocates that maths at all levels is taught in collaborative groups whenever possible).
4. A group may have a very short life span – just a few minutes in both an EY play scenario and in a lesson on algebra in Y6.
5. Because whole-class membership is relatively unchanging over the school year in most schools, successive regroupings of children throughout the year during lessons will tend, over time, to contain similar membership and display similar characteristics that teachers and other classroom professionals will recognise and want to discuss.
6. LPP provides educators with a framework for pedagogical discussion – a way of speaking about the membership of a group and the relations between newcomers and experts.

"Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger, 2000). This suggests that newcomers may want to spend some time repeatedly joining a group in a peripheral role. This is what troubles teachers who are under pressure to ensure that learning is individual rather than group based. Teachers worry that children who are content to remain peripheral may be "missing out". Individual children are tested exhaustively in UK schools, beyond what is reasonably necessary. The focus is on the extent to which they have absorbed the curriculum rather than what they can do with their knowledge and expertise. Group knowledge has little value in today's schooling when it comes to grading and assigning levels of

competence. In contrast we know that effective teamwork (including being a fully participating member of the family group) is the key to successful living.

LPP locates learning in the *relationships* between people. Learning does not belong to individual persons, but to the various groupings and discourses of which they are a part. In contrast, our education system insists that the most important aspects of learning are in the possession of individuals – something that exists in the head.

So LPP is useful in countering the arguments of the prevailing discourse of assessment, attainment targets for individuals, grades and levels of attainment. The approach to learning fostered by advocates of LPP is challenging and profoundly problematic to educational systems oriented to individual accreditation, and in classrooms and schools which deny the relevance of relationships, collaboration and choice.

LPP and Lave and Wenger's notions of communities of practice share some theoretical connections with the work of Ivan Illich and his exploration of informal schooling and learning webs. Where Lave and Wenger's studies emerged from observations of groups, Illich began with a top down analysis of the damaging effects of institutions on learning and individuals.

For those teaching mathematics, the challenge is to:

- develop classroom practices that build on children's interests;
- create opportunities for children to share and develop *know-how* rather than *know-what*;
- provide contexts for learning that support and draw benefit from collaboration;
- promote choice for children in how they tackle maths;
- create opportunities where the planning is done by children as well as by adults;
- be open to the possibility of learning from the children as they work in collaborative groups.

References

Donaldson, M. (1978) *Children's Minds*. London: Harper Collins.

Evans, Z. (n.d.) Booklets available from Hendre Craft, 'Old Barns', Newton St., Cyres, Exeter, EX5 5BY.

Lave, J. & Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Skemp, R. (1987) *The Psychology of Learning Mathematics*. London: Routledge.

Wenger, E. (1998) *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.

Wenger, E. (2000) "Communities of practice: A brief introduction" Available at http://wenger-trayner.com/theory/.