

**ASK06453**

*“If you are just sick you could make your own chicken soup. But if it’s a mental illness – you can’t fix yourself.”*

**Teaching secondary school students about mental illness.**

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## Abstract

This paper reports a classroom based investigation into the MindMatters curriculum resource “Understanding Mental Illness” (UMI). We observed the teaching of the UMI module in three secondary classrooms. We measured students’ knowledge, attitudes and behavioural intentions in relation to mental illness before and after teaching of the UMI module. We also held focussed discussions with teachers about teaching the UMI module and teaching about mental illness and mental health in general. Paired sample t-tests on students’ knowledge, attitudes and behavioural intentions, showed statistically significant improvements in students’ scores from pre-teaching to post teaching. Students’ in-class comments also indicated their increasing awareness of issues related to mental illness. Discussions with teachers raised pedagogical issues such as, finding ways to teach about profound issues such as mental illness in non-trivial ways; accommodating differing levels of development of students’ conceptual understandings; and the value of stories for changing people’s knowledge and attitudes. Teachers highlighted a lack of teacher expertise about mental illness and the implications this has for integrating modules such as UMI across the curriculum. Teachers also indicated a need for frameworks of scope and sequence to guide teaching about UMI in particular, and mental health in general.

*Key Words: student wellbeing; mental health; mental illness; curriculum design; curriculum delivery.*

## Background

Student wellbeing is represented as a core value of most educational and health systems. At the student level, wellbeing is represented as a multidimensional construct, with typical dimensions being social, cognitive, emotional, physical and moral or spiritual wellbeing (DECS, 2005; Masters, 2004). One response to the need to build capabilities for wellbeing in Australia has been the introduction into secondary schools of the MindMatters teaching resource.<sup>1</sup> The MindMatters materials represent a major national curriculum development exercise in an area that is of vital importance for Australian society.

The MindMatters resource contains a module titled “Understanding Mental Illness” (UMI). The UMI module contains information and lesson prescriptions to teach students about mental illness, including lessons about terminology (such as depression, bi-polar, anxiety, schizophrenia), symptoms, social stigma and help seeking.

In this paper we report an investigation into the classroom implementation of the UMI module. We undertook classroom observations, held interviews with teachers and administrators, and gathered feedback from a teacher reference group on the use of UMI in three case study schools. We discuss ways that the UMI materials were received by teachers and students and we highlight some tensions that accompany teaching and learning about Mental Illness in secondary schools.

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<sup>1</sup> MindMatters finalised the distribution of one free teaching resource kit to every secondary school in Australia on 9 August 2002. Understanding Mental Illness module can be obtained as a PDF file from <http://cms.curriculum.edu.au/MindMatters/resources/understanding.htm>

## **Aims of the study**

Our broad aim in this study was to identify key issues that arose during the teaching of the MindMatters module “Understanding Mental Illness” in three classes of Year 10 and 11 students in three secondary schools in South Australia.

This broad aim was operationalised into sub-goals:

1. To gather teachers’ and students’ perspectives about the UMI module, including positive and negative aspects, and suggestions for improvement.
2. To identify whether teaching the UMI module provoked changes in students’ knowledge, attitudes and behavioural intentions.
3. To identify teachers’ perspectives about the relationship between teaching the UMI module and students’ knowledge, attitudes and behavioural intentions.
4. To yield well-supported and useful generalizations about the relationship between key variables of classroom practice during the implementation of the UMI teaching module and students’ understanding of mental health.

## **Method**

### **Participants**

#### **Collaborating teachers**

Secondary school teachers who wished to collaborate with the researchers in the evaluation study, and who were teaching UMI in their classes in 2005, were recruited from three schools in South Australia.

#### **The collaborating teachers’ students**

Secondary school students in the classes of the collaborating teachers were asked to volunteer to participate in the study.

#### **School Administrators**

One or two administrative staff, (such as principals, deputy principals and year level or course coordinators), from each collaborating teacher’s school were invited to volunteer to participate in the evaluation.

#### **The teacher reference group**

A group of secondary teachers, experienced in teaching about mental health, attended a ‘teacher reference group’ workshop to discuss and consider interim results from the study.

#### **Participant background details**

All participation in the study was voluntary and anonymous, and it was made clear that participants may withdraw from any aspect of the research at any time, without prejudice. Tables 1, 2, 3 and 4 provide summary details of the participants in this study.

**Table 1: Students**

<b>School</b>	<b>Class size</b>	<b>Year level</b>	<b>Subject</b>
School 1:	25	Years 10 & 11	The body – an integrated unit
School 2:	27	Year 10	Health and Physical Education
School 3:	15	Year 11	Health

**Table 2: Classroom Teachers**

	<b>Current position</b>	<b>Years experience</b>	<b>Subject specialities</b>
Class teacher 1	Student teacher	0	Biology/chemistry
Class teacher 2	Teacher	28	Health/physical education
Class teacher 3	Teacher	30	Health, counselling, physical education

**Table 3: Administrators**

	<b>Current position</b>	<b>Years experience</b>	<b>Subject specialities</b>
School 1	Coordinator	20	Biology
	Teacher	3	Psychology/Biology/Science
School 2	Coordinator	25	Health

**Table 4: Teacher reference group background details**

<b>Position</b>	<b>Years teaching experience</b>	<b>Current subjects taught/coordinated</b>
deputy principal	33	Information Technology
teacher	23	Health & PE
new graduate teacher	0	Science
health and pers. dev coordinator	32	Health & PE
teacher	28	Health & PE
school counsellor	30	Drama
school counsellor	30	Health & PE
school counsellor	25	Community studies; Self development

## Instrumentation

### The classroom observations

To guide observations of classroom events we adopted and adapted items from the four key areas of the Productive Pedagogies project, namely Intellectual Quality, Relevance, Social Support and Recognition of Difference (Gore, 2001; Gore, Griffiths, & Ladwig, 2001; Queensland Government, n.d.). The selected Productive Pedagogies items were placed into a spreadsheet that was used as an observation guide for field notes during the classroom observations. A researcher attended as many as possible (given timetable clashes) of the lessons allocated to the teaching of the UMI module in each school. Table 5 details the total UMI lessons taught and lessons observed.

**Table 5: Total UMI lessons and lessons observed in each school**

	Total UMI lessons	Lessons observed
School 1	10	8
School 2	12	10
School 3	8	6

### The student knowledge, attitudes and behavioural intentions questionnaire

We reviewed the extant literature, previous MindMatters evaluations and the UMI module to inform our construction of a questionnaire to investigate students' knowledge, attitudes and behavioural intentions before and after the teaching of the UMI module (for example, see Bogardus, 1925; Hunter Valley Institute, 2001; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999).

### The teacher and administrator interviews and reference group

Our review of the health promotion literature informed the composition of a set of focus questions to guide interviews with teachers and administrators (for example, see Curriculum Corporation, ; Rowling, 2003; WHO, 1997). Our aim was to provide interviewees with the opportunity to discuss a broad range of issues pertinent to teaching about mental illness, and mental health, in their school. Interviews were conducted before, during and after the teaching of the UMI module, with modifications to the questions to reflect the time and situation of each interview.

### Data Management

Handwritten field notes and audio-recordings were made of all classroom observations, interviews and the teacher reference group. The audio-recordings were transcribed verbatim. Likert style questionnaire responses were entered into SPSS for statistical analysis. Short answer questionnaire responses were transcribed. The field notes, audio transcriptions and questionnaire responses formed the data base for this study.

## Results and Discussion

### The classroom observations

In this section we present a selection of students' in-class responses, taken from audio-tapes and field notes, to illustrate key themes that emerged from the classroom observations.

### Students' generated many questions

During teacher-led discussions, students generated many questions, indicating that issues of mental illness were salient to their lived experiences. Below is a representative selection of those questions.

Student 1: *Are people born with a mental illness?*

Student 2: *If their parents have schizophrenia, will their kids have it?*

Student 3: *Is depression hereditary?*

Student 4: *Does it take months or weeks to get over depression?*

Student 5: *What's the difference between depression and manic depression?*

Student 6: *Is autism a mental illness?*

Student 7: *Do people really have a split personality?*

Student 8: *Is there a chance there could be a gene?*

Student 9: *Why are they telling us about the American statistics? Is it the same in Australia?*

Student 10: *Is there a way to tell if we are going to go crazy?*

Teachers did not always have answers to their students' questions.

### Discussions about individual reactions to stressful situations

Students were able to draw upon their own experiences to contribute to class discussions about mental health

Teacher: *When you are stressed, how do you behave?*

Student 1: *Angry*

Student 2: *I feel like not doing anything*

Student 3: *I eat*

Student 4: *I yell*

Teacher: *Some people can't think clearly*

Student 5: *Yep, that's me.*

### Discussions about the similarities between mental illnesses and physical illnesses

Students appeared to make connections between mental illness and physical illness.

Student 1: *Diabetes in body; Psychosis in brain.*

Student 2: *If you are just sick you could make your own chicken soup. But if it's a mental illness – you can't fix yourself.*

### Students' contexts

Students' awareness of mental illnesses in their own contexts was evidenced by their responses to their teacher's question about medication

Teacher: *Who's heard of antidepressants?*

Student 1: *Zolof – my Mum takes that*

Student 2: *Prozac*

Student 3: *Valium*

Student 4: *My friend took 9 of them*  
 Student 5: *My Dad used to take them*  
 Student 6: *Valium – make you happy – make you sad.*

### **The language of mental illness**

Not all students were familiar with the language in the information provided in the UMI module. For example, the words “elation” and “bipolar” required definition for some students.

Student 1: *Bi Polar – that’s like polar bears – Antarctica and the other one.*

### **Student discussions**

In small group discussions, students showed signs of beginning to grapple with information that went beyond the information presented in the fact sheets. The information presented in the UMI module appeared to cue students to consider their own life experiences:

Student 1: *Would you rather starve yourself, or eat lots then throw up? - which would be worse?*  
 Student 2: *What kind of support services could there be for eating disorders – what could they say? “Eat more?”*  
 Student 3: *They tell you you’re not fat.*

Student 4: *Bi-polar mood disorder.*  
 Student 5: *Extreme mood swings. Is it swings or is it just drops.*  
 Student 6: *People who get sacked or people who win the lottery.*

Student 7: *What would it be like to come to school with a mental illness?*  
 Student 8: *You shouldn’t do depression just to get attention. It just deflects help from the people who really need it.*

### **The student knowledge, attitudes and behavioural intentions questionnaire**

Following many reminders, students returned consent forms at variable rates per class. Although this rate of return did not affect the researcher in-classroom observations, it did have an effect upon the number of student questionnaires available for analysis, enabling a questionnaire analysis at pre-teaching and post-teaching of 44 students’ responses, distributed as recorded in Table 6.

**Table 6: Consent forms returned**

School 1	13 of 25 students	Year 10: 2 female; 3 male Year 11: 1 female; 7 male
School 2	20 of 27 students	Year 10: 7 female; 13 male
School 3	11 of 15 students	Year 11: 5 female; 6 male



## Differences between boys and girls

A Multivariate Analysis of Variance (MANOVA) identified that, on average, girls achieved significantly higher scores at Time 1 (pre-teaching) than boys  $F(3,35) = 5.191$ ,  $p = 0.005$ , with a moderate effect size ( $\eta^2 = 0.308$ ).

Tests of between subjects effects showed

- 1) A significant difference, on average, between girls and boys for knowledge  $F(1,37) = 4.770$ ,  $p = 0.035$ , with a small effect size ( $\eta^2 = 0.114$ ).
- 2) A significant difference, on average, between girls and boys for attitude  $F(1,37) = 11.228$ ,  $p < 0.002$ , with a small to moderate effect size ( $\eta^2 = 0.233$ ).
- 3) The difference between boys and girls for behavioural intentions was not statistically significant.

MANOVA showed a similar pattern of differences between boys and girls at Time 1 (pre-teaching) and Time 2 (post-teaching).

MANOVA of pre-teaching to post-teaching *change* scores on Knowledge, Attitude and Behavioural Intentions found no statistically significant effects for sex, year level or school.

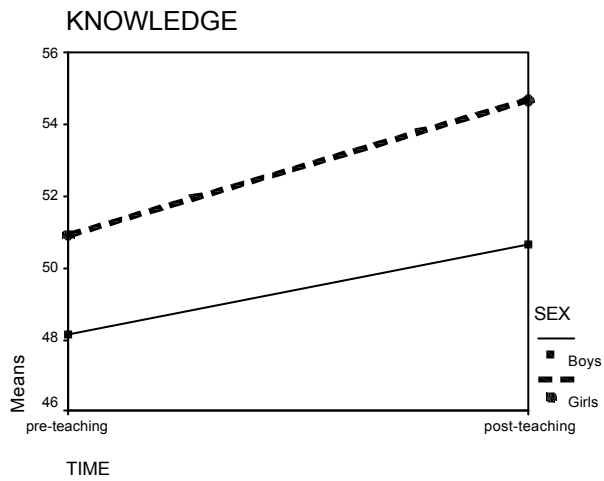
## Changes over time from pre-teaching to post teaching

Paired sample t-tests on students' knowledge, attitudes and behavioural intentions, with a Bonferroni adjustment for multiple comparisons, showed statistically significant improvements in students' scores from pre-teaching to post teaching

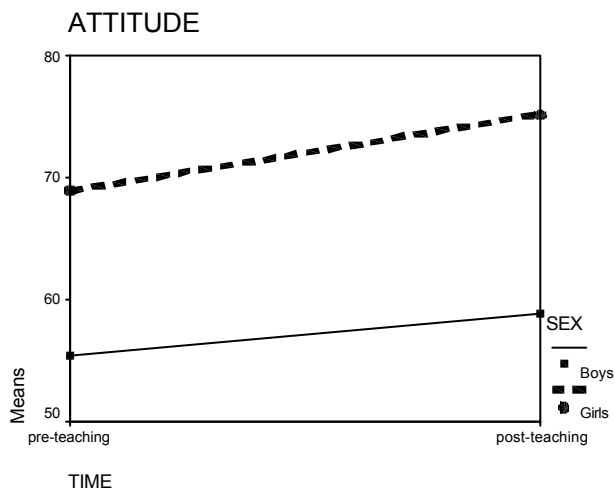
1. Knowledge scores significantly improved from pre-teaching ( $M = 49.06$ ,  $SD = 3.94$ ) to post-teaching ( $M = 51.99$ ,  $SD = 5.26$ ),  $t(38) = -4.04$ ,  $p < 0.000$ :  $ES = 0.705$
2. Attitude scores significantly improved from pre-teaching ( $M = 59.97$ ,  $SD = 13.29$ ) to post-teaching ( $M = 64.33$ ,  $SD = 14.04$ ),  $t(38) = -3.14$ ,  $p = 0.003$ :  $ES = 0.503$ .
3. Behavioural Intentions scores significantly improved from pre-teaching ( $M = 15.74$ ,  $SD = 3.80$ ) to post-teaching ( $M = 17.50$ ,  $SD = 4.68$ ),  $t(38) = -2.66$ ,  $p = 0.011$ :  $ES = 0.425$ .

These changes over time are illustrated in Figures 1, 2 and 3 respectively.

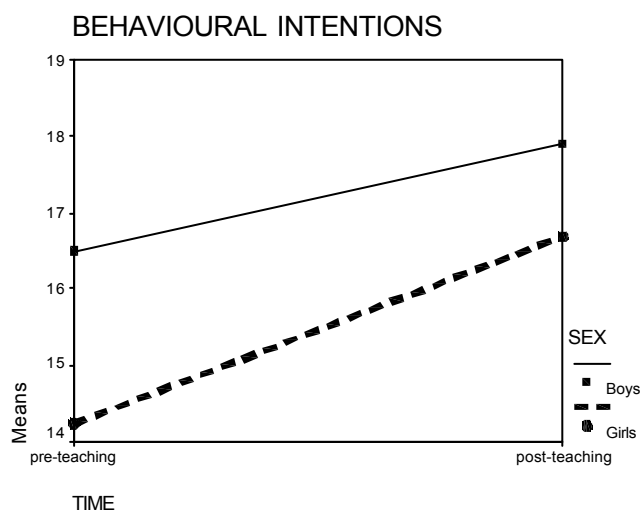
The significant improvements in students' scores demonstrates that teaching about Understanding Mental Illness can be effective. Positive change occurred not only in students' responses to traditional subject-matter knowledge types of questions, but also in students' attitudes towards people with a mental illness, and for students' behavioural intentions, such as help-seeking.



**Figure 1: Change from pre-teaching to post-teaching in students' knowledge**



**Figure 2: Change from pre-teaching to post-teaching in students' attitudes**



**Figure 3: Change from pre-teaching to post-teaching in students' behavioural intentions**

## Teacher's and Administrators' Perspectives

An overview of the key themes that emerged from the teacher and administrator interviews and the teacher reference group workshop is provided below.

### Should the UMI module be taught in schools?

There is no doubt that teacher reference group teachers considered that teaching about Mental Health and Mental Illness is an imperative in schools. The question for our participants was not *whether* we should teach the UMI module and the other modules in the MindMatters package. Rather, the issues to be discussed are resourcing, best practices, situating instruction, attending to students' needs, teacher education, teacher confidence, and curriculum design. All of these issues impact the extent to which the MindMatters resources are actually used in schools.

### Accommodating students' learning needs

A key theme that emerged from the teacher reference group workshop was that teachers teach students, not subject matter. Therefore, the MindMatters materials, and in this case the UMI booklet, is used as a resource to suit the particular cohort at hand. The nature of any one cohort changes over time, and different cohorts can be, and usually are, at different levels in their learning needs.

- *The issue in teaching the UMI module is that you must know your class. You must know that what you are going to do will work with these students and that they will be successful.*

Contemporary thinking about teaching and learning suggests that placing the student at the centre of the teaching-learning process, as question asker, resource provider, and question answerer, can be a more powerful way of provoking substantial learning (Alexander & Murphy, 1994). Students had different levels of familiarity with the teaching-learning activities suggested by the UMI booklet. For example, group-work, student-to-student teaching activities, and role plays in front of an audience are activities that require explicit teaching of process, in addition to teaching of the subject-matter content that the activities are intended to promote. The success of some of the UMI learning relied upon students' familiarity with some of the more active, student directed learning activities. For example, whereas the teacher at School 2 in this study determined that his students needed relatively strong teacher direction for the UMI lessons, the teacher and students at School 1 felt the need for more emphasis on student-directed learning. Students at both schools appeared generally uncomfortable with the role play activities.

Selecting activities from the UMI booklet that students have the capacity to manage requires teachers to make decisions on two planes. The first is whether the subject-matter content is important enough to justify inclusion in their proposed UMI instruction. The second decision is whether the activity intertwined with the subject-matter content is suitable for their particular cohort of students. If it is not, then the teacher has to construct an alternative teaching-learning method for covering the same content. Teachers experienced in teaching about mental health will be well equipped to make such adjustments. However, it is possible that less experienced teachers will not be able to make these adjustments. (That teachers may be teaching 'out of field' is a recurring observation in this study).

Linked to the above discussion about inclusive teaching to meet students' differing learning needs is the range of developmental levels that occur in age-based Year levels. Feedback from teachers and students illustrate acutely the range of students' development even with the two Year levels included in the study. Students in Years 10 to 11 can range from 14 to 17 years of age. Hence, comments that aspects of the UMI module were both too simple and too complex are realistic given

students' ages, and with those ages, the potential range of students' development. An example is provided by the comment from one student reported herein, where he was unable recognize an analogy between people's attitudes towards asthma as a physical illness and attitudes towards a mental illness. Instead, the student interpreted asthma literally as a case of mental illness. This student's response suggests a lack of development of the abstract thinking that is essential to understand an analogy. Teachers design their instruction with their particular student cohort in mind. However, some guidance as to the levels of the various activities in the UMI booklet might be useful, especially for teachers teaching out of their subject-matter area, or teachers teaching the UMI module for the first time.

Finding ways for inclusive teaching might be considered a common issue for teachers, however, it did emerge as an issue of concern in the present study. It is thus worthy of consideration with a view to designing the delivery of core UMI subject-matter in adaptable ways.

### **Teachers' confidence**

Our participants were mainly drawn from a cohort of teachers experienced in teaching about mental health.. Their perspective was that many non-health/PE/pastoral care teachers feel unprepared and unknowledgeable for teaching about, and dealing with, mental health.

- *I have just been to a Protective Behaviours Trial, which includes many of the MindMatters things. About 60 to 70 percent of the teachers there said, "We're not trained – we don't understand this stuff." From one faculty I had four members who said, "This is not our area of teaching: How can you expect us to deal with any of this?"*

Teaching about mental health often falls to one, two or a few key teachers in each school. However, due to subject and timetabling constraints, staff unavailability, and school priorities, this means that some students do not receive *any* explicit teaching about Mental health.

And yet, as was pointed out, teachers are continually faced with issues of students' Mental Health:

- *The reality is we don't know what the kids are actually experiencing: We teach over that all the time*

### **Teachers' knowledge**

A distinction can be drawn between three (of many different) kinds of teacher knowledge (Shulman, 2000). The first is teachers' general pedagogical knowledge, about, such things as lesson design, teacher-student relationships and successful class management. The second is profound knowledge about the subject matter at hand. The third is pedagogical content knowledge, which refers to teachers' knowledge about how to best teach the specific subject matter at hand.

#### **Teachers' general pedagogical knowledge**

Teacher participants' responses in this study suggested that teachers' feel confident about their general pedagogical knowledge in areas such as relationships with students and curriculum design.

- *It is the teacher that creates the learning environment – it is what the teacher adds to the materials*

### **Teachers' specific subject-matter knowledge**

Some teachers' comments about their lack of knowledge in the area of mental health and mental illness points to the substantial issue of the availability of teachers in each school who feel that they do have adequate knowledge to teach in the field of mental health and mental illness. Lack of a substantial numbers of teachers with a profound knowledge about the issues related to mental health is an issue that needs to be addressed to achieve good quality teaching about mental health in schools. A question that can be raised here is whether the UMI materials are designed to act as an information resource for students only, or for teachers and their students. If the latter is the case, the depth and methods of presentation of information are issues for consideration.

### **Teachers' pedagogical content knowledge**

Good quality pedagogical content knowledge relies upon a combination of a profound knowledge of the subject matter, and how to best make that subject matter accessible to students. Blurring the distinctions between these types of teacher pedagogical knowledge can lead to situations where 'good' teachers are required to teach outside of their subject-matter disciplines.

The point was made strongly by teachers in this study that the choice of particular UMI materials, and the manner of implementation of the MindMatters modules, was at the discretion of each teacher, and each teacher could therefore choose to use it in a range of ways, from central information resource to a springboard to other resources, according to student needs. However, provision must be made to the level of teacher knowledge, education and confidence that might be held by teachers required, or wishing, to teach about Mental Health.

- *The package sits there at school. It can be picked up by experienced to non-experienced people: Without it being supplied with guidelines. The package is available to any kind of person with any range of skills*

### **The classroom implementation of the UMI module**

One of the most salient findings from the classroom observations is that each of the teachers in this study addressed the UMI module of instruction in vastly different ways. Different portions and proportions of the booklet were presented to students, using different teaching methods. In all cases, large sections of the UMI materials were not presented to students during the observed teaching events. Also, within each section of the UMI booklet, part or all of the section may have been used.

Some key observations from the classroom implementation include

- One student argued for information, rather than appeals for attitude change. He made the point that simply telling people what to think is not sufficient to bring about conceptual change. People need an imperative for conceptual change that comes from the realization that their existing conceptions are no longer functional (Chi & Roscoe, 2002; Chi, Slotta, & Leeuw, 1994). Increased knowledge through self-directed, but guided, inquiry can provoke an imperative for conceptual change (Mayer, 2004).
- The value of narrative – or story - for changing people's conceptions (McCormack, Gore, & Thomas, 2004) could be further exploited in the UMI materials. This was noted by one respondent who suggested the use of more case studies to capture students' interest and attention.
- A substantial issue was raised by a teacher who highlighted the difficulty of dealing with profound issues such as mental illness, in ways that are accessible by students of school age.

There was a sense that the profound issues were dealt with in simple ways, such as with worksheets. This could have the effect of trivialising profound issues. This issue was also raised by some students, who suggested that they would have preferred to deal with the subject of mental illness through a research investigation, giving them the opportunity to investigate one or two issues more fully.

### **Locating Mental Health in the curriculum**

The number of lessons allocated to the UMI module by teachers in this study was substantial, and yet these teachers and their students were unable to complete the material in the UMI module in the time available. As one teacher noted,

- *There is enough material in the MindMatters yellow box to fill up a couple of year's worth of health lessons.*

Lack of time can prevent teachers and students progressing from superficial treatment of information to deep consideration of the issues at hand. For example, during the teaching of the UMI module it was observed that sometimes students asked meaningful questions, or made extremely profound observations drawn from their own life experiences. Such student comments can provide the springboard for teachers and students to develop their intellectual engagement with the subject matter. However, the time constraints on the UMI module meant that such teaching-learning opportunities were not always able to be exploited.

Teachers have many demands from different sources about what it is that should be taught in classrooms.

- *I've got my curriculum – don't ask me to put any extra in my curriculum*

The MindMatters suite of materials is just one of many important areas of student wellbeing that compete for classroom air time. For example, anti-bullying programs, anti-drugs programs, the National Safe Schools Framework (NSSF), the Attributes of a Lifelong Learner all demand attention. Although some programs do incorporate elements of other programs (such as the NSSF incorporating some of the MindMatters suite) the development of a framework to assist teachers in accommodating the many wellbeing related issues may be a valuable enterprise. This will need to include a program of instruction that provides a spiral of instruction at appropriate year levels, without undue repetition. The creation of an overall framework that makes the links and overlaps between these various packages more explicit was seen by the teachers as being a potentially useful exercise. The South Australian Department of Education Wellbeing Framework (DECS, 2005) has the potential to explicate some of these links for South Australian schools.

Substantial discussion during the teacher reference group workshop was centered upon identifying effective ways for embedding teaching about Mental Health and Mental Illness across the various curriculum areas. A key suggestion for facilitating the integration of teaching about Mental Health across curriculum areas is for an organisation such as MindMatters to provide resources that can be used in each subject area, not as an 'add on', but as part of what is already done in each subject area. For example, a unit of work in statistics, could be about mental illness statistics; a unit of work in Chemistry could be about the components of anti-depressant drugs. These investigations could be used to provoke students' questions about Mental Health, which could be followed up in complementary subject areas, such as Society and Environment, and Health and Physical Education. This points to an integrated curriculum, providing ways in which teaching about Mental Health is more likely to be embedded across the curriculum, rather than corralled in Health and Physical Education or in Pastoral care. Clever curriculum design can embed the teaching of Mental Health within what subject matter teachers already do.



Another issue to be considered is that the design of integrated units of work will potentially broaden the subject-area location for teaching about mental health, which tends currently to be mostly located in the Health and Physical Education learning area. This will have implications for teacher subject-matter knowledge, providing the possibility that schools could have a subject-matter expert in the school who can act as a consultant resource, but who does not have sole responsibility for teaching about mental health. Subject area location and teacher expertise are issues that warrant further investigation should a program of integrated units of work be designed.

Our participants suggested that if designers start with the existing curriculum – with what teachers already know and do – then teachers will find it easier to incorporate UMI and the other MindMatters materials into their programs. The reference group teachers pointed out that much of the subject-based learning in secondary school is based upon set subject area texts. Therefore, one approach would be for curriculum resource designers such as MindMatters to work closely with the writers of subject-matter texts in order to incorporate Mental Health issues within those texts, thus raising the profile of Mental Health within the subject matter.

## **Assessment**

Teachers and students value what is assessed in the school curriculum (Biggs, 1999; Cohen, 1987, 1995) and formative and summative assessments are essential teaching and learning strategies (Pellegrino, Chudowsky, & Glaser, 2001; Shepard, 1995). Students' knowledge, attitudes and behavioural intentions can be assessed, as has been evidenced in the pre-and post-teaching questionnaires used in this study. A commitment to formative and summative assessment in the design and delivery of instruction will influence teachers' and students' commitment to teaching and learning about mental illness.

## **In conclusion: Some tensions**

In conclusion, a number of tensions emerge from the classroom observations and discussions with teachers conducted for this study:

There is a tension between the need for teachers of mental health to be well educated in the fundamental issues surrounding the subject matter, balanced against the need for teaching about mental health to be dispersed across, and embedded in, the curriculum of various subject areas in order to reach as wide a range of students in diverse situations. Thus, many prospective teachers about mental health may have little expertise in the area.

There is also tension between the need for an approach to whole school curriculum driven by administrators and coordinators – a top down approach, balanced against the need for teachers and students to have an input into curriculum design and delivery – a bottom up approach.

There is a tension between the two philosophical approaches of “I teach my subject” and “I teach students.” These two perspectives will underpin the degree to which teachers take on responsibility for teaching about Mental Health.

And there is tension between the degree to which the MindMatters kit, including the UMI module, is perceived as being a resource to be mined as required, or as a prescriptive package. This tension appears to be directly related to teachers' subject-matter knowledge.

However, alongside these tensions lies our participant teachers' and students' positive perceptions and learning growth in knowledge, attitudes and behavioural intentions from incorporating teaching about mental illness in the secondary school curriculum.

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