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Fitness, Health & Wellness education – aligning teaching approaches to foster self-regulated learning approaches

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ABSTRACT
Self-regulated learning enables learners to transform their cognitive abilities into actions for task-related academic challenges. It involves the student in the development of personal initiative, perseverance and adaptation in the pursuit of learning.

Wellness is a complex multiple layered concept that requires students to be introspective through deep critical thinking. Intrinsic to teaching the Wellness concept is the belief that ‘in order to prepare students for a professional life they must be prepared for Life’. There is a need to provide learning scaffolds which are supports or suggestions rather than step-by-step instructions. Students who are mostly new to university study must learn to adopt a deep approach to thinking and learning about this concept in order for the experience to be enriching in both a personal and academic manner.

The advent of reduced funds, larger classes and emerging student worklife issues has shifted the teaching paradigm. The teaching approach in a large first year class utilises social forms of learning to assist students in becoming self-regulated in their approaches to personal Wellness. Through the processes of informing, assessing, role modeling, coaching by peers, mentors and teachers, students become engaged in learning which is personally meaningful. This case study illustrates how aims and objectives for the unit have been aligned through its pedagogical components including content, support, assessment, learning environments & learning activities to the desired learning outcomes. There is a tension between aligned approaches to curriculum design and the practicalities of teaching large classes. This raises critical issues for further consideration.

Introduction
In contrast with the objectivist view of learning as the acquisition of knowledge, constructivist and sociohistoric views of academic learning reinforce the view that learning is a complex process that involves the learner and his/her environmental contexts in dynamic and ongoing ways (Brown, Collins, & Duguid, 1989). If learning is most effective when it is an active process in which learners construct new ideas or concepts based upon their current/past knowledge, then self-regulation is a desirable goal for the 21st century university student (Boekaerts, 2002).

A tension when teaching large classes within the bounds of time and available resources arises between teaching approaches that facilitate self-regulated learning and the learning environments in which large classes are conducted.

The context of large class teaching presents a challenge to the creation of learning environments which foster self-regulated learning (Goss, Cassidy, & Boyd, 2002). Such environments must combine elements that enable students to initiate and foster personal approaches that lead to self-management of goals, efforts, time, metacognition, and their internal and external physical, social and emotional environments. Engaging learners in personally meaningful and novel ways with complex but realistic content is an ever increasing challenge with the growing numbers and increasing diversity of students (Brown et al., 1989).

Improved self-regulation of learning has been shown in social cognitive research to link with...
academic achievement (Bandura, 1995; Garavalia & Gredler, 2002; Grant, 2001; Kuiper, 2002; Zimmerman & Schunk, 2001). In this paper we present an approach to engaging and coaching students towards self-regulated learning through personal case studies. The enculturation approach to “Wellness” education has been designed to immerse students in the theory and concepts associated with the six dimensions of Wellness (Social, Emotional, Intellectual, Physical, Occupational, Spiritual) through their own personal experiences. Several researchers describe reflection as a process of internally examining and exploring an issue through an experience, which results in changed conceptual perspectives (Flower, 1994; Knapper & Copley, 2000; Vermetten, Vermunt, & Lodewijks, 2002). The approach taken in the Human Movement Studies unit HMB171 “Fitness, Health and Wellness” aims to encourage deep learning by stimulating students to take an internally controlled approach to learning in which they make decisions, find meaning, select strategies and modify behaviour whilst experiencing a progressive and deliberate change process to achieve balance across their Wellness dimensions.

The Transtheoretical Model (TTM)
The TTM (Prochaska, Norcross, & DiClemente, 1994) has been broadly described as a behaviour change model consisting of a number of dimensions, one of which is temporal indicating a continuum of five stages of change beginning with precontemplation where no intention to change a behavior exists (e.g. surface approach to learning) in the foreseeable future. Contemplation is the next stage, in which the awareness of a need to change a behavior in the foreseeable future (next 6 months), but not in the immediate future exists. Following this stage is preparation in which individuals plan to change a behavior in the near future (next 30 days) and have taken some steps toward change. The next stage is action during which major behavioural changes are made. If the changed behavior continues (e.g. for greater than 6 months) then the individual may be described as being in the maintenance stage. Relapse is described as regression to a previous stage (Grant, 2001; Woods, Mutrie, & Scott, 2003).

The TTM of change forms the basis for the HMB171 personal case study and may perhaps be a key consideration in academic performance enhancement. Significant empirical research in health related domains has shown the TTM’s applicability to health behaviour modification however there is little evidence or research into its application to non-health related areas such as education (Grant, 2001).

A Curriculum Design for Self-Regulated Learning: The Fitness Health and Wellness Approach
The curriculum for HMB171 has been designed with a rich and diverse array of delivery strategies, content and assessment tasks that blend to provide learning experiences for students which are personal, social and academic – a necessary mix for students in transition to university study. It is not a ‘get fit’ unit, but rather aims to facilitate a philosophical transition in students’ thinking through the relatively novel framework of personal ‘Wellness’. HMB171 aims to foster in students a sense of confidence about the concepts associated with balanced self-management across the six dimensions of their personal Wellness (Hettler, 2002).

Self-regulated learning enables learners to transform their cognitive abilities into actions for task-related academic challenges and is not an asocial form of education (Pekrun, Goetz, Titz, & Perry, 2002). It involves the student in the development of personal initiative, perseverance and adaptation in the pursuit of learning. The approach we have taken utilises social forms of learning in which role modeling, guidance and feedback from peers, mentors, coaches and teachers plays a key role. This form of learning marries with the core aims of the unit and thus the adoption of this teaching approach has been essential in order to ensure an effective alignment of aims to outcomes. The concept of alignment has been described by Biggs (1999) as a network of consistency. He posits that university learning may be more ‘fruitful’ when alignment is constructed on the basis of student learning (Biggs, 1999). Biggs model of constructive alignment encompasses the alignment of curriculum objectives, teaching/learning activities and assessment tasks. The shortcomings of this model in the context of the Wellness education curriculum lie in its omission of the domains of student support, choice of content/theoretical frameworks and the “beyond assessment” aspects of learning that are in fact broader objectives in the curriculum of “university education”. Our alignment approach attempts to bridge these perceived gaps in the model offered by Biggs. Figure 1 illustrates the
alignment model which has underpinned the construction of the learning environment for this unit.

Figure 1 Alignment Map for HMB171 (Fitness, Health and Wellness)

The Learning, Teaching and Context Mix
When elaborating the Alignment map for HMB171, it was useful to conceptualise the roles of students and the teaching team. The Role Construction Grid in Figure 2 shows how student self-study, small group tutorials and lectures combine across the curriculum content. It reflects the roles of all the players in the student’s progression through the behavioural change stages. The support strategies shown in each cell are designed to scaffold the learning process whilst facilitating the development of student self-regulated learning. The intention in mapping these roles is to ensure that all members of the learning and teaching environment act to move in the same direction. Each player’s awareness is raised about how their respective role fits into the total learning and teaching context.

Figure 2 Role Construction Grid showing the responsibilities of students, tutors, lecturers across the six dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
<th>Students</th>
<th>Tutors</th>
<th>Lecturer</th>
<th>Teaching and Learning Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>A healthy body maintained by good nutrition, regular exercise, avoiding harmful habits, making informed and responsible decisions about health, and seeking medical assistance when necessary.</td>
<td>Behaviour Change - Physical Lab activities Online questionnaires Case Study - Physical activity plan</td>
<td>Consciousness and role modelling; Application of knowledge to personal contexts - reflecting and critique</td>
<td>Consciousness and role modelling; In-class Demonstration and practice; Exemplars - Case studies; Situated cognition; Hypokinetic diseases and Health problems, Smoking, Alcohol, Substance Abuse, Eating Disorders, STDs Physical activity programming</td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td>The ability to understand your own feelings, accept your limitations, achieve emotional stability, and become comfortable with your emotions.</td>
<td>Personal choice of Lab activities; Online questionnaires; Case Study;</td>
<td>Cohesion, Personal development; Team support; Open reflective discussion;</td>
<td>Consciousness and role modelling; Anecdotes Exemplars - Case studies; Situated cognition; Emotional vocabulary; Emotional Management; Anger/Grief; Depression; Anxiety; Perfectionism; Stress Management</td>
<td></td>
</tr>
</tbody>
</table>

Self-regulated learning enables learners to transform their cognitive abilities into actio...
<table>
<thead>
<tr>
<th></th>
<th>The sense that life is meaningful and has a purpose; the ethics, values and morals that guide us and give meaning and direction to life.</th>
<th>Open reflection; Sensitivity to diversity; Personal choice of Lab activities; Online questionnaires; Case study;</th>
<th>Meaning of concepts; teaching; professional experience; Recognition &amp; Reward; Assist students to develop confidence in their expression and dialogue</th>
<th>Anecdotal - fanaticism; Encouragement to actively engage &quot;meaning of life&quot; and personal values, attitudes and assumptions; Situated cognition;</th>
<th>Contrast between philosophies of religion and spirituality; Overcoming life problems; Fatal diseases; Self actualisation;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual</td>
<td>Lab activities</td>
<td>Team – work + collaborative design, development, evaluation Together Everyone Achieves More</td>
<td>Consciousness; Anecdotes; Situated cognition - inner and wider circle; Contribution on a personal level to others' social wellbeing;</td>
<td>Self-esteem; Reaching out to family, partners, neighbours; Self-concept and Self - love; Friendship; Family problems; Who is important in your life?</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>Working students - developing a vocational attitude to study; Time management; Alternate perspectives; Personal choice of Lab activities; Online questionnaires; Case studies;</td>
<td>Enriched environment for tutoring; Greater satisfaction; Scholarship; Progressing teaching careers</td>
<td>Consciousness and role modelling; Anecdotes Exemplars - Case studies; Situated cognition;</td>
<td>Definitions of work and leisure; Why work; Workplace Health promotion; Workplace Wellness revolution/evolution; The value of non-paid work; Personal and Work balance; Time Management</td>
<td></td>
</tr>
<tr>
<td>Occupational</td>
<td>Case study engaged students in active pursuit of change - conceptual to practical; Personal choice of Lab activities; Online questionnaires; Case studies;</td>
<td>Lively interaction was the essence of the tutorial designs; Large class - but each person was involved; Scholarship - Teaching and Wellness concepts;</td>
<td>Study as a career - balance of paid work and study; Time management;</td>
<td>Left/Right brain; Creativity; Curiosity; Strategies; The value of &quot;informal&quot; learning; Perceptions and Conceptions - influences of past experiences;</td>
<td></td>
</tr>
<tr>
<td>Intellectual</td>
<td>Online questionnaires; Personal choice of Personal choice of Lab activities; Balance Spider Plots; Personal Case Study;</td>
<td>Integrating dimensions; Exploring self development; Role modelling;</td>
<td>Wellness - conceptual framework; Consistent linkage across dimensions as syllabus unfolds; Social value of Wellness; Global context; Living &quot;it&quot; not just &quot;doing&quot; it;</td>
<td>History, definitions and distinctions between Health and Wellness; Balance Dynamic interrelatedness; Integration into living; Intuitive self regulation, monitoring and management; Self-responsibility; Daily DBRU's (dead bloated rhinos underfoot)</td>
<td></td>
</tr>
<tr>
<td>Total Wellness</td>
<td>&quot;Wellness is an active process of becoming aware of and making choices toward a more successful existence.&quot; (NWI, nd)</td>
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THE ASSESSMENT
The assessment activities for the unit include a small group seminar, two objective test examinations and a semester long personal case study. Assessment via a personal case study in large first year classes is not often a preferred or manageable option in university settings (James, McInnis, & Devlin, 2002). However a personal case study was integrated as it was seen to provide the best potential for enabling the achievement of learning outcomes consistent with the objectives in a consolidated manner. With a focus on the value of each student’s personal experiences, goals and reflections, it exemplifies a situated, ‘authentic’ learning task which is dependent on a high degree of reflective thinking.

The case study has been a challenging one for first year students who require a great deal of support in coming to terms with constructing their knowledge and personal profiles of ‘Wellness’ through the application of theoretical frameworks to their own personal lives. The centrality of the case study to the development and application of concepts of Wellness ensures that the curriculum has structural integrity and is ‘situated’ in the learner’s personal frame of reference (Brown et al., 1989). Student success in this form of assessment is predicated upon the simultaneous and explicit development of a range of generic and study skills.

Whilst the case study task is a strength of the unit, since it ultimately situates the learning in the students’ personal lives, it presents a challenge for teaching the unit. Identifying and exemplifying relevant and realistic personal models that students can relate to in a consistent and appropriate way across multiple tutorial groups and with connectedness to the vicarious experience in the lecture is vital to the quality of the teaching and learning outcomes of the unit. The tutorial teaching strategies are a key to aligning the learning activities with this integrating assessment task in order to serve the learning needs and goals of all students.

As the personal case study is directly related to each member of the tutorial, discussions of topics could centre on the students’ own experiences. This contributed to the development of an informed class and an often caring and supportive session. This in turn led to richer and deeper approaches to the task; reflective practice appears to be a legitimate and valued aspect of the skills development process.

Students were asked to comment on the reflective practice approach at the end of a tutorial session. The following are a sample of typical responses:

- “Reflection–never really thought about doing it actively/all the time but now I know it can help me cope with problems/issues a lot easier–positively enable me to take life on”
- “Reflection–will ensure I will learn from my mistakes and become a better person.”
- “the case study helped to push me along”

The calibre of personal case study reports appears to have improved over the years concomitant with improvements in the quality and quantity of scaffolds and curriculum alignment.

Supporting Learning across the TTM Stages of Change
It has been shown in Health related research that transitions through the TTM Stages of Change are enhanced by the provision of appropriate scaffolds or supports for individuals that are specific to each stage. Similarly, viewing the support strategies (scaffolds) for student learning through a “stages of change” lens is useful to understand student progression through the HMB171 Wellness journey from an academic perspective. For example:

- Precontemplation – resources related to Wellness awareness eg lectures, text, tutorials, Online Learning and Teaching (OLT) site
- Contemplation – resources for self-awareness and needs analysis eg labs, self-assessment questionnaires, reflection on results and identifying needs, priorities and barriers
- Preparation – resources for developing goals and planning strategies for change eg Behaviour Change Guide proforma
Self-regulated learning enables learners to transform their cognitive abilities into action.

Action – resources for self management and adherence eg reflective journal and
Maintenance – Ongoing exposure to concepts across the curriculum.

Students feedback has indicated that their learning/understanding has been facilitated by the various resources provided e.g.

- “It let me see myself for who I am. I could not believe the negative person I was. It has been a good tool for learning about my inner self. Thanks.”
- “helped me realise that changes were needed in several areas”
- “Prompted consideration of lifestyle change”

The Evaluation Strategy
The evaluation plan encompassed each of the pedagogical elements considered in the curriculum alignment approach:

a) Teaching – SET/SEU are standard QUT student surveys
b) Learning - student case study submissions
c) Content – semi structured interviews with students and tutors
d) Support – survey of students in relation to OLT plus Classroom assessment Techniques (CAT)
e) Assessment – monitoring of student grades and quality of case study submissions – tutor collaboration on marking enabled benchmarking

The following examples illustrate typical evaluation data collected in relation to each of the pedagogical elements.

a) Teaching

Figure 3 Perceptions of Satisfaction

At the end of semester, the Student Evaluation of Unit survey open comments has provided additional evidence for confirmation of the alignment between the objectives and student perceptions of their learning outcomes.

- ‘I love the underlying concepts of this unit. It was very relevant for the ‘real world.’
- ‘A fun lecture to attend. I have begun to look into myself because of the lecture’
- ‘I really liked this subject; it is very helpful for the future and everyday life.’
- ‘The lecturers and tutors were very helpful and provided me with information when needed. This subject has impacted positively on my overall wellness.’
- ‘This subject has given me knowledge about fitness, health and wellness that will be useful throughout life.’
b) Learning

Figure 4 Grades distribution


c) Content

Semi structured interviews with students were carried out to assess perceptions of the relevance and linkage between various content areas and the concepts of balanced Wellness. Excerpts are available at https://olt.qut.edu.au/udf/teamhmb171/

d) Support

Classroom assessment technique (student paraphrasing)

“What is the one thing you have learnt so far in HMB171 that you can see yourself applying to your life, and which will have a positive/life changing effect?”

Responses

- “The one thing that I have learnt and applying to life is constructing and balancing the areas of wellness to have a balanced life.’
- ‘The introduction to a subject such as this one opened my eyes to the areas of wellness I have blatantly ignored’
- ‘To take a step back and take time to reassess and re-evaluate myself.’
- ‘Make changes that will improve the quality of my life and how to go about to make these changes.’

Conclusion

There are tensions between aligned approaches to curriculum design and the practicalities of teaching large first year classes. Barriers include:

- increased number of tutorial groups and staff may result in inconsistent delivery and assessment - transient “casual” teaching staff exacerbate this;
- the significant diversity of learners in terms of approaches to learning (eg deep and surface), levels of academic literacy and preconceptions of health and Wellness;
- large class teaching using only the lecture method can increase the content focus and decrease the learning focus with a concomitant “transmission” approach to lectures taking hold;
- pressures on resources often result in assessment design that promotes surface learning;
- support in the form of scaffolds for learners may become a “one size fits all” structure.

The constructive alignment approach used in HMB171 has provided a blueprint for the unit coordinator to overcome barriers and avoid or dilute many of the potential pitfalls of large class teaching whilst not compromising a student-centred philosophy of learning and teaching. Such an approach is transferable across disciplines and institutional cultures.

References


Research & Development, 18(1), 57-75.