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The Spiral of Learning: 4 R’s of Education

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Abstract

The purpose of this paper is to explore the integration of learning, continuous improvement theories and reflective evaluation for enhancing management education. Conceptual development is combined with the outcomes of a pilot focus group as an example of reflective evaluation. The Spiral of Learning concept is uniquely augmented through hermeneutics, action research and the Deming cycle. Four R’s are identified in the Spiral of Learning: Review, Revise, Reconstruct and Reveal. Recommendations for each of the 4 R’s are made to assist continuous improvement of management education. For instance, emerging suites of social software appropriately chosen, timed and applied can assist student learning. Direct human connection in some form is recommended for learners when information is delivered online. The concepts and resultant recommendations inform practice through prioritization of online applications and development of appropriate checks and balances by academics and administrators.

Key words: Hermeneutics, higher education, learning, management, online, quality, reflective evaluation

THE ENVIRONMENT OF (E) LEARNING

A new generation of technologies today feeds the interest and engagement of the next wave of learners (Thune, 2011). The field of tertiary management education, like most other disciplines, has been transformed to one replete with e-learning technologies adding to the flexibility and variety that students now seem to expect (Chong et al., 2011). For the purpose of this paper, the authors have adopted Mills, Eyre, and Harvey (2005, p. 45) definition of e-learning as, “effective learning processes created by combining digitally delivered content with [learning] support and services”. The equipment and software (such as computer software and hardware) that are used in an educational context are collectively referred to as e-learning technology. The rapidly changing nature of the technology adds pressure to users to continually ‘shop around’ and assess the quality and effectiveness of new versus existing offerings.

By cross referencing hermeneutics (Heidegger, 1999), action research and learning (Lewin, 1948; Marquardt, 2004), and the Deming cycle (Deming, 1986), there is generated a unique perspective on the e-learning experiences of online management students. The paper takes the view that reflective evaluation (Iliško, Ignatjeva and Mičule, 2010), in this case exemplified via a pilot focus group, can connect hermeneutics and continuous improvement theories and emphasise a looped model of learning (Creed
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and Zutshi, 2010) as a central concept. In this context, the purpose of the paper is to explore the integration of learning, continuous improvement theories and reflective evaluation for enhancing management education. Recommendations are made about e-learning improvements in the online teaching of subjects. Wider suggestions about future approaches for continuously enhancing the quality of online entrepreneurship education are also made.

It is anticipated that by adopting and practising pedagogical approaches that involve e-learning technologies along with reflective evaluation techniques, a higher education institution such as a University would be better able to address the knowledge thirst of a higher percentage of learners, including those who require flexible working hours due to their professional and/or personal commitments. In response to increasing global competition for their share of international students, many Australian universities for instance offer distance (or off-campus) courses and maintain partnership with off-shore campuses (see Calverley and Shephard, 2003; Coleman, 2003; Eastmond, 2003; Hlavac, Peterson and Piscioneri, 2011; Ku, Goh and Ahfock, 2011; Weigel, 2002). Digitisation of teaching offers a number of advantages such as being cost-effective, flexible for educators and learners, instantaneous, and opening access to a myriad of web resources (Karaman, 2011; Ou and Huang, 2011). Universities and educators, nevertheless, need to be cautious that their online delivery does not become a “discouragement and isolation” (Weigel, 2002, p. 8) experience for students. The online teacher needs to become a facilitator (see Kop, 2011; Mezirow, 1997; Nachmias and Shany, 2002; Simpson, 2001) and manage both the content and expectations of the students whilst ensuring courteous and critical discussions. Please note that the following terms have been used interchangeably in this paper: continuous improvement and quality improvement; academics and teachers; and online learning and e-learning.

There is a persistent doubt about the effectiveness of e-learning technologies for conveying the full depth and breadth of knowledge requirements of especially applied disciplines at the tertiary level. For example, one could wonder if anybody is really able to learn about trade or vocational knowledge wholly online because tool handling, technique development and other aspects of the art of a discipline could be argued to be so hands-on as to be anathema to online learning (Khodamoradi and Abedi, 2011). However, educators in diverse fields ranging from medicine and arts, to technical and applied vocational skills are engaged in significant online learning programs and involved in finding ways to improve online delivery (McFarlane, 2011; Zheng et al., 2011). Sometimes this involves incorporating some face to face learning opportunities, but this is often excluded and, where the former happens, is no longer in the traditional classroom format now that social software and mobile communication options are growing. The inevitability of e-learning has precipitated a situation in which the quest for continuous improvement of the techniques and tools of e-learning delivery are most pressing since the cycle of technology adoption is racing ahead.

There is further debate about whether traditional education through books and written assessment offers any learning advantage when compared with e-learning via multimedia tools (McLuhan, 1964; Postman, 1985). A majority of our current students who are digital natives (Prensky, 2001) seem to challenge teachers to incorporate new learning needs and methods (Purg and Wiechetek, 2011). In a disconnected field of information, learners now need connection. The written text becomes just one of vast numbers of information objects available online. A spoken lecture, while it is used to focus on content itself, seems to increasingly require focus on connection between many
different forms of content. Based on our experience we view that the spoken word and the written text need not be obsolete, rather they take on a new role of lynchpins between concepts.

From the learner’s perspective, perhaps, there is increasing expectation that disparate chunks of information should swirl in an entertaining dance until, climactically, a facilitator or lecturer creates the connection, the context that reveals meaning in the midst of this cyclone. The concept of the climax or executive summary is of importance. Learners on the whole may prefer to be entertained for most of a facilitated learning session, only bringing together the fullest understanding toward the end, or in brief moments throughout the class. It may be that the idea of quiet, progressive, sustained learning in a disciplined, ascetic environment holds little meaning for digital natives. Chaos, dynamism and shifting ideas can be accepted as long as they are at least momentarily crystallised to signify the grounding of some idea of connection and meaning. The emerging landscape of e-learning technologies has the potential to fragment online delivery options. The requirement to stay focused on good quality teaching is at the heart of any operational change. Continuous reflection and improvement should, therefore, be an integral part of teaching in any format.

**CONVERGENCE OF LEARNING AND CONTINUOUS IMPROVEMENT**

Learning is a move from one state of understanding to another and is, therefore, a kind of change. Change can happen constructively or destructively. Plowman et al. (2007) explain that a small change can grow into something radical. Creed (2009) reiterates the view that misunderstanding can just as easily emerge from reflection as can understanding. It is, therefore, necessary to strive for improvement in a proactive fashion. In relation to management decisions and outcomes, Ghosh (2010) reminds that success is an evaluative concept. It is noted that continuous improvement concepts emerge when one examines the constructive nature of quality in almost any context (Ishikawa, 1985; Juran and Godfrey, 1999). The current state, impacted by inputs of information and experience, must change its capacity in order to grow. The cycle of feedback suggests a need to adapt to feedback from learning experiences. Learning, as a change from one state to another, is therefore a response to feedback. This becomes a relevant view for tertiary management education and the e-learning systems that are implemented for this purpose. Administrators can acknowledge the operational systems and apply continuous improvement methods to ensure standards of quality are observed. To a small and imperfect degree, this already happens with student evaluations, but there is so much more that can be done through the interactive integration of technology and pedagogy to improve overall quality of online management systems and user experiences. For example, social media software such as Facebook or Twitter might be deployed for gathering rich feedback about student perceptions of education. Learning through feedback by the university itself is the beginning of helping students to also become better learners.

A systematic view of the online features of management education enables a strategic approach to improving quality (Atwater, Kannan and Stephens, 2008) because conceptualising the system allows for critical selection of the components of the system that can be continuously improved. Einstein in Schilpp and Einstein (1949) views system as a 'concept' which acts as an ordering element that enables metacognitive awareness of how to change and improve. The wholeness of a system previews a circuitous return from end to beginning and back to the end which proffers moments of critical reflection to
inform the recurring flow of developments, whether small or radical (Bertalanffy, 1969; Checkland, 1981). So, this view of systematic improvement of processes is similarly tied with the flow of learning in an individual. Students work within systems of knowledge in the form of assessments that enable instructor feedback and allow the student to reflect on that feedback to improve overall understanding. It was the psychologist, Lewin (1948) who equated systemic reflection to improved understanding and developed early conceptions of action research which articulate naturally with action learning (Marquardt, 2004). And it was Deming (1986) who extended the hermeneutic foundations of quality improvement and, in the same vein as Lewin (1948), drew a cyclical conception of learning through feedback into the Plan-Do-Check-Act cycle (PDCA). While this brand of quality improvement in the field of operations management has its own heritage, it has much to do with evolving technology and, as a result, there is some convergence with educational theory in the field of high quality learning in online management education. Through understanding the key information about an otherwise nebulous model of knowledge formation, it becomes possible to contextualise online management education in different situations and cultures (Fisher and Torbert, 1995).

The concept of high quality learning (Dillon and Åhlberg, 2006) involves the questioning or challenging of general regularities and received wisdom (LeCompte, 1994). The concept also aims for a metacognitive search for understanding of the ways in which the individual thinks, learns and acts in the face of challenging conditions (Smith, 1992). High quality learning is a deepening, spiralling search for evidence and justification for theory and practice. This goes to the heart of Lewin’s action research and Deming’s PDCA and builds on the work of Corno (1989), Greeno, Collins and Resnick (1996), and Jans and Leclercq (1997).

THE 4 R’S OF THE SPIRAL OF LEARNING

Apulu and Latham (2009) point out the positive influence on managers of a robust organisational dialogue around innovation and the role of technology. In this light, management education ideally blends structure and emergence in both formal and informal settings (Åhlberg, 1997; Nonaka and Takeuchi, 1995; Polanyi, 1966). Nonaka (1994) proposed a spiral model of knowledge creation through dialogue between tacit and explicit (formal and informal) knowledge. Explicit knowledge can be expressed accurately both verbally and in text as propositions and statements. Tacit knowledge is personal and is often difficult to express accurately in writing (Nonaka, Takeuchi and Umemuto, 1996). Katz and Kahn (1966) imply that open groups that require a continuous flow of resources from the environment will learn and therefore compete more effectively. This open systems view is consistent with a circular feedback loop (Palmer, 2003). Learning is a transferable concept in that the knowledge derived from it can be applied in new situations (Greeno et al., 1996). Learning is thus also creative, innovative, proactive and future orientated (Mezirow, 1996; Taylor, 1997).

The key theories of interpretation and learning from hermeneutics to action research, and quality improvement investigations as enablers of reflection, form a continuous thread of connection. This is shown in Figure 1.
As a process involving reflection and action upon feedback, there is a *Spiral of Learning* implied in reflective evaluation (MacNeil, 2002; Madriz, 2000; Wilkinson, 1998). The hermeneutic foundation of reflective evaluation aligns with the historical development of theories of learning and continuous improvement. Reflective evaluation itself has roots in activity theory which, in turn, aligns with action research (Gay and Bennington, 1999). Kemmis (1981) was among the first to identify a combination of self-reflection and human dialogue as being a necessary evaluation tool for distance education.

More recently, neuroscience has aligned with psychological research to affirm the centrality of reflective evaluation of human attitudes and map the essential neural pathways that fire up during the process (Cunningham and Zelazo, 2007). Therefore, there are psychological and sociological bases for the effects that derive from reflective evaluation. The literature reveals convergence of a number of areas in the field of hermeneutics such as quality improvement, learning, and feedback and evaluation methods. Heidegger (1999) provides the concept of the hermeneutic circle as a condensed representation of systems feedback loop which leads the individual to interpret or learn at the heart of a stated matter and in authentic context. Drawing on Platonic foundations, Heidegger (1999) explores the process of interpretation through dialogue and recognises how meaning and understanding stand conceptually separate to the authentic experience but cannot be explicated from that same experience. Heidegger (1999) describes the journey from one’s current position, which involves some level of awareness, to a new more informed position at a higher level of understanding (Bauman, 1978). This new level of understanding comes only through a process that generates reflection. It is a process of revision, reconstruction and revelation resulting from reflective activities. As indicated in figure 1, the action research process of Lewin (1948), the plan-do-check-act cycle of Deming (1986), and focus groups (Freeman, 2006) owe their heritage to hermeneutics. In the field of online management education, Creed (2006, 2009) proposes an adaptation of the hermeneutic circle (see Figure 2), drawing upon educational and quality improvement constructs advanced by Lewin (1948), Kolb (1984), Schön (1991), Nonaka (1994) and Argyris and
Schön (1996). It is the reflective evaluation cycle that enabled interpretive insights of the pilot focus group that ultimately became expressed in the categories and outcomes overviewed in the next section.

**Figure 2: The 4 R’s of the Spiral of Learning**

![Diagram of the 4 R’s of the Spiral of Learning](image)

Source: by the authors

*Review* as a general concept has been widely adopted as an element of quality improvement (Senge, 1990; Beyer et al., 2003). Being prepared to consider the need for review is central to the scientific process (Bornmann, 2008). Review is the opening stage in which participants assess the current state, consider the (delicate) status quo, and show a preparedness to change cognition and behaviour without having yet done so. In management education, an example of the review phase for an individual may be a thought they are having about changing their approach to study without having yet made the change. This may have been brought on, for instance, by feedback from an instructor, comment from a mentor, or observation of a new study method.

*Revise* is the next stage in which a decision to learn and change is made. Revision is generally acknowledged to be a crucial factor in change management, innovation, and in applied improvement methods such as action research (Chandler and Torbert, 2003; Cavalcante, Kesting and Ulhøi, 2011). Since the individual cannot fully know what the outcomes of new actions will be, uncertainty, chaos and a sense of being overwhelmed can indicate immersion in revision. Even economists such as Sen (1982; 1987) recognise the circular, albeit disruptive, nature of development and innovation, from which we can draw some understanding of revision in the educational field.

*Reconstruct* follows as the stage of transformation. The less-briddled chaos of revision is passed and replaced by a more controlled view of where the new knowledge now rests. Business Process Reengineering (BPR) is one field in which reconstruction is an integral aspect (Zellner, 2011). For example, if a new process has been implemented and running for a little while, the first indications of where the process is improved and where it needs more adjustment is made evident. In the *Spiral of Learning*, the process of creating strategic and careful replacements for the actions and thoughts of the past is well underway in the reconstruct stage, and it is the real time pre-cursor of a more systematic evaluation in the next stage, *Reveal*.

*Reveal*, is the stage of assessment and evaluation of the new state that has been created. The feedback from revelation is imperative for the next turn of the learning circle. For example, any opportunity to systematically assess the recently implemented change, including records of spontaneous responses and longer term effects, along with
reflection upon all of the data collected during the change, assists with full evaluation. All the good things about what was learnt are assessed during reveal, but all of the bad things are also evident. It sets the stage for yet another review.

The 4 R’s of the Spiral of Learning provide a view into the process of reflective evaluation and can therefore be applied in analysis of focus group research. Double loop learning (Argyris and Schön, 1974) is a significant factor in the Spiral of Learning concept. The spiral ensures that improved understanding is the outcome, as opposed to merely repeating the same cycle. Robert Merton, considered to be the father of focus groups (Kaufman, 2003) explained that the method is intended to be a source of new ideas and hypotheses that need to be explored on another turn of the evaluation cycle (Merton, 1987). For the focus group pilot described in this paper, the Spiral of Learning established a methodological basis for the interpretation of data. The 4 R’s of review, revise, reconstruct and reveal allowed for coding and evaluation to provide meaningful illustration of the process in action.

FOCUS GROUPS, DIALOGUE AND EDUCATION

Dialogue is increasingly acknowledged as a powerful process for generating rich feedback about the topic of inquiry (Freeman, 2006; Iliško et al., 2010; MacNeil, 2002; Ross, 2011; Ryan and DeStefano, 2000; Wadsworth, 2001). For this purpose, a focus group offers opportunities for exploring relational theories of meaning and understanding. The focus group technique is suited for exploratory purposes such as quality improvement (Leviton, 2011). Researchers such as Knodel (1995), and Knodel, Chamratrithirong and DeBavalya (1987) have successfully conducted focus group interviews throughout the world with a view that they can be adapted to a wide variety of settings and cultures. Some of the original applications of reflective evaluation through focus groups, according to Stewart and Shamdasani (1990), were in evaluating audience responses to radio programs in 1941, which somewhat parallels the context in this paper of examining modern technological applications in transmitting educational information to students.

The success of a focus group depends much upon the design of the focus questions. Stewart and Shamdasani (1990) suggest researchers should start with general questions, move to specific questions and then back to a set of more general questions. This helps to engage the interest of participants. Similar arrangement was created in our focus group and, consistent again with Stewart and Shamdasani (1990), it was ensured that there were fewer than a dozen questions. The responses generated from focused reflection were mapped against the categories in Figure 2: review, revise, reconstruct and reveal.

The pilot focus group comprised five participants. The aim of the focus group was to gather information regarding the usage of e-learning technologies by staff and students. The stated objectives were to identify best practice methods of online teaching models using e-learning technologies, the challenges of improving the quality of teaching and learning, and to conceptualise how to improve the quality of teaching and e-learning. Small groups are preferable when the participants have a great deal to share about the topic or have had intense or lengthy experiences with the topic of discussion (Kreuger, 1988). The pilot session revealed rich data but was not replicated. Additional focus group and survey research is therefore recommended in future projects. Our group was a convenience sample comprised of mature age off campus (or distant) students with
strong engagement, evidenced in participation, attendance and performance records in the online platforms of the university. Convenience sampling is appropriate where the group becomes representative of the larger population in the context of the study (Stewart and Shamdasani, 1990). For a study centred in continuous improvement of educational e-learning, we required the kinds of participants who were most conversant with established system and most cognizant of recombining metacognitive insights within a rich focus group dialogue. This strategy proved appropriate as the focus group moderated by one of the academics produced a lengthy record of considered discussion and insight punctuated with some innovative recommendations.

FOCUS GROUP FINDINGS AND DISCUSSION

The findings and discussion of the reflective evaluation during and after the focus group are presented in this section. As the analysis develops, we arrive at outcomes and recommendations that make connections with the fields outlined in Figure 1: hermeneutics, action research, and the plan-do-check-act (PDCA) cycle. We posit that the themes emerging from the pilot focus group can further inform the educational design process at various stages, an integral support function for quality improvement of management education. The reflection of education process and continuous analysis of rich dialogue can support educators in understanding student needs to begin with, and can be re-applied at later evaluative stages (Savage, Millen and Bayerl, 1995). In practice, reflective evaluation can be linked with other research techniques to professionally contextualise the development of teaching and learning policies and initiatives (Bruseberg and McDonagh-Philp, 2002; Morgan, 1996).

In the case of this pilot study, in accordance with the University Ethics requirements, to protect the anonymity of the individual participants in the focus group, each have been identified by their status as student (S) or academic (A) and by numerical subscript (for example S_1 or A_1) to avoid individual identification. Transcribed feedback from each of the focus questions was aligned with the categories from Figure 2 as a guide for analysis. The group was moderated by A_1 with lower levels of verbal engagement during the focus group to avoid biased feedback from the students.

Learning from someone (another student) that went through the course would be ideal. This is captured a bit in the portal, and online tutorials are also helpful. (S_2)

[ ...] has a great range of technologies. It is overwhelming to start with. Off to a Flying Start makes assumptions that mature-age students are fully technology literate. Computer sessions showing exactly how to do key things, like referencing, library PIN access, etc., are useful, but these sessions need to be close to the time when you need the information (lead up to assignment due dates). Just leaving it at the start of the course leaves the student overwhelmed and forgetting the information later when it is really needed. (S_1)

A step by step CD userguide for off campus students, combined with a helpdesk, especially for first year students would really ease the entry. ITS [Information Technology Services] helpdesk is already there but you don’t always know as a student how accessible this is. Just having numbers printed on things may not be sufficient. (S_2)

The above-mentioned comments follow from participants’ evaluation of their experience with use of online technological tools such as web conferencing applications and
CDROM which can be included under the review category. There is an aspect of negative feedback in this first stage. Students, by evaluating what might be good ideas in future, are admitting that there was something imperfect in their experience. In this review stage, the emphasis is upon the extent to which the participants are assessing the state of the material and resources provided to them as students and seeing the need for change. There is also an indication from these students to consider the delicate status quo when reflecting on their interaction with peers and staff across different university departments. In this review stage, the participants identified the possibilities for changing technology applications, but there had not yet been a descent into the revisionary actions being suggested. As hermeneutics requires (Heidegger, 1999) and PDCA implies (Deming 1986), previous experience feeds into informed reflection and establishes an opportunity for review. This was the critical point in the cycle at which greater understanding might have encouraged appropriate revisions. Of course, there was the possibility that one or more of the suggestions was based on misunderstanding. The test of this would come in repeated turns of the Spiral of Learning and in receiving feedback from other participants in the future.

Moving to the next stage, revise includes showing a preparedness to change cognition and behaviour without having yet followed through with concrete actions. Levels of uncertainty, chaos and a sense of being overwhelmed are the precursor to this category being selected. This is a key stage in continuous improvement and learning. For instance, there are comments about problems, complaints, feeling overwhelmed and being ‘only human’ which are excellent indicators of feelings of uncertainty and chaos associated with change. Example of this revision stage can be observed as follows:

Should be able to bring your laptop and have the staff help set everything up so it is configured and ready. This would save a lot of wasted time for students struggling with technology set up. (S₁)

[…] has it all there. Using the technology to the maximum is a real challenge. (S₁)

Each of the above-mentioned comments indicated an undertone of uncertainty. Wasted time, struggle and challenge are the concepts being relayed. Revision is change and this is naturally uncomfortable as both Lewin (1948) and Marquardt (2004) observe in action research and action learning respectively. The disconcertion of revision is a vital stage and any sense of uncertainty is not necessarily a sign of failed learning. As long as the next stage of reconstruction of knowledge flows well, the revision stage can become most fruitful when the challenges are solved.

The reconstruct category was characterised and driven by the extent to which fresh changes to online educational practices were being successfully adopted and ideas about transformation were clear and controlled. The process of creating strategic and careful replacements for old ways of doing things had to be apparent, which also goes to the heart of PDCA and other quality tools (Juran and Godfrey, 1999; Ishikawa, 1985). Participants made comments about unit and study guides, students taking responsibility and proper management of technology and pedagogical timing on the part of teachers. These elements allude to a sense of control and purposeful movement forward. For instance:

i-lectures should be available as well as face to face lectures. Students must have a choice of learning styles. (S₃)
Technology sets up a barrier because it looks like all the information should be there. A student is likely to spend a lot of time searching the sites when calling the lecturer would be quicker and more direct. Mature age students are more likely to actually pick up the phone and ask. (S2)

This exchange shows participants undertaking reasoned action points in particular situations whilst being provided with options in decision making which suit the learning styles and time/resource constraints. For instance, the comments show there were reconstructive suggestions about building in choice for students and recommending phone contact with educators. As Heidegger (1999) would say about hermeneutics, Lewin (1946) of action research and Deming (1986) of PDCA, the context of the movement toward improved understanding of anything is integral to the process. This is, of course central to double loop learning (Schön, 1991) and reflective evaluation in general. Since the suggestions by the students were yet to be trialled or evaluated then the next stage of revelation would naturally be of interest in the Spiral of Learning process.

The extent to which assessment and evaluation of the new state is evident flags the reveal category. The feedback from revelation is imperative for the next turn of the learning circle, but it is notable (and distinguishable from the Review stage) for its inherent positivity. For example, the above-mentioned comments about technology skills and reliability, software packages, mini i-lectures and assumptions about skill with software are indicative of an evaluative frame of mind that is in favour of what the participants see. Genuine useful suggestions about the observed changes were being discussed; and examples include:

Notes made with 15 minute screen captures really worked well. (S2)

Attentiveness to [online] postings is important. (S3)

Until you actually need that information… it is not going to be absorbed. (S2)

Each of these comments represents thoughtful and constructive assessment of things that had been tried in the courses of study the students experienced. The students are trying to build up what they liked into recommendations for enhancing things in the future. Notice these comments were distinctly evaluative and not suggesting any kind of immediate transformation of activity. What they did establish was a propensity to return to the beginning of the Spiral of Learning. Once again, the connections with ideas from quality improvement and knowledge management (Nonaka, 1994) are evident and this articulates with feedback concepts in general systems theory (Bertalanffy, 1969; Checkland, 1981). Evaluations such as those evidenced in these comments would enable a new review of the e-learning tools to be initiated. The application of reflective evaluation using a pilot, and the resultant analysis, supports the proposed integration of continuous improvement and e-learning concepts and provides insight for academic and strategic planning decisions in online management education.

CONCLUSION AND FUTURE DIRECTIONS

Feedback from the pilot focus group was applied to explore the themes emerging from the literature reviewed for this paper, and the data was then related to the four R’s of the Spiral of Learning. Emphasis was placed on analysis of the concept presented in Figure
1 as it relates to continuous quality improvement of online education. Linkages were drawn to hermeneutics, action research and PDCA to integrate and highlight reflective evaluation as a central tool for quality improvement of online management education. The relevance of a focus group is tempered against limitations. For instance, Merton, Fiske and Kendall (1990) warn that focus groups can lead to plausible interpretations being treated as being reliably valid; which is a feature of hermeneutics (Creed, 2009). The challenge is to ensure that learning comes from the next turn of the circle so that improved understanding ultimately comes from the experience. This study was, therefore, more interpretive than extrapolative but also offering rich opportunity for reflection and development of concepts. As a pilot in which one focus group was used, we also acknowledge the limitation of data depth. Nonetheless, it should be noted that the next stages of the research will build upon this pilot in the spirit of hermeneutic reflective evaluation.

In the views of our participants, online learning management tools such as Elluminate, which facilitate web conferencing, are perceived positively by the students. Further, recorded lectures, especially when they are concise, are well received. Having a suite of available technologies can be confronting with respect to selecting the right tool to be used to deliver information and knowledge. It is hence important to note that educators should keep thinking about appropriate timing and application of the full range of online tools in order to minimise students’ feelings of being overwhelmed by learning requirements.

There is no denying that the focus has to be kept on continuous improvement of the quality of online management education. However, this should be coupled with some form of direct human connection (even a helpline) that is available for students to respond to their questions during learning especially when information is delivered entirely by e-learning tools. Assistance with setting up and using technology can help ease anxieties in students about online situations, although, offering this as part of the resource is also one alternative which will need to be balanced with time constraints, financial position, and available human resources from the higher educational institutional perspective. Setting up a mentoring system for students so that they can learn (if they wish) from others who have already been on the same learning pathway would be helpful too.

These pragmatic suggestions have emerged from an integrated conceptual analysis augmented by practice which connects hermeneutics and continuous improvement theories and emphasises the Spiral of Learning as a central concept. To build upon the findings of this initial research, there are surveys of staff, students and administrators under development along with further focus groups.

If the staff development and training required by adoption of online technology is to be effectively applied by the universities, then it cannot be forced solely through a policy mandate but rather by staged rollout of the technology across different courses and subjects. This will also give time to identify and address any technological issues. Nonetheless, at the end of the day an academic should have the choice of which option from the suite of available technologies to use in accordance with their teaching style, and students should be able to expect feedback cycles through reflective evaluation opportunities to lead to continuous improvement of the online management education experience.
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