Activity Theory and the construction of a community of scholarship amongst postgraduate research students

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Introduction
This paper pursues two intersecting but independent paths of description and analysis
1. We discuss how Activity Theory has been used by a group of postgraduate research students at Deakin University; and
2. use an Activity Theory analyses to examine the role and functioning of this group which formed to circle of discussion of Activity Theory (codat).

1.1 The creation of codat
The circle of discussion of activity theory (codat) was a conscious attempt to create a community of scholarship amongst postgraduate students and staff within the Faculty of Education at Deakin University. It was formed a year and half ago by John Cripps Clark and Susie Groves and has met every three to four weeks to discuss the ways the participants have used Activity Theory in their research and papers about or using Activity Theory. Meetings have usually been face to face at Burwood, on the Melbourne campus of Deakin University for an hour and a half and have included teleconference links to students who were to remote to come to meetings physically. Some meetings have been held at schools. A number of staff members attended the meetings, notably Susie, when they were available but the regular group settled down to five postgraduate research students all of whom were independently using Activity Theory in their theses. Communication and the distribution of some papers were done by an email list, which was an order of magnitude bigger than the number of active participants and includes overseas and interstate members. Some debates occurred via email. Some of the reasons gave for not participating in meetings were: work commitments and geography.

Figure 1 The activity system: The circle of discussion on Activity Theory. (Adapted from Engestrom’s 1993 model of activity theory)

Recently I have come across a number of other doctoral students both at Deakin and other universities who have discovered independently of both their supervisors, other staff and fellow students the
usefulness of Activity Theory to their analysis. As members complete their theses new research students have joined the group and the focus has shifted from data analysis to data collection.

1.2 **Communities of scholarship**

An important characteristic of universities is the creation of communities of scholarship and because more than 60% of research in universities is done by postgraduate research students (CAPA, 2000) it is amongst postgraduate students that the creation and maintenance of communities of scholarship is crucial to the health of research in universities.

Over the past quarter of a century postgraduate research students have not only dramatically increased in numbers, from 5,753 doctoral candidates in Australia in 1979 to 28,629 in 2000, but also changed from being overwhelmingly full-time, on-campus to being part-time, off-campus, 80% of Deakin’s education research students are part-time, off-campus (Evans, 2002). The traditional methods of creating a community among postgraduate students through proximity, working at the same bench, and creating a community within the walls of the university, are no longer appropriate. Postgraduate students are mature aged, they have jobs and families, they are time poor but rich in intellectual and material resources. What they crave from universities in not beer, bands and barbecues but a rich community of scholarship and universities are ill equipped to provide this using traditional models. Information services and supervisors are increasingly using new technologies of email, the web, teleconferencing and videoconferencing; we need to also innovate to build communities of scholarship amongst postgraduate students.

**Case Study 1: Belonging, being friends and learning to write in a second language**

*(Lyn Turner)*

1.3 **The research**

Through a focus on two Mandarin-speaking children as ecological case studies (see van Lier, 2000), Lyn explored how learning to write in English emerged during free writing time in a mainstream prep classroom (Turner, 2002). The official curriculum goal was to support the children’s development as emergent writers. The children appropriated this goal and made it their own. However, the children’s unofficial goal of belonging and ‘being friends’; and the micropolitics of peer relations often destabilised the writing goal and had a powerful influence on opportunities to learn, and both social and cognitive outcomes.

**Table 1**

*Levels of analysis in Leont’ev’s theory of activity: (Wertsch, 1985 p204)*

<table>
<thead>
<tr>
<th></th>
<th>Context (who?)</th>
<th>Activity</th>
<th>Motive</th>
<th>(Why is it done?)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Activity</td>
<td>Action</td>
<td>Goal</td>
<td>(What is done?)</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>Conditions</td>
<td></td>
<td>(How is done?)</td>
</tr>
</tbody>
</table>

NOTE: italics added based on Wertsch’s discussion (1998, p. 21-22); Lantolf & Appel, (1994, p. 21); and (Engestrom, 2001)
1.4 The influence of Activity Theory

Activity theory was used as an analytical tool to explore the naturalistic, dialogic data. It provided a way to explore the extremely complex process of discovering how learning emerges from activity in sociocultural context and how certain situations afford opportunities to learn or inhibit learning. Activity theory became a mediating tool which recognised the inter-relationship between the components within the activity systems. This gave context and meaning to seemingly random individual events. Initially the sociocultural context was framed as the Prep classroom community. However, as the study evolved, the different social dialogues experienced by each child indicated a need to re-conceptualise context (see Goodwin & Duranti, 1992 for discussion of context). It became evident that a unique social space or ecosystem, co-constructed through interaction between the individual and their peers over time, was the context most influential in determining group membership and development as a writer. The notion of multiple activity systems within one physical context, and how these overlap to create a ‘third space’ (Gutierrez & Stone, 2000) or ‘interacting activity systems’ (Engestrom, 2001), became important to the conceptual framework as the goals were followed within each peer-group ecosystem.

1.5 The influence of CODAT

Lyn did not plan to use activity theory prior to data collection, in fact, she knew little about it. However, when she was immersed in transcribing, and becoming aware of the complexity of the data and her task, she returned to Lantolf’s (2000) and Cole’s (1996) discussion of sociocultural theory and realised the potential of activity theory. Soon after, the activity theory group at Deakin provided an invaluable opportunity to explore activity theory with colleagues. The group mediated the emerging understandings through collaborative dialogue around shared journal articles and explanations of how activity theory could be a valuable tool for diverse research projects. All members of the group brought different knowledge and experience and together co-constructed new knowledge. Of particular importance to Lyn was the feeling of a shared community. PhD study is rather solitary, and the opportunity to participate in a ‘community of practice’ (Lave & Wenger, 1991), where ideas were affirmed and challenged in a supportive environment, Lyn found invaluable.
Case Study 2: Role of practical activities in primary science teaching  
(John Cripps Clark)

1.6 The research

Practical activities are a central feature of science teaching. The roles of practical activities in science teaching can be classified into:

- acquiring information, concepts and principles;
- developing process skills;
- learning about the nature of science; and
- improving attitudes to science.

Learning science concepts is seen as the most important role in many discussions but there is little evidence that practical activities contribute to the learning of concepts. If practical activities do not contribute to the learning of concepts then it is likely that they are serving other purposes and it is worth doing a naturalistic case study to investigate the role of practical activities in the context of a sequence of lessons, before we either abandon practical activities or prescribe a ‘better’ way of using them. This research plugs a hole by looking at science teaching: as it is currently being practised (without intervention or the selection of a preferred mode of teaching) in primary schools (secondary and tertiary teaching is most commonly examined) and in the context of a sequence of lessons.

In order to understand what it is possible to accomplish through the use of practical activities in a primary science classroom, four exemplary primary teachers of science were selected using recommendation by science teacher educators and personal contacts. The schools were in Victoria and N.S.W. and included a rural school, a school in a regional centre and two metropolitan schools, in a middle class and a working class area. The research used videotape and observations of a unit of science lessons work running for a term together with interviews with teachers and students.

1.7 The influence of Activity Theory

Activity Theory has become an organising principle for my thesis. The two major influences on the students’ science learning as can be seen from Figure 3, were the practical activities and the primary school classroom. Similarly the literature fell into two largely non-intersecting sets: the uses of practical activities, experiments and lab work in science teaching; and the culture of practical activities in primary science teaching. Thus it was natural to organise the literature into two sections on practical activities and primary classrooms and Activity Theory was a way of justifying and explicating the organisational decisions.
The activity system of practical activities in the science classroom (Adapted from Engestrom’s 1993 model of activity theory)

1.8 The influence of codat

The circle of discussion of Activity Theory mediated my research. Two of the ways can be described by reference to the two of the student in the group.

1.8.1 Influence of Lyn Turner

An idea that Lyn introduced to the group of multiple activity systems within one physical context, and how these overlap to create a ‘third space’ (Gutierrez & Stone, 2000) reinforced by (Engestrom, 1999) notion of a third generation Activity Theory gave me a way to reconceptualise the different roles of practical activities, notably learning concept and improving attitudes, as expressed by the students’ and teachers’ activity systems.

Figure 4 The activity system of practical activities in the science classroom (Adapted from Engestrom’s 1993 model of activity theory)

1.8.2 Influence of Tony Whitefield

There was a moment of revelations during a codat meeting when Tony was explaining the failure of laptop computers in senior secondary classrooms that it became clear to both Tony and the entire group that the concentration on the laptop as a tool in senior secondary students learning had ignored the role of the community: the culture of senior secondary classrooms, the teaching styles and most importantly the VCE examinations which are the focus of senior secondary teaching. This community had completely undermined the use of the new tool, namely laptop computers.

This failure to consider the community, its rules and divisions of labour when implementing change by introducing a new tool has proven a vital tool to me when examining the introduction of the Teaching and Learning Management Plan (Deakin University, 2001) into Deakin University and Brian Edwards (2001) research on teacher resistance to the introduction of the Curriculum and Standards Framework (CSF) in Victoria.

Discussion

The circle of discussion is an assay into both building a community of scholarship amongst postgraduate students and the use of Activity Theory as an analysis technique for postgraduate research students. As the postgraduate student cohort continues to evolve we will need collaboration between university administrations, staff, students and student associations if we are to build a community of scholarship amongst postgraduate research students and thus preserve the vitality of research in universities.

References

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