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Enhancing Transfer of Learning Through Post-Course Reflection

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Abstract

This article investigates how a structured post-course follow-up reflection activity affects the depth of reflection and facilitates the transfer of learning. The research is reflective, based on the findings from the Action Learning Management Practicum, a 3rd year paper at Massey University, New Zealand. The initial reflections at the end of the course generally went no deeper than students "noticing", or "making sense" of the experiences. With the benefit of distance and time away from the course, the students' reflection was deep and insightful. The findings suggest that the post-course reflection activity enables participants to "make meaning" from their experiences with the benefit of time and distance from the initial post-course reflection, thus enhancing the transfer of learning. The article argues for an extension and adaptation to Kolb's "Experiential Learning Cycle" model in relation to the time of reflection based on the empirical evidence provided.

Introduction

One of the main challenges of adventure based experiential course design is to ensure the transfer of learning post-course. For the purposes of this research transfer of learning is defined as "the application of knowledge learned in one setting for one purpose to another setting and/or purpose" (Gagne, Yekovich, & Yekovich, 1993, p. 235). Much has been written on facilitating transfer during courses, for example, isomorphic framing and the use of metaphors (Gass, 1989; Hovelynck, 1998; Krouwel, 2000; Priest & Gass, 1993), however, the fade-out effect post-course is well known (Beard & Wilson, 2002; Broad & Newstrom, 1992; Hattie, Marsh, Neill, & Richards, 1997; Roberts, 2002). This article analyses the use of a structured post-course reflection activity to enhance the transfer of learning.

Experiential Learning

It has been argued that experiential learning in general promotes deep learning, as opposed to surface or strategic learning (Entwistle, 1996) and that transfer of learning is enhanced by experiential learning (Macaulay, 2000), with reflection being the crucial factor in facilitating this process (Dewey, 1933). However, just having an experience does not necessarily mean learning will have occurred (Boud, Keogh, & Walker, 1985; Dewey, 1938; Roberts, 2002).

Kolb's (1984) model is commonly used as a basis for discussion of the experiential learning process, although other similar models have been proposed (Hopkins & Putnam, 1993). In Kolb's (1984) experiential learning model, reflection is seen as the second stage in the cycle followed by conceptualization and then action. He characterizes learning as "a process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Kolb identified two conflicts within this model. First, the conflict between concrete experience and abstract concepts, and second the conflict between observation and action. He suggested that it was the resolution of these conflicts

that resulted in learning. Kolb (1984) mentions the importance of time when considering the different developmental stages of maturation, in his discussion of structures of consciousness. He states that “when we judge learning, the time frame is extended to evaluate successful adaptation in the future, and the situational circumstance is enlarged to include generically similar situations” (Kolb, 1984, p. 151). However, the link to time in his experiential learning model, as cited widely in the fields of education, professional development and training (Moon, 2000), is not made explicit, nor represented in graphical form.

Importance of Time

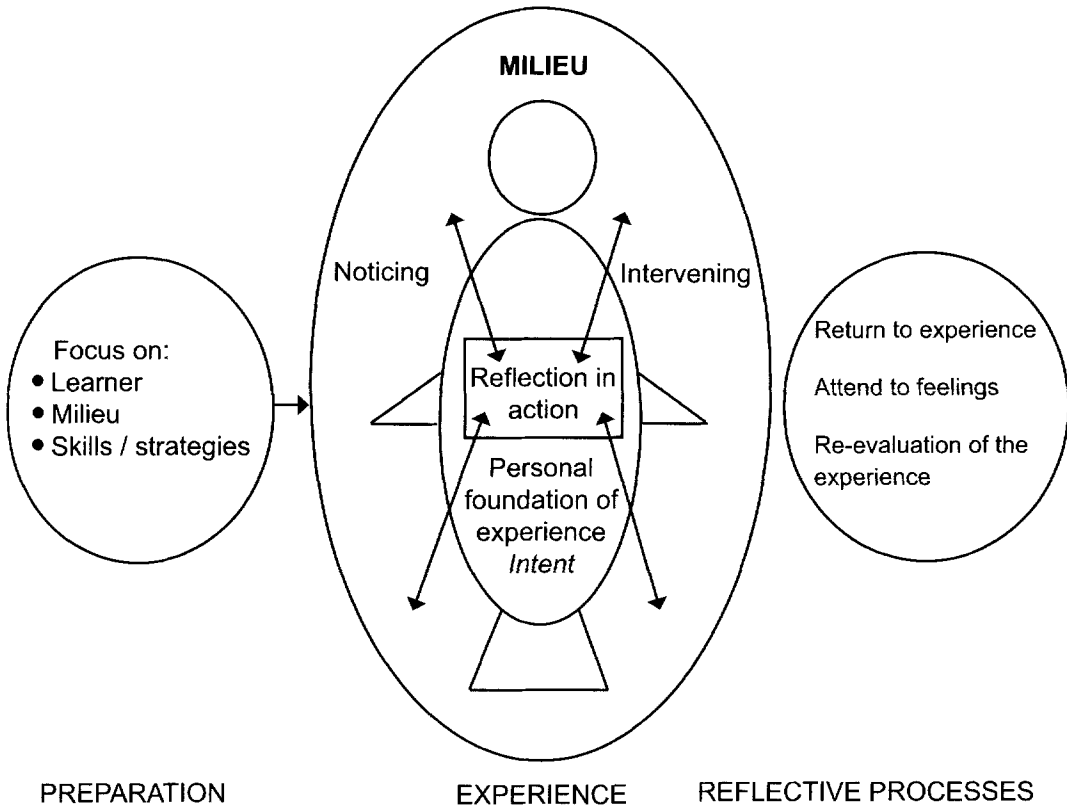
The quality of reflection is dependent on the time available, the “time-frame”, and the context within which it occurs (Eraut, 1995; Hatton & Smith, 1995). Most adventure based experiential learning programmes provide opportunities for reflection during their courses. However, few are engaged with assisting participants to reflect on their course experience once they have returned home. We argue that with increased time and space away from the course deeper reflection can be facilitated, which may enhance the transfer of learning. Roberts (2002) also emphasized the importance of time in terms of constructing meaning from experience. She suggested that “it may take time for the significance of an experience to become clear” (Roberts, 2002, p. 52). Combining the importance of time with the process of learning from experience, Moon (2000) proposed the following sequential stages that participants move through—‘noticing’, “making sense”, “making meaning”, “working with meaning” and in some cases “transformative learning”. Transformative learning demonstrates “the learner’s capacity to take a critical overview of knowledge and their own knowledge and function in relation to it” (Moon, 2000, p. 146). Mezirow and Associates (1990) argued that the final outcome of transformative learning is an empowered person who reflects on their actions. This current research provides empirical evidence to support Moon’s sequential stages.

Reflection

Reflection is fundamentally important, provides a major contribution to personal growth and therefore affects the transfer of learning. Roberts (2002) argued that reflection is the means through which experience and theory are transformed into knowledge. For “conscious reflective activity” to happen, the learner must relive the experience, making connections between information and feelings produced by the experience, and their own lived experience—a process that could be enhanced by structured post-course reflection. Mezirow and Associates (1990) also emphasized the importance of consciousness and identified four levels of reflectivity— affective reflectivity (becoming aware of how we feel about things); discriminant reflectivity (perceiving the relationships between things); judgmental reflectivity (becoming aware of how we make value judgements) and theoretical reflectivity (understanding self in the context of desirable action).

Boud, Cohen and Walker (1993) presented a model representing three stages of reflection associated with experiential learning activities, which highlights the points emphasized by Roberts (2002) (see Figure 1). During the event, being aware, noticing what is happening, and intervening to bring about change are all parts of the process of reflection. Following the event, returning to the experience (metaphorically), and focusing on feelings and emotions can enhance (or inhibit) further reflection and learning (Boud & Knights, 1996). We believe that it is vital to incorporate these stages in the course design, as leaving the process of reflection post-course for participants to do them selves may not take place. The potential to miss out on a crucial learning opportunity may therefore be lost.

Figure 1 Model for promoting learning from experience (Boud, Cohen, & Walker, 1993, p.7)



Research by Moon (2000) and Seibert and Daudelin (1999) focuses on the importance of reflection in learning and professional development. Moon (2000) concluded that conditions for reflection included time and space, the role of facilitators, the curricular and/or institutional environment and an emotionally supportive learning environment. The challenge here is how to integrate time and space post-course into adventure based experiential learning courses.

Transfer of Learning

To maximize conditions for transfer, course designers need to consider what happens before, during and after the course (Broad & Newstrom, 1992). Hovelynck (2000) proposed a reflection-in-action model, which attempts to redress the dualism found in action-reflection models where the experiential activities are seen as action and the subsequent debriefings as reflection. The model whilst seeking to integrate action and reflection, appears however, to be limited to the duration of an actual programme. Butler (2001) argued that whilst external modes of reflection are a key process in personal and professional development, in order for transfer of learning to take place there also needs to be a strong sense of self. This strong sense of self, in terms of increased self-esteem and heightened self-awareness, is also seen as one of the aims of adventure based experiential programmes and in a sense is developed via the reflection process. Developing a strong sense of self may take time to achieve particularly if behavioural change is needed.

The transfer of learning is difficult to measure as all participants have different starting points, and the process is complex and highly individual (Cree & Macaulay, 2000). One measure of this for professionals is a change in practice as it implies a conscious shift in behaviour (Leberman, 1999; Moon, 2000). Nevertheless, attempts to measure the transfer of learning have been made using predominantly quantitative methods (Cheng & Ho, 2001). This research contributes to the limited amount of research using qualitative methods.

Method

Programme

The Action Learning Management Practicum (ALMP), a 3rd year management paper at Massey University, uses experiential education and management development methods for business studies students. The two most recent courses have been run as single semester courses, with students attending a five-day, four-night residential course. The location itself was close to the University campus, but within a secluded rural environment. The assessment for the course consisted of three assignments, including compulsory attendance at the residential course. Prior to attending the block course students submit an essay based around the theoretical foundations of experiential learning with respect to management development. Following the block course a reflective piece of work (for example, poster, video, essay or PowerPoint presentation) is submitted in which students are asked to link their personal and professional development from the course to the relevant theoretical concepts. The final assignment is a report to either a real or fictional organization on the relative merits of running an experiential management development program for their staff. These course components mirror experiential learning, which involves prior learning and the experiential learning cycle as presented by Kolb (1984) in terms of experience, reflection, generalizations and, for the working students, testing in new situations.

The activities in the program are designed to challenge students, using all their senses, in a number of ways—relatively, culturally, emotionally, physically, socially and via reflection (Martin, Leberman, & Neill, 2002). Frontloading of the activities with prescribed objectives did not take place. The rationale for this is that each student comes with different experiences, reflective of their stage in life and therefore will gain different learning from the same experience. Each part of the programme was introduced separately, which involved outlining the tasks for each activity and fielding any questions the students had.

Participants

Each of these two courses had 10 participants (in each case an equal split between men and women)—more than half were work-experienced extramural (distance) students including senior managers, human resource consultants, teachers, self-employed people, and military personnel (n=11). The remaining participants were internal students studying management, aviation and science (n=9).

Procedure

Data were collected on the last day of the course, two weeks and six months post-course. The six month post-course time frame was chosen to consider the transfer of learning in the medium term. At the conclusion of the residential programme there was a final review session after which students were asked to reflect on their experience on feedback sheets. The written feedback included the following questions:

- What did you learn most from? Why?
- What moved you out of your comfort zone? Why?
- What was the most enjoyable part of the programme?
- What was the least enjoyable part of the programme?

The written feedback was collated, analysed, and common themes identified. During the course students were encouraged to keep a journal to assist them in submitting their reflective piece of work two weeks after the residential component of the course has finished, it was this reflective piece of work that was analysed as the week-two data. The six-month post-course follow-up questionnaire was sent by email as an attachment. The questions were the same as immediately after the course with the addition of the following question:

- What impact do you think the programme has had on you personally and professionally? Why?

A range of data was collected at these points in time, however for the purposes of this article only the data related to *questions about* what students learned on the course and the impact of the course is presented and discussed. The nature of the research and issues of confidentiality were discussed and informed consent obtained.

Data Analysis

These qualitative methods recorded personal insights into the learning from, and effects of, the course for participants. All of the responses were transcribed, including the PowerPoint presentations and the words used on the posters. Responses from the feedback sheets were brief and manually analysed. The more extensive two-week and six-month post-course responses were analysed using the HyperRESEARCH qualitative data analysis package (Dupuis, 1994). HyperRESEARCH enables text to be coded and retrieved, allowing the generation of descriptive statistics in terms of numbers and percentages. The process involved both researchers initially separately coding the data, then reviewing the codes generated before agreeing on the final list of codes and then grouping these into themes. The codes used emerged from the data. For the two week post codes there were 39 codes, with ten being different. The final agreed number of codes was 32. These 32 codes were then grouped into six thematic areas. At six months post-course there were 29 codes, with nine being different. The final agreed number of codes was 19. These 19 codes were then grouped into five thematic areas.

It is recognized that the extent of generalization for the research is limited, but this is concordant with the nature of qualitative research, which seeks to form a unique interpretation of events rather than produce generalizations (Seng, 1998). The credibility and dependability of the research was enhanced by triangulating the data between groups and between participant information, as well as participant observation (Denzin & Lincoln, 1994; Yin, 1994). The trustworthiness of the results was enhanced by the researchers' roles as participant observers on the courses. The interactive process allowed interpretation of the phenomena by being actively involved (Merriam, 1998).

Participant Feedback and Reflections

Our analysis shows that at the end of the course participant responses are at the noticing stage. In the reflective piece of work submitted two weeks later there is evidence of making sense and making meaning. The responses six months post-course suggest working with meaning and in some cases

transformative learning, as well as highlighting the transfer of learning. The data presented below are representative of the findings as per the coding process, and serve to highlight the changes over time in the depth of participant reflection for four of the participants.

Noticing

Most of the feedback received on the last day of the course was quite brief and succinct. This may have been a feature of using feedback sheets, or the fact that participants were already focusing on returning home. Comments tended to highlight particular activities and/or more general concepts with statements such as:

Medusa's Ring. (Person A)

Camel Trophy. Teamwork. (Person B)

The personal experiences from people in feedback. (Person C)

Only one participant provided feedback on both an activity (Medusa's Ring) and what they had learned from it:

In the end if you work as a team you can solve it. Competition is healthy, teamwork at times is more effective. (Person D)

Making Sense and Making Meaning

The depth of reflection in the assignment submitted two weeks after the course was evident throughout the students' work. Part of this can be attributed to the fact that it was an assignment for academic assessment, which encouraged reflection on the link between the course and personal and professional learning. The other reason may have been time and space away from the course. It is acknowledged that the data at this stage could be considered weaker than the other data as they are based on students' assignments and a grade awarded. Person A makes meaning out of one of the activities and links it to communication in management situations, by stating the following:

On reflection I believe there is an important point to be made. In conversing with pictures, it was an unfamiliar and not particularly normal way of communicating. This led to misinterpretation and lack of detail. In organisations and management, communication is exceptionally important, yet often can be impaired by any number of variables. Take for example trying to communicate with people who do not share the same language, or a technical department communicating technical information to a marketing department, or even an organisation with its own jargon communicating with another different organisation.

Person B illustrates making sense of the experience during the course by reflecting on why he behaved in a certain way. He observed that:

Throughout the AL[M]P, I found that in most situations I was being led by others, and I was mainly just doing what I was told to do. I was quite surprised that this was the case, but it has made me realise that I very rarely take full control of situations. I believe this may be because when working with a group I do not want to be wrong and possibly make a bad decision affecting the group, or it could be because I am only confident in my decision making when I am on the sports field. I honestly do not know why this is the case, but I definitely have to change this if I am going to manage people in the future, as good leadership skills are a necessity.

Person C makes both sense and meaning out of the experience, by mentioning how they felt after the course and making the link to management:

I came away from the Action Learning Practicum refreshed, taking away the ultimate lesson that within every organization the most important asset is people, and that that ideal should subsequently be recognised. Everybody from the “stiffs” (top-level managers) to the “overalls” (labourers) wants to feel valued because it’s only human to feel needed and respected. However, conflicts often arise because each person brings their own “baggage” to every situation which includes their own sets of values, beliefs, life experiences, and skills—which may or may not be helpful to the team. Managing different personalities is definitely a hard job!

The personal learning from the course in terms of both making sense and making meaning, is evident in the following reflection by Person D. The last sentence also suggests working with meaning and transfer of learning:

When I feel I am doing things that are not helping me achieve my goals or getting me where I want to go. In the busy lifestyles many of us lead it is not very often that we give ourselves time to do absolutely nothing and think about our “place”. I felt it was very important to have this time to deal with my own personal situation and as a result I have decided to put time aside each month or so to be completely alone and focus on my own life, and issues. One train of thought during the 2 hours was based on a quote I have by my desk in my room. It says “We all have 24 hours in the day, it is the only “fair” thing in life. It is up to us what we do with these 24 hours”. As a result I am putting in place habits that get the most out of my 24 hours.

Working with Meaning, Transformative Learning and Transfer of Learning

The feedback received six months post-course needs to be interpreted with caution as a number of other factors may have affected participants’ lives and the details of the course may not be as clear as during the first few weeks after the course, as evidenced by Person A:

The exercise I feel I learnt most from was Medusas Ring. In my mind this exercise really demonstrated many of the various concepts I have encountered in studies undertaken towards my degree course, and also highlighted many aspects experienced in real life, to do with people, behaviour, groups, organisations, etc. Of all the exercises, I was most able to use this one as an analogy to real life, and I found the group debriefing most fascinating. Although I can’t pinpoint in bullet point form exactly what I learnt, it certainly set off all sorts of triggers in my mind.

Despite this fade-out effect, participants did show examples of working with meaning and in some cases transformative learning and transfer of learning. Person B illustrates working with meaning and to some extent transformative learning in a personal sense:

For me personally, the outdoors created a learning environment where I was at ease with myself. This helped me take a look at myself and analyse where I was going and determine whether this was either good or bad, which led me to making a few important decisions which I am now thankful for. I would say that while on the course I discovered just how badly I want to be successful in sports business management, as a profession. It also made me realise how important my girlfriend was to me at the time of the trip, and that she was not treating me in a manner in which I deserve, however I now feel I am not treating her like she deserves.

Working with meaning in a work context was highlighted by Person C when reflecting on what he had learned most from:

The debriefs which followed each activity. Some of the activities seemed pointless (even though most of them were fun) but when it came time to talk about them and evaluate what we had done, I learnt that there are some management concepts that are relevant to everyday situations, such as communicating to your team so that everyone knows what's going on. As well as that, I learnt that management is about combining the skills and qualities you have developed all your life and using them in the workplace.

Working with meaning, transformative learning and transfer of learning took place for some participants, whilst acknowledging some fade-out effect, and is exemplified by Person D in the following statement:

Possibly that bloody Soul Bird. I think the Soul Bird just kept scratching away at what you and the course had put into me. I still feel it! It forced formal review, which I was not good at. I believe I am good at review, but not formal, written review. The importance of culture was a biggie; you established the "organisational culture" within the group. I now see culture as possibly the single most important issue to be established or changed for organisational (I use that term very broadly) success. A good team doesn't need to be good friends. That was an important lesson. Medusa's Ring turned up specific lessons about strategy, negotiations including strategy, working around rules, backing judgement, objectives, human nature; the list goes on and on, but these were specific as opposed to lessons dished out by the Soul Bird which were general. Personally, I was more focused after the programme but this may have waned since simply because of professional changes I made. I did what I needed to do and am continuing to wait. But now with a better knowledge and a more defined plan. My strategic thinking and action has improved. Also my understanding of the need for formal review has improved 500%.

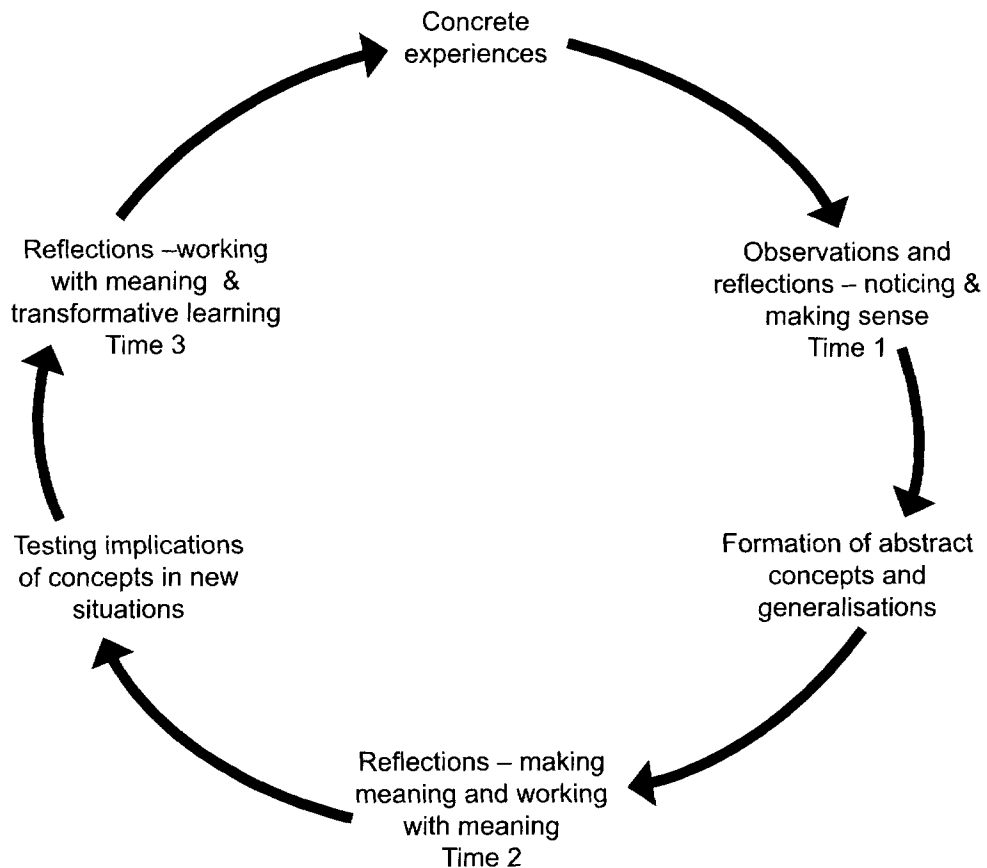
Discussion

The participant feedback presented would support the notion that reflection does not necessarily take place in neat stages, but instead is a more holistic process (Johns, 2000). With the benefit of time and distance away from the course, participants were able to reflect on the learning from the course without needing to complete particular tasks, or being distracted by preparing to return home—a process supported by the work of Butler (2001) and Roberts (2002). Similarly, it would appear that the quality and depth of the reflection changed with time away from the course and being in a different context, factors advocated by Beard and Wilson (2002) and Eraut (1995). The participant responses also provide empirical support for some of Mezirow's (1990) levels of reflectivity. On the last day of the course participants were mainly being "affective reflective". However, by two weeks and six months after the course there were examples of discriminant, judgmental and theoretical reflectivity.

The empirical evidence presented supports Moon's (2000) sequential stages of learning from experience—noticing, making sense, making meaning, working with meaning and transformative learning, as well as the change in depth of reflection over time. We argue that Kolb's (1984) model does not make explicit the importance of time, with respect to reflection, in promoting deep learning, a key factor in facilitating the transfer of learning. Different stages of reflection take place post-experience, not just being confined to immediately after the experience as shown in

the original model. Given that the observed level of reflection changed with time after the course and at the same time clearer indications of the transfer of learning became evident, an extension to Kolb's (1984) experiential learning model is proposed in terms of two extra times for reflection (see Figure 2). The extension affects the reflection part of Kolb's model and incorporates the element of time. The findings of this research suggest that the addition of times 2 and 3 in the course design, facilitate the transfer of learning from adventure based experiential learning programmes.

Figure 2 Extended experiential learning cycle incorporating the notion of time with respect to reflection



In the case of most courses formal reflection ceases at Time 1—the last day where participants generally are given the opportunity to reflect on the course and provide feedback. The recommendation based on this research is that Time 2 be added shortly after the completion of the course, whilst allowing enough time to lapse for participants to re-integrate back into their home environment. The suggested timeframe is between two and four weeks. Reflection at Time 3, approximately six months after the course, enables participants to actually implement and test some of their learning from the course and provides an indication of the transfer of learning—a key objective of many adventure based experiential courses. By incorporating the three different stages of reflection in the experiential learning cycle course designers can think creatively about how to incorporate each stage in their programme, and therefore facilitate the transfer of learning both during and after the course.

Conclusion

If adventure based experiential education claims to change people and be a means of facilitating the transfer of learning, then reflection is a key element in the process. In most cases the formal process of reflection ceases at the end of a course with individuals left to their own devices, but for many participants this is when the new learning starts. Busy lifestyles, particularly for working people, often precludes taking time to consciously reflect on experiences. This article has argued that to enhance the transfer of learning, some form of post-course reflection initiated by the course provider, as described above, is recommended. This structured approach to post-course reflection extends the work of Kolb (1984) and provides an approach to facilitate the transfer of learning. Further research is needed to empirically test both the proposed extension to Kolb's (1984) model, as well as the link between reflection and the transfer of learning. Research is also required to identify the optimum timing of Times two and three, as well as to establish if there is a connection between course length and these times. Despite the need for further research, early indications together with the literature would suggest that inclusion of the notion of time in terms of reflection within Kolb's (1984) model is a useful addition to adventure based experiential courses, particularly those associated with management development.

References

- Beard, C., & Wilson, J. P. (2002). *The power of experiential learning—a handbook for trainers and educators*. London, UK: Kogan Page.
- Boud, D., Cohen, R., & Walker, D. (Eds.). (1993). *Using experience for learning*. Buckingham: Open University Press.
- Boud, D., Keogh, R., & Walker, D. (Eds.). (1985). *Reflection: Turning experience into learning*. London: Kogan Page.
- Boud, D., & Knights, S. (1996). Course design for reflective practice. In N. Gould & I. Taylor (Eds.), *Reflective learning for social work: Research, theory and practice*. (pp. 23–34). Aldershot: Arena Ashgate.
- Broad, M. L., & Newstrom, J. W. (1992). *Transfer of training: Action-packed strategies to ensure high payoff from training investments*. Reading, MA: Addison-Wesley.
- Butler, J. (2001, January). *Reflection: Images of the self in action*. Paper presented at the Breakthroughs 2001 Conference, Auckland.
- Cheng, E. W. L., & Ho, D. C. K. (2001). A review of transfer of training studies in the past decade. *Personnel Review*, 30(1), 102–118.
- Cree, V. E., & Macaulay, C. (Eds.). (2000). *Transfer of learning in professional and vocational education*. London: Routledge.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications.

- Dewey, J. (1933). *How we think*. Boston, MA: D.C.Heath and Co.
- Dewey, J. (1938). *Experience and education*. New York: Collier.
- Dupuis, P. R. (1994). HyperRESEARCH (Version 1.56). Randolph, MA: ResearchWare Inc.
- Entwistle, N. (1996). Recent research on student learning and the learning environment. In J. Tait & P. Knight (Eds.), *The management of independent learning* (pp. 97–112). London: Kogan Page.
- Eraut, M. (1995). Schon shock: A case for reframing reflection-in-action? *Teachers and Teaching: Theory and Practice*, 1(1), 9–22.
- Gagne, E. D., Yekovich, C. W., & Yekovich, F. R. (1993). *The cognitive psychology of school learning*. (2 ed.). New York: Harper Collins College.
- Gass, M. A. (1989). Transfer of learning in adventure education. In J. C. Miles & S. Priest (Eds.), *Adventure education*. (pp. 199–208). State College, PA: Venture Publishing Inc.
- Hattie, J. A., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Out-of-class experiences that have a lasting effect. *Review of Educational Research*, 67, 43–87.
- Hatton, N., & Smith, D. (1995). Reflection in teacher education—towards definition and implementation. *Teaching and Teacher Education*, 11(1), 33–49.
- Hopkins, D., & Putnam, R. (1993). *Personal growth through adventure*. London: David Fulton.
- Hovelynck, J. (1998). Facilitating experiential learning as a process of metaphor development. *Journal of Experiential Education*, 21(1), 6–13.
- Hovelynck, J. (2000). Recognising and exploring action—theories: A reflection-in-action approach to facilitating experiential learning. *Journal of Adventure Education & Outdoor Learning*, 1(1), 7–20.
- Johns, C. (2000). *Becoming a reflective practitioner: A reflective and holistic approach to clinical nursing, practice development, and clinical supervision*. Oxford, UK: Blackwell Science Ltd.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. New York: Prentice Hall.
- Krouwel, W. G. (2000). *An investigation into the past, current and potential role of outdoor development and in particular outdoor management development practice in Britain in the light of practice at Vacation School Lipnice and Ceska Cesta in the Czech Republic*. Unpublished MA, University of Lancaster, Lancaster.
- Leberman, S. I. (1999). *The transfer of learning from the class-room to the workplace: A New Zealand case study*. Unpublished PhD, Victoria University of Wellington, Wellington.
- Macaulay, C. (2000). Transfer of learning. In V. E. Cree & C. Macaulay (Eds.), *Transfer of learning in professional and vocational education* (pp. 1–26). London: Routledge.
- Martin, A. J., Leberman, S. I., & Neill, J. T. (2002). Dramaturgy as a method for experiential program design. *The Journal of Experiential Education*, 25(2), 196–206.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass Publishers.
- Mezirow, J., & Associates. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco: Jossey-Bass Inc.
- Moon, J. A. (2000). *Reflection in learning and professional development: Theory & practice*. London: Kogan Page.
- Priest, S. J., & Gass, M. A. (1993). Five generations of facilitated learning from adventure experiences. *Journal of Adventure Education and Leadership*, 10(3), 23–25.
- Roberts, B. (2002). Interaction, reflection and learning at a distance. *Open Learning*, 17(1), 39–55.
- Seibert, K. W., & Daudelin, M. W. (1999). *The role of reflection in managerial learning: Theory, research and practice*. Westport, CO: Quorum Books.
- Seng, J. S. (1998). Praxis as a conceptual framework for participatory research in nursing. *Advances in Nursing Science*, 20(4), 37–48.
- Yin, R. K. (1994). *Case study research: Design and methods*. (2nd ed. Vol. 5). London: Sage Publications.

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