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Personal development as a contribution to professional development: activity based learning, graduate attributes and student learning outcomes

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Introduction
This paper is a record of a symposium that found its origins in a report on a curriculum initiative within one university program. Its motivation is to argue that it is timely for us to reconsider the place of physical activity learning experiences in University curricula. It first recalls the historical context surrounding the integration of physical education into Australian Universities and the impact that this has had on the role of practical skill and experiential based learning for physical education teachers in their undergraduate education. From there it seeks to develop an argument that it is now timely to reconsider the role of activity based learning experiences in meeting the current expectations for effective and relevant personal and professional outcomes from degree programs. The particular frame of reference adopted here involves the cognate area of outdoor recreation and its relevance to the professional preparation of teachers of physical education. However the principles espoused are argued as having relevance to a much wider range of applications both within the sport and exercise based disciplines and beyond.

Physical Education in Australian Universities — the context
To better understand any issue it is always necessary to examine the context in which the issue is placed. In the case of understanding the somewhat ambivalent place that physical activity holds in the curriculum of Australian Universities, it is necessary to go back to the history of physical education in the sector. Physical Education grew from a tradition of sub graduate study within the Australian University context, since its adoption as a Diploma program in the 1940s. This was initially funded through the National Fitness Council and the stimulus for its emergence was a concern with the fitness levels of young men who were joining the army at the time of World War II. The approach was very much based on the UK model associated with institutions such as Loughborough and Carnegie and the later group of specialist courses from the so-called ‘Wing’ colleges. It was a model that placed emphasis on excellence and discipline and highly valued role modelling and learning through doing. It was an eagerly sought after qualification that produced a high calibre group of physical education students many of whom went on to make their mark not only in their own discipline but in education generally. Indeed the majority of the academic leaders that were appointed to headships in the physical education, recreation and human movement departments that emerged as a part of the tertiary expansion of the 1970s (Treyvaud and MacLaren, 1976) came through this initial grounding. Up until that period however, with nowhere to go locally to obtain graduate and postgraduate status, a significant number migrated to North America where they worked within the physical education and kinesiology departments that were developing academic programs within the sub-discipline of physical education/human movement paradigm developed by Franklin Henry (1978).

The 1970s as well as seeing the emergence of a new sector—the colleges and institutes of advanced education - also saw the phasing out of sub-graduate work from the Universities. Physical Education was consequently subject to review within the ‘sandstone’ universities where it had been based and there were differing outcomes in different states. In New South Wales and South Australia the subject area migrated to the Colleges of Advanced Education (CAE) sector whereas in Queensland and Melbourne the subject area was re-cast as an area of academic study. The Bachelor of Human Performance program proved short-lived in Melbourne however and as in the other southern states the area was quickly embraced within the CAE sector. However in Queensland a Bachelor of Human Movement Studies was introduced in 1972 and the University of Queensland’s Department of Physical Education became the first Department of Human Movement Studies in Australia. This name change signified the University’s commitment to the field as an academic discipline and it joined the trend setting University of Western Australia’s Physical Education department as a national leader in the academic study of physical education from Bachelor to PhD level. However Henry’s sub-discipline model, despite several valiant attempts, did not handle the traditional activity based learning of physical education well.

A number of strategies were tried. They included developing the notion of ‘movement laboratories’ which applied kinesiological knowledge and understanding to specific sports type activities, as well as adopting a more philosophical approach which took on the notion of aesthetic and qualitative experiences as a balance to the quantitative and reductionist strategies embraced by the more scientific view of the world. Nonetheless the shift from teaching basketball to teaching the biomechanics of basketball could not hide the reality. Golf, walking (gait) and even the biomechanics of lifting could illustrate the principles of biomechanics equally as well. The reality could not be hidden. Basketball had no intrinsic value in such a conceptual framework and teaching students to perform basketball skills or to play football was not seen as ‘real’ university study, whereas biomechanics was (and controversially even performing routine titrations!). In the more vocationally orientated advanced education sector the tradition of activity and skill learning sat a little more comfortably. Consequently today, sports and physical education skills and practical activities are seen at best as something necessary (almost a necessary evil!) for the repertoire of physical education teachers. Thus, if they are to have a place in a university curriculum at all it is as some sort of ‘targeted’ professional studies. Indeed many staff in the
new discipline-based Exercise and Sports Science departments would prefer to see them handled within Education Faculties and Schools.

Since the seventies the field of academic studies in physical education has continued to expand and reshape itself in the process. The academic status of the field appears to be no longer a problem. By far the most popular strategy has been for the original somewhat eclectic field of physical education to redefine itself as a ‘science’ whether it be sport science, exercise science or human movement science. Sport studies and recreation studies together with sport management have emerged to either counter or complement this general trend, while physical education still lingers on in some programs. However in this broader process it is generally true to say that the old activities studies have remained not just marginalised but rather further devalued. They are too often taught at a mediocre standard where the drive to achieve higher levels of performance has fallen foul of some current misconceived notions of ‘equity’. Frequently they are allocated to the younger less experienced members of staff or even postgraduate students and consequently have less status. Yet despite the changed context, we are nonetheless left with some old challenges as for example when external boards and employers review the suitability of graduates to obtain employment as teachers of physical education. There have been examples recently where such agencies have flexed their muscles and required universities to modify their programs to better meet the needs of the classroom. In the context of this paper – another emerging set of demands are now posing these old familiar questions in fresher and more urgent ways.

Some current contextual trends

Firstly the whole debate around academic versus professional approaches that characterised the emergence of Exercise Science in the 1970s and 1980s has now dissipated. A climate of economic rationalism has found universities recast not as slightly irrelevant halls of scholarship and learning but rather manpower factories—geared to efficiently produce skilled labour for the dynamic economy of the 21st century. Put simply, the old debates about the relative merits of education and training would draw a blank response from many of the new inhabitants of the academic production units of the current university sector. With this blurring of the lines between concepts of education and training and a shift between ideas such as ‘pure’ and ‘applied’, ‘academic’ and ‘professional’, now may be the time to review the status and role of activity based learning.

Further impetus comes from the fact that, in the interim, Exercise Science as a knowledge base has developed a broader range of professional outcomes or careers. There has been considerable growth in the range and nature of health and fitness activities in the community. The aerobics revolution for example provided a major commercially driven impetus for people to change their lifestyle and incorporate more activity as part of their daily living. New employer groups and professional associations have emerged from such developments and these have given rise to new types of practical skills that need to be developed to meet client needs. Some of these come under the heading of allied health and the practical skills may be cloaked under headings such as clinical practice. Nonetheless, these vocational and learning needs are not entirely dissimilar from those of teachers, coaches and community sports development professionals and might reasonably be embraced within the same framework.

A final stimulus for review has come from the concern of universities to identify and proclaim the way in which they add value to the skills, and abilities of the students they enrol and the outcomes that are achieved as a result of the educational experiences they deliver. This is being carried out through a process of identifying graduate attributes that characterise the graduates of each institution. Graduate attributes reinforce the current consumer based models for university education. They imply a way of differentiation of the product of each institution tied to their relevance in meeting real world demands. Differences can be expected not only between university programs but also between the graduates of different disciplines and professions. The point here is that Universities are now consistently making claims for graduate attributes that are related to personal development and cannot possibly be nurtured by means of learning experiences that are confined to the lecture hall, tutorial room and laboratory. The following examples have been taken from a recent overview of graduate attributes provided by Australian Universities. This is by no means an exhaustive list but is representative.

- Effective time management
- Effective leadership and decision making skills
- Preparedness for lifelong learning in pursuit of personal and professional development
- Demonstration of responsibility for community
- Evidence of leadership potential to inspire and lead teams
- The ability to take responsibility
- The ability to take initiative and lead others, respect the values and contributions of others
- Communication and organisational skills
- Appreciation of the need for cooperation and teamwork
- Appreciation of lifelong learning
- A willingness to take balanced risks
- Problem solving and adaptability
- Work effectively as a team member
- Assume responsibility and make decisions
- Independence and leadership
- Have a depth of knowledge in their chosen field of study
- Have a breadth of generic skills beyond their field of study to be work ready

Department of Education Science and Training (2007)
Experiential learning can be directly tied to the notion of ‘value added’ outcomes where the students receive more than just intellectual knowledge. ‘Value adding’ is seen by disciplines and professions as an important factor in the differentiation of graduates and gives greater scope for university-to-university comparisons. This has real world relevance where the learning outcomes are encouraged or even expected to match professional requirements. These are achieved as a result of the curricular experiences provided. There are clear implications for the curriculum and its learning experiences in the embrace of attributes such as communication, problem solving, self-awareness and teamwork. This places the conundrum for developing PE teacher attributes within the discipline base model - previously associated with a devaluing of the subject matter knowledge of physical education - in quite a different and more sympathetic context.

Recognising the need for activity based learning—a response

We believe the attributes that are demanded of our professional graduates can only be delivered through learning experiences that allow for the practice and development of those attributes. This is manifestly true in the case of physical educators and their profession. The practice at ACU has been, albeit in the face of some opposition, to maintain separate identifiable movement experiences as a required aspect of the student’s degree. As currently constituted, the program at ACU is based firmly on a commitment to a sound grounding in the core discipline knowledge of Exercise Science. It is also based upon allowing flexibility for students to pursue a choice of professionally related outcomes both through concurrent cognate studies (outdoor recreation, health promotion or coaching and conditioning) and elective specialisation after the core (exercise prescription or health and sport management).

There is also a commitment to allowing students to apply and develop that core knowledge in both field experience and activity based learning experiences. Consequently all students are required to complete 10 activity-based units (120 hours of professional activities). However these are offered to provide choice related to professional outcomes, not just in teaching and outdoor recreation but also in fitness and the allied health industries. Thus massage, injury strapping and equipment calibration are examples of some of the units offered. The final dimension of these learning experiences is that they should be experiential rather than performance based.

The ‘Personal Challenge’—an example of activity based learning

The focus of this presentation will now move to the third year activity-learning module that is compulsory for all students. It is called ‘the personal challenge’. The goal is that each student should experience a personal challenge, as a conclusion to his or her three-year program. The challenge should have a physical basis. It should be personal in nature. This recognises the individual nature of personal challenge. Thus one student, who was a non-swimmer at the time, chose to set himself the task of completing a 400 metre swim in bronze medallion time – a simple task for many exercise science students but a very meaningful challenge for this individual. Some other examples represent further achievement in an area of particular interest. Thus one student with an interest in bodybuilding set and achieved the goal of entry into the Mr Australia competition. Another interested in cycling chose to complete the local round Port Phillip bay 210 kilometres classic ride. Some are particularly idiosyncratic in nature, like the student who chose to complete a run against the Puffing Billy tourist train up into the Dandenong ranges. A large group however has chosen to embark on gruelling treks and expeditions and the experience that is reported here is one such example.

As indicated the challenge itself must be completed in the final semester of study. In this way it seeks to provide a meaningful focus and conclusion for the individual and their program. The learning experience takes place over the whole of the final academic year and involves the following steps. Following an introduction to the structure and purpose of the module each student first prepares a written proposal and justification following discussion with the tutor. They then must complete an analysis of the task demands, drawing on their discipline knowledge. Next they will examine what characteristics they bring to the task and draw up a needs analysis based on this. Finally they must design and complete an appropriate training program to prepare for the challenge. A diary is to be maintained in order to assess progress in this stage. Finally, following the implementation of the challenge attempt, an evaluation and summary complete the assessment requirements.

This paper will now illustrate the personal challenge in action by means of a group project that was undertaken by 14 final year students with supervision from two staff members. The project was a 14-day wilderness bushwalk in South Western Tasmania. It was completed in November 2007. The specific graduate outcomes relevant to the learning experiences outlined were:

At the completion of this unit the students will have developed:

- Organisational skills — planning, leadership and decision-making
- Citizenship skills — respect for individuals, community responsibility, concern for the environment
- Analytical, critical thinking and problem solving skills

To give an idea of the nature of the challenge chosen by this group of students, the area concerned involved some of the most remote and rugged territory in Australia. As the crow flies, the trip was 163 kilometres, which does not take into account the ups and downs of climbing hills and mountains. It should be noted that all participants had gained experience as Bushwalkers during their course. They had previously completed a 1 day, 3 day and 7 day trip as the minimum requirement for participation in this project. The staff leader had personally walked the South Coast Track twice previously.

The data reported here represent the students’ interpretations of the experience—from the initial planning stage to the actual expedition and reflection. All students maintained a journal from the first meeting early in the year and then most
importantly throughout the expedition. An analysis of these student journals identified themes related to firstly the anticipation and expectation, which was a big part of the experience, and then the way in which the reality of the challenge itself was experienced.

The anticipation

Themes — high expectations
- excitement/anxiety

The experience

Themes — level of difficulty
- individual interpretations of events
- changing resolve
- group cohesion
- elation

Quotations from the student journals are used to highlight the expectations during the preparation for the journey and the changes that occurred as the reality of the challenges were confronted and met. Not every student experienced the same emotions, physical hardships or aesthetic responses to the wilderness. This is the essence of a personal challenge.

The anticipation

The expectations were unanimously high and these appeared to rise as the final preparations were made. The students were experienced in outdoor recreation at this time after having completed many tasks such as kayaking, bushwalking, rock climbing as a group. However, these activities were organised and led by staff members and the personal challenge was very different in that the role of the staff member was as an advisor and mentor only. Preplanning decisions made by the students although sometimes queried by the staff member were allowed to proceed because this was a personal challenge devised and organised by the students. Safety considerations were noted by the staff member involved and, for this reason only the overall responsibility to hone back an activity was retained by the staff member. Initially the excitement of the challenge was so pervasive that the remoteness and danger involved in this challenge was summarily dismissed.

- Been chatting to Sandy and she is a little worried about our navigation. I am too. We need to do it properly so we don’t get lost. …….Mixed feelings — scared but curious.”
- “I said to Mum the only way out is to walk — unless we call a helicopter!”

There appeared to be a high level of confidence in their preparation to date

- “The most exciting part of this challenge is that it will be the biggest expedition I have done. And probably the hardest. The chance to push yourself to the limits is something that doesn’t happen very often and I look forward to it.”
- “We all have to be the leader for a day — thank goodness we have been able to do that on other camps.”

Numerous meetings prior to the expedition occurred. The group went to Google Earth and “walked the track” in virtual reality but even this had failed to soothe all the anxieties. The personal challenge they had chosen was looming as — a real challenge.

The experience

Theme — difficulty

It was an interesting bus trip from Hobart to the South West Coast. Excitement was tempered with checks of equipment and food and invariably someone would ask: “Did you remember to bring …”. Each time this was met with some laughter and some trepidation on behalf of some group members. So right from the start the reality of the challenge was in the group’s minds.

- “Finally we set off. There was much excitement and nervousness but no chance to turn back.”
- “I feel I have prepared well and packed all I need but everyone else’s nerves are not much comfort

And into the walk on the first day this awareness was ever present among members of the group

- “… I didn’t sleep well and the wet weather made the morning slow and difficult to organise.”
- “Turned out to be a massive day that we didn’t even complete. I felt it to be one of the most arduous days of hiking I have ever encountered”

The monitoring of body language and quiet conversations on days one and two were interesting as the group had not bonded well. A number of smaller groups had formed and the camaraderie to be found at the sub group level appeared to be comforting. In such a situation there is a possibility that these sub-groups will become separate entities relying upon and supporting only those who belong within the group. Consequently, at the completion of day two a whole group
debriefing was called and the student members discussed how they could help one another. A breaking of the barriers occurred at this point with the sub groups disbanding and the group becoming the major organisation (Staff member diary note).

**Theme — individual interpretations of events**

But as always it was clear that perceptions were individual and the same part of any experience carried different meanings to different members of the group

(Day 5 experience)

• “The climb was long but not that difficult.”
• “… I wondered when we would start climbing … that soon became obvious as the steps got bigger and bigger!”
• “I thought this was a hiking trip not a rock climb!”

The group was working well together but the individual differences were still being harboured in each individual’s diary. This became particularly evident when two members of the group, unable to continue because of minor soft tissue injuries had to be flown out by the emergency helicopter. This same event was viewed in three quite distinct ways

• “..it was sad to lose 2 of our group as the helicopter took them out.”
• “ As I look at the helicopter I wonder if I should be there too.”
• “The start of the day was exciting as Meg and Tim were flown out by helicopter.”

**Theme — changing resolve**

This varying perception became particularly evident on both an individual and group basis in the different resolve shown at different stages in the trip.

• “I was in tears for 8 of the 10 kilometres, wore booties for the last 5k and felt nauseous for the last 2k. This was meant to be the easiest day but it was worse than the Ironbound. I swore 100% I was flying out tomorrow

But when the hut was actually reached and the sense of achievement seeped in, new resolve emerged from this same student

• “Nobody feels like walking tomorrow – but everyone is staying

**Theme — group cohesion**

In the same way the manner in which the group related was far from constant throughout the expedition.

• (Day 7) “I was so annoyed at the group that they didn’t help her.”

• (Day 8) “Everyone is so kind and helpful. Makes me want to get walking again.”

And yet in conclusion cohesion and solidarity was the final judgement for members of the group

• (Day 13) “I started as an outsider but now feel part of the group.”

**Theme — elation**

Evident throughout the expedition was the experiencing of troughs and peaks of significant intensity. But it was the peaks and accompanying elation that dominated the recollections of the group – even when the pleasure and the pain were simultaneous

• (Day 6) “This camp is spectacular - the water, the hills, the sun. We played cricket. I’ve got a big blister on my heel but surprisingly it doesn’t hurt. My toes however, are swollen black and unbearably painful.”

And who could forget the ecstasy of the ascent of the Ironbound? This challenge was to start at sea level and climb to 1000 metres and then climb down again. With the rough terrain this day trip took about 9 hours of very difficult walking.

• (Day 5) “… once on the top a euphoric state of craziness set in, with everyone yelling and the wind blowing so hard we were falling over.”

**The reflection**

At the completion of the journey, the comments that summed the whole experience up for the members of the group were these.

• “It is the trip I have been waiting all year for. It didn’t disappoint.”

• “It was tough but I loved every minute of it.”

• A sense of elation and joy at completing the challenge was expressed on the last night in the wilderness, thus summarising both the planning and the anticipation and the final sense of achievement. For this group of students their personal challenge had been set and achieved and it clearly served as a memorable conclusion to their three years development in their academic discipline. (Staff member diary note: I cannot believe that the group members are talking about next year. Why didn’t we do side trips? Many of the members were exhausted at the
end of the every day and now they are planning to do it again. Jussi has just proclaimed he will come back from Finland to be part of the walk again.)

- Post note (Staff member diary note: It is three months since the expedition was completed and just this week I have been contacted by three group members asking if they can come again in 2008 as leaders. These are not the only contacts as four others have “dropped by” for coffee and a chat. Finally, the emails from Finland still ask what our next expedition start date is. I question myself about what life skills have we instilled in these young people?)

Personal development and professional practice

The final part of this symposium will move on from a consideration of personal development for the students of our tertiary programs to address the issue of whether graduates from programs such as these are able, as professionals, to effectively progress to using activity based learning experiences to achieve educational outcomes over and above academic and cognitive learning.

Physical education professionals are often asked to advocate the benefits of their programs for students. Wuest and Butcher (2006), argue that through the use of physical activities in a carefully structured physical education program you can contribute to the development of the whole person. Together with a long list of cardiovascular, coordination and other substantial health benefits, great importance has characterized been placed on the social benefits to be obtained from participation in a well run program as well as the development of valuable 'life skills'. Improved self-esteem, social interaction, teamwork, decision-making and a greater connection with their community are just some of the outcomes cited. Similarly, Outdoor Education has for much of its professional history made claims to be able to contribute to the personal development of its participants. Components of personal development have been considered as clustering around the main concepts of

- Self-concept
- Self-esteem
- Identity
- Problem solving
- Decision making
- Social skills
- Self confidence

(Dusek, 1996; Surtees, 2000)

A meta-analysis by Neill and Richards (1998) which reviewed studies representing over twelve thousand (12,000) participants reinforced the notion that outdoor education programs make a valuable contribution to a person’s sense of themselves. Experiential learning and a focus on the process by which the individual reacts with their total environment is at the heart of the contribution made by this area of the curriculum.

Achieving personal development outcomes in school based Outdoor Education

The purpose of the study reported here was to improve the understanding of the impact that Outdoor Educators’ training and teaching has on the development of the life effectiveness skills of participants during outdoor education programs. The findings concerning the impact of training on the ability of the outdoor educators to achieve the goals set by the schools has been reported elsewhere. However the study also evaluated changes of life effectiveness skills in adolescents undertaking an outdoor education experience and it is these findings that are the focus of this report.

The program

Outdoor Education Group (OEG) delivered the program. OEG is an independent non-profit organisation, which organises and runs a variety of outdoor education programs for schools across Victoria and New South Wales within the schools’ formal curriculum. The Educational Outcomes Framework (Brehault-Hood and Smith, 2005) offers schools a variety of program outcomes around three components of life skills.

1. Self,
2. Others
3. The natural world.

The schools could chose outcomes that they sought for their students such as:

- personal organisation, social competence, intellectual flexibility, active initiative or self confidence. The camping programs were of five days duration, water-based and journey style. All camps were conducted within a five-week timeframe. All of the leaders used on the camps were qualified Outdoor Educators with a strong personal experiential base in their field.

Participants

There were 197 participants (55 females and 142 males) from three secondary schools in Victoria and New South Wales. The students were all enrolled in Year 9 and the age range of the participants was between 13 and 15 years old (average 14 years). Students were randomly assigned to groups by the schools and labelled as experimental and
control. The experimental group leaders were given extra training in the delivery of specific outcomes based on the schools chosen outcomes from OEG’s Educational Outcomes Framework.

Data collection
All students were administered the Life Effectiveness Questionnaire (LEQ, Neill, 2000), immediately prior to and after the camp experience. The eight factors of the ‘self’ section of the Educational Outcomes Framework relate directly to the eight factors of the LEQ.

Results
The main finding was that in a comparison of the overall life effectiveness skills a significant improvement could be seen between the pre- and post camp measures.

Changes in Overall Life Effectiveness

- The participant’s overall life effectiveness skills significantly improved (p < .05) from the pre camp test to the post camp test

With regard to the specific dimensions there were significant increases in

- Time Management
- Social Competence
- Task Leadership
- Emotional Control, and
- Intellectual Flexibility

Overall, the results indicated a small, positive standardised mean effect size of .27, which is slightly stronger than the suggested benchmark for outdoor education school programs of .20. Slightly stronger effects were reported by the experimental group as compared to the control group. It was not expected that the experimental group would obtain higher total change scores for all of the eight life effectiveness factors compared to the control group as this study only trained the staff in the outcomes chosen by the schools. While the overall effect size may be described as small, an 8% increase in personal, social and environmental skills through a relatively short intervention, particularly if sustained, may be considered a solid outcome. These findings are consistent with those of a previous study by Allen-Craig & McLeod (2005) that found the participant performance in factors of time management, social competence, task leadership and emotional control to increase significantly following an outdoor education intervention. Thus this study contributes to a growing body of empirically derived evidence that supports the value of experiential learning. Further it provides a rationale for further enquiry into the link between leader/teacher training experiences and the achievement of selected personal development outcomes.

Conclusion
This symposium has presented a plea for a re-evaluation of the place of activity and experientially based learning at all levels of education. In particular it argued that if personal development outcomes are to be a part of tertiary education, as exemplified in the sorts of graduate attributes currently being promoted by universities in Australia, then adoption, recognition and development of such learning experiences becomes a sine qua non. This paper has given one brief example of how such experiences might be provided and interpreted by university students. The issue is of paramount
importance for professions such as physical and outdoor education as the personal experience of such examples and forms of learning may well be integral to the ability of teachers and leaders to achieve outcomes of personal development for their own students.

However we would argue further that the diary responses of the students exposed to their personal challenge indicates the quality and depth of learning that can be attributed to carefully developed activity experiences irrespective of their professional needs. When this is set alongside the sorts of personal graduate attributes that universities seem to like to display so proudly, there may be a very real need for the deliberate reinstatement of activity within the disciplinary base because of the value it adds to the overall learning and personal development of the individual.

References


