

Virtual action learning: What's going on?

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Summary

Whilst there is extensive and growing literature in online and networked learning (e.g. McConnell, 2000) and in research and practice on face-to-face (f2f) action learning (AL) (Pedler et al, 2005), there appears to be very little reported or anecdotal evidence of the virtual variety. Yet with the development of communication technologies such as groupware, videoconferencing and the internet changing working and learning practices, virtual action learning (VAL) might have been seen to be flourishing as the natural successor to AL.

This paper presents the findings of on-going research at Henley Business School which aimed to explore current practice and identify the critical enabling factors for this emerging form of action learning.

At the start of the inquiry, October 2006, existing technologies for VAL seemed very limited in what they could deliver and suggested a simple six-form model of potential sorts of VAL. In less than 2 years, there have been considerable advances both in technological developments and in the levels of usage. What was cumbersome is becoming more accessible, more user-friendly yet sophisticated and is increasingly offering viable alternatives to f2f collaboration.

However, despite these technological advances, with more examples of VAL practice going on than we thought, simple technologies such as email and audio-conferencing are proving successful.

VAL emerges as a variety of action learning in its own right with its own strengths and weaknesses. The practitioners of the various approaches to VAL frequently assert different potential benefits from this way of doing AL. Just as VAL should not necessarily be measured against f2f AL, so one must caution against making assumptions that any one form is necessarily better than any other, even where communication possibilities appear to be restricted. Opinion is divided on whether VAL is a substitute for f2f AL or whether it has advantages that may lead it to being preferred over f2f AL. These arguments await further research and exploration.

Keywords: collaborative, blended, virtual action learning, VAL, action learning, f2f AL

1 Introduction: What do we mean by Virtual Action Learning?

Virtual action learning (VAL) is an emerging variety of action learning practice (Pedler et al, 2005). In action learning, people come together to share ideas and experiences to help tackle real, work-based problems or issues which can effect change in the individual and the organisation. An emergent virtual variety, with its capability of bringing together individuals geographically dispersed within and across organisations to engage in action learning, has obvious potential in both educational and organisational contexts as a means of individual and organisational development in the global context.

But despite this potential, it appears to be under-exploited. In contrast, f2f action learning (AL) has been a growing influence in management education and development in the UK since its origins in Revans' pioneering approach in the UK coal industry of the 1940s and 50s (Revans, 1982, pp 30 -55) and especially since a major initiative undertaken in the UK General Electric

Company in 1975 (Casey & Pearce, 1977). From these origins, AL has proved to be a highly adaptable philosophy, discipline or approach which has resisted precise definition whilst generating many variations in practice in different organizational and educational contexts across the world (e.g. Cusins, 1995; Smith, 2001; Marquardt, 2003; Pauleen & Yoong, 2004; Poell et al, 2005).

As an emerging variety of AL practice, we define VAL as:

'... action learning which takes place in a virtual environment, rather than f2f, via a range of enabling, interactive and collaborative communication technologies'

The opportunity for VAL arises from a confluence of three distinct developments: technological advances; globalisation; and a shift towards context-sensitive, work-based approaches to individual and organisational development. Technological advances, particularly the development of interactive and social communication technologies, have made virtual working much easier. The growth in size and extent of global corporations has made virtual team working increasingly necessary and common, with a greater reliance on virtual teams to solve organisational problems (Gill & Birchall, 2004), which is predicted to become even more prevalent (Paré & Dubé, 1999). VAL can also be seen as emerging in parallel with the virtualisation of many aspects of work, organisation and life, as an example of Bowles's (1975) correspondence theory, which argues that educational practice mirrors the social, cultural and economic conditions of its era - for example, just as the Victorian classroom looked like a room full of clerks' desks, so virtual learning mirrors emerging virtual work practices.

However, whilst technology and educational thinking have developed greatly, educational practice has been slow to adapt to changing ideas about learning, knowledge and its accessibility (Hodgson, 2000, p 4). A lack of understanding of constructionist theories in the design of networked learning is compounded by lack of experience and training in using new technologies to support these approaches. The potential of VAL to address these issues, the lack of evidence of its existence, yet anecdotal interest in it, present the justification to find out whether it is happening and in what way?

The research comprised a literature review, interviews with practitioners and the identification of 20 case examples of VAL practice. The findings detail several varieties of VAL practice and a discussion of the skills and capabilities required in facilitating this form of action learning. A 6 - form model of VAL specifies a range of contexts and frameworks in current use.

2 Varieties of VAL practice

Our findings show that VAL is not a single form but a family of virtual approaches using different technologies and temporalities, all sharing a common allegiance to an action learning way of working (Revans, 1998). A 6-form model of VAL describes this variety based upon the communication media used - text, voice or visual - and how the set meeting takes place, either synchronously or asynchronously (Figure 1).

Figure 1: A 6-Form Model of VAL

	<i>Temporality</i>	
<i>Technology medium</i>	SYNCHRONOUS (participant interaction is simultaneous, i.e within the same finite time period)	ASYNCHRONOUS (participant interaction is delayed, i.e. at different time periods)
Text	<u>Form 1:</u> Instant messaging e.g online	<u>Form 2:</u> Email Text messaging in delayed threaded discussions e.g bulletin boards
Audio	<u>Form 3:</u> Live tele/audio conf Online discussion forums	<u>Form 4:</u> Audio recordings, e.g. podcasts and recorded voice messages

	Online chat rooms	
Visual	Form 5: Video/web-based conferencing	Form 6: Video recordings

However, a detailed examination of 20 cases found soon reveals a complexity beyond the simplicities of this model. For example, the three types of media used - text, voice and visual - are sometimes used alone and sometimes together; the first two of these can be and are often used alone, whereas visual always includes audio and sometimes text. Similarly, whilst the terms synchronous and asynchronous are apparently well understood, the question arises: how synchronous is synchronous? For example, with regard to Form 2, text messaging, there is the issue of delays in responses. We classed as synchronous all instant messaging and discussion forums where participants were all online at the same time and responses were more or less immediate, whereas, where participants were not online at the same time and responses were delayed as in email and other forms of threaded text messaging, we classed as asynchronous. Additionally, synchronous and asynchronous approaches are sometimes used in combination; and all forms of VAL can be used in combination with or alongside f2f action learning.

Nevertheless, despite the complexities, the 6-form classification remains useful; first to demonstrate that there is no single VAL practice but many variations; and also that these categories describe some very distinct alternatives. Just as the efficacy of VAL should not necessarily be measured against that of f2f action learning, it should not be assumed, that for example, Form 5 - Visual/Synchronous - is necessarily better than Form 3 - Audio Conferencing - or Form 2 - Text messaging. As the practitioners of these approaches frequently assert, there are different potential benefits and costs involved, which make such simple comparisons invalid.

Our findings also add an additional dimension to the model. We found one case - as yet unreported - of a VAL trial conducted in the 3D virtual world, Second Life, in 2007 by a PhD candidate at the University of Southern Queensland, which sits outside our 6-form model. Two further examples have subsequently come to light (Sanders & McKeown, 2008; Arrowsmith et al, 2003). 3D (three dimensional) virtual worlds are computer-simulated environments which attempt to follow real world rules such as gravity, topography, locomotion, real-time actions and communication; which has until recently been in text only but now direct communication is also available using Voice Over Internet Protocol (VOIP). Some, such as Second Life, enable user interactions through "avatars" (computer-created graphical representations of people).

Sanders & McKeown (2008) describe a collaboration between the University of Southern Queensland and the Appalachian State University, USA, which they say reconceptualised the teaching of a library sciences course, combining the pedagogy of AL with a 3D virtual learning environment (Activeworlds, Inc.) in order to support interaction and reflection. The authors says 'the student's ability to see other avatars and interact with them encourages serendipitous interactions and promotes a greater sense of presence and co-presence than other text-based learning management systems' (p 51).

Arrowsmith et al (2003) describe a virtual field trip designed for teaching and learning geospatial science at RMIT University, Australia. Using Macromedia software linked to a distributed learning system built around the Blackboard online platform, interactive computer-based exercises are combined with a series of embedded interactive questions relating to the learning objectives. They say that this facilitated action learning and action research, but qualify their interpretation of AL (with reference to Michael & Modell, 2003) as incorporating active learning which establishes a learning environment which students are actively engaged in building, testing and refining mental models.

Some views are already being expressed that 3D virtual worlds offer potential benefits as learning environments and have some advantages over f2f situations. Fans of Second Life, for example, say it engages distance learners in a way that email, instant messaging and chatrooms do not quite manage: "It replaces that sense of immediacy that you have in real life." (Dr Rory Ewins, Edinburgh University in an article in *The Guardian* by Shepherd, 2007)

However, he also notes that “It is early days, and at the moment we are comparing it with email communication ...rather than f2f”. From the same article, a student of Second Life says: “It can bring distance learners together in what feels like a closer physical relationship than other online technologies. I think that collaborative activities are possible in Second Life that aren’t in other online learning situations”; while one 3D character said: “hiding behind your avatar...makes you feel more confident and involved”.

3 Illustrative Cases of VAL

The twenty cases examples found illustrate the varieties of VAL shown in Table 1.

Burns (2001) (Form 3) reports on a ‘virtual action learning set’ using audio-conferencing in British Telecom (BT). This comprised 6 facilitated audio-conferences of up to 2.5 hours in length over a 3-month period. The author suggests that it may be the first recorded example of an action learning set using audio conferencing and is one of the first published accounts to use the term VAL.

A second, well-articulated case confirms the validity and technological simplicity of the audio-conferencing approach. The authors strongly assert the merits of this approach in its own right and cite various advantages over f2f AL:

Caulat (interview and see Caulat & De Haan, 2006) describe their approach as ‘audio action learning’ for sets which follow f2f programmes at Ashridge Management College in the UK, and with sets comprising globally dispersed clients of Ashridge Consulting, participants of which in some instances, but not all, never meet each other or the set facilitator.

E-mail (Form 2) is another simple and reliable technology that can be used for VAL:

Birch (interview) describes the evolution of action learning via e-mail as part of CPD programmes for health professionals run by the University of Brighton. This case is distinctive because the action learning idea was unknown to those concerned when they developed the process as a result of trying to deliver CPD programmes remotely to participants in a range of countries (UK, Canada, Tokyo, New Zealand and Australia). When the course developers discovered the idea of action learning, this encouraged them to improve their approach to virtual group working and to be more confident to letting go of control over content. Virtual action learning via e-mail now forms the basis of an 18-month qualification programme. Like Caulat & De Haan, Birch notes that his participants prefer simpler and robust technologies over more sophisticated but less reliable options.

Most case examples of VAL show it as part of a mix or blend of technologies in use, including f2f AL. There are several examples of web-based sets in conjunction with educational programmes:

DeWolfe Waddill (2006) describes a web-based application on a 5-week course via an e-learning instructional delivery method (“Action E-Learning”). In a prescribed format of week-long discussion cycles, each person posted their issues and put up questions about the other set members’ issues; in the 2nd half of the week people responded to their questions and received more questions. A second week-long cycle followed in which participants could re-post their issue or reframe it based on what had transpired online. The process was facilitated by the author asking questions about learning and supplying resources and information. She concludes that this way of doing action learning has several advantages over f2f meetings.

One of the most ambitious examples we found combined f2f action learning with a range of virtual support processes and technologies

Roche & Vernon (2003) describe a pilot project called ‘Electronic Advanced Learning Sets’ designed to create a virtual learning community for health service managers distributed around remote areas of Western Australia to support service improvement and CPD. Clear preferences again emerged with regard to technologies; f2f was preferred to virtual working, and e-mail and tele-conferencing were preferred to video-conferencing because of access and technology problems.

4 VAL vs. AL?

Opinion is divided on whether VAL is a substitute for f2f AL (“the next best thing to f2f”) where this is impossible or too expensive, or whether this is a new and developing variety of action learning with characteristic advantages that may lead it to be chosen in preference even when f2f AL is also available.

Most of our case study respondents could cite certain advantages which they discerned in VAL. These included:

- “some things work better on the phone if the discipline is there”.
- “Not having eye contact can help with clarification”
- as permitting ‘continuous set meetings’
- the asynchronous online process allows managers time for to reflection without appearing indecisive
- the slower pace enables the questioner to ‘design and examine the question before submitting it’
- the slower and more measured communication allows participants ‘have more time to notice the questions being asked, to think, and to write down’
- it enables individualised attention online from ‘colleagues’ and the ‘learning coach’
- it may facilitate joint working on tasks - ‘I think it could be useful to do things graphically on screen together and capture it’
- it may promote disciplined turn-taking: ‘I think it can work, and may have some special advantages, both practical and in terms of being more disciplined in turn taking’
- participants develop variety of skills in written expression, reflection and question formation
- the process stimulates the virtual workplace and participants learn how to work in a virtual team with agreed norms and netiquette any by asking questions before making statements.

Some, notably Caulat & De Haan (2006), assert these advantages more strongly and make out a case for VAL as a preferred approach.

5 The facilitation of VAL

The facilitation of VAL emerges as a crucial aspect of the process in all our cases and is a preoccupation in many of the published accounts of VAL. The impression is that facilitation is perhaps more important in VAL than in f2f AL, especially in the early stages.

Setting up VAL involves both setting up AL and the enabling communication technologies that distinguish VAL from AL. Some authors highlight the time and effort needed setting up the VAL process, (although this can also be the case in f2f AL). Some authors think that there is no fundamental difference between f2f and e-facilitation competencies, but most suggest that special skills are especially in terms of managing the technology and in managing the AL process within the virtual environment, which includes such skills as helping participants to:

- understand the expectations regarding collaboration
- appropriately self-disclose and share confidences online
- build the rapport, trust and expertise in the virtual environment
- develop virtual communication skills such as higher levels of listening, the ability to sense what others are feeling without visual clues and the restriction on dialogue

caused by a lack of non-verbal cues and a reduction in the exchange of socio-emotional information

- develop reflexivity and social knowledge construction via unpacking and deconstructing the words develop the collective ability to reflect publicly on-line

Given the variety of VAL forms, it is perhaps not surprising that some distinctive stances and styles of facilitation emerge from this research. Whilst multiple stances and styles of facilitation also characterise f2f AL, the alternative technologies for VAL may amplify these differences. Caulat & De Haan (2006) for example teaches her participants specific skills and practices in order that they may work successfully in audio action learning sets which are sometimes stranger groups without any f2f experience of each other. Burns (2001) by contrast, using the same technology but with a group who already know each other, takes a more traditional f2f AL facilitator role as his model, whilst detailing several new skill requirements. DeWolfe Waddill (2006) takes a directive and teaching role in a higher education setting whilst Powell (2001) takes on more of the initiator role who aims to leave his sets to choose to continue in a self-supporting mode.

6 Conclusion

Given the apparently scarce evidence of VAL practice when we embarked on this enquiry, we have uncovered an increasing amount of activity, not all of it called VAL or set up expressly for the purpose of doing action learning virtually. At the start of this research, October 2006, existing technologies for Form 5 VAL (synchronous visual) seemed very limited in what they could deliver. At the time of writing (July 2008), there have been considerable advances both in technological developments and in the levels of usage. What was cumbersome is becoming more accessible, more user-friendly yet sophisticated and is increasingly offering viable alternatives to f2f collaboration.

From the cases examined, and with the technologies currently available, VAL is evolving within 4 of our 6 forms, with the majority of cases occurring in Form 2 - asynchronous text. This is the only asynchronous form in evidence; perhaps not surprisingly there are no examples found of Forms 4 and 6 - asynchronous audio or visual ie use of recordings. What is surprising is the predominance of asynchronous text amongst our cases, perhaps reflecting the ease of use, the relatively low demands on time and the wide availability of access that this medium allows.

This is connected to another finding, that where technology is concerned, it is often a case of the simpler and more robust the better. This is apparent both from the literature and from conversations with respondents and case accounts, for example with both audio conferencing and text messaging. VAL is not necessarily dependent on more sophisticated or combined technical solutions because these single technologies have proved effective. As Birch (Case 3 Interview 2007) notes: 'Compared to other technologies none have worked anywhere near as well as email' and "it needs to be easy and to be easy quickly".

Another surprise is that, contrary to our expectations and much of the literature reviewed, meeting f2f first is not necessarily essential for effective virtual collaboration. Whilst this must be a very tentative finding given the slimness of the evidence available, the cases here where VAL exists without an f2f element, report as much success as those that are supplemented by f2f meetings.

VAL emerges as a variety of action learning in its own right with its own strengths and weaknesses. As noted above, the practitioners of the various approaches to VAL frequently assert different potential benefits from this way of doing AL. Just as VAL should not necessarily be measured against f2f AL, so we must caution against making assumptions that any one form is necessarily better than any other, even where communication possibilities appear to be restricted. Opinion is divided on whether VAL is a substitute for f2f AL or whether it has advantages that may lead it to being preferred over f2f AL. These arguments await further research and exploration.

7 Prospects

It is likely that easily available laptop-based netmeeting software will emerge soon, and with it a sustainable delivery platform for Form 5 VAL. This could presage a massive increase in the use of such technologies for all sorts of virtual meetings, including VAL. The rapid technological developments suggest that VAL will flourish in circumstances where f2f AL is difficult or expensive or as an alternative with its own advantages as claimed by some respondents. However, although VAL has obvious potential in the global context for both education and organisational development programmes, it appears currently under-exploited. One explanation for this may be found in correspondence theory (Bowles, 1975), as already mentioned in the Introduction, that educational practice mirrors work practices. This leaves the question: which drives which? Does educational practice change work practices, or follow it? Although educationalists might like to believe the former, if anything, the latter seems more true.

In terms of higher education and business schools, the possibilities afforded by this confluence of technological advances; globalisation; and a shift towards context-sensitive, work-based approaches to learning, are considerable, especially for those who can adapt their teaching and learning approaches. Current trends in higher education are moving from more didactic content delivery towards constructionist student-centred models, with an increasing emphasis on the skills that support independent, self-motivated learning (Hobbs et al, 2006): a trend Hobbs says (reported at length in the Tavistock report (Cullen et al, 2002)) is increasingly facilitated by dedicated educational software to create virtual learning environments (VLEs) which provide access to online materials as well as supporting collaborative learning by providing areas where students can comment, contribute and share their learning.

For business schools in particular the quality of the learning experience is a key differentiator in a global marketplace. Surveys suggest that whilst client organisations increasingly utilise "context specific" methods such as action learning, coaching and mentoring in their own internal development practice, or in the services they buy from consultants, many business schools continue to rely upon more traditional methods (Thomson et al, 1997; Mabey & Thomson, 2000; Horne & Steadman Jones, 2001). Such methods persist despite growing criticism (Mintzberg, 2004) perhaps because Business School staff lack the skills associated with the newer approaches. Whilst some staff are aware of the newer learning theories that provide the theoretical underpinning for action learning approaches, this is not usually reflected in their practice. (Hodgson, 2000; CEML Reports 2002)

A viable VAL model would create a number of opportunities for commercial and educational providers as part of the move from dissemination to more dialogical approaches to learning. In such contexts, VAL could facilitate various possibilities, for example:

- providing an on-the-job link between theory-based teaching and the actual business problems faced by participants
- providing in-organisation or consortial cross-organisational learning sets on a local or global basis
- offering Continuing Professional Development (CPD)
- helping organisations develop internal capacity to deal with problem-solving and innovation.

With increasing numbers of people embracing the internet, and employers wanting informal, flexible learning experiences for their employees, focusing on the needs of their business, VAL can be a cost-effective solution.

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