

Transforming Teachers' Practice Through Action Learning

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SECTION: TVET PROFESSIONAL DEVELOPMENT

11.13 Transforming Teachers' Practice Through Action Learning

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This chapter critically appraises the potential of action learning as a professional development strategy for teachers. Using the case of a professional development program which prepared vocational teachers to become industry consultants, the chapter examines the potential and the impediments of this approach to managing change in technical and vocational education. The chapter commences with a brief commentary on individual change or learning from cognitive and social constructivist and change theory perspectives. Next, the case study is described and findings from an evaluation of the program are discussed. Finally, some conclusions are drawn about how the action learning based approaches to educational change might be best enacted and evaluated.

TEACHERS AND CHANGE

Technical and vocational educators are being asked to confront and adapt to change in order to find new ways of preparing their students for a world of work. That world is characterised by change in the kinds of work to be undertaken, the requirements for the work, and those who are working (Billett, 2006). There are also changes brought about by governments who want vocational and technology education to achieve their policy goals, such as economic competitiveness and efficiencies, in particular ways. Consequently, the change that teachers are requested to undertake and implement often has its origins elsewhere. Yet, often the expectation is that teachers will implement these changes with enthusiasm and being faithful to their sponsors' intent. Moreover, there appears to be a belief among

government and industry stakeholders that teachers will implement innovations as directed. Such a view denies how teachers, like other workers, think, act and decide how to deploy their energies in the effortful activity of learning and changing their practice (Billett, 1995). Individuals' motivation and interest play a key role in their engagement in effortful activities, such as learning new practice (Billett & Pavlova, 2005). Unless they hold a belief about the potential accrual of benefits from such activity, their engagement in and learning of these new tasks is likely to be superficial, at best. Furthermore, because technical and vocational educators often practise within the privacy of their own classroom or workshop, even superficial compliance to the requests of government and industry may well be restricted to the public aspects of practice (Logan, 1988). Therefore, and given the relative autonomy of teachers' practice and their control over their learning, this raises important questions about how educational change can best be managed to engage teachers in effective learning and becoming committed to new practices, such as those required to assist students to make a successful transition to the world of work.

This chapter discusses a case study in which an action learning based program was used to develop vocational educators' skills to work as industry consultants. It is claimed that management of change in teachers is not just about getting them to adopt faithfully the changes in practice arising from imperatives derived elsewhere. Instead, the management change should be about developing teachers' capacities and dispositions to implement these innovations successfully, and through success with that implementation gain commitment to them. Therefore, processes that aim to foster change in teachers (i.e., professional development initiatives) should be primarily focussed on teacher learning and development. The assumption within this chapter is that the innovations teachers are asked to adopt are worthwhile and justifiable. However, this may not always be the case. Teachers are sometimes asked to implement initiatives that they view as lacking credibility and utility, which renders greater difficulty in securing the kind of commitment required for the enthusiastic enactment of these initiatives that their sponsors desire.

What is advanced here is that gaining teachers' commitment to educational change is premised on their ability to implement the innovation successfully, thereby resulting in the adoption of the innovation as part of their practice and becoming committed to it. Commitment here is more than enthusiasm for a particular innovation. Instead, it includes a belief on the part of teachers that the innovation is worthwhile and can assist with the effectiveness of their practice (McLaughlin & Marsh, 1978) and that the individual has appropriated the worth of this innovation (Luria, 1976). Underpinning this commitment or appropriation is the development of the knowledge required for the successful implementation of the innovation. It is these attributes which provide the ability for teachers to function in the changed circumstances (Guskey, 1986). Hence, the management of change requires more than briefing sessions about the virtues of a new initiative: it requires the provision of opportunities for teachers to learn the knowledge

required for successful performance with the innovation. So, approaches to managing change need to include the learning required to effectively implement that change.

Moreover, as adopting changed practices is the product of individuals' learning and development, even innovations aimed at transforming institutions need to view this form of change as an intimate and personal process involving individuals' competence and well-being (Fullan, 1985). Change has been described as "little deaths" (Kindler, 1979), with transformational change causing the greatest concerns to those affected by it. This is because it might take away or threaten to take away from individuals the very circumstances with which their confidence is embedded. Therefore, deliberations about the management of change at both educational innovation and institutional transformational level must view individuals' learning and development as the primary source of change. The focus in this chapter is therefore on the management of individual change through learning and development.

The chapter is structured as follows. Firstly, the management of change through learning is discussed. Next, the case of action learning as a method of professional development is discussed. Then, a case study of action learning being used to support teachers' learning and development of a new set of skills is presented. The chapter concludes by arguing that the management of change is premised on the provision of learning and development for teachers.

TEACHERS' LEARNING AND DEVELOPMENT

As foreshadowed, the process of securing effective change in teachers is seen as a process of individual learning and development. In particular, the need for teachers to develop the capacities required to implement a new initiative or practice with success, thereby developing commitment to it, is seen as essential. These capacities are premised on securing the dispositions (i.e., values, attitudes and beliefs) appropriate for the change. Knowledge which comprises levels of propositional (*knowledge that*) and procedural knowledge (*knowledge how*) are also primary elements within this framework (Anderson, 1982). Propositional knowledge comprises information, facts, assertions and propositions, whereas procedural knowledge comprises techniques, skills, and ability to secure goals (Evans, 1991). Procedural knowledge has a hierarchy from specific autonomous procedures to higher orders of procedural knowledge, which are postulated to have an executive role in organising and transferring knowledge and understandings (Evans, 1991).

The role of "non-cognitive" dispositions, such as values and beliefs, is being increasingly acknowledged in understandings of individuals' learning (Perkins, Jay, & Tishman, 1993). Values determine the quality of individuals' actions, for instance, shaping the degree and focus of their

efforts when engaged in a goal-directed activity, such as learning a new task. As Goodnow (1990) reminds us, people learn not only to solve problems, but also what problems are worth solving. It is through their engagement in active conscious thinking and acting that both learning and the commitment to what has been learnt likely arise.

It follows that learning is held to be a constructive process with individuals actively acquiring knowledge and understanding through interaction with the world they experience (von Glasersfeld, 1987). This constructive process is initially idiosyncratic, being founded on the unique personal history (ontogeny) of the individual (Rogoff, 1995). However, through social mediation that knowledge becomes more commonly understood and communicable (Newman, Griffin, & Cole, 1989). That is, there is a movement towards inter-subjectivity or shared meaning. Learning is therefore conceptualised as a processes of constructing meaning and making knowledge viable through a process of engaging in activities within social practice. As Piaget (1968) would say, individuals make sense of what they experience by either assimilating it into their existing knowledge (i.e., refining and reinforcing what they already know) or by extending those structures to accommodate new stimuli and experiences (i.e., forming new learning). This suggests that to learn something new requires processes that extend individuals' existing knowledge. If the learning process encourages only assimilation type of learning, the outcomes are likely to be weaker than if accommodation is achieved by pressing the individual into generating new knowledge and knowledge structures. Yet, generating new knowledge is far more effortful and demanding than reinforcing what we know, as in assimilation. Therefore, learning to adopt new practices is unlikely to occur if teachers remain unconvinced and lack the ability to successfully implement the initiative, and therefore will not exercise the effort required to secure that new knowledge.

Views that suggest learning is a matter of construction, rather than instruction, propose the need to guide individuals' learning rather than directly teach them. Innovations in approaches to instruction such as Reciprocal Teaching of Comprehension (Palinscar & Brown, 1984), Cognitive Apprenticeship (Collins, Brown, & Newman, 1989), Apprenticeship Instruction for Real-World Tasks (Gott, 1989), Apprenticeships in Thinking (Rogoff, 1990), Legitimate Peripheral Participation (Lave & Wenger, 1991) and Guided Participation (Rogoff, 1995) all emphasise the importance of close guidance, rather than direct teaching, in supporting learners' construction of knowledge. They also emphasise the importance of placing learners in roles in which they are pressed to take responsibility for and expend effort in constructing the knowledge they need to learn, albeit guided by more expert others.

Consequently, the instructional role becomes one of organising and guiding the learners' experiences to permit them to construct appropriate knowledge and understanding. Such a proposition extends the concept of good teaching practice of "making sure the learners are doing the thinking", to making sure that their thinking is guided towards the effective

organisation of viable knowledge, through social mediation. This change in emphasis of the instructional role is underpinned by von Glasersfeld's (1987) notion of reinforcement. Reinforcement is usually associated with external statements of endorsement or rewards by teachers or experts, as characterised within behaviourism. However now it needs to be equated with learners achieving a satisfactory organisation of knowledge – ontological security – a viable way of dealing with experiences that are novel and securing a fit with or extending the individual's knowledge. This does not negate the value of extrinsic rewards, such as verbal reinforcement, but suggests that this is secondary to the inherent rewards that the learner enjoys from reinforcing and extending their viable knowledge base: the exercise of their personal agency and epistemology (Smith, 2005).

Given these views about learning and cognitive development, a useful way to describe and evaluate instructional processes is to consider them in terms of engagement and support. Activities are what learners engage in, and support is that derived from either direct or indirect guidance that is provided to learners, and that they elect to engage with. In the following section, action learning as a developmental methodology is described and discussed in terms of being able to meet these prescriptions for effective learning. Following that, this methodology is evaluated using agency and activity as units of analysis. This investigation draws upon a range of empirical research from cognitive psychology, cultural psychology, and sociology.

Action Learning: A Professional Development Method

Action Learning is commonly used as a professional development method for teachers. It is seen as an active learning process in which the learners engage in projects with peer-learning support arrangements – referred to as “sets” – and, in some cases, external facilitators or content experts. The aim of the process is for the individual to secure particular kinds of learning through engaging in project work. Importantly, the intent is for them also to reflect upon the learning process through which they extend their knowledge further. Action Learning has been defined as “a means by which people learn with and from each other by attempting to identify and then implement solutions to their problems / issues/ opportunities” (Revans, 1982, p. 65). This model of learning was developed after the Second World War when British industries were short of experienced managers. Revans had recognised the ability of people to work and learn together productively and effectively in times of common concern. Consequently, he developed a method to support learning based on the development of “responsible risk-takers” who asked themselves and their peers a series of questions about the problems they faced in their workplace. The questions were used to clarify problems and to determine likely solutions that were not bound by existing expertise or theory. In this way, the method is proposed as a practical

strategy that values practice-based learning. It is primarily concerned with pragmatic and instrumental goals associated with improving practice by assisting learners to engage in, learn through and examine their practice through reflection on that practice. This reflection process seems important because it has the capacity to press learners into constructing new knowledge (i.e., accommodation rather than assimilation). Significantly, many earlier theories about adult learning (e.g., Knowles, 1984) emphasised the assimilatory aspects of adult learning with a primary concern to protect learners' self-concept. This concern arose out of clinical-based approaches to development which sought to protect the learners' self-esteem and minimise the impact of change by finding meaning within their existing knowledge. This approach guarded against transforming individual knowledge, which it saw as being a psychologically risky undertaking.

However, contemporary approaches suggest that it is important to extend individuals' knowledge through their own efforts and construction, albeit guided by more expert partners. Hence, both guidance and critical reflection are held to be important approaches that can extend and transform individuals' knowledge when securing particular kinds of knowledge in response to a practical requirement (e.g., that required for successfully implementing a new practice). The process of reflection or questioning insight, as Revans (1982) called it, is central to Action Learning. It aims at assisting to convert a specific learning experience into one that extends understandings and efficacy of practice. In doing so, the Action Learning approach places considerable responsibility on the learner to engage in the kinds of activities required to secure their goals, albeit with their activities as learners being mediated by peers, experts and the requirements of the project tasks. This mediation will likely also provide a form of indirect guidance which is often under-acknowledged. However, learning theories recognise that much of the knowledge that needs to be learnt has a social and cultural genesis, and does not arise from within individuals. It needs to be accessed through interaction with the social world. In relations between trades workers and apprentices, for instance, there is an acknowledgement that the more experienced counterpart provides access to knowledge that the individuals could not learn through discovery alone (Rogoff, 1990). However, Action Learning as a method does not have as a key element this access to expertise. Instead, it uses a facilitative approach, and relies to a great extent on the agency and personal epistemology of the learner.

Consequently, in seeking to evaluate Action Learning it is necessary to identify whether this lack of access to expertise represents an impediment to learning.

Managing Teacher Change: Activity and Mediation

The interaction between individuals' engagement in activities and the support they can access from social sources is a central consideration for

developmental processes. Dewey (1916/1970) suggested that the most central significant events in learning and performance are mediated experiences and events related to their adaptive function. This suggests that internal mental processes interacting with tangible purposes or functions are central to effective learning. Or, put more succinctly, the activities individuals engage in influence organisations their thinking (Rogoff & Lave, 1984). Learning arrangements which place the participants in the active role of initiating, planning and managing their learning are conducive of developing these attributes. It is proposed that when learners are pressed into taking responsibility for their learning they develop and organise knowledge effectively, and learn to manage the use of that knowledge.

If activities structure cognition, then the quality of the activities becomes important. In developing competence in an area of vocational practice it is highly desirable for staff to access authentic activities, that is, those which are the same as those in which the targeted knowledge is deployed, not substitute or simulated activities. Consequently, projects which provide the participant with an authentic activity in which they can develop procedures that are authentic are likely to be purposeful for constructing knowledge associated with that activity (Billett, 2001). Moreover, the knowledge that individuals need to learn often has a social genesis. This is particularly true of knowledge arising from the social world, such as educational initiatives. It is becoming increasingly accepted that the activities are embedded in socio-cultural practice (Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991; Rogoff & Lave, 1984). Indeed, one of the problems with learning arrangements that are substitute (e.g., training-room or school-based activities), is that they tend to generate knowledge and understandings based on the requirements of the training-room or school rather than practice, and as such may not transfer to practice (Billett, 2001; Raizen, 1991). That is, forms of knowledge are shaped by particular circumstances and do not readily transfer to circumstances and situations which are remote from those in which the knowledge was acquired. Access to authentic activities may reduce this transfer problem (Billett, 2001); however, activity alone is not sufficient. The mediation of the learners' experiences by others, expert others and the context are essential ingredients of learning arrangements (Collins et al., 1989).

It is becoming widely accepted that there are social bases of cognition (Goodnow, 1990). This implies that guidance of a direct nature (others and expert others) and an indirect nature (the social and physical context) are important for the construction of knowledge. Recent research and theorising has increasingly focussed on the role of external factors and, particularly, the social and cultural contributions to learning (Brown et al., 1989; Collins, et al., 1989; Lave & Wenger, 1991; Rogoff, 1995). Rather than being solely the product of internal mental activity, the development and organisation of these cognitive processes and structures are influenced by external factors such as social interaction and cultural practices. Within Action Learning, social mediation is evident in the contributions of others in the learning set, expert others external to the set and the facilitative actions of

set advisers.

So, in summary, constructivist views of learning which emphasise the importance and authenticity of activity, social mediation, engagement in social practice and reflection appear to be partially addressed by the action learning, although it tends to emphasise the agency of the participant over securing access to experts required from whom the knowledge to be learnt can be accessed and learnt. Therefore, on its own terms, the Action Learning approach to learning and development appears to offer an array of attributes by which teachers' knowledge can be extended to accommodate and implement innovations.

A case study of teachers' participation in an Action Learning program is described and evaluated in the next section. The evaluation provides a basis for considering the efficacy of this approach to learning and how its potential might be fully realised.

Managing Change: Industry Consultant Training Program

The Industry Consultant Training program was used to prepare practicing vocational teachers for a role as industry consultants working in a fee-for-service role, providing educational services to enterprises. The program commenced with an induction phase, comprising a 2-week workshop. This was designed to prepare participants by providing information about their role and the industrial environment and to introduce them to the Action Learning methodology that was to support their change to become consultants. In addition, information about the procedures that the participants would have to acquire to become effective consultants was stated, as goals for their self-development. These procedures included project management, costing a project, presentation of a project and business planning. The arrangements for teacher-consultant development, beyond the induction phase, were based on group Action Learning processes, or sets, organised by regional locations. These groups, the project, support from mentors and senior consultants, and the support arrangements provided by the teacher-consultants' host vocational college were the core components of the change management strategy. Beyond these was the agency of the participants. The participants' roles included: (i) attending weekly meetings with their support group; (ii) participation in activities determined by the group; (iii) completing a learning contract; (iv) working on a designated project for two days a week; and (v) liaising with the college mentor. When the program commenced there were few experts available to mentor participants because consultancy was relatively new within the vocational education system. However, some later groups had access to colleagues or mentors who had enjoyed success in the program, and gone on to successfully manage industry training projects. Participants were selected by their host college. During their participation, they were released from normal

work duties for three days a week, over a period of 20 weeks. On one of these three days the participants met as an Action Learning group to discuss issues and arrange access to expert advice; this advice was usually provided by a content specialist external to the group and each group was given a budget to secure these services. The other two days were taken up working within projects. During the later part of their release, the participants were intended to be working for the entire three days per week on a project. However, not all participants were able secure complete release and some reported having to balance a range of commitments, particularly teaching duties, with their participation in the program. Some participants also reported that projects were not readily available or provided. These participants sometimes had to canvass for and locate their own projects within industry.

Support was available at two levels during the 20-week program. Each participant was under the guidance of a Senior Consultant who had a “regional” responsibility for a group of participants from a number of colleges. The Senior Consultants’ role included: (i) monitoring the total group and individuals within the group; (ii) bringing in extra (specialist) assistance; (iii) being a point of reference; and (iv) meeting with the group one day per week. Access to these consultants and their attributes was frequently reported as being a key determinant for successful participation within the program. Each participant also had a college-based mentor. The role of the mentor was designated as: (i) providing practical advice and assistance; (ii) guidance and support; (iii) monitoring participants’ progress and performance with projects; and (iv) meeting with Senior Consultants and the Project Manager as required. It was recommended by the organisers of the program that the college-based mentor have fee-for-service experience. However, as stated above, and particularly in the first program, not all mentors possessed appropriate experience or expertise in consultancy activities. Other support processes were utilised when either the content or the process skills of the mentor were not viewed positively by the participants. Typical amongst these was a reliance on peer support within the learning sets and advisory processes.

Although continuing to use an Action Learning methodology, the developmental strategy of the program was transformed over the 3-year period of its offering. Both participants and mentors reported that, over this period, the developmental process moved from being less structured to becoming increasingly highly structured. This change was apparently in response to two different demands. Firstly, the administrative system’s demand for accountability and the need to provide formal recognition influenced the nature of the program, with a growing emphasis on formalised written assessment items. Secondly, the design of the program was, in part, dependent upon the preferences of the participants who, for a range of reasons, appeared increasingly to demand greater structure in the second and third years of the program. Reasons advanced by observers for this change include a “less-ready” group of participants, demands of formal assessment and also the increased homogeneity of the participants. Of

particular interest here was the readiness of participants to engage in self-directed forms of learning and development.

Participants in the later programs were also asked to develop a learning contract in conjunction with their college-based mentor and Senior Consultant. A number of these participants reported that the learning contract was difficult to negotiate and achieve because of uncertainty with projects and the unknown qualities of the project work being undertaken. Some respondents noted that the contracts were “forgotten about”, because they were unrealistic or perceived as being inappropriate accountability measures.

Evaluation of the Action Learning Methodology

The Industry Consultant Training program was evaluated to understand: (i) how best this methodology might be used; (ii) what would inhibit its success; (iii) why this methodology should be used in place of another approach; and (iv) when it would not be useful. Respondents accessed in the evaluation were ex-program participants and some mentors. Face-to-face and telephone interviews were conducted with individuals and groups of participants from vocational education colleges. In particular, telephone interviews were conducted with non-metropolitan participants in the program to determine if their relative isolation influenced participation and success in the program. Some diversity was evident in perceptions about the Action Learning process. The differences included views about the levels of readiness of participants, the processes to select participants, the support given by sponsoring colleges, the quality of mentors and also individual perceptions of the usefulness of the methodology. These responses provided a basis for delineating strengths and weaknesses of the methodology for its use in educational settings, and furnished some overall propositions about the efficacy of Action Learning as a teacher development methodology.

Summaries of the data pertaining to the outcomes, utility, conditions for success and those inhibiting success, and the qualities of Action Learning are provided in the next section. These categories were the focus of the questions in the evaluation.

Outcomes of Action Learning for the Participants

Respondents stated that different types of knowledge had been generated through participation in the process. It was claimed that propositional knowledge (factual information or *knowledge that* such as knowledge about industrial relations, current government initiatives, networks, contacts, college system concepts about consultancy; etc.) had been acquired through the Action Learning process. Moreover, activities that assisted access to procedural knowledge (means of securing goals and completing tasks or

knowledge how) had also been undertaken. Consequently, procedures such as: writing skills and writing proposals; consultancy skills; transferability of existing skills; participating in group decision-making; project management; basic costing; “people skills”; and communicating with different groups of individuals were acquired. When comparing the types of knowledge accessed, it seems that procedures were associated with more transferable or robust outcomes than was the propositional knowledge accessed. Moreover, dispositional attributes associated with consultancy were also claimed to be generated through participation. These attributes included confidence to go and talk to clients; changed attitudes to responsibility for learning; and valuing group support.

These responses indicate that a range of knowledge types was developed by participants. What the data indicate is that stateable propositional and some forms of procedural and dispositional knowledge appeared to be accessed by participants. This is perhaps not surprising for an activity-based approach to learning such as Action Learning. While development of the three knowledge types is positive, there remains the concern that without reflection on practice the development of the propositional base may be neglected.

Utility of Action Learning Process

The utility of the Action Learning process has been characterised as providing involvement, activities, reflection, group processes, self-evaluation and relevance in the data. The consequences of these factors are summarised in Table 1. The perceived utility of the Action Learning approach adopted in this program is depicted in this table.

Table 1. Perceptions of the Utility of Action Learning

Factor	Consequence
<i>Involvement</i>	engaged learners into activities and pressed them into problem solving allowed the learners’ stage of development or readiness to be addressed, and allowed progress determined by learner encouraged risk taking made learner responsible for own decisions and actions
<i>Activities</i>	relevant, practical and challenging authentic demands achievement related to activities
<i>Reflection</i>	provided a basis for reflection required participants to look at themselves
<i>Group Processes</i>	support of group valued - learnt from others - discussions everyone was equal in groups
<i>Self-evaluation</i>	had to be self-monitoring - flowed from motivation and enthusiasm allowed for continual checking of progress
<i>Relevance</i>	the learning activities were highly relevant

This table yields an account of the potential of this approach to engaging learners in authentic socially-mediated learning activities that press them into activities, share processes of knowledge generation and develop a capacity for self-evaluation.

Conditions to Make Action Learning Successful

The respondents were asked about the conditions required to make Action Learning successful. Their responses were classified under the categories synthesised from the data. The conditions which contribute to the categories are summarised in Table 2; they emphasise participant qualities, skills of mentors and qualities of the learning experiences.

Table 2. Conditions to make Action Learning successful

Categories	Conditions
<i>Participant Qualities</i>	self-directed analytical ability ability to make and use judgements action orientated
<i>Skilled Facilitators</i>	experienced - available - willing - encouraging knowledge of tasks to be learnt - able to present alternatives non-directive in style able to provide a range of support empathetic with role
<i>Management of Action Learning Process</i>	selection of participants - inform them of their role and expectations support with project - provision, guidance and feedback clear expectations and reporting mechanisms - specify outcomes - agreed objectives - agreed time lines senior management support
<i>Learning Experiences</i>	support with project – back-up when undertaking project access to project - ideal project would have beginning and attainable end foster responsibility

The combination of conditions outlined in Table 2 emphasises the qualities of the individual and the kinds of support that they received. Yet, even when there were highly directed individuals, without the adequate provision of appropriate support, it seems that their learning was less effective. For instance, it appears that a number of vocational colleges supported their participants effectively by placing them within specialised commercial or industry training units. However, it was reported that some participants were not able to practise the skills developed during the program. So, just as not all mentors had the full complement of skills and experience, not all host institutions provided the opportunities for the participants to engage in the types of activities and enjoy the sort of support which enabled them to

develop their knowledge of consultancy.

Conditions which Inhibit Effectiveness of Action Learning

The conditions likely to inhibit successful participation in Action Learning are summarised against each category in Table 3. Again, the responses to this item have been classified under categories synthesised from the responses. Here too there is an emphasis on a combination of individual and organisational factors.

Table 3. Conditions which Inhibit Action Learning

Categories	Conditions
<i>Participants</i>	may come from a culture which has not encouraged: risk taking, critical reflection, innovation, and being entrepreneurial lack of critical skills dependency on highly structured approach to learning Inappropriate Selection lack of readiness lack of motivation
<i>Organisation</i>	lack of support unavailability of project lack of sponsorship - arrangements made so participation can occur lack of strategic vision
<i>Pressure from participants</i>	requests for too much structure in learning process overly specific framework may inhibit the sort of outcomes desired from Action Learning
<i>College Culture Mentors</i>	not conducive to change or support of change quality of mentors - content knowledge and process skills

Although reflecting concerns similar to those depicted in Table 2, the data here provide a basis for considering the importance of selection, conditions for educational institutions offering such programs and the demands of participants which may need to be addressed to secure effective learning.

Preference for Action Learning Against Other Approaches

The respondents were able to identify why Action Learning was preferable approach to teacher development. It was claimed in the data that this preference was attributed to:

- learning by doing – “you cannot learn to be a consultant by just listening – it’s not the same as being involved”;
- the belief that the only way to develop the skills is to make it all interact; requiring you to think and become more actively engaged;

its being a highly active process; and its turning theory into a practical exercise.

These statements of preference emphasise acquisition of procedural knowledge through participation in goal-directed activities associated with the goals of the developmental program.

However, other data emphasised that with a lack of support, participants might find themselves in situations that were beyond their existing competence and could result in negative outcomes for them, thereby inhibiting further development. Moreover, the development of some forms of propositional knowledge required didactic type approaches of instruction that were not accessible to all participants. This was the kind of knowledge that these individuals would not learn by discovery and collective problem-solving alone. The respondents suggested the following list of circumstances in which the use of Action Learning would be inappropriate. These circumstances are when:

factual (conceptual) information is privileged;

risks are too great to warrant experiential learning;

other methods work better to provide information; and

the environment is all wrong (i.e., not supportive).

So this set of outcomes from the evaluation of this program has provided a basis for considering the potential and limitations of Action Learning to manage the effective development of teachers through assisting them in learning new practices. In the concluding section, some key issues are teased out and conclusions offered.

MANAGING TEACHER CHANGE

From the above, with careful management and some change, the action learning method has the potential to provide access to and assist with the development of the types of knowledge that are required for the continuing development of vocational and technical teachers. The reflective process, if used effectively, may provide a basis for strong conceptual growth in individuals and make the learning process transformational. To what degree it is possible to organise reflective activities as a structured component of the Action Learning process remains unclear, because it is a process which is dependent largely upon the participant. However, as a learning process which features guidance from either peers or mentors while engaged in authentic tasks associated with work practice, Action Learning has a range of benefits to offer in the development of professional expertise. In order to realise its potential, there are certain activities and practices that need to be enacted. These include the readiness of the participants to engage in this kind of independent and collaborative learning, and the quality of guidance for participants.

While it is not necessary for participants to be familiar with Action Learning it would seem that selection and induction processes need to

acknowledge the autonomous nature of the learning arrangements and prepare participants for this role. Ideally, participants should be asked to justify their inclusion in a developmental program and being part of a socially-mediated process. This might assist with choosing participants who are most ready and prepared to learn in the self- and group-directed manner demanded by Action Learning. Ultimately, learning is a highly individualised process and the interests and motivations of the learner are key determinants. A strong focus in the induction phase about the nature of autonomous learning and its responsibilities may be helpful here. This might include the benefit of seeking and securing appropriate support and guidance.

The support and sponsorship of the participants' host vocational college was also a key determinant. Participants from colleges where supportive arrangements were available reported benefiting from access to projects, interest by senior staff, access to mentors and having clear and practical goals to achieve. These colleges had clear intentions for the use of the consultants and had planned the integration of the participants in their strategic directions. The converse of all the above was also true when colleges' disinterest about their nominee's engagement and support resulted in the outcomes for the participant being limited.

As individuals' readiness to participate in the Action Learning model of development is likely to be quite different, support is necessary to monitor their progress, provide support as required and then to fade when the support is no longer required. Participants will respond quite differently to the challenges of autonomous or group learning arrangements. The degree of support available is likely to be differentiated according to the readiness of participants, and depending upon how they progress. However, while differentiation is required, it is still necessary to maintain the principle of giving the participants a task within their overall capability, yet one that will push them to the limits of their capability and will require action, thereby extending the learner and providing a basis for reflection. So the key principles of Action Learning should not be compromised: rather, the management of learners' readiness needs to be taken into account in induction procedures to build a level of guided support which, over time, extends the participant to achieve the program's goals. The support of mentors is, therefore, crucial. A development model to be considered by mentors is that provided through the use of modelling, coaching, scaffolding and fading (Billett, 2001; Collins et al., 1989).

The degree to which group activity will play a major role will be determined by the preferences of participants and access to other forms of support. However, at its most modest level, group support for the learning sets will probably provide the most practical and realistic form of reflection on action. At its greatest potential it will provide a forum for modelling, comparing development, and clarifying socially-determined knowledge and making it congruent. It was these kinds of interactions which were identified as being useful for small business operators to learn through (Billett, Ehrich, & Hernon-Tinning, 2003).

It can be seen from the theoretical discussions advanced initially and the data from the evaluation that followed, that Action Learning provides a basis for extending the individual's existing knowledge in order to adopt innovations, if managed in the ways indicated above. Yet some additional emphasis may be required within the Action Learning approach. It seems that a weakness of Action Learning in pushing the learner into the process of accommodation, is the access to more expert others and reflection. If the social mediation is only through the learning set, this may have limitations in terms of the being able to access what is hidden and may remain unknown through experiential learning. Here, perhaps expertise might be required. Moreover, an expert can provide a sophistication of guidance which is beyond that which can be acquired through peers. This is particularly the case in making accessible that conceptual knowledge which would be otherwise inaccessible. It would seem that Action Learning may privilege the development of procedures over concepts. So, while the experiential and shared nature of "learning sets" are important, they are likely to be enhanced by access to particular expertise. A purely experiential approach to teacher development may lead to assimilation rather than accommodation, as expert guidance and reflection are likely to be salient in the generation of new cognitive structures when kinds of knowledge to be learnt are known about and have been proven through time and practice. This is perhaps more likely to be the case if reflection is also without social source and mediation. Therefore, it is held that close guidance by more expert others be considered to complement the social mediation of the learning set.

In conclusion, from the constructivist perspective, Action Learning – although instrumental – provides an array of attributes (e.g., authenticity, social mediation, engagement) which are conducive to the development of the range of knowledge required for practice within a domain of activities, such as becoming a consultant. The major emphasis on guided learning also recommends this approach and posits it within current views about how individuals construct knowledge. This can include the use of the more expert partner. It has been advanced here that managing change is primarily concerned with the development of the capacities to be successful with the changed practice. Without the development of vocational and technical teachers' ability to succeed with innovations, it would seem that many governmental innovations and changes to practice required to support students' learning may remain only as intents. At the centre of even the most instrumental approach to the management of educational change is teacher learning and development, because ultimately it is the teachers who are the curriculum makers, and initiators and enactors of change.

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