Developing wellbeing in first year preservice teachers: A trial of a personal approach to professional education.

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Abstract

The general health of Australians is a growing concern, particularly with the current focus on reducing the prevalence of preventable risk factors for disease and overweight in children and adults. Schools are becoming increasingly responsible for health promotion, and educating young people about healthy lifestyle behaviours, yet there has not been an increase in required health education training for primary school teachers. Teachers are also at high risk of stress, burnout and leaving teaching due to the demands of the profession on their personal wellbeing.

The likely place to prepare future teachers to adapt to the demands of a changing curriculum is during their pre service training, but the health of university students is a concern in itself. The transition to university and the university environment, with its increase in personal responsibility and culture of alcohol consumption; and the focus on competition and success in personal and academic areas can place students at risk of a multitude of health problems. In addition these students are typically at an age where risk taking is common and they rarely know or care about the consequences for their health in the future.

To address these issues, a first year undergraduate health education subject 'Concepts of Wellbeing' was developed and delivered to all Bachelor of Education students at the Bendigo campus of La Trobe University in Australia. The subject was designed to trial the use of behaviour change theory in order to improve student's personal health behaviours and eventually prepare them for teaching about such health issues in schools. This paper describes the first year of implementation of this subject, and uses student evaluation and staff reflection to describe the insights that arose from

this first trial. Suggestions for revision and improvement of the subject for future implementation are also given.

Introduction

In 2007 the Bachelor of Education course at the Bendigo campus of La Trobe University was redesigned and the "Connecting with Education: The First Year Experience" project (Masters, 2008) was initiated. The aim of this project was to develop a common first year that would aid student retention and transition to university study. This restructure provided the opportunity for two new core subjects to be developed with the intention of developing a foundation in pre service teacher's physical, personal and social learning (Masters, 2008). One of these subjects was termed "Concepts of Wellbeing" and was intended to focus on the students' personal health and wellbeing as university students and prospective teachers. The subject as delivered to all Bachelor of Education students including those in primary and secondary pathways and the small cohort of students training to be specialists in health and physical education.

This paper gives the details of the theoretical background and justification of the personal and professional approach to pre service teacher preparation. It then reflects on the successes and challenges experienced in this trial of that approach, using subject evaluation data, student comments and staff reflection. Implications for subject improvement and application in other university pre-service teacher training programs are then given.

Background

The health and wellbeing of Australians is a major concern (AIHW, 2005, AIHW, 2008). The increased prevalence of health issues, most of which are largely preventable, has raised awareness of the importance of health and wellbeing. Specific issues such as overweight, inactivity, sexual health, binge drinking and mental health have prompted governments and community organisations to implement advertising and health promotion programs. They have also highlighted the necessity for schools to be used as a major setting for health promotion, whether it be through formal curriculum or additional programs (Zannettino, 2007, Kay-Lambkin et al., 2007, Neumark-Sztainer, 1996).

This focus on schools has led to additional demands on an already crowded curriculum, and in most cases, no additional health education training is provided for teachers to prepare them for the difficult task of developing health knowledge, skills, attitudes and ultimately, affecting behaviour change. There are several other issues, including: embarrassment in speaking about sexual health issues (Evans and Evans, 2007), the perpetuation of myths and generalisations about food and exercise and bias against overweight children and adults, particularly when they are teaching about weight and health (Yager and O'Dea, 2005). The pre service training of teachers to enable them to properly implement such programs has been highlighted as a major challenge for school health promotion success around the world (Journan et al., 2008). The inclusion of an effective health education component to primary school teachers' pre service training would be an obvious solution to the current

problem; but there are also concerns about the prevalence of health issues in university students.

University students are known to be vulnerable to a wide range of threats to their wellbeing. Physical health problems due to lifestyle choices also include excessive alcohol consumption (Clements, 1999, Fillmore, 1988, Roche and Watt, 1999) tobacco smoking, and elicit drug use (Webb et al., 1996). University students are also known to have poor nutrition (Racette et al., 2005), only half meet physical activity guidelines (Racette et al., 2005) and their sexual health is also a concern (Brown and Vanable, 2005). Psychological issues such as stress and anxiety problems (Eisenberg et al., 2007), low self esteem (Robins et al., 2002), body dissatisfaction, dieting and eating disorders (Drewnowski et al., 1994, Kurth et al., 1995, Mintz and Betz, 1988, Yager and O'Dea, 2008) are also common to this group.

The reasons behind these many health issues are not clear. Although the transition to university and the university environment is proposed as a major risk factor for these health problems (Burkle, 1999, Vohs et al., 2001), university students are also at the age at which most risk taking and subsequent health issues generally arise. Other risk factors for these health issues include perfectionism, peer group influence, financial stress and impaired judgement due to alcohol (Stice, 2002, Jessor et al., 2006, Flack et al., 2007).

The health and wellbeing of pre-service and practicing teachers is important for many reasons. Physical health would impact on the success of completing their degree program and remaining in the profession. High self esteem and self efficacy are important protective factors against teacher burnout (Friedman, 2003, Howard and Johnson, 2004). The potential effects of teacher's adverse health behaviours on their future students are also a concern. Though there are theoretical and demonstrated links between role modelling of positive health behaviours from teacher to student (Bandura, 1986, Clark et al., 1988, Cardinal, 2001), the same relationship has not been tested for negative health behaviours. Regardless of the effects of teachers' personal health behaviours on their future students, the known health issues in this population and in practicing teachers provide enough reason for health promotion initiatives. It is proposed that the pre-service teachers' personal health can be improved while developing their professional knowledge and skills (Yager, 2007), and that it would be an oversight to forego this valuable health promotion opportunity in this group.

Subject details

The subject, 'Concepts of Wellbeing' was designed to introduce students to health education content and prepare them for teaching health education in schools by engaging them personally with material on a variety of health topics. Physical, mental, emotional, social, spiritual, environmental and vocational health formed the main structure of the subject and important health issues for first year students such as stress and coping with the transition to university, alcohol, sexual health, body image and self esteem were also included. There were three components to this

subject: lectures, tutorials and an online learning module for each week and each topic area.

Lectures focussed briefly on the content of the topic area, but then aimed to take a behaviour change approach to improve students' attitudes and behaviours about the topic. For example, the body image lecture began with the introduction of the term body image and then used a cognitive dissonance approach (Stice et al., 2006) to reduce the influence of the media and the internalisation of the thin ideal for women and the muscular ideal for men. Tutorials usually involved interactive group activities that aimed to improve that aspect of health for the students personally, but also model the types of activities that could be used in the classroom. For example, in the self esteem tutorial, students used Strength Cards (Available from *St Luke's Innovative Resources* www.innovativeresources.org) to identify their own and other's strengths and qualities, completed "warm fuzzies" where students write a positive comment about each other on small pieces of paper, and then created a 'self portrait' by presenting who they are and what makes them unique in any medium to fit on an A4 piece of paper.

The remaining third of the class time for the subject was then presented through online learning modules. These modules were developed in Dreamweaver to present a series of web pages containing background information and instructions for task completion. Activities were varied and included stimulus materials such as PDF documents of readings, video documentaries, web links, power point presentations, and content pages. Students were then expected to engage in this material through interactive quizzes, online discussion boards, writing responses to questions in a workbook, or completing a personal reflection in a private journal. Students were instructed to engage in this learning at their own pace at a convenient time and expectations of participation for at least an hour a week were reinforced in class time. The online learning modules were developed according to a variety of different behaviour change theories to enable attitudinal and behavioural improvement. Although these theories were sometimes used in lectures and tutorials, the focus was stronger in the online modules.

The behaviour change theories that were incorporated into the subject to enhance student wellbeing, included the Transtheoretical Model of Behaviour Change (Prochaska and Velicer, 1997), Cognitive Dissonance Theory (Festinger, 1957) and the Theory of Planned Behaviour. The Transtheoretical Model of Behaviour Change (Prochaska and Velicer, 1997) proposes that individuals move through a series of five stages (precontemplation, contemplation, preparation, action, maintenance) in their progression towards the adoption of healthy behaviours or reducing unhealthy ones. This theory was chosen for application in Concepts of Wellbeing as it was assumed that students would all be at different stages of change, and that the online learning modules would enable them to continue through the progression regardless of their start point.

The dissonance approach is based on the understanding that when individuals hold two conflicting sets of information about a topic, the resulting psychological discomfort motivates them to change their attitude or behaviours in order to reduce

the inconsistency (Festinger, 1957; Stice, Mazotti et al., 2000). A particularly important component of the approach is that of Counter Attitudinal Advocacy. This is where the individual's change in attitudes or behaviour is further reaffirmed by their public statement. This approach has been used successfully in influencing health behaviours such as eating disorders (Stice et al., 2008) smoking cessation (Killen, 1985), exercise (Chatzisarantis et al., 2008) and condom use (Stone, Aronson, Crain, Winslow, & Fried, 1994). This approach was chosen due to it's consistent and recent success in clinical interventions (Stice and Shaw, 2004).

The Theory of Planned Behaviour [TPB] (Ajzen and Fishbein, 1980) fits with the Theory of Reasoned Action to state that it is the individual's perceived behavioural control over the opportunities, resources, and skills necessary to perform a behaviour or quit a behaviour that is critical to the behaviour change process. This is used repeatedly in the subject Concepts of Wellbeing, where students were asked to plan for future situations that might arise such as grief, and to step through the support structures and skills they would draw upon so that they have the self efficacy to go through with these plans if the situation does arise.

Though theories provide a neat structural framework for the development of the subject and activities used, there were many expected barriers to behaviour change among this group. The first was that health behaviour change is notoriously difficult to achieve as an individual, an educator and as a researcher. The complex determinants of health and mechanisms of health behaviour mean that even the most well informed individual may make health decisions that are inconsistent with this knowledge and may not improve their health behaviour (Haines et al., 2005). In addition, the age group of the cohort in this study meant that the majority of the students were still considered to be adolescents. At this age there is a known reduction in rational thinking and increase and risk taking behaviour due to the frontal lobe of the brain that controls such impulses not being fully developed (Steinberg, 2005). This may reduce their ability to link longer term health consequences with current health behaviours and reduce their reaction to health promotion initiatives (Hall and Fong, 2007). Finally, student resistance to change is well reported during other transformative learning efforts (Taylor, 2007).

See Table 1 for an overview of the weekly class activities and where particular behaviour change theories were incorporated.

Research Approach

This paper uses a reflective approach to comment on the implementation of the first trial of the subject 'Concepts of Wellbeing', the issues and insights experienced and improvements for future implementation. Data were sourced from student evaluation questionnaires which included a standard University Quality Assurance Survey and a specific First Year Evaluation Survey combined with feedback from student emails and posts on the subject discussion board. The La Trobe university human ethics committee approved this research.

All first year Bachelor of Education [n = 195] and Bachelor of Health and Physical Education [n = 45] students were invited to participate [N = 212]. The first

form of data collection was the standard University Quality Assurance Survey [QAS]. This survey is developed by the university and the subjects to be evaluated are dictated by the faculty each semester. This survey asks students to respond to questions that asked them whether the subject assisted in developing a range of academic skills as well as their enjoyment of the subject on a likert type scale from *strongly disagree* to *strongly agree*. This pen and paper questionnaire was given in the final tutorial for the semester and students were informed of the voluntary and confidential nature of the survey and asked to give honest and accurate feedback. N = 182 Students returned the first questionnaire and therefore became participants in this study; the response rate for the QAS questionnaire was 75%.

The first year cohort was also invited to participate in the project by completing the First Year Evaluation Questionnaire [FYEQ] at the end of term 2, approximately six months after the completion of the subject. Out of the whole group, 102 students gave permission to become participants in the first year project, making the response rate 48.1%. The first year evaluation survey instrument was developed with input from all staff involved in teaching first years and was collated by the Course Coordinator. It used a Likert scale (strongly disagree to strongly agree) to ascertain student attitudes and preferences regarding a range of items within categories concerned with structure, content, processes and implementation practices of the program during Semester 1 and Semester 2. Although this questionnaire focussed more broadly on the student's impressions of the first year of the Bachelor of Education course as a whole, it also asked subject specific questions which are presented with the results in Table 2 and an open ended section available for further comments.

Informal methods of data collection also included the artefacts that were generated by students while engaged in the course content including student written reflections, tutorial activities, online quizzes, and Web CT discussions.

Results

Enjoyment of the Subject

The enjoyment of the subject was assessed on the University Quality Assurance Survey and student artefacts and emails. The results of the two items addressing student enjoyment of the subject are shown in Figure 1.

On the QAS, 79% (n = 132) of students reported that the staff had worked hard to make the subject interesting, and a similarly high (68.1%) proportion of students reported that they were satisfied with the overall quality of the subject.

Students also expressed their approval of the subject through the discussion board, for example:

"This is my favourite subject. I am really enjoying it. It is interesting and has information for us to handle our everyday lives."

Students also voiced their opinions about their enjoyment of the subject through emails to the lecturer. The following example was a post-script to an email from a male student to the subject coordinator regarding assessment following the completion of the subject:

"I would just like to say how much i enjoyed concepts this semester. i must admit I was initially a bit sceptical about the subject and was curious as to where exactly it was going. But now that it's finished I've realised how beneficial it really was. It opened my restricted view on health and obviously helped me explore the different aspects (some of which I had never thought about). Considering my desired pathway as a teacher I don't think I would have had any other opportunity to learn about these areas of health. I think it would be important not only for myself to be consciously aware of my health but also to have the general knowledge to assist my own students with potential diffficulties or concerns that may arise."

Improvement of Personal Wellbeing

The improvement of wellbeing was subjectively assessed by the students themselves on the First Year Evaluation Questionnaire. Results from the subject specific items on this questionnaire are given in Table 2. Overall, 45% of students agreed that the subject had enhanced their own personal wellbeing. Although this does not seem overwhelming, it is considered an achievement that the students were able to recognise an improvement.

A similar proportion of the students reported that the online activities encouraged them to reflect on their personal wellbeing in the First Year Evaluation Questionnaire. Again, this is considered positive as the online learning modules were specifically designed to adhere to the various behaviour change theories and to achieve the aim of student reflection on their own wellbeing. The amount of time students spent online is important as it is the only indicator of how much they engaged with the materials that were designed to have the strongest impact on their health attitudes and behaviours.

According to basic WebCT tracking functions, the amount of time that students spent online for the whole semester ranged from 51 minutes to 43 hours, with an average of nine hours which is below the recommended hour per week. In fact, the majority of the students in the subject (67%) spent less than the recommended 13 hours for the whole semester online. Participation in some of the individual aspects often could not be monitored by staff as they did not involve webCT quizzes or discussion board postings.

Personal Relevance

Half of the students reported that the issues and concepts that were presented in the subject were personally relevant to them on the First Year Evaluation Questionnaire. This is encouraging, however it became apparent during semester that what was considered relevant for one student was not relevant to all. One participant commented in the open-ended response section:

"Many of the topics in EDU1CW may be relevant to students straight out of secondary school, but not to a 35+ mature age student"

The majority of the health topics that were presented in this subject had been chosen for their relation to teaching but also to the potential health issues generally found in first year university students who were presumed to be aged 17-24. The heterogeneous nature of the group made tailoring the health information and behaviour change activities difficult even though they were originally designed to allow for a wide range of issues and differing risk status.

Relevance to Teaching

Almost half of the students either agreed or strongly agreed that the subject help them to develop a greater understanding of wellbeing in a teaching context on the First Year Evaluation Questionnaire. Even though this was positive, one of the comments made in the open ended section of the questionnaire seems to encapsulate the mindset of many of the students:

"I found [this subject] slightly irrelevant as I wanted to learn more about teaching than about myself"

Compared to the other subjects that the students were enrolled in that semester (Introduction to Teaching Practice, Language and Literacy and Information Technology in Schools), which were all heavily focussed on the content, pedagogies and practices of teaching, the topics taught in Concepts of Wellbeing would have seemed extraneous and therefore unimportant by comparison.

Discussion and Implications

The first year undergraduate subject "Concepts of Wellbeing" was enjoyed by the students and they reported that it had improved their personal wellbeing. The challenges of personal relevance, relevance to teaching and student engagement provided opportunities for insight into possibilities for success of a program of this nature, and these will not be discussed.

Issues of Relevance

The aims of 'Concepts of Wellbeing' were to improve the student's personal wellbeing and their ability to teach about wellbeing. A major issue with the trial implementation of this subject was therefore the extent to which all students found the subject to be relevant to teaching and to their own health.

'Concepts of Wellbeing' focussed on issues that were considered prominent in the 18 – 24 year age group as this was the expected age of first year students. What became apparent very early on in the subject was that an issue that may be relevant to one student is not necessarily relevant to all. The students who were mature age entry (age range 25- 45) were intensely concerned with their ability to cope with the stresses of university study and methods of balancing family life found the vocational health component to be particularly useful, the students who had come straight to university from high school did not. The issues of alcohol and sexual health were more relevant to the younger group, but again there were variations in those who were binge drinking regularly and at risk of sexual health problems compared to those who abstained from both activities. The degree of

personal relevance is very important in this type of health education as the students need to access the information dependent upon their individual Stages of Change or risk level according to the transtheoretical model of stages of behaviour change (Prochaska and Velicer, 1997).

There were still limits to the degree of personal relevance for each student even with several strategies in place to attempt to improve the applicability of subject material for each student in order to achieve an improvement in their wellbeing. The author has trialled a similar teaching approach among a smaller, and more homogenous group of physical education pre-service teachers, who were very similar in terms of age and potential risk factors for health issues with a more successful outcome (Yager, 2008). The solution to the problem of personal relevance in a large diverse group may therefore be to divide students into smaller groups according to risk status to allow a targeted prevention approach, which is known to be more effective in improving health behaviour (Stice and Shaw, 2004, Kreuter and Skinner, 2000).

A further recommendation is that an individual major assessment could form the basis of the personal application of student learning about wellbeing, rather than attempting to address all areas of wellbeing that students may or may not find relevant in the lectures and tutorials. This notion of 'doing' learning and of the constructive alignment of learning outcomes and assessment (Biggs, 1996) is not new but is rarely effectively applied in higher education, even in education faculties. By students developing, researching, applying, evaluating and reflecting on a small project to improve their wellbeing they would be interacting with the information and applying the behaviour change theory that was most relevant to them and thus deriving the most benefit from the experience.

The insights gained in terms of relevance to teaching were also useful to inform future practice. Everything that was taught in the subject was very much linked to teaching, but the links were not explicitly outlined to the students in the hope that the learning would occur when the students figured that out for themselves. For example, students were taught about communication and conflict resolution skills and the examples that were used focussed on personal relationships or communication in group work at university. When questioned about dealing with parental complaints and criticism later on in the semester, the students could not link the skills and information they had learned about their personal communication to applications in their profession. This is representative of the typical mindset of first year students taking a surface learning approach (Ramsden, 1992) but also created a major insight for the teaching staff. It was realised that the students needed the specific links between subject material and teaching to be identified for them as they did not yet understand the variety of demands of the teacher's role in the classroom and in the school community.

It is therefore suggested that the rationale for some of the approaches and activities be made transparent to the students in order to identify the relevance to their personal wellbeing and professional competence. Although it would be preferable to have students discover the links between activities and practice

themselves, the short time available means that this is not always possible. Pre service teacher training literature has long recognised the importance of reflection on one's own personal experiences, both at school and in life, to inform teaching practice and it is recommended that the students be made aware of this approach (Calderhead, 1987). The use of the theories of behaviour change can also be explained to the students and there is the option for the students to act as researchers in terms of their own experiences in attempting to alter health behaviour.

Issues with Online Student Engagement

Even the most well considered activities will not induce health behaviour change if the students do not access them or engage with them. Although 20 % of the student's grade was based on their online participation, the lecturers did not assess the individual activities in each online learning module. The decision not to assess student work was made due to the private and personal nature of the reflections that were required of the students in order to achieve behaviour change. However, this meant that staff had very little idea of whether students were actually completing these guided reflections and whether they were completing them correctly and therefore allowing health behaviour improvement. It is assumed that students would be most likely to complete the modules if the issue was of particular personal relevance to them, acting as a self selected targeted approach, but there was no confidential way that the lecturers could be sure that this was occurring. The limitations of the WebCT student tracking capabilities meant that staff could only observe the total amount of time spent logged on to the class WebCT site, the number of folders and documents opened and the number of discussion postings students had completed.

In order to improve engagement and participation in the online learning modules, a number of recommendations may be made. Firstly, the learning modules could be transferred to a hard copy student workbook. Although the transition to online and blended learning environments is in favour in many universities, students anecdotally reported 'online overload' and suggested that they would be more likely to complete the activities if they were physically in front of them. The concept of a workbook was recommended by students and would also allow staff to 'check off' student completion of the learning modules. Staff need not read the students work due to confidentiality issues and time restrictions, but this way the participation could be assessed with greater validity. The process of writing down, and creating a 'public' statement of their change in attitudes would also provide a stronger behaviour change effect according to Cognitive Dissonance theory. This theory states that the participants must publicly and voluntary declare their change in attitudes (termed counter-attitudinal advocacy) in order to consolidate their change in attitudes and allow their change in behaviour (Roehrig et al., 2006).

Merging Behaviour Change Theory with Teacher Preparation Literature

A reflective approach to pre-service teacher preparation acknowledges that students bring to university a variety of experiences from their schooling and personal lives that shape their attitudes towards teaching and teacher training (Calderhead, 1987).

These attitudes are said to shape the experiences and information that they derive from teacher education, and the eventual teachers that they will become. The approach to teaching in Concepts of Wellbeing was intended to allow students to undergo the health behaviour change process, both so that they could improve their own wellbeing, but also so they could reflect on the process and use this in their teaching. The use of the reflection on personal issues and experiences to contribute to professional knowledge may therefore assist in developing flexible teachers that are able to adapt to the demand that will be placed on them in the future rather than assuming that they can receive all of the information they will ever require at university (Handel and Lauvas, 1987).

It is also interesting to note that although there are two distinct aims of the subject, and two distinct routes of achieving these aims, there was a reciprocal interaction that improved the process overall. The behaviour change theory was implemented to improve the students health; and a reflective, problem based approach was modelled to improve their teaching of the health topics, but the effect of the combination of the approaches may have led to greater gains overall. In future, teacher preparation theory and models of health promotion and health education should be examined together in order to distinguish the best possible processes and outcomes for pre-service teacher training in health.

Limitations

This paper forms a reflection on subject design and trial delivery and is by no means comparable to an empirical research study. Students' actual health knowledge, attitudes and behaviours were not assessed pre and post test and there is no control group, so we cannot comment on the effectiveness of the subject in that respect. The main reason for this was to avoid survey fatigue and to avoid overloading students with the burden of research participation so early on in their course. These measures would allow a determination of the subject's success in developing student wellbeing and some degree of behaviour change measures are recommended for future subjects of this nature.

In addition the students who were present in class on the day that the two surveys were distributed, and the type of student who agreed to participate may not have been an actual representation of all of the students enrolled in the subject. The response rates were also quite low for the second questionnaire.

Conclusion

This trial implementation of 'Concepts of Wellbeing' found that it was an effective addition to the pre service teacher training program. The personal and professional approach to teacher preparation is justified for trainee teachers given the known issues in university student health and teacher burnout. This approach allows students to improve areas of their health that are relevant to their life as first year pre service teachers such as stress, coping and self esteem. It also models a behaviour change and health promotion approach to health education that students can use in schools with their future classes. When conducted in the first semester of the first

year of the course, this sort of subject can also assist with student transition to university study from secondary school or from breaks from study.

It is suggested that other universities adopt a similar subject in their undergraduate teacher education programs. The insights gained from this trial provide powerful recommendations for future attempts at a personal approach to professional education. Continual reflection and improvement of teacher preparation programs means that there will potentially be an improvement in the personal wellbeing of future teachers as well as their ability to improve the wellbeing of their future students.

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Table 1: Details of the lectures, online activities and tutorials taught in the trial implementation of the subject 'Concepts of Wellbeing'						
Week	Lecture	Online Activities	Tutorial			
		The online modules need to be completed following the lectures in preparation for the next week's tutorial.	Tutorials follow the lecture topics one week later			
1	Introduction and Big Picture	Reading; Assess your own wellness through an on-line	1 hour tutorial			
	What is meant by health and wellness? Using WebCT	quiz; Contribute to discussion board, complete of quiz	Icebreaker activities; Discussion of uni outline, assessment requirements and WebCT			
2	Vocational Health What are stress and anxiety? Strategies to reduce stress	Read about the effects of stress; Assess your own stress levels using an on-line quiz and identify strategies to reduce stress. Use discussion board to discuss strategies to reduce stress (Planning for future)	1 hour tutorial – Big picture Exploring factors that affect health and what control we have over them			
3	Mental Health What is mental health? Symptoms of mental health problems and what can you do to support others?	Read a case study and its supporting material and respond to questions about that case study; Reflect on case study in personal journal (Theory of Planned Behaviour); Visit a community health service and describe the types of services it offers in a database	1 hour tutorial – Vocational Health Planning and time management skills; Strategies to reduce stress			
4	Physical Health – Fitness		1 hour tutorial – Mental Health			
	Benefits of regular physical activity? Barriers and enabling factors to exercise. Develop a FITT	Assess your own general fitness; Discussion: offer strategies you have found or you feel might contribute to an effective and enjoyable personal exercise routine;	Case studies in mental health: What would you do if a friend or family member (Eg. recently experienced			

	plan	Develop personal FITT plan (Transtheoretical model of the Stages of Change)	death of someone?)		
5 Physical Health – Nutrition Eating for optimum health		Self assessment: What did you eat today? Write two goals to improve the quality of your food intake in your journal and evaluate this in one week's time (Transtheoretical); Post a healthy recipe suitable for use in primary schools onto the web; Quiz – test your nutritional knowledge	2 hour workshop – Nutrition Food preparation workshop - Fun easy cooking for you and your classroom and including nutrition education in classroom activities		
6	Social Health – Communication Effective communication and conflict resolution	Define communication; Practicing using the imago dialogue strategy; discuss the use of the Imago dialogue.	1 hour tutorial – Physical fitness Fun circuits - Participation in fun circuit activities that may be adapted for home or the classroom.		
7	Issues in health: Drugs and Alcohol Physiology of a hangover (Cognitive Dissonance against excessive alcohol consumption)	View half hour documentary on types of drugs; Take quiz on documentary content; Visit interactive website; Reflect on your level of drinking in your journals (Personal counter attitudinal advocacy against binge drinking)	1 hour tutorial – Communication Communication strategies; Social expectations activity; Self confidence/Assertiveness		
8	Issues in health: Sexual Health Understanding your Sexual Health, Contraception and STI's, common sexual health problems	Select sexual health topic area most relevant to you and view information about it; Visit relevant websites; Reflect on areas of personal sexual health in journal (Transtheoretical model of stages of change/ Theory of Planned Behaviour)	1 hour tutorial – Drugs and alcohol Harm reduction strategies; Standard drinks activity; Discuss alcohol standards interview activity		

10	Issues in health: Resilience and Self Esteem Defining self-esteem and resilience, What can it do for you? And how do we improve it in young people?	Complete a reading about 'Looking after yourself' from response-ability; Reflect on your resilience in a journal entry (Planning for future coping strategies); Reflect on how it felt to complete the tutorial activities (Consolidate improvements in self esteem with Personal counter attitudinal advocacy against low self esteem)	1 hour tutorial – Sexual health Contraception and STIs; What is 'safe?'; Values about gender and sexuality
11	Issues in health: Body Image Media Literacy (Cognitive dissonance against thin and muscular ideal), improving body image in males and females	Reflection questions in journal (Transtheoretical); Post suggestions to young people on the discussion board (Counter attitudinal advocacy). Develop strategies and affirmations to use when you are feeling bad about your body (TPB and Counter-Attitudinal Advocacy)	2 hour workshop – Self esteem Strength cards activity; "Say something nice" activity; Develop a 'Self image' portrait
12	Environmental Health Sustainability and Healthy communities, link between health and environment, personal, community and government action	Effect of the environment on our health; How can we change our own immediate environment to improve our health eg. recycling, active transport, waste, green power, chemicals? (Transtheoretical)	1 hour workshop – Body Image Exploring media images; How would you help others improve their body image?
13	Spiritual Health Defining spiritual health: Panel of outside speakers discuss notions of spiritual health	No online activities	1 hour tutorial Discuss reading and contributions by the panel; What have we discovered in this unit?

Figure 1: Enjoyment of the subject as indicated by results on the QAS

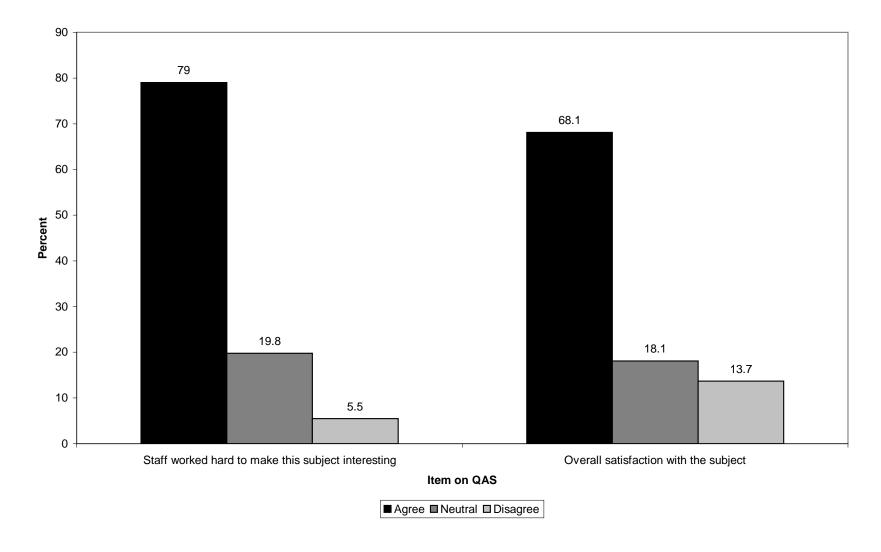


Table 2: Results from the First Year Student Evaluation Survey (N=100)

	Strongly Disagree % (n)	Disagree % (n)	Neither Agree nor Disagree % (n)	Agree % (n)	Strongly Agree % (n)	Mean
Wellbeing was enhanced	10%	15%	30%	43%	2%	3.13
	(10)	(15)	(30)	(43)	(2)	
The online activities helped me to	8%	19%	26%	44%	2%	3.13
reflect on my own wellbeing ^a	(8)	(19)	(26)	(44)	(2)	
The issues & topics were personally	7%	19%	24%	47%	3%	3.20
relevant to me	(7)	(19)	(24)	(47)	(3)	
I was able to develop a broader	8%	16%	27%	44%	5%	3.22
perspective of wellbeing in a teaching context	(8)	(16)	(27)	(44)	(5)	

 $^{^{}a}$ N = 99 participants