'Hinged' activity systems: Expanding the utility of activity theory

Lewis Hughes

Enviro-sys, and Deakin University, Australia (l.hughes@enviro-sys.com.au)

Abstract

As a derivative from Cultural Historical Activity Theory (CHAT), where gaining insight into the circumstances of an activity is among its applications, this article presents an approach to initiating and structuring activity system guided conversation where the intent is to strengthen stakeholder empathy and partnership in action. Whilst this paper is not, in-itself, an outcome of so-focused research, it is a sharing of insights accruing from ethnographic research largely in the vocational education and training (VET) arena and, in particular, on-going exploration of the circumstances aiding and inhibiting Australian VET teachers including researching and drawing upon the research of others as part of their professional practice.

In essence, this article posits that activity system – as derived from CHAT – guided conversation has much utility in achieving empathetic partnerships between stakeholders in an activity where their respective interests might otherwise be in conflict. Accordingly, the notion of the 'Hinge' is offered as a device to expand the utility of Activity Theory. The 'Hinge' being constructed by conversation agreeing the 'Object', which is the most influencing of 'Rule', 'Community' or 'Division of Labour' and then the nature of enabling 'Tool'.

Keywords: activity theory, activity system, conversation, partnership, vocational education and training, scholarly

Introduction

This offering is motivated by experience that some (if not much) social research has lesser outcomes than would otherwise be the case consequent upon subtle nuances of insights going un-noticed and/or not acted upon. And, in the case of Vocational Education and Training (VET) in Australia, this is particularly the case in respect of VET teachers who are not routinely awakened to research of interest to them, but have latent interest which, if acted upon, would expand their capability (Hughes, 2000) – noting that *latent interest* is a nuance of not engaging. With this in mind, and informed by experience, engaging stakeholders in research in such a manner that they are motivated to act upon research outcomes (having ownership and commitment to act) is advocated. Also, doing so in such a way that stakeholders (in the instance of this article – especially VET teachers) have empathy for the interests of other actors has much merit. Accordingly, I make this offering of a 'hinged' approach to drawing upon an activity system guided conversation.

Largely, informed by research into nurturing the occurrence of Australian VET teachers researching and drawing upon the research of others, as a part of their professional practice (later referred to as *VET teachers and research*), this article is an overview of an activity system approach to initiating and sustaining conversation and commitment to action. The conversation being between stakeholders with common overall goal but differing purpose as relates to their immediate interests. For example, in VET delivery both a VET teacher and their department head have a common overall VET delivery goal, but the teacher is likely motivated by professional satisfaction as is connected to student learning outcomes. Whereas, the department head is likely – as an immediate satisfier – motivated by department sustainability which has connection to enrolments, retention and course completions. Clearly, these respective interests are entwined, but the individuals are differently motivated.

Motivation and the teacher as reflective practitioner

With motivation very much in mind, and prompted by emerging VET system interest in teachers as reflective practitioners in a *scholarly* (albeit fuzzy in meaning) sense, the notion of a teacher being *scholarly* – as associated with researching and reflectively drawing upon the research of others – generates debate. The seeming aversion by some VET teachers to '*going scholarly*' is potentially a barrier to partnership between teacher and manager in respect of teachers engaging 'in' (researching) and 'with' (drawing upon the research of others) research as a part of their professional practice. Accordingly, in the current *VET teacher and research* exploration, conversation between teacher and manager regarding the 'what', 'why', 'environment' and 'how' of teachers' research en-

gagement has much value in finding common ground regarding their respective valuing of research as strengthens VET delivery. And such purposeful conversation has been found to be aided by an approach which draws upon the conversation generating character of an activity system – i.e. bringing structure to the conversation, achieving empathy, and having in mind the quest for a 'tool' to be applied to achieving a mutually valued goal. Interestingly, in the current research, a VET manager convened a second meeting involving those speaking with teacher voice and those with management voice using the title '*Why do VET teachers not participate in research as an activity … or do they?*'. The ensuing discussion, points to an approach to establishing VET teacher *scholarly* communities by valuing current dispositions and encouragement to just-take-a-next-step. Such, being grounded in the agreement that VET teachers do, routinely, informally research; and, therefore, it is not such a leap to embrace – with 'tool' support – the notion of *being scholarly*.

Further, in the quest for enriched delivery of VET through teachers researching and drawing upon the research of others, it has emerged that there is (at least in instances amongst the early adopters such as those undertaking further studies) a perception that they have to be proactive in identifying and resourcing research projects with relevance to VET – i.e. a perception that management doesn't take the lead and the teacher has to argue their cause. The potential for conflict lies in teachers seeking professional growth and the appearance that management interests, primarily, lie in meeting department short term goals with little regard to teacher continuing professional development (CPD) and maintaining vocational currency.

The following extract comes from VET provider B first meeting/conversation – the outcome being an 'awakening' of the issue and an indication of a, to-come, purposeful conversation approach to stronger *scholarly* partnership between teachers and managers across the provider. Significantly, this conversation has the potential to lead to expanded conversation seeking resolution of the vexed matter of whether an Australian VET teacher is solely responsible for their professional development and vocational currency or is this shared with teacher, management and the system.

> Teacher 1: There is a bit of a disconnect there in terms of how those things [teachers undertaking research] come about. Because I have met two people in the last little while that have done international research projects. And one went to America looking at pipe fitting and the other one did a carpentry journeyman's type project... But they often come from the person themselves. So the teacher.... say Mary [pseudonym] decides that she wants to do a research project in some form of art and go to Paris and do a lot of things. So she will put through a proposal to management who then weigh up – oh yes we will let her go and do that. But it doesn't go the other way. Management don't come to the staff and say that 'We reckon there is going to be an opening in this area of STEM research. We want you to go and do a project looking at STEM research overseas'. So it doesn't go the other way. It always seems to have to come from the ground up rather that from the top saying 'We actually can see a reason for this research to happen.'

> Researcher: That is really helpful because that takes me to that second question – Is there a connection to the prevailing culture of the VET provider and/or the overall culture in VET? And what's in my mind then is that you are saying there is a dependence – as I understand what you are saying – on the teacher. Is there a partnership here?
>
> Management voice with a teacher orientation: Ownership also ... Does the trainer, or the VET person, buy into it? If he is told or she is told to go and do it rather than driving it?
>
> Researcher: OK... So what sort of culture would you require to nurture this partnership – Shared ownership ...?
>
> Teaching quality voice: Both ways, I suppose. It needs to be available to access and to be available so that both are aware of it – both the senior management are saying 'Yes, it's available' and the other one is coming up and defining – you know – whatever their research projects is going to be.
> Because they are both meeting in the middle. It's not one or the other.
>
> Manager: And I think that time is money. Um... there is no allowance in our sector ongoing that I can see in any role that values people getting industry currency and reporting back or investigating the appropriateness of new design. It's that the person who wants to do it has to be internally motivated ...
>
> Teaching quality voice: Yeh
>
> Manager: ... to drive it. Find funding ways to do it. Um... take on extra duties to get out of doing what they ... they have almost got to overfill their own cup [John (pseudonym) agreeing]. Whereas in other sectors – say higher ed. – there is an agreement that under that salary that twenty percent of the time will be spent on research whatever that looks like – and it is pretty loose sometimes.

Note that the VET system movement toward teachers *going scholarly*, without system up-front commitment to adequate support, potentially adds to the contradiction/tension between VET quality requirement of teacher CPD and maintaining vocational currency but not, seemingly, resourcing this. However, the experience, to date, is that activity system shaped conversation – when directed at constructing the 'Hinge' (as later addressed) – does reveal tensions and contradictions in a manner which builds empathy and a commitment to stakeholder partnership(s) in action – resolving contradictions and tensions.

VET in Australia and teachers researching as part of their professional practice

To put the forgoing in context, the following is a snapshot of VET in Australia as a non-compulsory education arena. In this space, a young person in their later years of secondary education can proceed to tertiary education (including a pathway from VET to university if they so seek) and adults, throughout life, can come and go as meets their changing *needs* and *wants* in the changing world of work.

At 2015:

- 4.5 million VET participants out of a working age (15–64 years) population of approximately 16.8 million people. (26.8% of working age Australians.) Note: Total population of Australia, at 2017, is approximately 24,623,000.
- 7.5% of VET students were apprentices and trainees undertaking off-the-job training.
- 92.5% of VET students were undertaking studies not connected to apprenticeship or traineeship.
- The fields of education include – Natural and physical sciences; Information technology; Engineering and related technologies; Architecture and building; Agriculture, environmental and related studies; Health; Education; Management and commerce; Society and culture; Creative arts; Food, hospitality and personal services.
- Australian Qualification Framework (AQF) enrolments – Graduate diploma – 2,500; Graduate certificate – 3,800; Bachelor degree (honours and pass) – 2,400; Advanced diploma – 70,100; Associate degree – 800; Diploma – 566,700; Certificate IV – 540,300; Certificate III – 1,000,700; Certificate II – 609,800; Certificate I – 212,500. The total for all AQF programme enrolments was slightly over 3.9 million with an additional 506,000 other programme enrolments not leading to an AQF qualification. (Source: NCVER, 2016 – Data was collected from 4,277 of the [then] 4,930 nationally registered training organisations [RTOs]).
    - o Public RTOs – 42 (at 1. March, 2017. Source – Department of Education and Training, emailed advice)
    - o Private RTOs – 4,594 (at 1. March, 2017. Source – Department of Education and Training, emailed advice)

In the above context of VET in Australia, contrary to acceptance that a Certificate IV in Training and Assessment is adequate teacher qualification, there is now movement toward nurturing *scholarly* practice by VET teachers as a step beyond, arguably, shallow training. In part, it may be that this is a remedial response to past inadequate delivery of the Certificate IV as alerted to by the Australian Skills Quality Authority (ASQA, 2017). However, more positively, the motivation could be an outcome from realisation that there is gain in overturning a commonly held mis-perception that VET is a second-best (compared to university) pathway to tertiary qualification. Accordingly, VET teachers being acknowledged as having expanded capability/scholarly attributes beyond initial training has merit; and this includes motivating and supporting teachers in researching and drawing upon research as part of their professional practice. For example, the recent establishment of the VET Practitioner Network (VPRN – www.vprn.edu.au) is one manifestation of acting upon the need for motiva-

tion and support of VET teachers as researchers. And it is in this context, as a founding VPRN partner and member, that I am pursuing two questions:

- Primary question – What motivates, aids and/or inhibits VET teachers in drawing upon research and, themselves, engaging in research – i.e. being a reflective practitioner?
- Secondary question – Does the process of 'hinging' activity systems strengthen conversation and increase the likelihood of co-operation between stakeholders?

Accordingly, what is here shared isn't an outcome of expansive deliberate research to date, but is an auto-ethnographic informed approach which others may find useful. The experience has been that an activity system guided conversation has much merit in constructing empathetic partnership between parties with different interests in achieving a common goal.

Auto-ethnographically drawing upon researching experience

In addition to the current *VET teacher and research* exploration, this article is informed by auto-ethnographic reflection upon previous research where the employment of activity systems enriched understanding and now, with benefit of hindsight, informed finding common ground conversation between stakeholding parties – i.e. agreeing validity of an object in activity system terms. Therefore, this article is not reporting upon specific targeted research findings, but is to do with an experienced approach (process) to generating mutual commitment to action and partnership in action – the article is an experience grounded theoretical offering.

'Arming' change and an introduction to the 'Hinge'

Whilst the Australian VET teacher engagement 'in' (researching) and 'with' (drawing upon) research is used for illustrative purposes, this is a sharing of a Cultural Historical Activity Theory (CHAT) approach with broad application in using conversation as a pathway to empathy and partnering in action between stakeholders with differing goals. In this *finding-common-ground* respect, the elements of an activity system present as a structure for scoping the matter and, in particular, revealing contradictions/tensions between the elements which may otherwise go un-said and, hence, not addressed, Also, what is here shared is an example of deliberate use of researching as a device to join contributing parties (co-researchers and themselves research subjects) in co-operative 'change' action. This, having connection to the prospect that the act of research-

ing has the potential to change the environment – consequent upon asking questions causing reflection by respondents, in concert, and *arming* change.

A word about *arming* change: Firstly, this is not to imply aggression. Rather it is to do with resourcing in the sense that where change involves the activity of people, it is their willingness and capacity (empowerment, competency, resourcing, etc.) to act which is at the core of change transition; and these are valued as arms in much the same way as would be the case in a military sense, but with inherent strength in mind more so than aggression. Accordingly, in this article, awakening, empathy and commitment building conversation are valued as an understanding and utilisation pathway to the arms (tools) of change.

With '*armed*' co-operative change action in mind, conversation between stakeholders is a powerful tool in initiatives such as action research as historically reviewed by McTaggart (1993), action learning as developed by Revans (1977) and the Change Laboratory as arising from Engeström's (1999) notions of expansive learning and now facilitated by the University of Helsinki, Center for Research on Activity, Development and Learning (CRADLE). And there are many other instances where crafted – structured with purpose – conversation has a place as a device in sharing stakeholder positions in such a way as goes beyond just understanding to building empathy, ensuring capacity, and mutual commitment to action/change.

In the foregoing 'structured with purpose' is very deliberately expressed. It is a significant outcome (thus far) of the *VET teacher and research* exploration, that the research having a clear VET purpose is very important. Both VET teachers and VET heads of department and other managers (when awakened to valuing research) are attracted to research which is unambiguously directed at resolving a known problem and/or exploring opportunity with clear connection to VET – e.g. strengthening VET pedagogical practices and being at the forefront of vocational matters. Whilst not denigrating the notion of discovery research (curiosity driven expanding the boundaries of knowledge), as associated with the university stream of tertiary education, there is an indication that the manner of focus upon purpose may be what sets research by VET teachers (to be encouraged) apart from university teachers/lecturers – noting that there is an escalating Australian trend toward non-university delivery of higher education and inherent concern about preserving what I style as **VETness**.

Whilst the *VET teacher and research* current exploration is coupled with work-in-progress researching the utility of the 'Hinge' and consideration of preserving **VETness**, this article is also informed by revisiting earlier research and experiences in an auto-ethnographic mode. In this regard – predating but significantly prompting the current *VET teacher and research* exploration – a '*You have got us all talking*' feedback from an interlocutor in the exploration of relationship between VET and strengthening social capital (Hughes & Hughes, 2013, p. 6) evidenced activity system utility in shaping and generating conversation in

such a way that stakeholders with differing – and maybe, initially, competing – interests can find common ground and engage in co-operative activity. The evidencing referred to here is that the feedback occurred following a group meeting in which conversation was generated by reference to the mediating elements of an activity system and the tensions/contradictions which do and/or may arise in the delivery of VET programmes where attention to the 'E' is in the mind of the teachers, but VET system valuing of the 'E' appears to have evaporated in favour of focus upon the 'T' (see Hughes, 2017).

The VET and Social Capital '*You have got us all talking*' feedback strongly resonates with an exchange between a teacher and a head of department during one of the, to-date, *VET teachers and research* conversations. In this conversation, common ground was found in respect of the example of an auto-mechanic teacher seeking to justify release from teaching so as to, temporarily, return to the workplace for maintaining vocational currency purposes which is a VET system requirement. However, VET system support for maintaining vocational currency is not routinely in place – giving rise to contradiction/tension in activity system terms. From the teacher's perspective, there was 'want', but from the head of department's perspective, the concern was that the temporary revisiting of an auto-servicing workplace would mostly involve *cups of tea with the blokes* and there would not be a tangible return to the VET department. However, there was a realisation that by shaping the release as a research project, the teacher had structure and the head of department would have a tangible research report which would then feed sharing within the teaching team. Interestingly, this conversation subsequently revealed to all that drawing upon research was a requirement for achieving department funding. And, accordingly, keeping-one's-job emerged as acknowledged motivation for teachers to include researching as part of their professional practice – hence, demonstrating merit in conversation directed at VET delivery wants, needs and opportunities as arise from constructing the 'hinge'.

In essence, the 'Hinge' approach is to abut interacting activity systems as derived from Cultural Historical Activity Theory (CHAT). Such activity systems are conventionally presented as pyramid shaped and associated through meshing of respective objects (Figure 1a) but in this article are represented as abutted in right-angle triangle representation (Figure 1b). In this 'hinged' case, the abutting being along an axis of Agreed Common Object, selecting/agreeing one of 'Rules', 'Community' or 'Division of Labour' as being the most influential environment element in pursuing the goal, and striving to develop a tool (broadly configured as an assembly of artefacts/tool) appropriate to attaining the goal. And the axis – being tool, agreed common object and one of 'rules', 'community' or division of labour – designated as the 'Hinge'.

Note that it is the conversation leading to constructing of the hinge which has value in finding common ground – not the 'Hinge' itself. For, example,

agreeing which of 'rule', 'community' or 'division of labour' should be at the pivot point (Figure 1b) does not make a difference to the utility of the activity system; however, the conversation reveals much and forges commitment to co-operatively act.

With stakeholders acting together in mind, generic extrapolation from Robert Mager's (1968) advice on scholarly teaching practice embedding a positive student attitude toward learning is useful.

Where are we going?
Why are we going?
How shall we get there?
How will we know we've arrived?

These questions have merit in constructing the 'hinge'; and this advice is applicable even in other than guiding scholarly teaching activity. With reference to Figure 2 (see later in the article), the first two questions are the 'what' and the 'why' respectively, the third relates to drawing upon and being responsive to the components of the environment – 'rule', 'community' and 'division of labour' and the 'tool', and the fourth finds its place in the 'tool'.

With respect to going *scholarly*, the *VET teachers and research* exploration, thus far, points to a teacher aversion to being thought of as scholarly; however, the term – *scholarly* – is newly arising in the Australian VET vocabulary. A quest now is for VET teachers to embrace the *scholarly* term, but in a VET way; accordingly, the Mager questions have mind-opening merit.

Viewing the above Mager (1968) questions as relevant to stakeholders acting (performing) in partnership, in addressing expanding the utility of activity theory, this offering has two audiences especially in mind. On the one hand there are those already drawing upon activity theory with varying purpose, but possibly not for generating conversation. And, on the other hand, there are those with an interest in generating purposeful conversation, but not having activity theory in mind.

Whilst the Australian VET teacher engagement 'in' (researching) and 'with' (drawing upon) research is used for illustrative purposes, this is a sharing of a CHAT approach with broad application in using conversation as a pathway to empathy and partnering in action between stakeholders with differing goals. In this *finding-common-ground* respect, the elements of an activity system present as a structure for scoping the matter and, in particular, revealing contradictions/tensions between the elements which may otherwise go un-said and, hence, not addressed. Also, what is here shared is an example of deliberate use of researching as a device to join contributing – to the research – parties in co-operative 'change' action.

The above said – prompted by the Northern Metropolitan Institute of TAFE, social capital focused, Centre of Excellence for Deaf and Hard of Hearing Students winning two Victorian State Training Awards – in exploring VET and Social Capital (Hughes & Hughes, 2011, 2012, 2013) I was especially awakened to the utility of consciously drawing upon conversation to construct the 'Hinge'. A further realisation is that I have been doing this since drawing upon Engeström's (2001) activity theory third generation approach to interacting activity systems in the course of exploration of the relationship between lifelong learning and organisational achievement (see Hughes, 2007, p. 239). In this respect I have, somewhat unconsciously, transitioned from the Engeström (2001) conceptualisation of interacting activity systems (Figure 1a) to a hinged approach (Figure 1b).
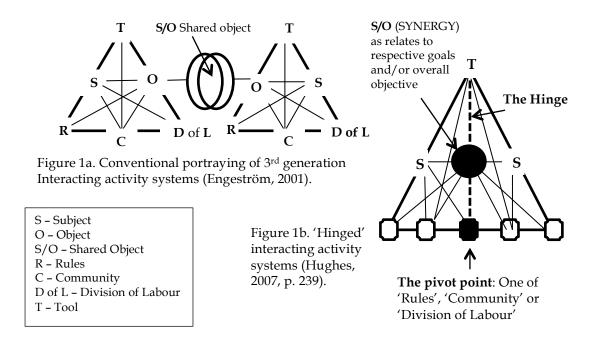

Figure 1a. Conventional portraying of 3rd generation Interacting activity systems (Engeström, 2001).

S – Subject
O – Object
S/O – Shared Object
R – Rules
C – Community
D of L – Division of Labour
T – Tool

Figure 1b. 'Hinged' interacting activity systems (Hughes, 2007, p. 239).

The pivot point: One of 'Rules', 'Community' or 'Division of Labour'

Figure 1. Comparison of conventional to hinged interacting activity systems.

Consequent upon convening a VET and Social Capital conversation group, it was the '*You have got us all talking*' feedback which awakened Libby (co-researcher) and me to what had been subconsciously (tacitly known) in our minds regarding purposeful conversation, between parties with different goals (e.g. as in this instance – teachers seeking professional satisfaction as compared to managers seeking teaching department sustainability), but with common purpose in strengthening VET outcomes. Also, and highly relevant to the pro-

cess of finding common ground in circumstance of tension between stakeholders, these conversations were occurring in a context where it was known, by all, that some of the interlocutors would not have employment contracts renewed. However, there was strengthened commitment to partnering action notwithstanding job security anxieties and teaching department sustainability. In essence, there was gain to both parties (even though some would be moving on to other employment) in sharing a goal of VET students graduating with social capital attributes such as desire to actually draw upon what they know and can do in ways which add to social cohesion in the workplace and the wider community. Such graduating students being lifelong learners progressively expanding personal capability in the changing world of work and society. With this in mind, there is intersection between professional satisfaction by teachers and pride in department outcome by managers – activity system shaped conversation between these parties strengthens this intersection.

Curiously, why was it so that a human capital (people as commodities) focused VET system so recognised and applauded a social capital (pride and cohesion in society) grounded VET initiative? It is this question which prompted and shaped inquiry – spanning three years – in which partnership between teacher, student and community – in an activity system division of labour sense – emerged as entwined with enriching social capital (Hughes & Hughes, 2011, 2012, 2013). This is but one example of conversation vitality which has arisen through use of an activity system framework as a conversation generator.

Again with the benefit of hindsight, life's experience which informed advocating learning partnerships as a strategy for quality exemplar VET providers were made explicit through the prism of activity theory; and an activity system framework shared as an approach to convening and sustaining VET learning Partnerships (Hughes, 2011, p. 14).

Activity systems as framework for conversation

It is with the power of '*You have got us all talking*' conversation in mind that my earlier drawings upon CHAT (activity theory) for the purpose of understanding the 'why', the 'what', and the 'how' of a particular activity has been revisited with a view to the influence of conversation. From this, there is an arising notion of forging stakeholder commonality with respect to valuing the 'what' (Object) of an activity, interrogating the environment (Rules, Community and Division of Labour) of an activity with a view to developing and drawing upon a tool(s) to support action – see Figure 1 in which some familiarity of an activity system is assumed.

However, for those new to activity theory the Leont'ev (1981) illustration of the collective hunt is helpful. In this example (with some embellishment by me), a primitive tribal group is hunting an animal for meat and pelt. The hunting

party (the subject) are using a division of labour with some of the tribe acting as beaters forcing the animal (the object) toward others lying in wait, above a ravine, to kill by throwing rocks (the tool) – noting that it could be argued that the ravine is also a component of the tool as is (by way of further example) the motivation to hunt the quarry and form a partnership in doing so). There are rules which apply to who does what and how the carcass is drawn upon. And, in addition to the hunting party being of-itself a community, the totality of the tribe is the stakeholding community for which killing of the animal has survival implications. To reflect upon the potential for one element mediating upon another – consider the possible implications if a rifle was available to one member of the tribe. As an example of changing one thing brings about other changes, in the case of my Country Fire Authority (CFA) research the changing demographic of rural communities (population declining) necessitates a shift from the informal rule that men fight the fires and women contribute off the fire ground – women are now welcomed as firefighters and aspects of the environment (equipment, fireground culture, etc.) are modified to suit.

Further, for those who are not familiar with activity systems and CHAT which informs their construction, in addition to the companion articles in this edition of NJVET, Daniels, Edwards, Engeström, Gallagher, and Ludvigsen (2010), and Engeström, Miettinen, and Punamaki (1999), are useful sources of discovery along with Daniels, Cole, and Wertsch (2007) which provides insight into the work and thinking of Vygotsky, the early 20th century Russian psychologist from whom the representation of activity systems has evolved. In respect of myself, it was highly fortuitous that I was introduced to CHAT and activity systems in the course of my Deakin University PhD Candidacy; and this became the prism though which I viewed data arising from my research into the relationship between lifelong learning and organisational achievement and evolved into the framework of inquiry for much of my subsequent explorations.

Now, and much with the benefit of hindsight, I recognise that my ethnographic use of conversation, and practice of engaging research subjects in such a way as to lay the groundwork for action, is largely drawing upon the power of conversation to open the window to understanding and setting stakeholders (contributing to the research) along the pathway of action. Accordingly, Figure 2 displays the activity system showing connection between the elements – with mediating and contradiction/tension potentialities – overlaid with the conversation foci of 'why', 'what', 'environment' and 'how'.

Interestingly, in the case of the *VET teacher and research* current explorations, I have found that conversation is best started by raising the issue *whether or not a teacher should engage 'in' and/or 'with' research* prior to guiding the conversation toward **why**? Because asking 'why?' is an assumption that all agree that VET teachers should engage 'in' and 'with' research (the object), my experience is

that richer conversation arises by inviting conversations upon the '**what**' as teachers and other interlocutors don't initially recognise the wider picture of community good – they tend to focus upon the 'self' and a subsequent wider view emerges from this when prompted. And this raises in my mind that, depending upon what has prompted conversation and 'the who' as interlocutors, conversation might commence at any of the four foci with a quick return to the 1, 2, 3, 4 sequence. For example, a conversation could begin with questioning an established tool such as the validity of an acceptable (VET system specified) particular entry level training for VET teachers and, then, grounded by this initial conversation, questioning the 'Why' and moving on to modification (maybe) of the tool.
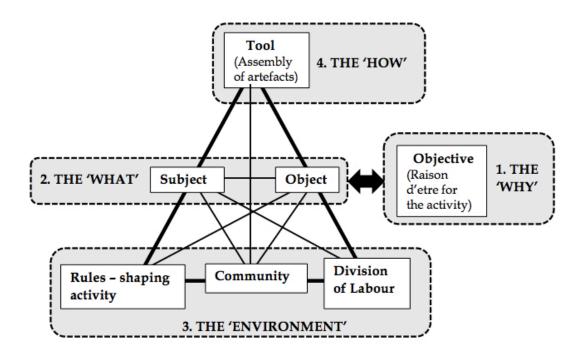

Figure 2. Conversation components of an activity system (modified from Engeström, 2015).

Again, to assist readers new to activity theory – drawing upon the Leont'ev (1981) use of a primitive hunting party example, in Figure 2:

- the 'Why' of the activity of hunting an animal is to do with survival in that the flesh of the animal yields food and the pelt can be shaped to clothing for warmth and protection from the rain;

- the 'What' of the activity is the hunting party (Subject) and killing of the animal (Object);
- the 'Environment' is to do with the rules which determine matters such as who gets what part of the animal and when, the community involved and being served by the activity of hunting, and the division of labour (partnership) installed for the purpose of hunting;
- the 'How' is the assembly of tools (various artefacts) employed in the hunt – whilst rocks are a significant part of the tool, motivation, competency and empowerment are examples of other 'capability/capacity' inclusions.

Continuing with the hunting party theme, it may be that the tribe in question is competing for survival with a neighbouring tribe under circumstances of diminishing game availability. Under these circumstances of depleted animals-to-hunt, an influential peace-maker may emerge and the tribes achieve survival co-operation through – for example – co-operating in hunting larger or more wary animals (hitherto beyond the manpower capacity of one tribe and/or necessarily evolve beyond the hunter-gather mode so as sustain both tribes rather than embrace the risk of conflict leading to mutual destruction – i.e. there is change in specification of the object arising from seeking *cooperation rather than conflict* consideration of two interacting tribal activity systems.
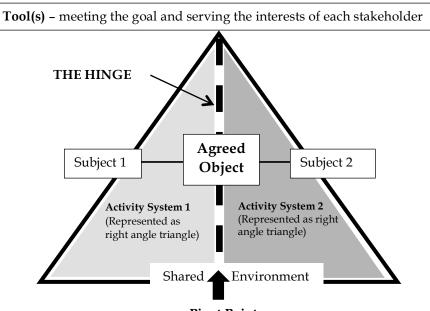
With co-operations in mind, the *VET teachers and research* conversations have been marked by entwining the 'What' and the 'Why'. In this respect, the requirement for having-purpose is a recurring theme and exampled by teachers seeking a period of release from teaching duties to return to the workplace for vocational currency reasons, but not having a clear plan which causes the department head to have uncertainty in giving approval. Structuring the release to the workplace as a research project with clear purpose overcomes this uncertainty for the department head and the teacher has focus on what is to be tangibly returned to VET. Importantly, this also yields a device for sharing/engaging with colleagues and an abiding record.

The 'Hinge'

Figure 3 is a representation of two interacting activity systems represented as right angle triangles rather than the conventional pyramid shaped triangles. Such a representation doesn't change the mediating linkages within an activity system; rather, it facilitates showing the coupling along the Pivot Point, Agreed Object and Tool(s) hinge where the 'What' and the 'Why' of the activity are at the core of finding 'Agreed Object'.

Using VET teachers and research as an example, one activity system (say, the left) has teachers as the Subject in the 'What' arena (noting that this is where conversation may mostly begin). And a second (say, the right) activity system

has teaching department heads as the subject. In each system – by agreement – the Object of teachers engaging 'in' and 'with' research as part of their professional practice remains the same, but the nuances of their respective interests are different. For example, a teacher may have passion and commitment and/or job security as their prime focus; whereas, a department head may have enrolment numbers, retention and completions as performance-criteria imperatives. Consider, what might this look like from the student's perspective as the Subject (of a third 'hinged' activity system), and the teacher as researcher - being the Object in the activity system – remaining the same? Note that my exploration of the teacher as a researcher has not – thus far – included students in the conversations.

Figure 3. Hinged activity systems (an instance or two but there could be more).

Considering the 'What', the 'Why' and the 'Agreed Object'

Maybe as a consequence of VET in Australia languishing as second-best compared to university education, it is revealing that generally the VET teacher and research conversations searching for 'Agreed Object' did not quickly turn to broad community good as being 'Why & What' connected. Rather, the interlocutors focused upon VET provider outcomes driven by teacher concerns regarding job security and provider survival/sustainability in the Australian *competing for government funding* environment.

In the foregoing respects (job security and organisational survival), the casualisation of the Australian VET teacher workforce is a factor to be considered – i.e. does – or should – a casual teacher have the same level of professional commitment as might be expected of a longer-term contracted teacher? This question is put in acknowledgement of a possibility that casualisation distances a teacher from professional commitment. With this in mind, including casual teachers in the *VET teachers and research*, hinge constructing, conversation beckons. Interestingly, and encouragingly so, one of the responding VET providers spoke of their practice of encouraging casual teachers to wear clothing displaying the provider logo – i.e. identifying with being part of the teaching community.

In the course of the conversations informing this article, the prospect arose of drawing upon recipients of travelling scholarships as ambassadors for VET teachers as researchers. It was evident that where such a recipient shared their experience with others there was an awakening of interest – not necessarily involving overseas travel – by others. This gives rise to the prospect of conversation between those who do research and those who don't being a powerful device in bringing teachers to the point of valuing being a member of an overtly valued scholarly community – casual teachers included. Whilst this might be said to be obvious, it also emerged in conversations that even staff teachers – consequent upon workloads – are losing contact with one another and, maybe, sharing of researching (including informal) experiences is a vehicle for reconnecting teachers and other VET practitioners. Being mindful of constructing the 'Hinge' will give strengthening (purposeful) structure to such sharing conversations.

Arising from the 'Hinged' conversations, although it could be argued that casualisation of the VET teaching workforce has the possibility of addressing maintaining vocational currency, on the negative side there is the possibility of reduction in commitment and attention to the 'E' as contributing to VET graduate social capital attributes. Accordingly, the prospect (but not necessarily so) of diminished attention to social capital strengthening consequent upon teacher casualisation has connection to my and Libby's (Hughes & Hughes, 2011, 2012, 2013) exploration of the relationship between VET, **when well taught** and strengthened social capital as a missing link in the productivity debate (Svendsen & Svendsen, 2004. p. 2). Also, noting that our VET and Social Capital research has substantially informed advocating the '*hinge*' approach, it was not surprising that the conversations between teachers and managers gravitated to common ground regarding the role of an '*educationalist*' VET teacher. Noting that in our mind, an '*educationalist*' VET teacher is one who facilitates learning beyond just attention to knowledge and skill – i.e. valuing the 'E' in VET.

Considering the Environment and selection of 'Pivot Point'

Both teachers and their department heads function in a common overall environment as embracing rules, community and division of labour. However, there are nuances of difference. For example, teachers are closer connected to students than is the case for department heads; and department heads are closer connected to governing authorities such as those who allocate funding. Accordingly, initiating discussion regarding which of 'Rules', Community' or 'Division of Labour' is most important, with respect to the 'Agreed Object', gives rich insight as to contradictions/tensions and opportunities – e.g. vocational currency being required but no provision for how this is to be achieved. It is the discussion about the environment which generates shared insights and feelings informing, empathetic, partnering action. Noting that, in activity system terms, the actual choice does not affect the relationships as all relationships, within an activity system, link each to the other. However, this said, the choice is nominated as the Pivot Point and serves as a reminder of the insights from the conversations and where emphasis beckons.

In the case of *VET teachers and research*, thus far it is the division of labour between the teacher and provider which has been identified by all as being at the Pivot Point. This reflects a feeling that continuing professional development and maintaining vocational (technical field) currency is a shared responsibility between the teacher and the VET system – engaging 'in' and 'with' research being connected to this. This is not to downplay the significance/impact of rules and the respect and engagement with communities as variously apply, but is identification of a special point of emphasis.

Considering the 'How' – tool – as is the enabler of sought outcome

Throughout the conversation, the attention is very much on two things. Firstly, the Object as in this example instance – VET teachers researching and drawing upon the research of others – and, secondly, the means of motivating and supporting this. Accordingly, the conversation – although somewhat free flowing – is guided toward construction of a tool (broadly meant) and employment of this tool as is appropriate to the activity of addressing the object.

Thus far in the *VET teacher and research* conversations, sharing of views regarding 'need' and 'want' have been entwined with 'how'. Accordingly, as this is work-in-progress, the development of a 'tool' is likely to be more confirmation (progressively emerging from conversation) than discovery (Eureka!) orientated. Potentially, this is important as the quest for a taking-action partnership is embedded in the rationale of the conversation(s) and what emerges over time – shared ownership of the tool is strongly connected to commitment to use the tool.

Consequent upon the *VET teacher and research* focus entwining valuing lifelong learning acquired knowledge of the teacher and VET system achievement, the LCM Achievement Model (Hughes, 2007) is a logical offering for potential inclusion in the assembly of artefacts comprising the 'Tool' – see Figure 4. Accordingly, accruing insights are matched against this potential tool as an inclusion in a broader assembly of artefacts.

In overview the LCM Achievement Model – drawing upon the outcomes from lifelong learning for organisational (broadly defined) achievement purposes – is illustrated in Figure 4. And it should be noted that this model is offered as a potential inclusion in an assembly of tools/artefacts where drawing upon what people know and can do has a place – i.e. it does not necessarily follow that the model is always an inclusion in taking action or that it stands alone. It should also be noted that exploration of *VET teachers and research* is a work in-progress and, although there are grounds for anticipating a place for the LCM Achievement Model, its inclusion (here) in establishing the 'Hinge' is more of an inclusion in structuring-conversation device than it is, presently, a confirmation of place.
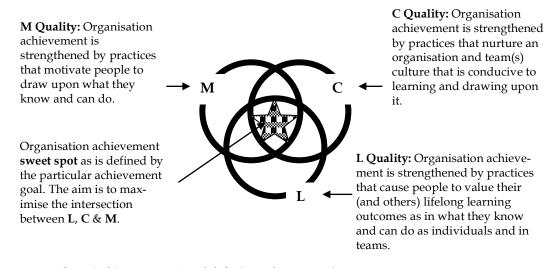
M Quality: Organisation achievement is strengthened by practices that motivate people to draw upon what they know and can do.

C Quality: Organisation achievement is strengthened by practices that nurture an organisation and team(s) culture that is conducive to learning and drawing upon it.

Organisation achievement **sweet spot** as is defined by the particular achievement goal. The aim is to maximise the intersection between **L, C & M**.

L Quality: Organisation achievement is strengthened by practices that cause people to value their (and others) lifelong learning outcomes as in what they know and can do as individuals and in teams.

Figure 4. LCM Achievement Model © (Hughes, 2007).

The LCM Achievement Model arises from my Deakin PhD candidacy research into the relationship between lifelong learning and organisational (broadly defined – e.g. could be read as community) achievement. Principal among the arenas of inquiry, retaining Country Fire Authority (CFA) of Victoria volunteers was the object with community safety as the objective. And in this instance, although not at the time as consciously alert to the notion of a '*hinge*' as is now the case, the retention of volunteer firefighters was found to be strongly linked to

bonding connection between two activity systems as illustrated in Hughes (2007, Figure 10.3, p. 239) – showing:

- On the one hand – an activity system from the volunteer's perspective as to why they joined and remained.
- And on the other hand – an activity system from the brigade's perspective as to why the brigade sought to retain the volunteer as a member.

In essence, this bonding is encapsulated in the sentiment '*I found a family*' variously articulated by CFA volunteers. This has some resonance with the practice of one of the VET teachers and research locations of inquiry providing all teachers – importantly, including casual teachers – with provider logo displaying clothing as a contribution toward identification with this VET provider family.

In the case of the *VET teacher and research,* drawing upon the LCM Achievement Model:

- begins with specifying the **Sweet Spot** as *VET teachers engaging 'in' and 'with' research as part of their professional practice*. This is the **Agreed Object** in Figure 3 and directly connects the tool with the object of the activity system; and then
- the '**L**' is VET teachers valuing what they know and can do as an outcome from their lifelong learning (no matter what the source and as a continuing occurrence – including researching) and valuing this in others. Engaging 'in' and 'with' research is clearly attached to valuing learning and its outcomes in the case of partnership between VET stakeholders, this is a reciprocating of valuing process and, in which, the teacher engaging 'in' and 'with' research has much connection;
- the '**C**' is having in place an environment which culturally nurtures the 'L' and empowers with respect to a person acting;
- the '**M**' is identifying, enriching and appropriately respecting the motivations which, variously, energise pursuit of the Sweet Spot – noting that, whilst in this case the focus is upon teachers, others (with their motivations) are also active in the milieu of activity.

As cautionary put, the LCM Achievement Model is not offered as an assumed device or a stand-alone tool. Clearly, resources such as appropriate funding and allocation of time are likely inclusions in an assembly of tools/artefacts. However, the notion of the '*Hinge*', which includes the LCM Achievement Model, is grounded in a position –

- that there is merit in stakeholders, with differing interests, finding common ground; and

- that conversation leading to empathy and commitment to act in partnership is a pathway to achievement.

Accordingly, in addition to use as a taking-action tool to be drawn upon by stakeholders in division of labour partnership, drawing upon the LCM Achievement Model as an inclusion in structuring conversation and mining data is helpful. In these respects, in the initial phases of conversation, care is taken to avoid directing conversation to fit the model. Rather, in the beginning, the conversation is directed at yielding insights which evidence efficacy in drawing upon the LCM Achievement Model. And, then, only later is there directed attention to the 'L', the 'C' and the 'M' – this later providing the opportunity for triangulation against what emerges in general conversation against what is said in response to specific questioning.

Although much in mind, I have not in this paper raised the matter of getting stakeholders to the conversation table. Of course, this is a precursor to constructing the '*Hinge*' and can present difficulty. For example, in the *VET teacher and research* case, there was an instance of a teacher questioning whether as 'just a teacher without researching experience' (paraphrasing) they would be welcome to participate in conversation with more senior, and experienced, others. Likewise, there were other instances of reluctance to participate such as 'I haven't got the time' and 'I don't have an interest' – across the spectrum of potential interlocutors. Accordingly, I offer the LCM Achievement Model as having utility as a recruiting to the conversation tool. This initiated by specifying the **Sweet Spot** as '*Recruiting stakeholders to the conversation*'.

Although there may be constructing 'the arising tool' instances where the LCM Achievement Model does not have a place, experience to date is that it has conversation utility in fleshing out the properties of an appropriate tool – the utility being grounded in the logic of the model and specifying the **Sweet Spot** as describing the sought goal. Noting that the sought goal is likely to be a step toward achieving a larger objective – e.g. the goal of VET teachers researching and drawing upon the research of others is a step toward stronger community and economic productivity.

Hinging multiple – beyond two – activity systems

Whilst Figure 3 is a representation of '*hinging*' two interacting activity systems, the opportunity for hinging as a device to encourage and support VET teacher research conversation extends to multiple systems as shown in Figure 5.
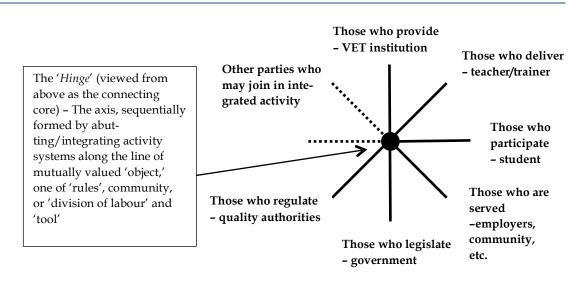
Those who provide
– VET institution

Those who deliver
– teacher/trainer

Other parties who
may join in inte-
grated activity

The '*Hinge*' (viewed from
above as the connecting
core) – The axis, sequentially
formed by abut-
ting/integrating activity
systems along the line of
mutually valued 'object,'
one of 'rules', community,
or 'division of labour' and
'tool'

Those who
participate
– student

Those who are
served
–employers,
community,
etc.

Those who regulate
– quality authorities

Those who legislate
– government

Figure 5. Helicopter view of interacting activity systems as might apply in the VET teacher and research instance.

In bringing about, and sustaining, a circumstance where VET teachers engage in research and draw upon the research of others as part of their professional practice, there are many stakeholders – as exampled in Figure 5. Variously, the-se stakeholders will have different interests and differing levels of direct engagement with teachers; however, the potential is there to include them in the conversation in some way – noting that there is, likely, a limit to the number of effective interlocutors at any one time – foreshadowing a research question along the lines of '*What is the optimum number of interlocutors, and diversity of stakeholding, in a "hinged" conversation?*' Having in mind, by grouping, the pro-spect of '*hinging*' multiple hinged conversations to accommodate large and complex assemblies of interlocutors.

In raising the question of 'How many?', it is in mind that even though con-versation groupings are identified, there are groups within groups and each person within a group has individual stakeholding and motivations. Accord-ingly, Figure 5 could include activity systems for teachers predisposed to being researchers, teachers with neutral positions, and teachers actively opposed to including research as some part of their professional practice. And, similarly, in the VET provider category there could be separate activity systems for those who are not dual sector (VET and Higher Education) providers, and those who are dual sector providers – noting that there is a trend for non-university higher education providers to emerge in Australia.

Review of the 'Hinge' rationale

Whilst action research, action learning and Change Laboratory are instances of extended periods of conversation which inform and motivate action, there are potentially many occasions where the opportunity and/or need for forging an empathetic relationship is much briefer – the purpose being to quickly get to a point where there is acknowledgement of much to be gained by stakeholding parties, with different goals, finding common ground. For example, the initial bringing together of VET managers and teachers to find common ground through sharing views regarding VET teachers incorporating researching and drawing upon research as some part of their professional practice – a marked change – is a short period activity of an hour or so. Noting that to achieve empathetic *seeing-things-from-the-other's-perspective*, in a short time, the conversation requires focus – and '*hinging*' the conversation has much utility in this respect.

Whilst activity system framed conversation has 'immediacy' utility as above, this approach has application – as an extension of the utility of activity theory – over extended periods of time. In essence, employing the 'Hinge' is a strategy to focus on-going partnership conversation upon the 'What', the 'Why' and the 'How' of an activity in the context of the 'Environment' of the activity as comprised of rules, community, and division of labour. In this way construction of the 'Hinge' is offered for consideration as a way to extend the utility of activity theory. Where the need and/or opportunity exist to bring stakeholders into partnership, empathy and commitment building conversation has much merit.

Notes on contributor

Lewis Hughes, PhD, MACE, FAITD, and Life Member of the Australian Institute of Training and Development, is the Director of Enviro-sys – a consultancy focused upon sustainability (broadly defined) through making best use of knowledge – and an Honorary Fellow of Deakin University, Australia. Contributing to the valuing of vocational education and training is a core inclusion in his commitment to community and economic productivity as entwined elements of a cohesive society.

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