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Developing managers as researchers using a learning cohort approach

by

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Abstract: *This paper describes the design process and curriculum for a learning cohort of eight managers who came from public and private providers of vocational education and training. While the authors found no discussion on developing research knowledge and skills for managers using learning cohorts, the general learning cohorts literature provided a number of recommendations for learning cohort design,. The initial stages of the learning cohort were evaluated. The results highlighted the importance of clarifying the psychological contract and its use in self-selection, supported the recommendations in the literature of the significance of the careful design and implementation of an initial residential workshop and also found support for further residential workshops of a similar design. The attendance of the cohort members in two faculty wide core research units drew mixed comments.*

This paper reports on a case study which discusses the design and the preliminary stages of developing a cohort for a research masters program that was facilitated using a learning cohort approach. The initial request for the program came from a senior manager of a government department (department) responsible for vocational education and training (VET) in the State of Queensland. He saw an urgent need to develop key staff, including managers, as researchers.

An important corollary to this management development was that the new knowledge and skills had to focus on the emerging research needs of the VET sector. Therefore, the research projects undertaken by the cohort had to be integrated into the VET environment. This demand for integration was not surprising. Saltiel & Russo (2001) recommend that programs which have a strong connection to the workplace are better suited for cohort delivery. Importantly, a learning cohort provides a critical mass to incite and sustain high impact responsiveness to emerging issues and opportunities, as well as innovation in the workplace (Delahaye & Choy, 2007). Therefore, the use of a learning cohort as the basis of teaching and learning design for a work integrated learning (WIL) approach appeared to be the most suitable and viable option.

For the university, facing significant challenges to research supervision because of the limited number of accredited supervisors, the use of a learning cohort for a research degree had the advantage of efficiency – in this case using three supervisors instead of eight.

This paper is presented in four sections –a discussion on the learning cohort approach; the research methodology; the andragogical strategies used; and initial evaluations by the cohort members.

Cohort approach

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The practice of a cohort approach to teaching and higher degree supervision is not uncommon (see for example Burnett, 1999; Maher, 2004; Tisdell et al 2004;Maher (2004) and Imel (2002) believe that there are a number of primary characteristics of learning cohorts - a defined, long-term membership; who commence and complete together; a common goal that can best be achieved when members are academically and emotionally supportive of each other; a common series of learning experiences; a highly structured, intense meeting schedule; and a network of synergistic learning relationship that is developed and shared among members. These characteristics apply to the cohort in this paper.

Cohort programs have been highly successful because the continuity in the group's learning journey strengthens the stability of the community of learners who grow to know each other and count on one other for support (Lawrence, 2002; Saltiel & Russo, 2001). They use the power of interpersonal relations to learn and maintain motivation (Saltiel & Russo, 2001). For the learners, it takes self-responsibility, patience, courage, humour, commitment, sensitivity, and a lot of hard work to create such an enriching learning experience for everybody (Nesbit, 2001). Other research reported by Imel (2002) list positive effects such as increased critical thinking skills, critical reflection, knowledge construction, enhanced knowledge base and learning motivation. These attributes are nurtured and encouraged in members of the cohort in the case reported in this paper.

However, as Imel (2002) cautions, cohorts must be purposefully formed and structured if they are to succeed in environments that foster learning and development. This advice led the authors of this paper to invest in developing the cohort before it commenced the research degree. The sense of community encouraged in cohort structures can foster learning and discourage intellectual and professional isolation (Dinsmore & Wenger, 2006). Learning cohorts lead to a sense of ownership, personal investment and mutual dependency (Ge & Hardre, 2010). Cohorts provide strong curriculum designs because people learn best when they apply theory to practice, then revise the theory in light of what is learned in the application and reapply the revised theory (Tisdell et al, 2004), a process that defines action learning (Revans, 1988).

Burnett (1999) describes two theoretical models of cohort supervision – traditional Apprentice Master Model (AMM) where the supervisor assumes the role of a 'master' with the students as the 'apprentice'; and the Collaborative Cohort Model (CCM) where the supervisor becomes the mentor.

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The authors of this paper applied a combination of both models. In this paper, they describe how the cohort was developed in preparation for the research study.

The research methodology

This initial research into a learning cohort uses a case study methodology. Case study research is a qualitative approach that explores a bounded system (a case) over time, uses multiple sources of information and reports a case description with the focus being either the case or an issue that is illustrated by the case (Creswell & Clark, 2007). Creswell (2005) considers that there are several types of case studies, including those that represent a process consisting of a series of steps that form a sequence of activities. The research in this paper conforms to this type of case study approach.

The learning cohort in this project comprised a group of existing workers from public and private VET registered training organisations (RTOs). Five female and three male staff were sponsored by the department, with the aim of forming a critical mass to incite and sustain high impact responsiveness to emerging research needs for the sector. The department sponsoring the cohort values and prefers learning to demonstrate immediate transfer and application so that the VET sector can accumulate some research evidence around topics of interest and at the same time develop the research capacity of staff across the sector. The cohort was expected to operate as a *community of learners* and at the end of the course meet two goals – firstly, apply skills in educational research to VET practice and policy and, secondly, develop evidence based data to inform strategic directions in VET in relation to quality teaching learning and assessment.

The Master of Education (Research) course at the university comprised two core units on research methods, followed by students concentrating on their research projects over a period of three semesters. The supervisory team comprised of three supervisors, with one also being the cohort coordinator. The team designed and developed learning activities based on Knowles' theory of adult learning (andragogy).

Andragogical strategies

Several key papers (for example, Cooner, 2010; Ge & Hadre, 2010; Maher, 2004) on learning cohorts stress the importance of developing members. The supervisory team used two sources - the literature

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and the experiences of two of the academics who had experience in WIL learning cohort designs. Their experiences have been documented in previous publications (Choy & Delahaye, 2010; Delahaye & Choy, 2007; Delahaye & Choy, 2008).

The focus on andragogy was intended to encourage the development of tacit knowledge, moving the learning cohort from being dependent to independent learners as well as integrating the learning into the workplace (Choy & Delahaye, 2009)   Research has shown that tacit knowledge differentiates experts from novices (Hedlund et al, 2003). Further, as Armstrong and Mahmud (2008) have shown that tacit knowledge can be increased by utilising the full range of learning styles (for example, Kolb's accommodator, diverger, assimilator and converger), a variety of learning strategies were used, including information input, experiential learning, discussions and reflective activities. The development of the cohort consisted of five initial stages for the period prior to and during the first semester. The five stages were: advertising and recruiting, selection, initial workshop, course work, and a second developmental workshop. Other learning experiences will be planned on a needs basis and will be discussed in later publications.

Advertising and recruiting

The opportunity to engage in a research masters program as part of an organisational learning cohort was advertised within the sector through a departmental broadcast using email. The Queensland VET Development Centre (QVDC) promoted the opportunity, focusing research in line with Departmental priorities, and as a conduit to promote processes and outcomes in the Department and the wider VET sector. Apart from meeting the university's entry requirements, the potential candidates needed to demonstrate a commitment to the sector and to the completion of the two year Masters program. They were required to nominate a local mentor who could advise on the feasibility and applicability of their research and support them throughout their course. Furthermore, the individuals were required to commit to - completion of the 2 year program of research training; attendance at 12 days face to face workshops/forums over the 2 years; and any costs associated with research.

An Information Day outlined the expectations of the organisation and the university about the effort and resources that the candidates would need to invest in the project. During the day, the role that the department and the university would take in assisting the candidates to complete the program were

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explained. This assistance included the provision of workshops for learning support and academic supervision by the university, and support by a departmental coordinator who they could contact for departmental administrative issues.

Furthermore, the Information Day was expected to initiate a psychological contract – their set of beliefs and attitudes about the mutual obligations between themselves, their RTO and the university. As per Maher's (2004) recommendations, applicants were told that while they would work on individual projects, they are to embark on a group experience requiring collaborations. This arrangement offered some flexibility in terms of their contract learning for their research projects.

Selection

The potential candidates were asked to submit a proposal to the academic coordinator. The proposals were to meet three criteria. First, the proposals had to meet a strategic need defined in the strategic plan (known as *VET Futures*) of the VET sector. This criterion supported the recommendations of Saltiel and Russo (2001), and Ge and Hardre (2010) for a strong connection to the workplace and to promote intrinsic motivation for the learning. Second, the candidates needed to show evidence of some understanding of the topic and expertise in the area. This again added to their knowledge of the psychological contract, emphasising the importance of academic literature. For the third criterion, the applicants had to show evidence of clear and concise written communication capability. Experience had shown that, unless applicants are fairly strong in written communication, they would struggle to develop the high writing standards needed for postgraduate research degrees. These three criteria were established to indicate, firstly, the benchmarks for the selection process, secondly, the objectives for the proposals and, thirdly, to clearly establish the expectations of the department and the university – that is, clarify further the psychological contract between all parties.

Initial workshop

An Initial Workshop of one week's duration was held eight weeks before the semester commenced, at a time that was mutually convenient to all involved. Cooner (2010) and Tisdell et al (2001) emphasise the importance of holding a residential workshop at the beginning of a learning cohort program. The curriculum of this Initial Workshop then, had two streams. Firstly, to provide the cohort members with basic technical skills and knowledge for research degrees. Secondly, to set the tone for a sense of

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belonging within the community (Dinsmore and Wenger, 2006), develop group relationships and provide an environment that is both supportive and challenging to encourage critical reflection and knowledge construction (Imel, 2002).

To provide technical skills, members of the university library staff provided a session on the library procedures, accessing academic databases, APA referencing styles and academic writing skills. Nearer the end of the week, the facilitators of the two coursework core units provided overviews of the units. To encourage the sense of belonging to the learning community, these inputs were followed by extensive periods of practice (active learning – see Delahaye, 2005) and interactions with their peers to develop peer relationships, noted as very important by Dinsmore and Wenger (2006). Another advantage of the sessions by the library and the course work coordinators was the opportunity for the cohort to meet and affiliate with them as such a relationship would prove to be important to the cohort as they progress through the program – in essence, having these 'outsiders' being seen as part of the cohort's community of learning.

To further enhance the sense of belonging, a number of opportunities were provided throughout the workshop for the participants to discuss and refine their research project. When not interacting with their supervisors, members of the cohort networked with each other, providing some evidence of a cohort agency emerging with increasing levels of bonding (Maher, 2004). Additionally, some activities were provided to encourage rational discourse and rational reflection processes that are necessary precursors to transformational learning. Transformational learning occurs when there is a change in the learners' basic beliefs and/or values (Mezirow, 2009). The concept of transformational learning was addressed specifically in a session led by one of the facilitators to encourage students to transform from being dependent to independent learners.

Following the initial workshop, the academic supervisors and the department coordinator maintained continued support and communication. A community website was established for collaboration, sharing and on-going discussions, but was underutilized mainly because of the learning cohort's engagement in the two coursework units.

Course work

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In the first semester, the participants enrolled in and attended lectures in two units (*Professional Applications of Research* and *Conducting Innovative Educational Research*). The units were offered in a blended learning mode (face to face lectures and e-learning using weekly Eluminate sessions which allowed almost synchronous interactions). The strategy of attending two course work units offered at least three advantages. First, as all participants attended lectures in the same two units, they had an opportunity to strengthen the affiliations with their learning cohort members. Second, the participants could concentrate on learning the specifics of research methodology. Third, as most cohort members had not attended university for some time, attendance at the two lectures each week gave them firsthand experience of the personal sacrifices each would have to make during the semester. This experience and emerging personal issues gave at least one participant pause for thought but, after several in-depth discussions with one of the supervisors, that participant decided to continue with the program. This strategy had at least one potential disadvantage. The participants did not expand on the relationship established during the Initial Workshop with the supervisory team although they had access at all times. This was largely related to time constraints for the worker-learners. The supervisors attempted to offset this shortcoming by using frequent electronic communications.

Second workshop

The Second Workshop, of one day, was held near the end of the first semester, as the cohort members were completing their coursework units. An Early Career Academic (ECA) was added to the supervisory team, to assist with the supervision load and also for the ECA's development. The emphasis of this workshop was on the knowledge generation processes (see Nonaka and Takeuchi, 1995). In particular, a major part of the activities encouraged externalisation (converting tacit knowledge to explicit knowledge) as each participant was charged with explaining her/his research project to a peer (prior to the workshop) and this peer had to present a description of the project to the group at the workshop. This process had significant elements of communicative learning (Mezirow, 2009) as each member tried to understand the inner worlds of their peers. The exercise not only engaged the pairs in collaborative learning and critical thinking, generated by constant questioning to clarify the project details, it also strengthened the relations between and among the cohort members. At the workshop the group presented and discussed the research projects and received feedback from

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peers, supervisors, the departmental coordinator and a senior manager. The feedback and discussions enabled each student to re-scope his/her project to explicitly meet initiatives under the VET strategy. Additionally, the group began sharing their knowledge and resources as well as their networks that could help the individuals with additional information. The senior manager and the departmental coordinator, who attended the presentations, also suggested other related projects in the sector, and networks and forums where the group could get more information. In this way, the projects were being positioned within the context of the sector and truly integrated. It was expected that this curriculum process would also encourage internalisation (explicit knowledge to tacit knowledge) as the participants reflected on the workshop (Nonaka and von Krogh, 2009).

This emphasis on knowledge generation strongly contributed to a more collaborative cohesive cohort, balanced group and individual development (Dinsmore & Wagner, 2006; Maher, 2004). The exercise was designed to challenge assumptions and engage in joint knowledge construction with each other and the supervisors. The cohort found this approach challenging and uncomfortable, but recognised it as a powerful learning tool. One of them explained: *The questions that [name of co-learner] asked made me realise how my written proposal was not thoroughly thought through although in my head I knew what I wanted to do. It made me really come out of my comfort zone (P8).*

By creating a more cohesive cohort, the supervisors were attempting to overcome the limiting factors for learning cohorts – passive or dominant group members, lack of commitment to the cohort and members viewing the facilitators as the ultimate authority (Imel, 2002). As another participant commented: *We were able to interact as peers providing support and intellectual stimulation* (P2).

Future workshops

More unstructured workshops to encourage self-directed learning will be conducted during the next three semesters as the participants continue with their research project. A self-directed learning curriculum will encourage the participants to recognise their power to make changes and adjustments; build ongoing relationships; provide a safe environment that will allow the participants to take hard and honest looks at their own knowledge; provide intellectual and emotional support for creating and accessing knowledge (Tisdell et al, 2001); value diversity (Imel, 2002); and have conversations that can reach deeper levels of analysis and reflection (Maher, 2004).

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Evaluation

Two rounds of evaluation were undertaken through surveys, the first near the beginning of the first semester and second at the end of the Second Workshop. The first evaluation concentrated on the Reaction Level (Kirkpatrick & Kirkpatrick, 2007). A survey questionnaire covered the areas of the content of the advertising (What was useful and what more was needed), the content of the Information Day (What was useful and what more was needed) and, in more detail, the content and process of the Initial Workshop (for example, What information was most useful? When did you find yourself most engaged? When did you find yourself least engaged?).

The second round of evaluation focused on the coursework units and the Second Workshop. Based on the recommendations of Brookfield (2009), the survey asked when the students felt most engaged with what was happening; when they felt most distanced from what was happening; what action they found most affirming and helpful; what action they found most puzzling or confusing; and what surprised them most.

The most number of comments (15) related to the course work units, with both positive and negative statements. Five of participants indicated that they appreciated the lectures and also the tutorials through the Eluminate facility. However, as one participant pointed out: *Eluminate offers both opportunities (ease of access) but also limitations (some reduction in interaction)* (P2).

Some had experienced problems in navigating the web sites and associated information. Another had difficulty with the timing of the lectures.

Comments about the two workshops and the use of the learning cohort were all positive. The workshops gave the opportunity to be able to focus for the whole week without work distraction and "provided not only good information, but the opportunity to re-think and share with the cohort" (P2). The workshops allowed them to "engage as a learning cohort when we were together as a cohort (P1) and to "participate in the cohort group activities" (P7). It was also "good to hear others feel the same at this stage" (P3) and they were "able to interact as peers providing support and intellectual stimulation" (P2). These positive comments were also supported by the senior manager who commented that "The projects and learning cohort members have all developed to a highly acceptable standard." In addition, the three supervisors were particularly delighted with the level of theoretical

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knowledge of research demonstrated by each of the participants. The participants reported that the

feedback and support they received were the most affirming and helpful actions of the learning

experience. Particular mention was made of the support and "real" suggestions and direction from the

senior manager and the departmental coordinator, expressing deep appreciation of the presence of

these senior staff from the department. A few shared personal insights that surprised them:

How long it has taken me to pull the concepts together. Maybe 2 x units is too much. (P3). Amazed I

actually sound and think like a researcher and enjoy hearing [of] people's research (P3). That

perhaps I know a little more than I give myself credit for (P5). I can still do this (study) after many

years of absence (P6). How quickly I could write when I made a concerted effort in desperation. (P7)

A final concern that will need to be addressed in future learning cohorts was the loneliness:

In the period between [the] first workshop and the start of tutorials (P1); At home alone with no idea

what to do or someone to ask 'on the spot. (P7); ... perhaps only the milestone at which we interact

more with supervisors – at times I felt the need to discuss things to help sort out, but this was not

available. Now I understand why. (P2)

For future learning cohorts, additional support mechanisms will need to be included.

Discussion

While the evaluation was only conducted at the Reaction Level (Kirkpatrick & Kirkpatrick, 2007), the

results do lend support to suggestions in literature on the learning experience design for, and conduct

of, learning cohorts. The strategy of providing information to clarify the psychological contract, and

thus encourage self-selection, seems to have had some success – at the end of the first semester, all

applicants are still in the program. In addition, all the applicants were aware that the learning strategy

would be based on a learning cohort - pre-knowledge that Maher (2004) believes is essential. The

departmental senior manager and the academics were pleased with the selection process, as the dual

needs for alignment with the organisation's strategic needs and satisfying the university academic

standards were achieved. The selection process also fulfilled the recommendations to ensure a strong

connection with the workplace and to promote intrinsic motivation within the potential learners

(Saltiel & Russo, 2001 and Ge & Hardre, 2010).

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Cooner (2010) and Tisdell et al (2001) emphasise the importance of a residential workshop at the beginning of a learning cohort program. The participants endorsed this recommendation, commenting very favourably on both workshops. They said the workshops provided support, information on the university process, research knowledge and skills; developed peer relations and increased bonding between members; and even, to an extent, facilitated transformational learning (Mezirow, 2009) - as evidenced by the personal development insights some participants shared in the second evaluation. The provision of a university and a departmental coordinator appeared to be important to the participants. This feature should be retained in any future learning cohorts.

The course work units departed from the learning cohort concept somewhat and this departure was reflected in the mixed evaluations on these units. The evaluation of the blended learning used was also mixed, with some appreciating the freedom of e-learning and others feeling lonely and disconnected. Details around this comment will be investigated further to understand the nature of students' expectations. Similarly, difficulties with web navigation will need attention. Strategies to overcome a sense of isolation during this detour into course work, a common feature of most higher education, will need to be addressed. To maintain the synergies between the core units and the research project, the facilitators of the two core units need to be more engaged and involved with the preliminary workshops. Further consideration in future designs for learning cohorts would include - more careful explanation during the clarification of the psychological contract stage; more time invested during the workshops on e-learning technologies; and additional support by the coursework unit facilitators.

Overall, based on this small sample, the learning cohort approach seems to be a viable option when developing research skills and knowledge through a masters-by-research degree. However, it relies on a negotiated process of development of the cohort members, andragogical design, and the roles of the various parties (e.g. students; their employers; mentors; sponsors, senior managers and coordinator; and university staff). Evidently, learning cohorts do take the supervisor responsibilities beyond what would be considered the norm in other settings – including added time, and frequent and closer interactions between members of the supervisory team and other support staff.

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Acknowledgement

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