DEVELOPING HEALTH LITERACY THROUGH SCHOOL BASED HEALTH EDUCATION: CAN REALITY MATCH RHETORIC?

University of Queensland, School of Human Movement Studies

Louise McCuaig
Sally Coore
Kristie Carroll

Doune Macdonald
Anthony Rossi
Robert Bush

Remo Ostini
Peter Hay
Rebecca Johnson
EXECUTIVE SUMMARY

Recently in Australia, the National Health and Hospitals Reform Commission (2009) and National Preventative Health Taskforce (2009) recommended that one way to strengthen consumer engagement within a health system is to ensure health literacy comprise a core element of the National Curriculum for primary and secondary schooling. However, whilst nationally and internationally schools are mandated to teach health education, there is considerable disjuncture between societies’ broad expectations and schools’ capacities to deliver programs that promote healthy living (Marks, 2010; Basch, 2010). Given the centrality of literacy education in contemporary schooling (Snyder, 2008), ‘health literacy’ has been identified as a construct that offers the potential to close this perceived gap (McCuaig, Coore & Hay, 2012; Kickbusch, 2001). To date, there has been limited research as to what a health literacy focused, school based health education curriculum could look like.

The Health Literacy @ Ipswich Schools project endeavoured to discover the extent to which the rhetoric of health sector documents could be realised within the reality and complexity of contemporary schooling. Our first challenge was to address the limited research identifying what would comprise a health literacy unit of school based health education curriculum. In this report we have provided a detailed overview of the curriculum design processes that provide the framework from which a contemporary health literacy unit of work was developed. Findings indicated that the five theoretical concepts that we employed to construct an authentic, relevant and robust health literacy unit were well received by schools, teachers and students.

The second research challenge focused attention on an exploration of the facilitators and barriers surrounding the implementation of a health literacy focused curriculum initiative. Most importantly, this project provided the much-needed educator’s focus on the role of schooling in the development and enhancement of young people’s health literacy. Our findings demonstrated the complexity associated with curriculum implementation in school settings where diverse resources, time allocations and varied student populations are key features. In short, as with other research, this pilot reinforced the need for schools to have the freedom and flexibility to implement comprehensive health literacy programs that are tailored to the specific needs of their students, staff and community. Other major facilitators included the support of school and curriculum leaders, the use of authentic scenarios and the internet as authentic mediums for student learning, and the teachers’ willingness to embrace health education as a significant component of their core business.

In conclusion, this project has demonstrated that the positive rhetoric surrounding the development of health literacy within the context of Australia’s core school curriculum has the potential to be realised within the context of contemporary schooling. Here we have purposefully employed the word “potential” as our results suggest that a diverse range of factors influenced successful implementation of the health literacy unit. Of particular interest were the tensions surrounding the teachers’ role of “facilitator of learning”, especially as the salutogenic approach foregrounded students’ interests, perspectives, needs and resources. These tensions were exacerbated as a result
of the emphasis on digital technology and students’ access to the internet during the learning experiences, which served to further decentre the role of the teacher as source of all knowledge. Whilst students reveled in the opportunity to explore health topics that specifically related to their needs and interests, their teachers expressed a sense of unease regarding the shift in the teachers’ role from expert provider of knowledge and skills to ‘facilitator of learning’. These findings draw attention to the critical role that comprehensive teacher professional development plays in ensuring that the reality of health literacy delivery in school based health education matches the rhetoric expressed in government documents.

**KEY RECOMMENDATIONS**

1. Student voice is important when designing and delivering health education in schools.

2. Teacher understanding and engagement with contemporary pedagogical theory and practice (including digital pedagogies) should be developed alongside disciplinary knowledge and concepts.

3. Health literacy is a useful construct in health education and should be incorporated in teacher professional development.

4. Incorporate relevant and authentic learning experiences and assessment in health literacy units to maximise student engagement and learning outcomes.

5. In order to effectively improve students’ skills in health and digital literacies, the explicit teaching of internet search strategies and critical website evaluation is required.

6. Health literacy units should be tailored to individual school requirements.

**ACKNOWLEDGEMENTS**

The researchers from UQ Human Movement Studies would like to express our sincere appreciation to the schools, teachers and students involved in the *Health Literacy @ Ipswich Schools* project. Thank you for allowing us into your schools, and the health literacy curriculum into your classrooms.
Recently in Australia, the National Health and Hospitals Reform Commission (2009) and National Preventative Health Taskforce (2009) recommended that one way to strengthen consumer engagement within a health system is to ensure health literacy comprise a core element of the National Curriculum for primary and secondary schooling. However, whilst nationally and internationally schools are mandated to teach health education, there is considerable disjuncture between societies’ broad expectations and schools’ capacities to deliver programs that promote healthy living (Marks, 2010; Basch, 2010). Given the centrality of literacy education in contemporary schooling (Snyder, 2008), ‘health literacy’ has been identified as a construct that offers the potential to close this perceived gap (McCuaig, Coore & Hay, 2012; Kickbusch, 2001). To date, there has been limited research as to what a health literacy focused, school based health education curriculum could look like, with Begoray and colleagues (2009) providing one of the few examples of this work. This paper presents preliminary findings from a pilot project that worked collaboratively with schools, teachers and students to explore the possibilities, facilitators and barriers influencing the design and implementation of a health literacy focused curriculum initiative. In short, this project endeavoured to discover the extent to which the rhetoric of health sector documents could be realised within the reality and complexity of contemporary schooling.

More specifically, the Health Literacy @ Ipswich Schools project sought to explore the response of Health and Physical Education (HPE) teachers and their students to a health literacy approach to school based health education (SBHE). Most importantly, this project provided the much-needed educator’s focus on the role of schooling in the development and enhancement of young people’s health literacy (McCuaig & Nelson, 2012). The approach taken in this research was shaped by the principles, concepts and theories underpinning what we have referred to as the five guidelines. These guidelines addressed the following themes: salutogenic health and wellbeing (Bengel, Strittmatter, & Willmann, 1999; Lindström & Eriksson, 2010); asset approaches to health literacy (Nuttbeam, 2000, 2008); social constructivist pedagogies (Wright, Macdonald & Burrows, 2004); recognition of student voice (Begoray, Wharf-Higgins & Macdonald, 2009); and, efficacious assessment (McCuaig, Coore & Hay, 2012). The project was structured around five phases of activity, including: preparation, context analysis, curriculum design, implementation and evaluation. Multiple data collection methods were employed in three purposively selected case sites (teachers, n = 20; students, n = 500) and included discourse analysis, interviews with school teachers, student focus groups and analysis of student work. This report presents the preliminary findings that have emerged from the teacher interviews and student focus groups which were conducted following the delivery of the health literacy unit.

To date, findings from this project suggest that teachers found health literacy to be a useful construct to employ within their health education programs, particularly in relation to the development of student’s knowledge, decision making and critical consumption of e-health information and products. Nonetheless, teachers readily identified concerns regarding their limited professional development, access to information technology resources and restricted allocation of time to health education. Although students raised similar concerns regarding time and access to
technology, they nonetheless welcomed the opportunity to explore and develop their knowledge and skills within the context of a learning experience that explicitly focused on their local needs, resources and life experiences. Indeed, the students drew attention to the learning experiences involving the construction or critique of ‘real-life’ scenarios, group decision-making, critical evaluation of e-health resources and website construction as mechanisms which they believed enhanced the authenticity and relevance to their own engagement with healthy living practices.

As the theoretical approaches underpinning the design and implementation of the health literacy unit were explicitly designed to encourage student voice (Begoray et al., 2009), students and teachers alike registered their surprise at the knowledge, skills and resources that young people had access to and could utilise in their efforts to enhance their own, and most significantly, other’s health and wellbeing. Finally, it was interesting to note the considerable tensions surrounding the teachers’ and students’ divergent feedback regarding the student-centred pedagogical approaches underpinning the health literacy unit. Whilst students revelled in the opportunity to explore health topics that specifically related to their needs and interests, their teachers expressed a sense of unease regarding the shift in the teachers’ role from expert provider of knowledge and skills to ‘facilitator of learning’. These findings draw attention to the critical role that comprehensive teacher professional development plays in ensuring that the reality of health literacy delivery in school based health education matches the rhetoric expressed in government documents.

**BACKGROUND**

According to the Australian Institute of Health and Welfare [AIHW] (2010), ‘all in all, Australia is a healthy nation’, however there are ‘serious areas of concern that need to be tackled and there is great scope for Australia to do better’ (p.6). Almost one fifth of Australia’s population comprises children aged 0-14 years (ABS, 2008). Their health and wellbeing are critical as they are considered to be the key to Australia’s future (AIHW, 2009). In recent years there has been considerable improvements in relation to children and young people’s health, however significant concerns still exist regarding alcohol use and sexually transmitted infections (particularly chlamydia), as well as the rise in juvenile diabetes and number of children who are sedentary, overweight and eating unhealthily (AIHW, 2009). In addition, there has been an increasing recognition that mental health disorders ‘weigh very heavily on the young’ (AIHW, 2010, p. 24). Further, in 2009, the top ten issues of concern to young Australians (n=48,000), aged predominantly 11 – 19 years, were in ranked order: drugs; suicide; body image; family conflict; and, bullying/emotional abuse (Mission Australia, 2010).

From a public health perspective, early intervention and prevention is crucial (Manganello, 2007), with adolescence considered to be the ideal stage to provide the cognitive and social skills that will empower individuals to make informed decisions regarding their health throughout their lives. Research suggests that adolescents are interested in understanding health information and learning more about health (Manganello, 2007), but often find health messages difficult to understand (Manganello, 2007; Brown et al, 2007). Further, whilst adolescents access health information from a variety of resources, there is little research on their ability to evaluate the validity and reliability of
this information. Mission Australia (2010, 2011) lists the top three sources of advice and support for young people across all age groups and both genders as being friends, parents and relative/family friend. The proportion of young people identifying the internet as a top source has increased from 1 in 10 (2002) to 1 in 4 (2011). Recent studies have however, pinpointed the health literacy challenges experienced by adolescents when searching the internet for health information (Gray et al 2005a; Brown et al 2007).

School health classes are cited in a number of studies as being a major source of knowledge about health care and health issues for adolescents (Marcell & Halpern-Felsher, 2007; Brown et al 2007). Such advocacy is not new, as many commentators have captured the health related significance of school settings noting, the ‘school is one of the key institutional influences on children and youth...and a key site for education about healthy lifestyles’ (Tinning, 1996, p. 8). Advocates within the health sector argue that the ‘interaction between schools and young people, and the overall experience of attending school, provides unique opportunities for health promotion which can be sustained and reinforced over time’ (NHMRC, 1996, p. 1). Quality teaching plays a significant role in promoting all students’ health and wellbeing (Erebus & Minimbah 2008; St Leger 2006). Classroom-based health education that develops students’ knowledge and personal and interpersonal skills is a fundamental pathway to student health and wellbeing (Erebus & Minimbah 2008; Nutbeam 2008).

A considerable body of research and evidence has established the characteristic features of effective school-based health education (Basch 2010; Erebus & Minimbah 2008; St Leger 2006; Rowling 2009). Researchers have demonstrated that a critical success factor in these programs has been the level of health related knowledge and commitment of school teachers and administrators. As drug education research has shown, to achieve sustainability and the desired impact on students’ knowledge, skills and attitudes, health related programs should be delivered by the classroom teacher (Ballard, Gillespie & Irwin, 1994). Research in this field has identified teachers, with their specific knowledge of the students and the learning context, as best placed to respond to the needs of students, provide potential influence as role models and maximise the appropriate adaptation of community resources to the specific needs of their students (Ballard et al, 1994). More recent literature has argued that classroom teachers can best deliver health knowledge and skills through student-centred teaching, respond to students’ specific needs and create the caring relationships that underpin school connectedness which enhances students’ wellbeing and learning (ACU National & Erebus 2008; St Leger 2006; CoA 2010a; Dobia & O’Rourke 2011).

Nevertheless, whilst schools are mandated to teach health education, there is considerable disjuncture between broad societal expectations and schools’ capacities to deliver programs that promote healthy living. Despite the significant investments of both health and education organisations, many believe that school based health programs ‘have never been fully embraced’ (Basch, 2010, p. 7). Although education authorities recognise the opportunities of intersecting health and education agendas, ‘this rhetoric is not matched by a carefully articulated policy and plan which is adequately funded, on a sustainable basis, in human and financial terms’ (Stewart et al, 2000). Nationally or internationally, research would suggest that ‘high quality, strategically planned, and effectively coordinated school health programs and policies have not been widely implemented’ (Basch, 2010, p. 7).
Research suggests that the implementation of SBHE often lacks cohesion, risks duplication and fails to address implementation issues and the coordination of policies and practices (ACU National & Erebus 2008). Education and health professionals alike have argued that school-based health initiatives, such as the delivery of HPE programs, have failed as a result of low status in a crowded curriculum, few trained health education teachers, lack of resources, ad hoc health service partnerships and gaps between policy and practice (NHMRC 1996; Ridge et al. 2002; Macdonald et al. 2008). Schools have tended to rely on external agencies or ‘one-off’ presentations that are topic-specific, rely on novel resources and involve professionals who have no knowledge of the school program, students or community (Macdonald et al. 2008).

Although health-related programs are increasingly drawing on educational theory to guide practice (St Leger 2006), strategies often emphasise health promotion theories which frequently seek to address a perceived health crisis. Such approaches tend to attempt to intervene and focus on isolated health or risk behaviours, which contradict the purpose and language of schools which are grounded in the building of general knowledge, skills and attitudes (St Leger, 2006; Jourdan et al., 2010). Although progress has been made, evidence of the positive impact of school-based health education remains inconsistent and inconclusive. A major gap in program assessment continues to be the successful determination and alignment of the indicators which are most effective in assessing the impact of health education programs (St Leger, 2006). Evaluation of program impact has been further compromised by the disparities between policy intent and implementation in school communities (McCuaig, 2008). For example, there is currently little ‘reliable information about how much and how well HPE is implemented in schools around the country’ (Daube et al., 2010, p. 1).

As health and education professionals alike have advocated for school based health promotion initiatives that are driven by the education sector and embedded in the language, systems, policies and practices of schooling, health literacy has emerged as a concept well suited to bridge the health-education divide (McCuaig et al, 2012). Indeed, the National Health and Hospitals Reform Commission and National Preventative Health Taskforce has recommended that one way to strengthen consumer engagement within a health system is to ensure health literacy comprise a core element of the National Curriculum for primary and secondary schooling (National Health and Hospitals Reform Commission, 2009). The term ‘health literacy’ has gained considerable attention over the last decade (Shohet & Renaud, 2006). The World Health Organisation [WHO] defines health literacy as ‘the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health’ (WHO, 1998, p. 10). Health literate individuals are therefore able to make informed health decisions to exert greater control over life events (Shohet & Renaud, 2006). Health literacy has a growing agenda within the health sector, as achieving health literacy is now seen to be one of the most important approaches to improving population health (Jordan, Buchbinder & Osborne, 2010).

To date, there has been limited research into the influence of health education on health literacy (Begoray et al., 2009). With respect to the emerging advocacy of health literacy as a core component of SBHE, researchers have raised concerns regarding the limited exploration of young people’s health literacy capabilities and their acquisition of health literacy knowledge and skills (Nutbeam, 2008). Given the general agreement about the importance of adolescent health literacy, and the
school as a valuable setting for enabling health literacy, this report presents initial findings from a pilot research project that sought to establish:

- What would constitute a health literacy curriculum in Australian schools?
- What is the response of Health and Physical Education teachers and their students to health education using a health literacy approach?

HEALTH LITERACY @ IPSWICH SCHOOLS PROJECT

The Health Literacy @ Ipswich Schools project specifically sought to explore the response of Health and Physical Education (HPE) teachers and their students to a health literacy approach to school based health education (SBHE). Most importantly, the project provided a much-needed educator’s focus on the role of schooling in the development and enhancement of young people’s health literacy (McCuaig & Nelson, 2012). The approach employed within this research project were guided by the principles, concepts and guidelines emerging from the literature and could be broadly identified as:

- salutogenic health and wellbeing (Bengel, Strittmatter, & Willmann, 1999);
- asset approaches to health literacy (Nutbeam, 2000, 2008);
- social constructivist pedagogies (Wright, Macdonald & Burrows, 2004);
- recognition of student voice (Begoray, Wharf-Higgins & Macdonald, 2009); and,
- collaborative curriculum approaches (Petrina, 2004).

As noted earlier, this report provides an overview of the activities undertaken in each phase of the project and presents a summary of the preliminary findings emerging from the teacher interviews and student focus groups which were conducted following the delivery of the health literacy unit.

METHODS

As demonstrated by the two key research questions, we had a strong interest in exploring teachers’ and students perspectives. As such, the project employed qualitative methods that would provide a richer understanding of our participants’ thoughts about and responses to the curriculum initiative. The project was structured around five phases of research activity that included:

1. Preparation
2. Context analysis
3. Curriculum design
4. Implementation
5. Evaluation

In this section we provide an overview of these five phases of activity and the various methods of data collection associated with each phase.
**PHASE I: PREPARATION**

In the first preparation phase a purposive sampling approach was employed to ensure that the schools and participants selected could contribute to our understanding of the phenomena under investigation. The project worked with a total of 3 purposively selected schools in the city of Ipswich which lies some forty kilometres west of Brisbane in Queensland, Australia. Where possible, this pilot project endeavoured to achieve a balance and representation of schools and student cohorts according to the factors of private/state; single sex/co-educational; and, low- high socioeconomic school status. Personnel from 4 suitable schools were invited to participate in the study with a subsequent 3 schools agreeing to be involved. Although the research team was interested in working with a minimum of two junior secondary school teachers and their students, the schools were keen to engage more teachers and their classes to ensure comparability of curriculum delivery across a year cohort and ease of staff and resource allocation and organisation. Consequently, the project resulted in the following levels of involvement:

- Inkwater College – Teachers (n=5), Year 10 HPE classes (n=5), Students (n= 120)
- Bluemarine SHS - Teachers (n=13), Year 9 HPE classes (n= 14), Students (n=350)
- Indigo SHS – Teacher (n=1), Year 9 (Intervention Program), Students (n= 7)
- Total: Schools (n = 3), Classes (n = 20), Teachers (n = 19), Students (n = 500)

The remaining four phases of research activity were conducted at UQ and each school site, incorporating a range of data collection methods that included discourse analysis, surveys and interviews with school teachers, focus groups with students and analysis of student work.

**PHASE II: CONTEXT ANALYSIS**

The second context analysis phase involved a discourse analysis of a wide range of school materials including policies, newsletters, curriculum work programs and school websites to determine the scope of health-related tasks and strategies (identified through linguistic fields) and the priority attributed to health or particular forms of health at national, state and school level (identified through modality and appraisal language). Findings from this phase of the research project will be provided in the final report.

**PHASE III: CURRICULUM DESIGN**

Work conducted within the curriculum design phase predominantly involved the construction of the health literacy unit of work, which was shaped by the first four key principles and concepts identified above. This began with a shell SBHE unit that had been previously delivered by the lead researcher in a Queensland secondary school. Although the unit required considerable adaptation for the purposes of this project, it was considered to have potential in adopting a health literacy focus. A more comprehensive overview of the resulting unit of work is provided in the following section.
Following the initial design of the unit, input was explicitly sought from the school teachers and curriculum leaders, reflecting our endeavours to collaboratively create contemporary approaches to health education that acknowledged the context specific interests, needs and prior understandings of students and their teachers. This work was undertaken in a series of teacher professional development workshops conducted with those teachers who were most likely to deliver the unit of work at each school. The workshop began with a paper and pencil survey of teachers thoughts regarding current practices in enacting Health curriculum, including opportunities and/or barriers that they experienced within school settings. Data analysis of teachers’ responses was used to identify the teachers’ intent and decision-making about health content and strategies. The remaining activities within the workshop engaged the teachers in an exploration of the theoretical principles and implications for health education of a salutogenic approach to health (Lindström & Eriksson, 2010), Health Literacy Asset model (Nutbeam, 2008) and the Adolescent Health Education Recommendations as proposed by Begoray, Wharf-Higgins and Macdonald (2009).

Drawing on the teacher’s input and feedback during the professional development workshops, the final Health Literacy @ Ipswich curriculum package underwent minor adaptations and modifications. These included:

- Construction of a teacher resource folder: participating teachers expressed concerns regarding the time frame within which they would have an opportunity to source the range of information that students may wish to access within the unit. As a result, the research team constructed a teacher resource folder that included facts and information sheets downloaded from a range of health related websites.
- Individual assessment booklets: participating teachers requested that each student receive their own individual assessment booklet to complete over the course of the unit. Teachers felt this would allow for greater ease in gathering evidence on individual student performance, particularly due to the emphasis on group work in the health literacy unit.

**PHASE IV: IMPLEMENTATION**

The final version of the health literacy unit was established and all materials were printed and placed in folders for dissemination to participating schools, teachers and students (See Appendix A and B). Each folder also contained participant information and consent forms which were completed by the students and submitted to their classroom teachers. Once the curriculum had been delivered to the schools, the participating teachers were asked to deliver the proposed curriculum to their students through the typical operation of their school’s HPE program. At this point in time the research team made a conscious effort to ‘release’ the unit of work into the hands of the teachers. Although the HPE Heads of Department (HOD) were contacted in weeks one and two to ensure that the teachers were happy with the curriculum resources, no further contact or advice was offered during the implementation of the curriculum at each school site. Throughout the implementation phase, teachers were required to collect student work for the researchers so that analysis, as described below, could be undertaken.
In the final week of curriculum implementation, teacher interviews and student focus groups were organised and conducted. Both the teacher interviews and student focus groups involved a semi-structured interview process that was guided by an interview schedule comprising of a series of open ended questions, with identified sub-questions for the purposes of prompting and developing participant’s responses (see Appendix C and D). The design of the interview schedule drew upon research underpinning the design of the health literacy unit and endeavoured to elicit participant’s experiences and perceptions of the collaborative curriculum and health literacy implementation strategies.

All teachers who delivered the Health Literacy @ Ipswich unit of work at Inkwater College and Indigo SHS participated in the teacher focus group interviews. Volunteers from the 13 Bluemarine SHS teachers were called for with a resulting number of six teachers participating in the teacher focus groups. The curriculum leaders (HPE HODS) of both Inkwater and Bluemarine schools agreed to be interviewed separately to allow for discussion regarding the future direction of the unit, the leaders’ perception of the teacher engagement and their overall sense of the effectiveness of health literacy as a concept within SBHE.

Table 1: Teacher & HOD focus group schedule and participant information

<table>
<thead>
<tr>
<th>School</th>
<th>Teacher Focus Groups (n)</th>
<th>Teachers (n)</th>
<th>Gender</th>
<th>HPE Head of Dept Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inkwater</td>
<td>1</td>
<td>1 x 4</td>
<td>1</td>
<td>Male</td>
</tr>
<tr>
<td>Bluemarine</td>
<td>2</td>
<td>2 x 3</td>
<td>1</td>
<td>Male</td>
</tr>
<tr>
<td>Indigo</td>
<td>1</td>
<td>1</td>
<td>Female</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>2</strong></td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Teachers were asked to select students for the student focus groups that exhibited a range of ability and engagement across the classes.
Table 2: Student focus group schedule and participant information

<table>
<thead>
<tr>
<th>School</th>
<th>Year Level Program</th>
<th>Gender</th>
<th>Focus Groups (n)</th>
<th>Students (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inkwater</td>
<td>Year 10 (Approx Age: 14 y.o.)</td>
<td>Single Gender: Girls</td>
<td>2</td>
<td>2 x 8</td>
</tr>
<tr>
<td>Bluemarine</td>
<td>Year 9 (Approx Age: 14 y.o.)</td>
<td>Mixed Gender</td>
<td>2</td>
<td>2 x 8</td>
</tr>
<tr>
<td>Indigo</td>
<td>Low SES Group (Approx Age: 14 y.o.)</td>
<td>Single Gender: Boys</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>5</td>
<td>34</td>
</tr>
</tbody>
</table>

**PHASE V: EVALUATION**

Analysis of linguistic elements of interview talk for evidence of Health Literacy Asset Model as applied to health, along with decision-making and reasoning as active participants in maintaining own health. Analysis to identify alignments/disjunctures with student work samples, unit objective and teacher’s plans. Data analysis of teacher appraisal of curriculum and self-appraisal of implementation (linguistic tenor) will be conducted.

A research stage that is still underway, involves the analysis of student work to identify students’ demonstration of health literacy within a salutogenic understanding of health. This work will involve:

- Analysis of linguistic and conceptual features of student work samples to identify evidence of Health Literacy Asset model attributes, along with decision-making and reasoning as active participants in their own and other’s healthy living;
- Analysis to identify alignments and disjunctures with teacher’s plans, unit objectives and enacted lessons;
- Analysis of linguistic and conceptual features of student work and responses to scenario instruments for evidence of health literacy attainment and changes as a result of engagement with the proposed unit of work; and

Data sources from each implementation site will be compared to identify critical factors in potential change and development across curriculum implementation. Analyses will be compared and contrasted across the three implementation sites to identify key issues or strengths in the collaborative curriculum process and implementation procedures and pedagogies.
ETHICAL CONSIDERATIONS

Prior to the collection of data all participants, including the school principals and students’ parents, were provided with informed consent documentation that contained information about the study and a separate consent form. All consent documentation complied with the ‘The University of Queensland Guidelines for Ethical Review of Research Involving Humans’. Participants were also provided with an opportunity to read and consider the interview schedule questions at the beginning of each interview or focus group. All of the focus groups and teacher interviews were conducted by two researchers with one researcher acting as discussion facilitator and the other transcribing proceedings. All secondary school interviews and focus groups were recorded and transcribed in full. Pseudonyms were assigned to all participants and schools.

HEALTH LITERACY @ IPSWICH UNIT OF WORK

A major task undertaken in the preparation phase involved the construction of the health literacy unit of work that was shaped by four of the key principles and concepts identified above. This curriculum design work began with a shell SBHE unit that had been successfully delivered by the lead researcher in a previous school. Although the unit required considerable adaptation for the purposes of this project, it was considered to have potential in adopting a health literacy focus. Planning a unit of work is a complex task that rarely unfolds in a logical, linear manner and there are considerable benefits when planning collaboratively with colleagues as this ‘allows for the building of collegiality, the sharing of resources, the effective use of time and the development of shared goals’ (Department of Education Tasmania, 2004). In what follows, we provide an overview of the manner in which four of the project’s key principles informed the construction, content and pedagogy of the Health Literacy@ Ipswich Curriculum package.

PRINCIPLE 1: SOCIAL CONSTRUCTIVIST PEDAGOGIES: INQUIRY BASED LEARNING

As most Australian HPE Key Learning Area syllabus documents and contemporary HPE literature have identified the pertinence of inquiry-based strategies to a learner-centred HPE (Macdonald, Wright & Burrows, 2004), the unit of work was designed according to the tenets of such approaches. Inquiry-based pedagogies are ‘largely informed by constructivist theories of learning that emphasise the active role of the student in building or constructing their own understanding and performance’ (Macdonald, 2004, p.16). Within these approaches there is a ‘shift in focus from what the teacher may do to influence learning to what the learner does as an active agent in the learning process’ (McInerney and McInerney, 2002, p. 49).

According to Mancuso (2008), health literacy capacity is mediated by education and is built by obtaining skills (such as gathering, analysing and evaluating health related information) through the
process of learning. Additionally, Nutbeam (2008) challenges health educators to communicate to learners in authentic ways and invite interaction, participation and critical analysis (p. 2075). Banning (2005) asserts that education in today’s world has increasingly adopted a student-centred approach and, whilst the traditional didactic teacher-centred approach has its merit and place in an education program, facilitation of learner-centred education allows students to ‘make sense’ (p. 504) of real world events and in doing so, become self-directive. Furthermore, Freire revealed problem-solving education, or inquiry based pedagogy, to be a mechanism allowing learners to critically engage with and think about their circumstance (Crotty, 1998). In regards to health, this approach encourages active input by learners to exert control over life events and situations, to reach the goal of empowerment (Nutbeam 2008). As noted earlier, this is otherwise known as achieving critical health literacy (Nutbeam 2000).

As St Leger (2006) proposes, participatory learning empowers students’ health literacy and health activism. Such approaches are underpinned by contemporary recognition of social constructivism which ‘posits that knowledge is built in collaboration with others’ (Begoray et al 2009, p. 36) and acknowledges the ‘dynamic, multiplicitous and social nature of knowledge construction and learning’ (ibid). Likewise, within education literature more broadly and the HPE literature more specifically, learner-centred approaches to teaching have gained wide advocacy (Wright et al. 2004) given their capacity to:

- recognise and explore the health knowledge, skills and values of each learner
- provide authentic health-related learning and assessment experiences
- employ inquiry, decision making and problem-based strategies to learning
- be underpinned by high expectations of students (Wright, Macdonald, & Burrows, 2004).

An inquiry based approach to education views learning as the active construction of meaning and teaching as the facilitation of that learning (QSCC, 1999). Furthermore, inquiry based pedagogies encourage the learner to not only acquire information relating to their health, but engage in a deeper understanding of complex issues leading to informed decisions and action (Lassonde, 2009). This learner-centred approach to teaching and learning sees knowledge as ever-changing and built on an individual’s prior experience (QSCC, 1999). That said, Shillinger (cited in Nielsen-Bohlman et al., 2004) asserts that learning should be relevant, participatory and developed with a student-centred focus encouraging critical thinking and thoughtful action.

Although Australian curriculum documents have adopted the position that classroom teachers are best placed to ‘make decisions about the pedagogical approach that will give the best learning outcomes’ (NCB, 2009, p.15), in keeping with contemporary literature, an inquiry based pedagogical approach underpinned the delivery of the Health Literacy @ Ipswich curriculum. The series of learning activities that comprised the unit were organised in relation to the four phases of an inquiry approach; understand, plan, act and reflect (QSCC 1999a, 1999b). By so doing, the inquiry based approach underpinning the unit was deliberately intended to motivate the teachers’ use of student-centred pedagogies. This motivation was further emphasised in the teacher professional development workshop which focused on strategies that could be employed to encourage student voice and problem solving as a means of enhancing both the relevancy and usefulness of the unit.
Given the project’s goal to employ student-centred approaches to teaching and learning, the design of the curriculum unit, not surprisingly, was grounded in the development of a major assessment task. Increasingly, SBHE researchers have called upon health professionals and researchers to pay more attention to the educational outcomes of their programs (Mohammadi et al., 2010). We suggest such calls necessitate a comprehensive engagement with the theory and practices of assessment in education settings and the design, implementation and evaluation implications for programs of SBHE (McCuaig et al., 2012). Hay and Penney (2009) proposed the following conditions for promoting assessment efficacy: learning-oriented; authentic; valid; socially just. Such tasks would be constructed to demand students’ development and use of particular knowledges and skills; provide sufficiently rich, accessible and decipherable information to students and teachers as to current states of learning; be connected to the world beyond the classroom and require the ‘life-wide’ and ‘life-like’ utility of the knowledges and skills; meet the widely recognized conditions of construct validity; and be accessible and achievable by all students within a learning field (be it a classroom, school or system).

In constructing such assessment tasks, curriculum authorities have encouraged teachers to focus task requirements and the subsequent learning that underpins their achievement in terms of:

- A problem to be solved (improving personal physical activity levels, reducing the risk of sun cancers, improving relationships with parents, reducing the incidence of teenage smoking.)
- An issue to be explored (teenage binge drinking, bullying at school, safety in the community, stranger danger.)
- A question to be answered (what are my strengths and weaknesses in a game of lacrosse? How can I work effectively in team contexts? Why do men and women have different roles in society?)
- A significant task to be completed (developing a nutrition health promotion poster for teenage girls, devising and evaluating team game strategies in volleyball, designing a healthy relationships pamphlet, conduct a healthy party.)

A summary of the Healthy Living @ Ipswich Assessment Task which demonstrates the application of these principles has been provided below.
Health Literacy @ Ipswich Assessment Task

The University of Queensland, Faculty of Health Sciences at Ipswich has identified a need for healthy living information and resources for young people in the Ipswich area. In response, UQ has decided to provide all Ipswich schools with a Healthy Living @ Ipswich website which will be developed and made publically available to all Ipswich secondary school students. The website will also be available for parents, carers and teachers. The website will be developed and content available for use by June 2012 and be accessible to all target groups by December 2012.

However, UQ staff are not convinced that they are the best placed people to construct this website as they do not know the needs, interests and local knowledge of Ipswich young people. Instead they believe that it would be more useful to invite Ipswich junior secondary school students to contribute to this project. Each HPE class will be required to provide a final proposed Healthy Living @ Ipswich Website. The website will comprise of 5 – 6 healthy living themes and be constructed by teams of four students within your class.

The website must include the following components:

- Class front page: identifying 5– 6 healthy living themes
- Theme Home Page – introduce the character/star of your health theme website
- Golden Guidelines and Breaking down health jargon
- Healthy living in action: Interactive challenge activity
- Five Star Resources in our Community
- Reality Check: Tips and strategies from Ipswich young people.
PRINCIPLE 2: NUTBEAM’S TERNARY MODEL OF HEALTH LITERACY

A specific objective of the project was the employment of Nutbeam’s (2008) asset model by investigating the role of education in building an individual’s health literacy capacity, towards the attainment of critical health literacy. The way health literacy is defined has important implications for how it is investigated. As this study aims to explore the effect education, learning and critical decision making has in building health literacy as a resource for health, the WHO’s multidimensional definition will be employed, that is; ‘the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health’ (WHO, 1998, p. 10).

Building on definitions of health literacy, Nutbeam (2000) noted distinctions between the different types of health literacy. He proposed a ternary levelled representation based on Freebody and Luke’s (1990) study of literacy (Nutbeam, 2008). The first level is ‘functional’ health literacy; the ability to function in everyday situations using basic skills in reading and writing. This is considered to be the conventional, narrow characterisation of health literacy (Nutbeam, 2000; Rubinelli, Schulz & Nakamoto, 2009). Level two is ‘interactive’ health literacy, which focuses on more advanced literacy, cognitive and social skills (Nutbeam, 2000). At this level, communication skills are used to extract and derive information to act independently on that knowledge. As such, citizens begin to actively engage in everyday activities, applying new information to changing circumstances (McCray, 2005). The final stage of Nutbeam’s (2000) model is ‘critical’ health literacy, which is orientated toward ‘supporting effective social and political action, as well as individual action’ (p. 265). Here, individuals and communities acquire the ability to critically analyse health related information in order to exert control over life events (McCray, 2005).

As progression between each level occurs, so does greater autonomy and self-empowerment.

In addition, Nutbeam (2008) used these concepts and definitions of health literacy to describe two distinct representations of health literacy; the clinical ‘risk’ model and the multidimensional ‘asset’ model. Positioning health literacy as a ‘risk’ adopts a biomedical approach to health and supports screening health literacy levels in a clinical setting and tailoring health information accordingly (Nutbeam, 2008). Health literacy as an ‘asset’ reflects a social view of health, describing concepts of education, learning and critical decision making to increase health status (Nutbeam 2008). This latter view aligns with salutogenic conceptualisations of health and wellbeing which will be discussed in the following section.

Within the Healthy Living @ Ipswich unit, learning activities were devised to develop students’ healthy literacy skills at each of Nutbeam’s three levels of functional, interactive and critical. The table below summarises the focus and nature of each learning activities according to Nutbeam’s model.
<table>
<thead>
<tr>
<th>Activity Title</th>
<th>Key Principle Informing Learning Activity</th>
<th>Key Inquiry Based Question to be addressed</th>
<th>Learning activity tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduce assessment task &amp; Healthy Living Themes</td>
<td>Salutogenic Approach to health and wellbeing</td>
<td>What information will we need to provide on our website?</td>
<td>Team Brainstorm - I am healthy and enjoy life because.... Present brainstorm map to class Teacher finalises overview of healthy living themes.</td>
</tr>
<tr>
<td>2. Understanding a typical website client</td>
<td>Qualitative approaches to evaluating health literacy</td>
<td>Who is my target audience and what are their needs and interests?</td>
<td>Students respond individually to healthy living scenarios of website ‘clients’. Students review information and tips on website design for their target audience (young people).</td>
</tr>
<tr>
<td>3. Designing your team’s home page</td>
<td>Inquiry based approaches to teaching and learning</td>
<td>How can I create a connection with my target audience?</td>
<td>Students construct typical healthy living home page, character and story board: - biographical details - describe the healthy living of your character - positive aspects, challenges or issues</td>
</tr>
<tr>
<td>4. Golden Guidelines + Breaking down health jargon</td>
<td>Developing Health literacy as an asset: Functional Health Literacy Inquiry based approaches to teaching and learning</td>
<td>What healthy living information do my clients need to know?</td>
<td>UQ Tender Resource Document provided to each team Students select and record 5 key facts or information Students record this information in the Golden Guidelines table. Students highlight the important health words/terms for glossary table and create definitions using language appropriate for the target audience.</td>
</tr>
<tr>
<td>5. Healthy Living in Action - Interactive challenges</td>
<td>Developing Health literacy as an asset: Interactive Health Literacy</td>
<td>How can I help my clients to respond proactively to health challenges?</td>
<td>Each student designs a healthy living challenge scenario. Each team chooses the best scenario for their theme. In teams students utilise one action strategy framework to address the challenge. Four strategies have been provided in the UQ Tender Resource document.</td>
</tr>
</tbody>
</table>

*cont...*
### 6. Five Star Resources

**Developing Health literacy as an asset:**
- Critical Health Literacy

**What resources (people, websites, organisations) can help my target audience to be healthy and happy?**

**Finding and evaluating personal, school and community resources.**
- Complete resource evaluation table utilising as many resources as possible.
- Select top performing resources and construct Five Star Resources website page in assessment task booklet.

### 7. Reality Check – Tips and Strategies

**Developing Health literacy as an asset:**
- Critical and Functional Health Literacy

**How can I maximise my client’s use and access to the Five Star Resources?**

**Students conduct a PMI (plus, minus, interesting) evaluation of their Five Star resources.**
- Drawing on this evaluation, students identify the obstacles that challenge young people’s use/access to these resources.
- Students devise tips and strategies that their clients can use to overcome barriers in the use of healthy living resources.
- Students use this information to construct their Reality Check website page.

### 8. Construct Team Website

**Inquiry based approaches to teaching and learning**

**How can I maximise my client’s use and access to the Five Star Resources?**

**Students review their individual website pages and select their team’s best website pages.**
- Each team presents their final theme website to the class.

### 9. Submit team website

**Efficacious Assessment**

### 10. Final Reflection Task

**Qualitative approaches to evaluating health literacy**

**Do I know more about the healthy living needs and interests of my target audience?**

**Complete final client assessment task.**

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**PRINCIPLE 3: ANTONOVSKY’S SALUTOGENIC PHILOSOPHY OF HEALTH**

Additionally, this project will adopt a salutogenic approach to health; whereby health literacy is seen a resource for health and life. Achieving health is not only influenced by individual and lifestyle factors, but also shaped by social, environmental, economic and political determinants (Nutbeam, 2000). In contemporary Western society, considerable attention has been given to analysing and influencing these determinants to improve health (Nutbeam, 2008). Such attention is underpinned by a ‘biomedical’ or ‘pathogenic’ view of health (Antonovsky, 1979) which emphasises the presence or absence of disease within an individual (AIHW, 2004). Quennerstedt (2008) asserts that conceptualisations or evaluations of health often start with some form of normality, where absence of disease is ‘normal’ and ‘healthy’ (p. 270).
By contrast, the broader, salutogenic approach to health incorporates both risk and a range of protective factors. Antonovsky, a medical sociologist, coined the term and paved the way for an innovative new direction in Public Health research (Lindstrom & Eriksson, 2006). Extending the definition of health offered by the WHO, the salutogenic model is defined as ‘a multidimensional health-illness continuum between two poles that are useful only as heuristic devices and are never found in reality: absolute health and absolute illness’ (Antonovsky, 1979, p. 37). Health is therefore seen as a continuous problem solving process throughout life, not an outcome.

This resource based, problem solving model, works on the foundation of ‘what creates health rather than only what are the limitations and the causes of disease’ (Antonovsky, 1979, p. 12).

Underpinning the salutogenic approach is what Antonovsky describes as an individual’s Sense of Coherence (SOC) (Lindstrom & Eriksson, 2010). The development of a strong SOC which, in turn, leads to better health, depends on the ability of an individual to gain, use and reuse these resources in a health promoting way. These ‘resources for life’ (p. 16), otherwise known as general resistance resources, promote the health and wellbeing of an individual and are effective in combating life stressors (Lindstrom & Eriksson, 2010).

The notion of ‘health literacy’ as a resource for healthy living has gained considerable attention over the last decade as recently, there has been growing consensus about broader definitions of the term, namely highlighting literacy as a facilitator to health related information (Shohet & Renaud, 2006). Health literate individuals are therefore able to make informed health decisions to exert greater control over life events (ibid). Nutbeam (2009 & 2000) agrees, stating that health literacy promotes and advocates for the health and wellbeing of individuals and society. Given this background, health literacy can be seen as one of the prime resources for positive health and therefore, acquiring it will assist movement toward the health-ease (salutogenesis) end of the continuum.

Consequently the emphasis on developing young people’s health literacy at the functional, interactive and critical level was considered to be an inherently salutogenic approach to SBHE. Nonetheless, there was considerable potential for teachers to present and develop health literacy as a ‘solution’ to specific young people’s health related issues such as sexually transmitted diseases, drug misuse, overweight and mental health. In seeking to counteract this approach, the first learning activity required students to brainstorm responses to the statement ‘I am healthy and enjoy life because...’. In so doing, students were encouraged to adopt a strengths-based resource approach to the evaluation of their healthy living and would identify a range of factors that were not simply determinants of disease or health concerns.

**PRINCIPLE 4: RECOGNITION OF STUDENT VOICES**

In their health literacy research project conducted with schools, Begoray and colleagues (2009), provide a unique insight into the perspectives of young people who have been engaged in school based health education programs. As the authors note ‘school health education interventions provide a promising avenue to improve levels of health literacy, which, in turn may have an influence on health behaviours’ (p. 35). These researchers specifically sought to identify students’
thoughts about their school based health education experiences and as a consequence noted that ‘there are clearly a number of challenges with the health curriculum both in content and presentation’ (p. 40), if such programs are to provide young people with a comprehensive suite of health literacy skills.

Students’ commentary raised the following issues and concerns, stating that their health education experiences were characterised by:

- a lack of development of their health knowledge, because they perceived they were learning old material;
- overly generalised information that did not provide personalised assistance or at least some opportunity to individualise information to make it personally relevant;
- topics that were frequently glossed over or too broadly discussed;
- an enduring engagement with a passive student role;
- boring and routine classes that involved listening, copying questions or answering questions; and
- teachers who did not have the required background to be teaching health education and were perceived as reluctant instructors.

In contrast to their ‘disappointing and inadequate classroom experiences in health education’ (p.41), students wanted to participate in health related conversations where they could discuss issues and solve relevant health related challenges with their peers. Importantly the students felt that as a result of their passive role, they were not provided with opportunities to ‘develop health literacy such as the ability to comprehend and evaluate’ (p. 39). Consequently, although students considered some of the health information to be useful, their health education experiences ‘encouraged dependency on their teachers’ (p. 38), instead of developing their health literacy skills such that they could find and evaluate health related information on their own. In conclusion, the students wanted their health education lesson to provide them with opportunities to ‘talk about their opinions, to do ‘hands on’ projects, see more films and expert presenters and seek their own answers to their own health questions’ (p. 40).

As a result of their research, Begoray and colleagues offer a series of recommendations for those educators who are intending to design and deliver SBHE that can enhance the health literacy skills of young people. These recommendations suggest that such programs:

- need to be clearly sequenced;
- are delivered by educators who have acquired appropriate health education background and training;
- provide students with choice in materials, learning activities, ways to present knowledge and active ways to pursue and construct knowledge;
- specifically develop health literacy skills within the context of health education;
- listen to students’ voices and provide them with opportunities to discuss ideas especially with knowledgeable, caring adults;
- encourage teachers to engage parents;
• take advantage of the significance of peers and other adults on students’ health education; and
• develop students’ critical media literacy given the crucial role of media messages.

While many of these recommendations are not new to those who have been working within the field of school based health education (St Leger, 2006; Wright et al, 2004), they provide a succinct list of characteristic features that have been uniquely articulated to the objective of developing young people’s health literacy skills. Given the practical usefulness of this material, the teachers engaged in the Health literacy @ Ipswich Schools project were each given a copy of this article. Additionally, each of the recommendations was discussed within the context of the teacher professional development sessions. Interestingly, the teacher feedback from the professional development workshops indicated that the teachers felt the pedagogical issues underpinning these recommendations were of less concern than the innovations relating to the notions of salutogenesis and health literacy.

In the construction of the Health Literacy @ Ipswich curriculum we were mindful of those recommendations that were specifically relevant to the content and pedagogy underpinning the unit of work. In particular, we provided opportunities for student voice, engagement and capacity to develop their health literacy skills beyond the mere acquisition of functional health literacy (i.e. understanding health information). The features of the unit (see Table 3) that we believe specifically addressed these recommendations were:

1. Assessment engaged the students in a ‘hands on’ and authentic task of creating a website for young people who faced the same demographic and sociocultural health related issues as themselves.
2. Students were encouraged to work within small groups which provided opportunities for them to discover, share and create strategies that could address shared barriers and concerns to enhance their practices and experiences of healthy living.
3. Both the assessment task and learning experiences specifically positioned the students’ own perspectives and voices as the focus of the unit’s content and objectives.
4. Creating scenarios and characters throughout the unit of work encouraged students to explore a range of mechanisms to pursue, construct and present health related knowledge and skills.
5. Engaging students in the construction and evaluation of a range of web-based health related media highlighted the importance for teachers and students alike of critical media literacy.

FINDINGS AND DISCUSSION

In this final section we present the findings of the health literacy project using six headings: General implementation; Health literacy development; Critical e-health consumers; Keeping it real; Helping others; and St-healthy pedagogies. These sub-titles correspond to some extent with the key recommendations by Begoray et al (2009), and have emerged, albeit with a degree of overlap, from the analysis described above.
1. GENERAL IMPLEMENTATION

Overall, the response of students and teachers to the health literacy unit was positive. The majority of teachers and all HPE Head of Departments (HODs) involved in the focus group discussions thought the design and sequencing of the unit was effective in terms of teacher delivery, student engagement and student learning. Generally the teachers felt, ‘student engagement was very positive’ with students remaining focussed on the topic and the tasks at hand. One teacher at Indigo SHS reported, ‘All five students who participated in the program remembered to come to class each time, evidence they were interested in the unit’. These sentiments were echoed by the Inkwater SHS HOD who commented that, ‘Students were highly engaged’.

The organisation of the unit was well received by teachers who were quick to endorse the resource, with one HOD commenting their school, ‘Would keep the unit. [It is] a good unit.’ In particular, teachers believed the learning activities were cohesively sequenced and the, ‘flow of it seemed to work well because they [learning experiences] all sort of inter-related’. Even with the clear organisation and sequencing of the health literacy unit, teachers felt it still offered flexibility and, ‘gave teachers the option to do more work and research external resources’. The inherent flexibility encouraged variety in the topics chosen, and in keeping with the recommendations by Begoray and colleagues (2009), reduced the chance of repetition and promoted interest and relevancy for the students. Additionally, teachers appreciated the unit was, ‘different in that it is a structured unit and not just resources’. Finally, one teacher at Indigo SHS opined they, ‘liked the whole package – the idea and structure, but needed more time to complete it properly’.

Student response was varied as to the structure of the unit; however students from all three schools enjoyed having control over choosing the topics to be studied and the IT focus. Indigo SHS students recounted how they, ‘Enjoyed the topic, so found the work easier than normal’. Teachers at Inkwater College also noted that the unit was ‘different’ particularly as the, ‘students felt they had control over the unit and definitely seemed keen’. Other teachers agreed, saying, ‘students got to express themselves from the start’ and the unit was, ‘relevant to students, as they had control/input’. This positive appraisal of student input by both teachers and students further aligns with the research conducted by Begoray et al (2009) who suggest, ‘Lessons for adolescents need to offer choice in materials, learning activities and ways to present knowledge, and active ways to pursue and construct knowledge’.

Some teachers felt that students had a better in-depth knowledge at the end of the unit, than with a normal unit as they were able to focus on their one chosen issue. HODs at both Inkwater College and Bluemarine SHS said they, ‘Felt it did make students more knowledgeable in their topic,’ and that, ‘Yes...students became experts in their chosen topic’. One teacher reported:

‘Even though we have taught them what they need, you know, safe sex and sexual health clinics and check-ups and things, just what they were giving me back with their knowledge and stuff was totally different to what you get when we were doing a normal lesson with 30 kids learning about sexual health.’ (Mary, teacher, Bluemarine SHS).

Likewise, students from Bluemarine SHS noted adopting an in-depth approach to one topic allowed them to learn more about their selected issue, particularly practical applications of the knowledge,
such as how to resolve and prevent fights. Students offered, ‘The assessment allowed us to go into more detail and have more fun’.

Overall, students were varied in their support for the idea of exploring one health-related theme in depth. As the students from Inkwater College in particular noted, ‘We researched one topic for too long. That got boring’. This situation was further exacerbated by the perennial issue of available time, with the majority of classes running out of lessons to allow students to share their findings and websites with their classmates. Some students suggested they, ‘Would have liked more time to finish it off properly’, whilst others enjoyed the opportunity to expand on their knowledge of the topic. A solution to this issue of limited time for some schools will result from the expansion of this unit to include two terms of study, with the Inkwater College HOD suggesting they would, ‘Make it a semester unit, allowing more time in general to finish the unit and not eat into their practical PE component’. However, a more general solution may be achieved through the inclusion of sharing lessons earlier within the unit and/or a reduction in the required website content to allow more time for sharing at the conclusion of the unit.

For both teachers and students, engaging in group work appeared to be a ‘double-edged’ sword. On the positive side, teachers from Bluemarine SHS suggested, ‘the unit promoted collaboration among students and allowed students to draw their own conclusions’ and, ‘students enjoyed the group work aspect’. This was reinforced by the Indigo SHS teacher who described, ‘in our few brainstorming sessions there was just non-stop talking. It was really good’.

Students at Bluemarine SHS agreed with the teachers, noting that group work initiated more discussion and meant they had to understand different points of view. Nonetheless, students from Inkwater College stated, ‘working in groups could be distracting and allowed some to slack off’ and that, ‘group work was difficult as not all share the workload equally and it was hard when people were away’. This feeling was echoed by teachers at Bluemarine SHS who suggested, ‘Group work did cause some issues with kids. [It was] also hard for students to catch up if they were away’.

A range of issues were identified by students and teachers as factors that detracted from the effectiveness of the unit. For the majority of teachers these factors were predominantly related to issues of logistics, particularly access to ICT; organisation of classes within the timetable; inconsistency of delivery across classes and the resulting impact of all these factors on the effectiveness of assessment. For the unit to be more effective, Bluemarine SHS teachers recommended, ‘[students] need equal and consistent access to computers’ and, ‘no need for two booklets, [instead] one work booklet as well as an assessment task sheet with attached marking criteria’ was preferred. In addition, the Bluemarine SHS HOD offered, ‘the unit didn’t flow well if teachers were away. [It] needed more scaffolding and structure’.

Student concerns tended to focus on issues to do with the organisation of materials and learning experiences including the recording of information in booklets; quality of instructions; breadth of topics studies; and, issues pertaining to assessment. Consequently, there was a general consensus amongst students that found transferring work from one booklet to the other to be repetitive and time consuming, with students at Bluemarine SHS suggesting they, ‘thought the two booklet thing...a bit confusing because you did the work booklet and then it’s almost like you had to copy everything and put it in your assessment booklet’.
Interestingly, students from the two larger school communities stated that the instructional information in the work booklets was confusing, and many students felt the teachers didn’t really understand either, so they didn’t get the guidance they needed. Although some teachers were comfortable with the amount of instruction, others felt the language/instructions in the booklets were a bit confusing and not consistent. For example, a teacher at Inkwater College recounted, ‘some of the language...was worded differently in the assessment books and...so I noticed that they [the students] weren’t even sure which page matched up because the words weren’t the same and they couldn’t process that’. As we will discuss later, the issue of clear guidance appears to be directly related to the teacher’s understanding of their role within learner-centred pedagogical approaches and the limited opportunity that the teachers had to develop this understanding prior to the delivery of the unit.

Following on from this initial pilot of the unit, it was clear that the unit would need to be tailored to better fit each individual schools requirements, in terms of when the unit could be delivered (i.e. year level and term/semester); ensuring adequate access to computers and Internet; modifying assessment procedures; and clarifying overall expectations including group work requirements, topic selection or allocating time for sharing and reflection. For example, Inkwater College teachers suggested that in future they would tailor their delivery of the unit so it ran in class groups instead of combining all four classes together as was the case for the pilot. In comparison, Bluemarine SHS teachers felt they needed to structure their own marking criteria for consistency, and offer more individual/extension activities along with the group work to help differentiate between students.

For the schools in which the unit was delivered as a ‘core’ experience for all students, the notion of a capstone course became increasingly attractive. Although a few students from Bluemarine SHS felt they, ‘hadn’t learnt anything new in the unit and that it was repetitive’, the HPE leaders at Inkwater College recognised the importance of laying health literacy foundations in earlier years and units of work. The teachers in general felt it was a good unit, ‘A great finish to Year 9 HPE’ (Aidan, HOD, Bluemarine SHS).

Ultimately, this project has emphasised that a one-size-fits-all implementation of health education units is an unrealistic approach. To enable success, schools need the freedom and flexibility to implement comprehensive health literacy programs that are tailored to the specific needs of their students, staff and community.
2. HEALTH LITERACY DEVELOPMENT

According to Begoray and colleagues (2009), health literacy development needs specific attention in the health education context. As already discussed, activities in this unit were designed to guide students through the functional, interactive and critical levels of health literacy developed by Nutbeam (2000). Although health literacy may be criticised for being ‘old wine in a new bottle’, for these teachers the health literacy framework provided structure and connection to other core business within the school. For example, the Bluemarine SHS HOD noted, ‘Students are aware of literacy, so it was good to link the terminology in with Health Education’. The capacity for health education units to contribute to the overall development of young people’s literacy skills was also evident, with one Indigo SHS student offering they, ‘Don’t normally enjoy reading, but I did in this unit’.

Findings from this project suggest that teachers found health literacy to be a useful construct to employ within their health education programs. The Inkwater College HOD reported they, ‘felt the structure of functional through to interactive activities worked well...allowing [students] to use health literacy to develop a theme or idea’. Similarly, teachers at Bluemarine SHS reported, ‘using the literacy language throughout was good’, but that they would consider, ‘doing the higher order activities, for example resource evaluation, at the start of the term when students are fresh, and creative activities like the character towards the end of the unit’.

FUNCTIONAL LITERACY

Nutbeam (2000) identifies functional health literacy as the ability to function in everyday situations using basic skills in reading and writing. Teachers and HODs noted the development of students’ functional literacy skills over the course of the unit, with the Inkwater HOD commenting:

Recommendations

- Student voice is important when designing and delivering health education in schools.
- More time to complete the unit would be beneficial, especially to allow for opportunities to share findings and websites with classmates.
- Teachers would benefit from professional development on effective group work facilitation.
- Health literacy units should be tailored to individual school requirements, e.g. timing, access to ICT, assessment modification.
- Students require equal and consistent access to computers.
'Well looking at what the [students] had produced, you can see that the language that they're using has evolved, even over a short period of time. So they might have done some research on a particular theme and they might have come up with something like sleep apnoea where they might have to do with sleeping. They might not even have heard of it. Then by the end they're talking about things and medical terminology and bits and pieces like that, where before they wouldn't have even known what it was. So certainly - that's been the biggest indicator, just reading their work and how it's progressed over the six or seven weeks we were doing it.’ (Sam, HOD, Inkwater College)

Anecdotally, teachers felt that student’s knowledge at the end of this unit was more thorough than at the end of a normal unit. However, teachers reported breaking the terminology down into teenage language was challenging at times.

**INTERACTIVE LITERACY**

Interactive health literacies focus on more advanced literacy, cognitive and social skills (Nutbeam, 2000). At this level, communication skills are used to extract and derive information to act independently on that knowledge, allowing citizens to actively engage in everyday activities and apply new information to changing circumstances (McCray, 2005).

As a result of their participation in this project, students felt they were better aware and able to access health information, particularly on the Internet. Students noted:

‘I think yeah it’s a good thing. After learning all this stuff you know where to look for help as well as you feel like it isn’t actually that hard to find help. You know that there are lots of places you can go to for that kind of information that you need’ (Izzy, student, Bluemarine SHS)

‘Well we no longer have a limited amount of people to go to. We now have a broader amount of places that we can go to and ask for help instead of always resorting to ask a teacher or your parents or siblings or friends.’ (Jayne, student, Bluemarine SHS)

‘I guess the thing how easy it is to access different resources and sort of the variety there are, so like if you didn't want to like talk to people about it you could just go on the internet and find information. Or you could also go to people or go to like online and stuff and get help as well.’ (Zoe, student, Inkwater College)

Not only did students feel better equipped to access health information, but they felt they were in a better position to apply this information to notice and/or help friends or family who have a health problem. Examples include:

‘Well it's helped me to help other - my friends because they're bigger fellas and I've given them advice on it. I've given them the websites and ways of losing the weight - physical ways like walking and jogging and stuff like that.’ (Alexander, student, Indigo SHS)

‘Like if I thought something was wrong with one of my friends now that I know there's actually things I can look at I could actually find information about it and then know that if they do need my help I'll be able to give it to them. So you know if I thought one of my friends was having problems like depression or something I could go to the guidance office and ask how can I help them? Or go
on the internet and they usually have that if your friend is in need how do you help them? So now that I know that I can do that I will. Instead of just sitting there and just going oh well is there a problem?’  (Jayne, student, Bluemarine SHS)

‘I guess you don’t really learn from this unit but you’re usually just like aware of how people behave and stuff and if that changes then you would do something about it because then this unit’s sort of taught you like what you should do about it and who you should see and then like more advanced steps other than the old like you know something’s wrong and tell someone.’  (Chloe, student, Inkwater College)

Students also recounted their improved confidence to access support services for themselves:

‘If I had a problem, I’d probably be less inclined before I started this unit to like go and talk to people who, if you like, might judge me about stuff. They’re here to help me, not judge you or whatever.’  (Sienna, student, Inkwater College)

The interactive literacy embedded in the unit encouraged students to derive information from research and apply it to their created character. This synthesis of information informed the experiences and decision-making of that imaginary character, but with real-life significance – a process valued by students:

‘I think that was good...with the whole cleaning up decisions they make and whichever decisions they took you could see the positive consequences and the negative consequences. We got to make up those things. So not only were we helping other people but I think we were helping ourselves in the sense that we could know different – like the different consequences coming out of the actions that they took.’  (Izzy, student, Bluemarine SHS)

‘I think it’s good because you can like take into account the options that you have in that type of situation and then you might be able to think more properly and later you might be able to know what to do better, to make a decision on the spot where you’d have to...I think’  (Sienna, student, Inkwater College)

CRITICAL LITERACY

This final stage of health literacy supports social and individual action (Nutbeam, 2000), providing students with skills to critically analyse health related information in order to exert control over life events (McCray, 2005). Due to the ongoing construction and application of health literacy throughout an individual’s life, critical literacy can be difficult to measure and interestingly, comments made in the focus groups suggest students felt the unit had increased their health knowledge, but would have little to no impact on their own health behaviours. However, students did feel they would be more aware of the health of people around them.

Overall, evidence of attainment of critical literacy was found within the unit through the following:

- Students generally felt more aware of and confident to access health resources.
- Students felt they could critically analyse internet health resources – both for relevancy to their age group and for the reliability of the information.
• Students felt empowered to help others. They felt they understood the issue they studied thoroughly and could use the knowledge to help friends and family.
• Students felt the unit helped with general decision-making skills and research skills.

Whilst numerous students attested the unit would not change their health behaviours, one student recounted the way they have used the health information to take action in their own life, ‘I’ve asked my Dad to get more healthy foods instead of - because Dad normally gets chips and biscuits and all that for me. I’ve asked him to get more of the healthy food.’ (Alexander, student, Indigo SHS).

Teachers’ had varying experiences of health literacy in student work. When assessing student workbooks, the Inkwater College HOD identified health literacy as:

• reflected by the type of language and words they use;
• the need to show an understanding of the topic and develop ideas further;
• the need to reinforce or justify their opinions; and
• evidence of the development of these things over the course of unit.

Alternatively, teachers at Bluemarine SHS described the difficulties of accurately assessing student health literacy skills due to the differences in assessment methods, ‘as some classes had a lot of computer access and didn’t complete work booklets as they completed the work electronically, while other classes with little computer access relied on work booklets’. In addition, Bluemarine SHS teachers felt the group work aspect made it difficult to differentiate high ability students in the unit, with many teachers commenting they needed to talk to students or compare electronic work and work booklets in order to differentiate between students in each group.

Finally, perhaps critical literacy skills are nowhere more significant than in relation to young people’s consumption of health related information via the web. The use of critical literacy in relation to ICTs was very successful in this unit, with students becoming quite proficient at ‘analysing resources for reliability and relevancy to their age group’ (Sam, Inkwater College HOD). This ability to critically evaluate and apply online health information to student’s own lives and the lives of others is considered a complex and important skill by Gray and colleagues (2005a) as they state, ‘When an individual uses the Internet to find health information, it is an excellent illustration of the demands placed upon their health literacy to find, evaluate, and apply information in order to achieve a positive health outcome. The user has to locate the websites that meet their need, often using sophisticated search strategies. Ideally they should then critically evaluate the information to determine its credibility. If they perceive that they have found useful information, they then need to consider how they might apply it within their lives, or to others within their social sphere, to achieve the desired outcome.’ (Gray et. al, 2005a, pg 243.e3).
Adolescents are known to be frequent users of the internet (Gray et al, 2005a; Wharf Higgins et al., 2009; Grenfield & Yan, 2006). As access to the internet is now commonplace within homes and schools, the question according to Smith (2000) is no longer whether the internet is an important resource, but how it’s potential can be maximised. Technology was a central theme in this health education unit, with the culmination of work resulting in an online health resource specifically for adolescents. The use of technology was recognised by almost all students as being an enjoyable part of the unit, and teachers noted it was an important factor in gaining and maintaining student interest and engagement throughout the unit.

During the focus group setting, when asked, ‘What do you like about this unit?’ both students and teachers responded very favourably towards the inclusion of technology. For example:

‘I like designing the web page and stuff and learning more about what you can do with a PowerPoint, but turning it into a website and learning about positive family and friends and how to resolve fights and prevent fights from happening with your family and friends’ (Emily, student, Bluemarine SHS)

‘I liked designing the webpage....Because we were working on the computers and doing stuff that we’re usually on, like the internet’ (Madelaine, student, Bluemarine SHS)

‘I liked how we got to work in groups and how we had technology as well. So it wasn’t as boring as just writing in a book and doing some written subjects.’ (Rob, student, Bluemarine SHS)
'I think with books it’s more about like with the facts and everything like what it’s all about, but if you go online you can just get stories of like what other people have actually gone through and so you can form better opinions of that I think’  (Sienna, student, Inkwater College)

‘So I think it’s hands-on, specific to the technology revolution, if you like, and the generation that we have now, that we are teaching, rather than sitting in a classroom writing. They’re not interested in that’  (Sam, HOD, Inkwater College)

‘Personally in my class the whole concept, they really loved. That they were developing this – they really believed that they were having a chance. Giving them computer time and telling them it’s a website just sold it to them straight up. Like further on, that proved challenging in other areas, but with that original concept I’ve never seen my class that engaged.’ (Mary, teacher, Bluemarine SHS).

These findings are consistent with a number of studies indicating that computer-supported inquiry learning has the potential to foster productive task-related interaction and increase student engagement (Blumenfeld et al., 1991; Hakkarainen et al., 2002; Jarvela et al., 2008).

Whilst students enjoyed the technical design aspects of the unit, such as creating a homepage and a homepage character, the varying degree of student’s technical skills meant that these tasks became more time-consuming than intended and diverted the focus away from the health topic. For example, one teacher offered, ‘Yeah, because they get really caught up in the technical side of things. If they don’t know it, they want to know it-which is great, but they’ll spend a 70 minute lesson figuring out ooh, there’s a hyperlink...’ (Mary, teacher, Bluemarine SHS).

A recommendation to address this issue would be to provide common templates to be used for each activity. This would reduce the time student’s spend on technical design and allow the focus to be maintained on the health issue being studied, whilst still including the interactive activities that students enjoyed.

Another issue that arose from embedding technology in the unit was the inequity of student access to computers, across schools and also between individual classes within each school. This resulted in difficulties for teachers when assessing the unit, and left some student’s feeling frustrated at not being able to complete their webpage.

Equal access to the internet for all students is fundamental to the success of this unit in terms of student learning and consistency of implementation for teachers. Careful planning of resource access should be a priority for schools when implementing the unit.

THE INTERNET AS A HEALTH RESOURCE

Kanuga and Rosenfeld (2004) reported that 75% of today’s youth had used the internet to look up health information. In Australia, the Mission Australia Youth Survey (2011) has found that the proportion of young people identifying the internet as a top source of advice has increased from 1 in 10 in 2002 to 1 in 5 in 2011. In particular, the internet ranked highly for searches about sexuality, the environment, discrimination, body image, depression and self-harm.
The students involved in this study reported that the internet was a useful resource for researching their topic. They generally were surprised at the volume of health information that was available on the internet and in particular the number of websites that are tailored specifically to the adolescent audience.

‘It really like kind of showed me how many resources there are for health. There’s stuff like the internet and like phones and [inaudible] and stuff, like there’s lots of different things out there that can help you.’ (Ava, student, Inkwater College)

‘I guess the thing how easy it is to access different resources and sort of the variety there are, so like if you didn’t want to like talk to people about it you could just go on the internet and find information. Or you could also go to people or go to like online and stuff and get help as well. ’(Annika, student, Inkwater College)

‘Well I knew that on the internet there was a lot of stuff, but I think now learning that there actually are teenage websites that you can look for and specifically search different things to help with whatever you need help with.’ (Izzy, student, Bluemarine SHS)

‘Like the BeyondBlue – the youth one. That was really helpful with us because we did mental wellbeing as well. That really helped because it was actually for people under 25 instead of just the normal BeyondBlue where it was quite adultish and you’re looking at it going that’s really boring. But the young for the younger people is a lot more helpful.’ (Jayne, student, Bluemarine SHS)

The general consensus was that at the completion of this unit, students’ had gained an awareness of the amount of health resources available and felt more confident in their ability to access relevant health information on the internet. Gray et al (2005b) note that adolescents display autonomy about their own health from an average age of 15 years. The internet has the ability to be a powerful health resource for adolescents because of factors such as ease of access to information; conveying a sense of peer acceptance and normalcy through teenage websites and chatrooms and providing confidentiality at a time when many health-related issues can result in feelings of confusion and embarrassment (Kanuga & Rosenfeld, 2004). However, as Gray et al (2005b) remark, it is important to contextualise the influence of the internet in combination with other sources, in particular trusted peers and adults.

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**ADOLESCENTS AS CRITICAL E-HEALTH CONSUMERS**

There is a growing body of evidence that adolescents, whilst proficient in certain areas of technology, such as personal communications, games and downloading music and films, are still inefficient at searching for information on the internet and are unable to critically evaluate the information they find (Ladbrook & Probert, 2011; Levy & Michael, 2011; Coombes, 2009). The unit aimed to address this issue by explicitly teaching students to evaluate websites according to relevance, credibility and quality of information (Activity Seven: Resource Evaluation).
Common responses from students across the three schools when asked about the most important things that they learnt from the unit, were research skills and the ability to find useful teenage health websites. They referred to Activity Seven from the unit during focus group discussion on their ability to find resources:

‘Yeah it – like it shows you who might be better to go to and who might be more reliable to talk to. The five star rating could show who knows more information than the other and who knows what you are going through. What doctor or therapist or someone could help you with that’ (Eriel, student, Bluemarine SHS)

An excerpt from the Inkwater College student focus group indicated a similar viewpoint:

Student: ‘It was sometimes hard to find a lot. Like there was one or two good websites where there’d be lots of stuff but then there were a few home-made ones that were not so good.’

Facilitator: ‘I like the word home made. Do you now – do you think you know the difference between a homemade website and a better website’

Student: ‘Yes’.

In addition, the teachers’ noted the importance of this particular activity, as they felt that the students did not often go through a process of critical analysis of websites when researching information. For example:

‘Certainly. There were a few bits and pieces in there, where you had to look at - particularly things like - it was really interesting was looking at sources that were good. In the past and particularly with year 11 health and they’re coming, any source would do. Whereas this one was looking at, okay, let’s find x amount of sources. Hang on. Don’t use it. Let’s see if it’s any good first. Let’s get the rate. That was really good for the girls to identify what was good health literacy, I suppose, and what was useful for their age group in particular, which I found good. Because some of the stuff you find, the girls wouldn’t understand it or it’s rubbish. So I thought that was really beneficial for the girls.’ (Sam, HOD, Inkwater College)

Whilst students’ self-reported an improvement in their ability to critically evaluate websites in the focus group discussion findings, there was no specific assessment tool in the unit to measure this and many students did not complete the final website due to time and access constraints.

Many Gen Y students display confidence in their technological ability and this has fuelled the myth that they are skilled in information-seeking on the internet. Parents and teachers mistake this general confidence and familiarity with technology for competence in all digital tasks and students are subsequently being left to develop their information-seeking skills on their own through trial and error (Coombes, 2009; Gray et al., 2005b). This research would suggest that the explicit teaching of internet search strategies and critical evaluation of websites is imperative in targeting the health and digital literacy needs of adolescents.
4. KEEPING IT REAL

Although students raised concerns regarding time and access to technology, they nonetheless welcomed the opportunity to explore and develop their knowledge and skills within the context of a learning experience that explicitly focused on their local needs, resources and life experiences. Indeed, the students drew attention to the learning experiences involving the construction or critique of ‘real-life’ scenarios, group decision-making, critical evaluation of e-health resources and website construction as mechanisms which they believed enhanced the authenticity and relevance to their own engagement with healthy living practices.

The inquiry based learning model in this unit was recognised by both students and teachers in focus group interviews as being very successful in terms of student interest and engagement throughout the term. The students in particular enjoyed the IT focus and that there was a real and relevant end product of the unit (teenage health website):

‘I think with books it's more about like with the facts and everything like what's it all about, but if you go online you just can get stories of like what other people have actually gone through, and so you can form better opinions of that I think.’ (Sienna, student, Inkwater College).

A very common theme in the interviews was the notion that students liked learning about health through real-life scenarios and stories. According to students, scenarios or real-life stories were the most effective way of providing information that they found relevant and consequently would be most likely to remember and apply. Students offered, ‘[you] tend to remember scenarios and stories more than facts and definitions’ (Inkwater College students) and, ‘completing scenarios made you think through all the options in a situation (Bluemarine SHS students). Further, students felt that by making up an online character, they were able to ‘kind of like mould it’ fairly closely on themselves,

Recommendations

- Provide further scaffolding on the construction of website elements, such as common templates.
- Careful planning of resource allocation to ensure adequate access to technology.
- In order to effectively improve students’ skills in health and digital literacies, the explicit teaching of internet search strategies and critical website evaluation is required.
- Provide teacher professional development on the effective use of digital pedagogies.
thus adding relevance and authenticity to problem solving and decision-making learning experiences.

Students at Inkwater College felt the issues explored in the unit were relevant because they chose them and, ‘could possibly happen to us at a time over high school or now’. Moreover, one student noted how it helped them to understand, ‘because we hear stories and stuff that are more related and you can kind of apply it to your everyday life. They don’t give it to like special circumstance people. It’s like just generally like how you can help yourself.’ (Chloe, student, Inkwater College). Similarly, Bluemarine SHS students felt the authenticity of the unit would help them make decisions in situations they may come across in the future.

An excerpt from a focus group with Inkwater College students indicated a corresponding theme:

Amelia: I liked the scenarios, like things you had to like think about what you would do in that situation.

Facilitator: Good. So why do you think you enjoyed working with scenarios? You said because you got to think about someone else, but...

Amelia: They’re like, they’d be happening in real life.

Further to this, one Indigo SHS student reported:

Alexander: The diet that’s there. What inspired me from the internet were people’s bibliographies that they’ve put on there that I read. It was good to see that people do follow along with it and they mainly go for the diet because when they’re of a young age they get teased and everything. So they try to make themselves better so they do the diet and stuff to get healthy.

Facilitator: You were seeing a lot of relationships between diet and people's self-image?

Alexander: Yes.

Facilitator: Okay and you found that inspiring?

Alexander: Yes.

Facilitator: So when you were constructing your web what did you want to tell other young people then?

Alexander: That healthy food is good for you and that it can change your life.

Facilitator: You’ve picked that up on those webs?

Alexander: Yes.

As recognised by Begoray et al (2009), teachers should take advantage of the significance of peers and other adults on the health education of students. This unit required students to create an end
product – in the form of a website – specifically for other teenagers. The aim was that students could work closely with their peers to develop a relevant and useful educational tool for other young people, and in doing so, increase their knowledge in that subject area. As emphasised above, student enjoyed the use of real-life scenarios and stories (particularly those of guest speakers and websites with teenage scenarios) and felt they could relate this information to their own lives more effectively.

Placing responsibility for topic selection in the hands of students and requesting a specific outcome in the form of the website made the unit more authentic to them. Teachers praised this approach noting, ‘It gives the kids control. They feel like it’s going to be important. It’s got - well there is a product in the end if you do put the webpage bit together. So there’s a product - potentially there’s a product. So I think they can see that it’s got outcomes so that makes it more authentic to them.’ (Linda, teacher, Indigo SHS).

Teachers from both Bluemarine SHS and Indigo SHS noted the value in providing a ‘real-world’ assessment context for students:

‘I presented the unit as being something for UQ. The students then felt it was important and had a purpose. The fact that it was student driven made it relevant to the students.’ (Linda, teacher, Indigo SHS)

‘Students liked the idea of producing work for UQ that would be useful.’ (Aidan, HOD, Bluemarine SHS)

The high-level of student engagement with ‘real’ and ‘relevant’ learning experiences witnessed in this project comes as no surprise, with much educational literature warning, ‘If schools ignore the contexts in which students live and their experiences, knowledge, capacities and concerns, they run the risk of being increasingly irrelevant for many young people’ (Wright, Macdonald & Burrows, 2004, p.4). Overall, both teachers and students involved in the Health Literacy @ Ipswich Schools project saw significant benefits in engaging with learning and assessment opportunities that were embedded in local, real-life contexts.

**Recommendations**

- Incorporate relevant and authentic learning experiences in health literacy units to maximise student engagement and learning outcomes.
- Real-life scenarios are a useful tool in health literacy development.
- Explore opportunities to place responsibility in the hands of students.
- Develop authentic ‘real world’ assessment opportunities.
As the theoretical approaches underpinning the design and implementation of the health literacy unit were explicitly designed to encourage student voice (Begoray et al., 2009), students and teachers alike registered their surprise at the knowledge, skills and resources that young people had access to and could utilise in their efforts to enhance their own, and most significantly, other’s health and wellbeing.

Interestingly, not many students felt the unit would influence their own health behaviours, but overwhelmingly they felt that this unit allowed them to help others change their health behaviours. Indigo SHS students stated they were not particularly concerned about their grades for the unit, but were pleased to have the knowledge to help family and friends, and ‘to get it [health messages] out there to a lot of people’ (Jesse, student, Indigo SHS).

‘I actually got into doing this work because it was going towards helping others. The other work in other class – the physical education classes was more about you being healthy and stuff like that. It didn’t really tell us about helping others and stuff like that.’ (Alexander, student, Indigo SHS).

Students across all school sites believed they had gained practical strategies to help others and reported feeling more confident to give advice to friends and family:

[Excerpt: Indigo SHS student focus group transcript]

Facilitator: So you feel now that through your research you feel you’d be able to help others with the questions they have?

Alexander: Yes.

Facilitator: Have you done any of that? Have you told anybody or have you changed anything yourself?

Alexander: I’ve spoken to three people about it.

Facilitator: Have you?

Alexander: Yeah - three of my friends because they get teased a bit about their weight because they’re big boys as well. So yeah I’ve spoken to them about it.

Facilitator: You just told them about them or did you give them some website addresses or what did you do?

Alexander: I spoke to them about ways of losing the weight like physical education and I also gave them websites and stuff like that. I’m pretty sure they might have gone onto them.

Facilitator: Why do you think you would have been useful doing that instead of say me a teacher?

Alexander: Because I’m closer to them. I have more of a relationship with them and they know me a lot more.
Students also described an improved ability to not only help others, but to help themselves to improve their health. Bluemarine SHS students noted how they had learned to remove themselves from a situation in a safe way without causing harm or damage to either themselves or the people around them. This sense of confidence to effectively manage health-related issues was echoed by an Inkwater College student, ‘Yes. I was going to say it makes us - [unclear] if I like had a problem I’d probably be less inclined before I started this unit to like go and talk to people who, if you like, might get judged about stuff. They're here to help me ... judge you or whatever ...’

The desire to help both others and themselves may have been strong as a result of the unit focus and assessment task. As described above, students were engaged in a ‘hands on’ and authentic task of creating a website for young people who faced the same demographic and sociocultural health related issues as themselves. As a result, students were directly immersed in seeking health information and health-related decision-making in relation to their peer group, and more implicitly, themselves. The value of direct student engagement in health education lessons is also recognised by Begoray and colleagues (2009) who argue in favour of opportunities for students to, ‘talk about their opinions, to do ‘hands on’ projects...and seek their own answers to their own health questions’ (p.40).

### Recommendations

- Provide authentic opportunities for students to help others, especially their peers.
- Investigate the extent to which young people continue to feel confident and competent in helping others after the completion of a health literacy unit.

### 6. ST-HEALTHY PEDAGOGIES - WHO’S IN CHARGE HERE?

Finally, it was interesting to note the considerable tensions surrounding the teachers’ and students’ divergent feedback regarding the student-centred pedagogical approaches underpinning the health literacy unit. Whilst students reveled in the opportunity to explore health topics that specifically related to their needs and interests, their teachers expressed a sense of unease regarding the shift in the teachers’ role from expert provider of knowledge and skills to ‘facilitator of learning’.

Generally, teachers were positive about the student-centred approach as it provided opportunities for students to take ownership. They witnessed productive discussion amongst student groups, and anecdotally felt that students had attained a good level of knowledge about their chosen topic by the end of the unit because they were directly involved in learning, for example, ‘One of the first lessons was what makes a person healthy or a girl healthy of your age? They were brainstorming all
these ideas and generating things that were of interest and a passion for them. So I think that was really good’ (Sam, HOD, Inkwater College).

Teachers further emphasised the value of the student-centred approach, ‘I think the fact that it was student driven is the key - a key part of it because you can, then, link it back into what’s happening in the school and the [health] of the other students which makes it very relevant to them and would make it relevant to other situations in other schools as well’ (Tina, Teacher, Inkwater College). This sentiment was echoed by a teacher at Bluemarine SHS, ‘I think the idea that they were gleaning more information about their topic at the end, due to the fact that rather than us teaching it to them and having to remember it, they had to pick out the correct information from a website or from information sheets and they had to register what information best suits their topics. So they learned better on themselves…’

Students also welcomed the control over learning experiences and topics and the opportunity for group work and student discussion, ‘We all...had a say in what we could write and we got to pick who was the best scenario and we could work on it and put more stuff into it with each other and just work as a group’ (Eriel, student, Bluemarine SHS). A student at Inkwater College commented, ‘I think if teachers choose the topic they can – like, they’ll be teaching about it but they might form their own opinions and try to get you to like think the same way. Whereas, if you pick your own topic, then you can sort of form your own opinions about stuff and have your own opinion on it’.

The identified importance of student voice and student control is consistent with that of Begoray and colleagues (2009), who in their study of a school-based health literacy project, found that students wanted to participate in health related conversations where they could discuss issues and solve relevant health related challenges with their peers. When making recommendations for future practice in health education, Begoray et al (2009) suggest, ‘Student voices need to be heard. In-class responses to topics and approaches, while daunting for some instructors, can help students to contribute to their own learning and take responsibility with the teacher for classroom success.’ (p.40).

And daunting this experience may well be, with teachers in the Health Literacies @ Ipswich Schools project expressing difficulty with their role of facilitator, unsure of how much to intervene and suggesting that holding back felt unnatural, ‘To sort of sit back - I think as teachers we are in to teaching and I think it’s quite hard - professionally, it’s quite hard to sit back and see what they were doing’ (David, Teacher, Inkwater College). These thoughts were echoed by the Inkwater College HOD, ‘I actually found it quite hard to pull myself back. Also I had to pull my staff back because you want to help them.’ Similarly, the Indigo SHS teacher reported, ‘Well I found that I had to stop and just let them go with their ideas. I sort of had an idea in my head but they had their ideas. So I just took a step back and let them have their idea.’

The teachers and HODs of all schools were asked in the focus group about whether they felt comfortable and ‘legitimate’ in the role of Health Educator. All responded positively, citing their training (most were HPE teachers) as having effectively provided them with the pedagogical approaches that were required for the delivery of health education. Only those involved in teaching Senior Health Education (years 11 and 12) had sought out and participated in continuing professional development opportunities specific to the subject. Those teaching younger students
(years 7-10), felt professional development in Health Education, and particularly the engagement with contemporary literature concerning pedagogical approaches, was unnecessary. With respect to this specific unit, those teachers who attended the professional development sessions run by UQ researchers felt they understood the material and were more confident in teaching the unit.

### Recommendations

- Provide professional development opportunities to enhance teachers’ confidence with student-centred pedagogy and their role as a ‘facilitator of learning’.
- Teacher understanding and engagement with contemporary pedagogical theory and practice should be developed alongside disciplinary knowledge and concepts.

### LIMITATIONS OF STUDY

A range of limitations of the study flag a cautionary note in relation to any conclusions from our findings. First, although we purposively included schools that would provide a range of demographic characteristics, the small school sample size mitigates any capacity for generalizability. Secondly, as a result of staff changes across the holiday period, those teachers who had participated in the teacher professional development were not necessarily those who eventually delivered the health literacy unit of work or participated in the teacher focus group sessions. Thirdly, variations in the school timetable, location of the unit at the end of the school year and compromised resource allocation (ie. limited access to computers), significantly impacted upon the delivery of the unit as intended by the research team. Nonetheless, it is worth noting that it was precisely these limitations or barriers that the research team were interested in exploring to identify both the impact on curriculum implementation within the context of typical school operations and to validate a research protocol in anticipation of a larger project.

### CONCLUSION

As stated above, the Health Literacy @ Ipswich Schools endeavoured to discover the extent to which the rhetoric of health sector documents could be realised within the reality and complexity of contemporary schooling. Our first challenge was to address the limited research identifying what would comprise a health literacy unit of school based health education curriculum. In this report we have provided a detailed overview of the curriculum design processes that provide the framework from which a contemporary health literacy unit of work was developed. Findings indicated that the
five theoretical concepts that we employed to construct an authentic, relevant and robust health literacy unit were well received by schools, teachers and students.

The second research challenge focused attention on an exploration of the facilitators and barriers surrounding the implementation of a health literacy focused curriculum initiative. Most importantly, this project provided the much-needed educator’s focus on the role of schooling in the development and enhancement of young people’s health literacy. Our findings demonstrated the complexity associated with curriculum implementation in school settings where diverse resources, time allocations, teacher experiences and knowledges influence the constitution and communication of the curriculum. In short, as with other researchers, this pilot reinforced the need for schools to have the freedom and flexibility to implement comprehensive health literacy programs that are tailored to the specific needs of their students, staff and community. That said, students and teachers alike indicated that that language, knowledge and skills of health literacy were commensurate with the language and objectives of their school which facilitated the implementation of the curriculum. Other major facilitators included the support of school and curriculum leaders, the use of authentic scenarios and the internet as authentic mediums for student learning, and the teachers’ willingness to embrace health education as a significant component of their core business.

In conclusion, this project has demonstrated that the positive rhetoric surrounding the development of health literacy within the context of Australia’s core school curriculum has the potential to be realised within the context of contemporary schooling. Here we have purposefully employed the word “potential” as our results suggest that a diverse range of factors influenced successful implementation of the health literacy unit. Of particular interest were the tensions surrounding the teachers’ role of “facilitator of learning”, especially as the salutogenic approach foregrounded students’ interests, perspectives and needs. These tensions were exacerbated as a result of the emphasis on digital technology and students’ access to the internet during the learning experiences, which served to further decentre the role of the teacher as source of all knowledge.

Although it would be ludicrous to suggest that a one-size-fits-all approach to teaching and learning should be stipulated within health education curricula, the findings of this project suggest that teachers’ understanding and engagement with contemporary pedagogical theory and practice is no less important than their engagement with disciplinary knowledge and concepts. However, a feature of the current curriculum reform agenda in Australia has been education authorities’ efforts to acknowledge the capacity of schools and their teachers to make professional judgements about how best to enact the curriculum. As such, the national curriculum is to ‘make clear to teachers what has to be taught and to students what they should learn and what achievement standards are expected of them’ (NCB, 2009, p.15), but classroom teachers will be best placed to ‘make decisions about the pedagogical approach that will give the best learning outcomes’ (NCB, 2009, p.15). However, the findings from this project suggest that current HPE teachers’ engagement with contemporary pedagogical practices have been at best ad-hoc., with few teachers seeing the need to invest in the pursuit of a deeper understanding and engagement with contemporary pedagogical practices since their initial teacher education degree.

Consequently, we would argue that investment in the development of school-based health education in the absence of a concerted consideration of the curriculum, pedagogy and assessment elements of the unit, may undermine the potential posed by the emerging concepts identified in this
Indeed the outcomes of this pilot project have provided reinforcement for Penney, Brooker, Hay and Gillespie’s (2009) argument that quality (H)PE encompasses quality in these “three fundamentally inter-linked dimensions” (p. 438) and that,

...achieving quality PE demands that quality in each dimension is pursued and attention is directed towards the linkages that will ultimately be a key to achieving overall quality of (H)PE. We recognise that variously, curriculum, pedagogy or assessment may be foregrounded as a focus and catalyst for engaging with quality, but that ultimately, a singular focus will be inadequate (p. 438).

Perhaps this situation flags the importance of ensuring fidelity of curriculum delivery if the reality of school-based health education is to match the rhetoric expressed within contemporary Australian curricula and research. Once again, our use of the term fidelity purposefully relates to increasing concerns expressed by the health sector regarding schools and their teachers capacity to mobilise desired health promotion strategies with fidelity (Ennett et al, 2011; Clarke et al, 2010). For example in one recent study exploring the implementation of an evidence-based substance use prevention curricula under real world conditions (ie typical school operations), positioned teachers as program providers who posed a significant barrier to adherence and contributed to program contamination (Ennett et al, 2011). In concluding, these researchers note that,

Reasonably high expectations [of fidelity] are appropriate and necessary if curricula are to have their intended effects on your substance use. Our results suggest that until higher levels of adherence to content and delivery strategies can be achieved, expectations must be tempered. ...Perhaps most importantly, we need research that examines why providers [teachers] do not deliver curriculum as intended to inform both curriculum development and training for existing programs (p. 371).

In such commentary we are once again alerted to the tensions operating at the interface of health and education sectors which impact upon the design, delivery and most importantly the evaluation of school based health education. As such, the identification of behaviour change as the intended effect of a school curricular is of particular concern within the context of questions regarding program fidelity. Such statements reveal the health sector’s focus on “specific, short-term interventions that produce ‘visible’ changes in pupils’ health related behaviours” (Inchley et al, 2006, p. 66) contradicting the purpose and language of schools which are grounded in the building of general knowledge, skills and attitudes (St Leger, 2006; Jourdan et al., 2010).

In contrast, our earlier use of the term fidelity reflects an understanding of the inevitability of knowledge recontextualisation that occurs between the sites of official content/knowledge organisation (i.e. the bureaucracies in which curriculum policy documents are produced) and the sites of implementation. Our perspective on the notion of fidelity is thus informed by the work of Basil Bernstein (e.g. 1996, 2000, 2002), and in particular his theory of the pedagogic device, which provides a language and conceptual framework for understanding the processes of knowledge production, recontextualisation and reproduction within and between bureaucracies and classrooms. In this regard we seek to articulate a conception of fidelity that is more congruent with endeavours that seek to construct health-related programs that are cognisant of the dynamics and expectations of educational systems and that reflect a concerted and coherent alignment between
the message systems of curriculum, pedagogy and assessment. Fidelity thus requires the production of official material that supports this integrated approach to education but that also engages teachers in a professional and educational dialogue with those who produce the official documents to ensure that the curriculum, assessment and pedagogy can be instantiated in the practices and experiences of the classroom. That is, fidelity is not a one way communication, but rather depends upon a bi-directional communication between teachers and bureaucrats that is constrained to knowledge and practice possibilities of the three message systems of education.

Overall these issues of an educationally relevant notion of fidelity and quality school based health education, which have emerged within this pilot project, signal the much-needed research that adopts an educator’s focus on the role of schooling in the development and enhancement of young people’s healthy living. To date, Australia has experienced a limited research agenda regarding the design, delivery and outcomes of school based health education initiatives. In order for schools and schooling to make a realistic contribution to the health and wellbeing of young people, both health and education sectors need to conduct their work according to a clear articulation of the realistic, educative role that schools and their teachers can play in providing young people with the resources they will need to engage in active, healthy living. In so doing, this research can ensure that the innovative potential posed by emerging concepts, such as health literacy, can be realised within the context of contemporary schools.
Healthy Living @ Ipswich
UNIT WORKBOOK
lmc@hms.uq.edu.au

Name: ________________________________
Teacher: _____________________________
Class: _____________________________

QUEENSLAND HEALTHY YOUTH INITIATIVE:
Healthy living @ Ipswich website for young people
Contents

Activity One: Healthy Living Themes
  • Key Question: What information will we need to provide on our website?

Activity Two: Understanding a typical website client
  • Key Question: Who is my target audience and what are their needs and interests?

Activity Three: Designing your team’s home page
  • Key Question: How can I create a connection with my target audience?

Activity Four: Golden Guidelines + Breaking down health jargon
  • Key Question: What healthy living information do my clients need to know?

Activity Five: Healthy Living in Action - Interactive challenges
  • Key Question: How can I help my clients to respond proactively to health challenges?

Activity Six: Five Star Resources
  • Key Question: What resources (people, websites, organisations) can help my target audience to be healthy and happy?

Activity Seven: Reality Check – Tips and Strategies
  • Key Question: How can I maximise my client’s use and access to the Five Star Resources?

Activity Eight: Construct Team Website
  • Key Question: How can I maximise my client’s use and access to the Five Star Resources?

Activity Nine: Final Reflection Task
  • Key Question: Do I know more about the healthy living needs and interests of my target audience?
Activity One: Healthy Living Themes

- **Key Question:** What information will we need to provide on our website?
  - Team Brainstorm - In your team find as many responses to the following statement: I am healthy and enjoy life because....
  - Present brainstorm map to class
  - Teacher to collate a final overview of your class’ healthy living themes
- Finalise 5 – 6 Healthy Living themes for whole class in your Assessment Task Booklet

Activity Two: Understanding a typical website client

- **Key Question:** Who is my target audience and what are their needs and interests?
- Students respond individually to healthy living scenarios of website “clients”.
- Students review information and tips on website design for their target audience (young people)

Activity Three: Designing your team’s home page

- **Key Question:** How can I create a connection with my target audience?
- Each team takes responsibility for one of the class healthy living themes
- Students construct typical healthy living home page character and story board
  - Provide the biographical details of your theme’s character
    - Hi my name is....
  - Provide a story that describes the healthy living of your character
    - Identify positive aspects and challenges or issues according to your chosen theme
- Design your “Home Page” providing biographical details, pictures and storyline
- Transfer your final copy to the assessment task booklet

Activity Four: Healthy living theme Golden Guidelines + Breaking down health jargon

- **Key Question:** What healthy living information do my clients need to know?
- UQ Tender Resource Document provided to each team
- Students select and record 5 facts or information that they believe is the most relevant/important to their target audience.
- Students record this information in the Golden Guidelines table.
- Students highlight the important health words/terms in this table that will need to be explained to their target audience.
- Students place highlighted terms in glossary table and create definitions using language appropriate for the target audience
- Transfer your final copy to the assessment task booklet
Activity Five: Healthy Living in Action - Designing Interactive challenges

- **Key Question:** How can I help my clients to respond proactively to health challenges?
- Each student designs a healthy living challenge scenario
- Each team chooses the best scenario for their theme
- In teams students utilise one action strategy framework to address the challenge.
- Four strategies have been provided in the UQ Tender Resource document
- Once students have identified their final scenario and action plans, they create the final website version in their assessment task booklet.

Activity Six: Five Star Resources

- **Key Question:** What resources (people, websites, organisations) can help my target audience to be healthy and happy?
- Finding and evaluating personal, school and community resources
- Complete resource evaluation table utilising as many resources as possible
- Select top performing resources and construct Five Star Resources website page in assessment task booklet.

Activity Seven: Reality Check – Tips and Strategies

- **Key Question:** How can I maximise my client’s use and access to the Five Star Resources?
- Students conduct a PMI (plus, minus, interesting) evaluation of their Five Star resources.
- Drawing on this evaluation, students identify the obstacles that challenge young people’s use/access to these resources.
- Students devise tips and strategies that their clients can use to overcome barriers to the use of healthy living resources.
- Students use this information to construct their *Reality Check* website page.

Activity Eight: Construct Team Website

- **Key Question:** How can I maximise my client’s use and access to the Five Star Resources?
- Students review their individual website pages and select their team’s best website pages.
- Each team presents their final theme website to the class.

Activity Nine: Final Reflection Task

- **Key Question:** Do I know more about the healthy living needs and interests of my target audience?
- Students complete final client assessment task.
Activity One (A): Team Brainstorm - Healthy Living Themes

I am healthy and enjoy life when I.......
Activity One (B): Class Healthy Living Themes

I am healthy and enjoy life when I.......
Activity Two: Understanding a typical website client

Tessa.

Tessa is in Year 9. Her parents recently separated after an extended period of fighting. Tessa’s Year Coordinator called a meeting with her mother to discuss her school progress. Over the past 9 months there had been deterioration in Tessa’s school grades, and she was often late getting to school. Tessa explained that he had been feeling constantly tired lately, and was finding it difficult to get to sleep at nights – that was why she was not able to get out of bed in the mornings. Her mother said that she thought she was just not eating enough – in fact she thought she had lost quite a bit of weight over the last few months. In relation to her school grades, Tessa said that although she wanted to do well, she found that she just couldn’t concentrate or think as well as before. The Year Coordinator said she thought it would be good for Tessa to start playing in the school soccer team again, as she had always enjoyed it so much. Tessa said that she just wasn’t interested in soccer or anything too much lately.

If Tessa was your friend, how worried would you be about her overall emotional well-being?

(a) I would not be at all worried about his emotional well-being
(b) I would be a little bit worried about his emotional well-being
(c) I would be quite worried about his emotional well-being
(d) I would be extremely worried about his emotional well-being

What do you think is the matter with Tessa?

Which parts of Tessa’s story are the strongest hints to you that she might be experiencing emotional difficulties?
(Please quote the words from the scenarios that are the strongest hints.)

What are three possible actions that Tessa could take to feel better?

Which is the best action and why?

If Tessa was your friend, what could you do to help her feel better?
Tips and Tricks to design your website

An effective website is:

- Focussed on a single theme
- Uses graphics successfully
- Succinct, well-ordered and easy to use/read

An effective website will:

- Assist to engage your target audience to get your main points across.
- Be the source of relevant and credible information.

Layout

Plan your layout carefully. Layout includes

- Headings and subheadings.
- Organising the information into sections.
- There should be balance and simplicity.
- Deciding where you want to add graphics, photographs, graphs, etc.
- Do not try to present too much detail. Less is more.
- Leaving enough white space - don’t clutter the website; it should have a clean and simple layout.
- Provide your name and contact details for people that might want to discuss it with you.
- Information should flow.

Text size & font type

Text size & font type are a very important aspects when designing a website. They will determine whether your audience will be able to read your website with ease. If not, all your hard work was for nothing.

Choose a font type that is easy to read, as in the following examples:

<table>
<thead>
<tr>
<th>Font Type</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Arial font</td>
<td>is an easy-to-read font.</td>
</tr>
<tr>
<td>Courier font</td>
<td>might be easy to read, but is probably one of the oldest, more boring fonts</td>
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</tbody>
</table>

Italic fonts are not always very easy to read, especially on a website, where people must read from a distance!

- It is not easy to read words that are in capital letters, e.g. **COMMUNICATION STYLES vs Communication styles**

**Colour**

Colour plays a very important role in websites.

- Choose colours that complement each other. Certain colours, like certain yellows, etc., are difficult to see and read. Text and background colours should complement each other. Make sure your foreground colour (text) is clear and soft on the eyes when combined with the background colour. Let's look at the following examples:

  - This combination is very gentle on the eyes.
  - This combination is also gentle on the eyes - black is often the best colour to use for text.
  - This combination puts a lot of strain on the eyes.
  - This combination also strains the eyes.

- Don't use too much colour on your website - it will look busy and cluttered. Remember "less is more".

Activity Three: Theme Character and Home Page

PERSONAL INFORMATION
Name: ___________________________________________
Gender: __________________________________________
School: __________________________________________
Works: __________________________________________
Lives In: _________________________________________
Relationship Status: ________________________________

INTERESTS
Activities I like doing:
_________________________________________________________________
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Music I like:
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Books I like:
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Movies I like:
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Television I like:
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<th>Number</th>
<th>Golden Guidelines Brainstorm Section</th>
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</table>
## Activity Four Golden Guidelines: Breaking down the jargon

<table>
<thead>
<tr>
<th>Highlighted Word/ Term</th>
<th>Definition – using language appropriate for the target audience</th>
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Activity Five: Healthy Living in Action - Designing Interactive challenges

Teacher’s scenario..............

Lisa, a Year 9 student, has been told by her friend Calum that he has something to show her at morning tea. When the time comes, Lisa discovers that Calum has also invited Rebel and Jack to his “show and tell”. As soon as they get down to the oval, Calum takes out a plastic bag that is full of little white pills. He tells the other students that he pinched some of his mum’s “happy pills” for them all to take before they go to the school dance that night. Calum says that if they want to try the pills out they should meet him at 5.30pm that night behind the sports shed. Just as he starts to ask them if they are “in”, a teacher comes over and tells them to move off to class because the bell has gone.

What should Lisa do next?

Your Character’s Scenario..............

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57
Activity Five: Decision Making Grid (Teacher’s Scenario)

Identify the Issue: Should Lisa tell an adult about Calum’s plan?

<table>
<thead>
<tr>
<th>Possible Alternatives</th>
<th>Alternative 1: Tell the Year Co-ordinator</th>
<th>Alternative 2: Don’t tell anyone</th>
<th>Alternative 3: Phone her mum at lunch time and ask her what to do</th>
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<tr>
<td>Positive Consequences</td>
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<td>Negative Consequences</td>
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**Chosen Alternative: _______________________________________________________________
### Activity Five: Decision Making Grid (Your Character’s Scenario)

**Identify the Issue:**

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<tr>
<th>Possible Alternatives</th>
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<th>Alternative 3:</th>
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**Positive Consequences of the alternative**

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**Negative Consequences of the alternative**

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**Feeling Associated with the Alternative**

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**Chosen Alternative:**

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</table>
Activity Six: Five Star Resources

How do we decide which resources are the most useful?

Suggested Evaluation Criteria:

- Relevance to young people
  - Topics and issues are related to young people’s lives
  - Language used is easy to understand
  - Cost is within the reach of young people
  - Easy access
  - Provides a confidential service

- Credibility of source
  - A Government organisation has provided the service/resource
  - Can you find any evidence that the resource might be biased?
  - Does this resource have your interests as their goal or are they more interested in the benefits for them?
  - Does this resource have expertise or a qualification in this healthy living theme?

- Quality of Information
  - Topics and issues are relevant to the healthy living issue and young people’s lives
  - Language used is easy to understand
  - A Government organisation has provided the service/resource
  - Supported with research/evidence/support from the government or a health organisation
Activity Seven: Resource Evaluation - How useful are these resources for people your age?

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<thead>
<tr>
<th>Resource Title:</th>
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<tbody>
<tr>
<td>Resource Address:</td>
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<tr>
<td>Overview (from a young person’s perspective):</td>
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<td>Overview (from a young person’s perspective):</td>
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<td>Relevance to young People: ★★★★★ ★</td>
<td>Relevance to young People: ★★★★★ ★</td>
<td>Relevance to young People: ★★★★★ ★</td>
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<td>Quality of Resources/Information: ★★★★★ ★</td>
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Activity Seven: **Resource Evaluation** - How useful are these resources for people your age?

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<td>Overall Rating: ★★★★★ ★</td>
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Activity Seven: Reality Check – Tips and Strategies

Plus:

Minus:

Interesting:

Plus:

Minus:

Interesting:

Plus:

Minus:

Interesting:
<table>
<thead>
<tr>
<th>Website Page</th>
<th>Nominated team member</th>
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<tbody>
<tr>
<td>Theme Home Page</td>
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<tr>
<td>Golden Guidelines + Breaking down the jargon</td>
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<td>Healthy Living in Action</td>
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<tr>
<td>Five Star Resources in our Community</td>
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<tr>
<td>Reality Check: Tips &amp; Strategies</td>
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</table>
Activity Nine: Final Reflection Task

Nick

Nick and Stephanie have been friends for over three years and would often meet at the train station after school for a coffee and a chat. When Nick didn’t turn up one day, Stephanie decided to call him at home. Nick sounded upset, so Stephanie asked him what was wrong. Nick explained that his grandmother had just passed away, and then he burst into tears. Nick said he felt really upset and felt he couldn’t cope. Stephanie became worried when Nick didn’t turn up to school for the whole week. When Stephanie called him to see if he was ok, Nick told her that he had been lying in bed every day looking through some old family photo albums of him and his grandmother together. He then asked Stephanie if she knew how to get a hold of some pills that would make him feel better.

If Nick was your friend, how worried would you be about his overall emotional well-being?
(e) I would not be at all worried about his emotional well-being
(f) I would be a little bit worried about his emotional well-being
(g) I would be quite worried about his emotional well-being
(h) I would be extremely worried about his emotional well-being

What do you think is the matter with Nick?

Which parts of Nick’s story are the strongest hints to you that he might be experiencing emotional difficulties? (Please quote the words from the scenarios that are the strongest hints.)

What are three possible actions that Nick could take to feel better?

Which is the best action and why?

If Nick was your friend, what could you do to help him feel better?
Healthy living @ Ipswich
Assessment Task

Name: ________________________________
Teacher:_________________________
Class: _________________

REQUEST FOR OFFER

Issued by:
School of Human Movement Studies

On account of:
The University of Queensland, Ipswich

QUEENSLAND HEALTHY YOUTH INITIATIVE:
Healthy living @ Ipswich website for young people

CLOSING: WEEK BEGINNING 28TH NOVEMBER, 2011
Request for Offer: Specification and terms

Healthy Living @ Ipswich Website Component

The University of Queensland, Faculty of Health Sciences at Ipswich has identified a need for healthy living information and resources for young people in the Ipswich area. In response, UQ has decided to provide all Ipswich schools with a Healthy Living @ Ipswich website which will be developed and made publicly available all Ipswich secondary school students. The website will also be available for parents, carers and teachers. The website will be developed and content available for use by June 2012 and be accessible to all target groups by December 2012.

However, UQ staff are not convinced that they are the best placed people to construct this website as they do not know the needs, interests and local knowledge of Ipswich young people. Instead they believe that it would be more useful to invite Ipswich junior secondary school students to contribute to this project.

Each HPE class will be required to provide a final proposed Healthy Living @ Ipswich Website. The website will comprise of 5 – 6 healthy living themes and be constructed by teams of four students within your class.

The website must include the following components:

- Class front page: identifying 5 – 6 healthy living themes
- Theme Home Page – introduce the character/star of your health theme website
- Golden Guidelines and Breaking down health jargon
- Healthy living in action: Interactive challenge activity
- Five Star Resources in our Community
- Reality Check: Tips and strategies from Ipswich young people.

Each team member will complete the content and design brief outlined provided in this booklet. You can attach your proposed web pages or draw directly onto the booklet. At the conclusion of the unit, each team will select the best pages from their teams’ brief and present their proposed website theme to the class. All themes will be collated and presented to The University of Queensland, Faculty of Health Sciences at the Ipswich campus at the end of Term 4, 2011.
### Theme Home Page

<table>
<thead>
<tr>
<th>PHOTO/CHARACTER DRAWING</th>
<th>UQ Exemplar</th>
<th>INTERESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Activities I like doing:</td>
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<td>__________________________________________</td>
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<td>__________________________________________</td>
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<tr>
<td>WHO AM I?</td>
<td></td>
<td>Music I like:</td>
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<td>__________________________________________</td>
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<td>Movies I like:</td>
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<td>Television I like:</td>
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<td>Games I like:</td>
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<td>Sports I like:</td>
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<td></td>
<td></td>
<td>__________________________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MY HEALTHY LIVING STORY</th>
</tr>
</thead>
</table>

Name: ___________________________
Gender: _________________________
Education/School: _______________________
Works: _____________________________
Lives In: ___________________________
Relationship Status: ______________________
Theme Home Page

Attach your copy on this page.
### Golden Guidelines + Breaking down health jargon

**UQ Exemplar**

<table>
<thead>
<tr>
<th>Number</th>
<th>Golden Guidelines for healthy living</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Get to know your body as it will often let you know if everything is alright. Be aware of sudden changes, <strong>signs or symptoms</strong> that are your body’s way of letting you know that something needs your attention.</td>
</tr>
<tr>
<td>2</td>
<td>Try to learn how you react to stress (feelings, thoughts and body reactions) so that you can put a <strong>coping strategy</strong> into action.</td>
</tr>
<tr>
<td>3</td>
<td>Do you feel that you have the <strong>energy</strong> required to participate in all of your day’s activities including recreation, games and sport activities?</td>
</tr>
<tr>
<td>4</td>
<td>If you want to find out what your body’s signs and symptoms are telling you from the internet, check the <strong>credibility</strong> of the website.</td>
</tr>
<tr>
<td>5</td>
<td>Have a check-up. See your doctor if you notice any changes or have any concerns regarding signs and symptoms. The cost of your visit will be covered by <strong>Medicare</strong>.</td>
</tr>
</tbody>
</table>

A health related **sign** is something that you and others (doctor or parents) can see or measure such as a skin rash or high heart rate.

A **symptom** is a feeling that you have such as a headache or sore back. Other people only know about a symptom if you tell them about it.

A **coping strategy** helps to reduce a stress response so that you feel calm and can think through a solution that allows you to take action to change your situation. A small change can make a huge shift in how you feel, one change can lead to other changes and your sense of being trapped with no option can disappear quickly.

**Why is energy important?** Our energy levels can tell us if we are eating the right foods, have a healthy body weight and are coping with all of the challenges we face at home and school. Energy can also relate to the amount of fuel we give our body in food. For healthy living the amount of energy we get through our foods should equal the amount of energy we need to work, rest and play.

**What is Medicare?** Medicare is Australia’s health care system. Medicare means that you can get free or cheaper treatment from a doctor or hospital. You can apply for your own Medicare care after you turn 15 years of age.
Golden Guidelines + Breaking down health jargon
Healthy Living in Action: Interactive challenge activity

UQ Exemplar

Scenario: Lisa, a Year 9 student, has been told by her friend Calum that he has something to show her at morning tea. When the time comes, Lisa discovers that Calum has also invited Rebel and Jack to his “show and tell”. As soon as they get down to the oval, Calum takes out a plastic bag that is full of little white pills. He tells the other students that he pinched some of his mum’s “happy pills” for them all to take before they go to the school dance that night. Calum says that if they want to try the pills out they should meet him at 5.30pm that night behind the sports shed. Just as he starts to ask them if they are “in”, a teacher comes over and tells them to move off to class because the bell has gone.

Decision Making Action Plan

The Issue: Should Lisa tell an adult about Calum’s plan?

<table>
<thead>
<tr>
<th>Possible Alternatives</th>
<th>Alternative 1:</th>
<th>Alternative 2:</th>
<th>Alternative 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tell the Year Co-ordinator</td>
<td>Don’t tell anyone</td>
<td>Phone her mum at lunch time and ask her what to do</td>
</tr>
</tbody>
</table>

Positive Consequences of the alternative

Negative Consequences of the alternative

Feeling Associated with the Alternative
Healthy Living in Action: Interactive challenge activity
Five Star Resources in our Community

UQ Exemplar

My Parents
Relevance:
Credibility:
Quality info:
Overall:

Ipswich Medical Centre
School Based
Youth Health Nurse

Family Planning Queensland
Drop in clinic
www.fpq.com.au

www.reachout.com
Five Star Resources in our Community
Reality Check: Tips and strategies from Ipswich young people

A Visit to the Doctor

✓ If you are worried about your health you should see a doctor or go to a medical centre.
✓ You can ask if your doctor or your medical centre if they “bulk bill”. This means that you don’t have to pay for a visit. You only have to present your medicare card and sign a form.
✓ Make sure you ask about bulk billing before you make an appointment.
✓ You can get your own Medicare card after you turn 15 years old. You can download forms @ http://medicareaustralia.gov.au
✓ You can also get forms and info from a local Medicare Office...phone 132 011 to find your closest office.
✓ After 14 years of age you can get medical treatment on your own, although it is really helpful if you can tell your parents what is going on. They can help you with decisions and advice.
✓ Health professionals such as doctors must keep all the info that you tell them confidential, UNLESS they are concerned about your safety or someone else’s safety.
✓ If you have any questions or concerns then make sure that you ask them! If you are too embarrassed you can write them down for the doctor.
✓ For more information you can go to www.lawstuff.org.au or http://au.reachout.com
Reality Check: Tips and strategies from Ipswich young people
APPENDIX C: TEACHER FOCUS GROUP QUESTIONS AND PROMPTS

HEALTH EDUCATION

1. Can you tell us about Health Education (in curriculum and other areas) at this school?
   - In your opinion, does it occupy the right space in terms of the curriculum, timetable, resources etc?
   - Is the promotion of student and teacher health a priority at this school?

2. Is it the role of schools to teach students the knowledge and skills to maintain their health during school years and beyond?
   - If yes, do you believe this is being achieved at your school?
   - If no, where/from whom should students be gaining knowledge and skills to remain healthy?

THE TEACHER’S ROLE IN HEALTH EDUCATION

3. How would you define your role in terms of the health of the children in your care?

4. Do you feel legitimate (comfortable in the role of a health educator) in the role of “Health Education” teacher?
   - As a HE teacher, do you feel pressure/obligated to the children in terms of developing healthy living skills?
   - Do you feel you have the knowledge and professional development opportunities to effectively teach HE?

THE HEALTH EDUCATION UNIT

5. Did this “literacies” based approach to Health Education seem different to other methods? Was it better or worse? Why?
6. What specific aspects (learning experiences) of the unit were successful and would you keep the same if you were to teach it again? Why?

   - In terms of the student engagement/outcomes?
   - In terms of content of the unit?
   - In terms of pedagogy of the unit?
   - In terms of the assessment of the unit?

7. What specific aspects of the unit would you change if you had to teach it again?

   - Can you provide ideas/examples of how it could be made more effective?

8. Do you think that Health Literacy can be made authentic in schools? Why/Why not?

9. How would you compare the design and delivery of this unit to other health education related curriculum resources or units of work?

**ASSESSMENT**

10. What does Health Literacy look like in students’ work?

    - That is, what evidence were you using to allocate student’s grades?

11. What was the purpose of conducting this Health Education assessment?

    - What exactly are you making judgements about...their health, academic skills?
    - How did you assess the student’s work?

12. Will you be using the outcomes of the Health Education assessment in the future? How?

    - Now that you have had a chance to use this task, how will it change or inform what you do in the future?
    - Health education curriculum
    - Supporting student achievement
    - Assessment approaches
APPENDIX D: STUDENT FOCUS GROUP QUESTIONS AND PROMPTS

HEALTH EDUCATION

1. Do you think that schools should teach you about health? Why/Why not?
   - What do schools teach you now about health?
   - What should they teach about health in your view?
   - If yes, where should it be taught eg. curriculum HPE, specialist seminars, across all subjects?
   - If not, where would you prefer to get information about health issues? Why?

2. What health messages do you think that you have learnt from school?
   - Where did you learn these messages and from whom? Eg. teachers in particular subjects, specialist health promotion initiatives etc.

HEALTH EDUCATION UNIT

3. What do you think was the goal/purpose of this unit?
   - Did the unit achieve this goal/purpose?

4. What did you like about this unit?
   - Was it relevant to students at this school?

5. What didn’t you like about this unit?
   - How do you think these things could be changed to make the unit better?

6. Did this unit give you any new information/skills/resources that you could use in relation to your health and the health of other people you know?
   - Do you feel more confident that you could access information about health?
   - Do you feel more confident that you could understand/know what to do with this information?
7. Has this unit changed what you will do in future to maintain your health and the health of other people you know? Why – what has changed?/Why not?

8. What was the most important thing you learnt or experienced during this unit?

ASSESSMENT

9. Is assessment necessary in Health Education? Why/why not?
   - What do you think assessment in health education is proving?

10. What does it mean to get a good mark on this assessment?
    - Does it mean you are healthy, smart, good at assessment tasks?

11. Do you think that you got the grade that you deserved?
REFERENCES


