Life Education – Making a difference

An evaluation for the Life Education Trust

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Executive summary

In 2007, the Life Education Trust contracted New Zealand Council for Educational Research (NZCER) to evaluate the Life Education programmes they deliver. Life Education is a health resource comprising 19 modules designed to support teachers to address the Health and PE curriculum and, in particular, *Strand A: Personal health and physical development*, and *Strand C: Relationships with other people*. Life Education is delivered by an educator (a registered teacher) who visits schools annually or biennially to deliver the modules to class groups in a mobile classroom. Three central principles underpin the Life Education approach to health education:

1. To teach children how special and unique they are, to make every child comfortable with their identity.
2. To show children the magnificence of the human body, its systems—using technology to demonstrate how mysterious these functions are, and stressing the body's needs.
3. To teach respect for the uniqueness of others. (Life Education Trust, 2006, p.1)

This study aimed to provide information about why and how schools use Life Education resources and modules, the short-term outcomes for students and schools, and how Life Education practice compares to contemporary views about good practice in school health education and promotion. We used a mixed-methods approach to gather data, with four main methods: a literature review on good practice in health education and promotion; informant interviews; case studies of five schools that use Life Education; and a survey of staff at primary schools.

The information we collected during this study paints a picture of Life Education as a much valued resource that supports teachers to address the Health and PE curriculum. School leaders, teachers, and students were nearly unanimous in their positive view of Life Education. The four main reasons for these views were that:

- Students find Life Education and Harold the Healthy Giraffe motivating and engaging.
- Life Education supports students to make healthy choices.
- Life Education reinforces key messages that are also focused on at school.
- Life Education offers high-quality teaching and resources.

The majority (87 percent) of the respondents surveyed used Life Education. Of these, 91 percent considered it to be either effective or very effective in supporting them to deliver the Health and PE curriculum. The majority also considered there was a good match between Life Education and school values and practices. Most teachers (88 percent) integrated Life Education into their classroom programme by selecting modules that fitted with curriculum plans. Only a very small number (3 percent) reported using Life Education as a stand-alone programme. Over half (57

percent) of the survey schools used Life Education in a way that conforms to good practice in the use of external providers, that is, they organised related classroom activities before, during, and after the Life Education visit. The majority found Life Education resources such as the student booklets and *Teacher's Resource Folder* useful for this. The most common approach was to plan activities to follow a visit, indicating that Life Education tends to be used as a "starter" activity.

Along with the health topics in curriculum plans, some schools had "just-in-time" approaches to addressing health, such as regular class discussions about topical issues. Staff noted they also made connections to Life Education during these times. Most (94 percent) survey respondents also reported using Life Education to reinforce schoolwide practices such as approaches to healthy eating or relationship management strategies.

These findings suggest that schools are generally using Life Education in ways that align with good practice in the use of external providers as noted by Buckley and White (2007). To ensure that schools maximise the value they get from Life Education, one area that could be further developed is the organisation of prior learning activities to connect to visits.

From students, we gained a clear sense that Life Education's engaging and student-centred delivery supported their learning. Students and teachers reported three main short-term outcomes stemming from students' participation in Life Education. These were increases in students': health content knowledge and understandings about making informed choices; sense of self-worth and self-esteem; and knowledge, and use, of a range of strategies to improve their health and wellbeing. Life Education emphasises all three outcomes, and the literature also suggests that all three are important to young people's health and wellbeing. Although school staff were aware of all three outcomes, improvements in health content knowledge was the outcome that was most prioritised by teachers. This was also the aspect of Life Education practice that was most reinforced in classrooms.

At the case study schools, the majority of students were able to describe content knowledge or "facts" they had gained and how Life Education made them feel valued as an individual. Many also described recent or past changes to their behaviour that they attributed to Life Education or to a combined school and Life Education focus. Commonly mentioned changes included that students had used ideas and strategies from Life Education to: improve their friendships and interactions with peers or siblings; modify aspects of their lifestyle to make it healthier, for example, by eating more fruit and vegetables, or by doing more physical activity and watching less TV; and address smoking behaviour in their environment, for example, by asking family members not to smoke or by addressing peer pressure around smoking.

The findings from the case studies suggest that there were two ways in which student outcomes could be enhanced, therefore maximising the value of Life Education. One was if school staff made connections between classroom learning and ***all three*** components of Life Education: health content knowledge; strategies that could improve health and wellbeing; and practices that supported self-esteem. The other was if the school had strong connections between Life Education and ***schoolwide approaches***, as well as classroom learning. One example is when the strategies

taught in Life Education are taught in the classroom, and are also used schoolwide. Building on this base, students are also supported to develop new strategies. This enables learning during Life Education to reinforce learning at school, and this in turn is reinforced by schoolwide policies and approaches. This approach also gives students a sense of ownership over strategies. These connections were not occurring at all schools, suggesting there is potential for further alignment.

As well as impacting on student learning, teachers also found Life Education to be a valuable source of informal PD. Teachers perceived educators' teaching practice to be of a high standard, with 97 percent of survey respondents, and nearly all teachers at case study schools, noting they gained health content knowledge or a range of new teaching ideas from watching Life Education.

Another aspect of this study involved exploring Life Education's fit with good practice in health education and promotion. To do this, we categorised models and approaches to health education and promotion using an individual–interpersonal–group continuum. Individual theories assume that people have control over their health behaviours and therefore focus on addressing the behaviour of individuals. These theories are underpinned by the assumption that giving people information will result in behaviour change. Interpersonal theories assume that individuals' health behaviours are affected by interactions with others, and therefore address these interactions. Group or societal theories acknowledge the impact social and physical environments have on health behaviours and therefore how the wider determinants of health, such as poverty, impact on people. Their target population is a group of people, such as those located within a school. Underpinning group theories is the idea that there are different levels of interaction within a group or community. Therefore initiatives need to have different strategies to address these levels. One common group-level strategy used to effect change is the use of community empowerment processes. In schools, these can take the form of supporting students to "learn for health" and "about health" by "learning by doing" health promotion.

Over time, as health education and promotion theories have developed, there has been a shift in emphasis away from prioritising the individual perspective, towards an emphasis on the group or societal perspective. Lister-Sharp, Chapman, Stewart-Brown, and Sowden (1999) note that rather than viewing one theory as paramount, current good practice is to employ multifaceted approaches to address all three levels. This approach is modelled in the 1999 NZ Health and PE curriculum which is underpinned by group or societal theories, but also combines all three theoretical perspectives.

An analysis of school and Life Education practice suggests that both use approaches to health that tend to have their best fit with individual and interpersonal theories. In general, Life Education educators aim to model an approach to teaching that: promotes wellbeing; emphasises health content knowledge; and aims to support students to develop a range of interpersonal strategies they can use to improve their health and wellbeing. Some of the main features of Life Education that align with effective individual and interpersonal, and current NZ teaching, practices are:

- Rather than viewing health as primarily being about physical health, Life Education has a focus that incorporates physical, emotional, social, and spiritual health and wellbeing.

- Educators are trained to use wellbeing- and student-centred teaching practices that appear to enhance students' sense of empowerment and self-esteem (for example, peer sharing, role playing, and inclusive behaviour management strategies).
- Life Education contains a mix of individual and interpersonal approaches to health education that have been shown to be effective in substance education, that is, a blend of information provision with "social influence resistance", "affective", and "life skills" approaches.
- Educators have a focus on adapting modules to support school needs and provide continuity with school pedagogies and focuses. This enables Life Education to have multiple points of connection to the wider school system (and thus address health at a "group" level).
- Educators make connections to teaching strategies common in NZ that encourage the process of learning to be made more explicit to students, such as the use of learning intentions.
- Life Education offers a range of modules including those that cover health content with which teachers are less comfortable, such as alcohol, tobacco, and substance use.
- Life Education uses resources that students find engaging, and schools could find costly to access (for example, videos and DVDs, and models of the body).

Life Education in its current form is highly valued by many in the school community, is generally in line with current curriculum practice in NZ schools, and has a number of components that align with evidence about effective practice. However, the analysis of current evidence also suggests that views as to what constitutes effective practice in school health education and promotion are changing. Recent evidence suggests that outcomes are enhanced if students are also supported to address barriers at the societal or group level by actively "learning for health" by "learning by doing" health promotion. These practices have their best fit with *Strand D: Healthy communities and environments.*

The recent revision of the entire NZ curriculum also encourages this shift. The revision places increased priority on schools: having a holistic view of the curriculum; structuring learning around significant themes; and being responsive to their community. Increasingly, schools are using inquiry models to explore these themes and support students to take action to address local or global concerns.

Currently it appears that, by mostly focusing on curriculum Strands A and C, Life Education is supporting schools to continue to use a model of health education that prioritises individual or "learning about" and interpersonal approaches to health. Given this changing environment, and in keeping with Life Education's focus on continuous improvement, this report suggests a number of changes that have the potential to: support schools to maximise the value they gain from Life Education; and increase the alignment between Life Education and contemporary views of health education and promotion and the ideas underpinning the recent revision of the NZ curriculum. These include suggestions about how Life Education could explore ways of supporting school staff to view the curriculum as a whole and focus more on *Strand D: Healthy communities and environments* (the health promotion strand).

1. Introduction to the Life Education evaluation

Background to Life Education

In 2007, the Life Education Trust contracted NZCER to evaluate the Life Education programmes they deliver. Specifically, this study aims to provide information about how schools are using Life Education resources and modules, what the short-term outcomes are for students and schools, and how Life Education practice compares to current views about health education and promotion in schools.

The development of Life Education NZ was initiated by Trevor Grice in the late 1980s. The Life Education mission statement is:

> To help give the young people of New Zealand, through positive health-based education, the knowledge and skills to raise their awareness to live a fulfilling and healthy life (p.1, Life Education Trust, 2006)

Three central principles underpin the Life Education approach to health education:

1. To teach children how special and unique they are, to make every child comfortable with their identity.
2. To show children the magnificence of the human body, its systems—using technology to demonstrate how mysterious these functions are, and stressing the body's needs.
3. To teach respect for the uniqueness of others. (Life Education Trust, 2006, p.1)

The Life Education approach incorporates a focus on the provision on information about health, as well as the promotion of self-esteem, and the development of skills and competencies that will support young people to make informed healthy choices. Life Education's view of health draws on Mason Durie's model of hauora (see Ministry of Education, 1999). This view encompasses the whole person and incorporates a focus on physical, emotional, social, and spiritual health and wellbeing.

Rather than being primarily focused on drug education like its Australian counterpart, a key emphasis of Life Education NZ is on linking with the school curriculum. In particular, Life Education provides 19 modules that mostly connect with two of the four Health and PE curriculum strands, that is, *Strand A: Personal health and physical development*, and *Strand C:*

Relationships with other people. The content areas Life Education covers are: self-esteem; social relationships; body systems; food and nutrition; and use of substances such as alcohol and drugs.

Life Education operates on an invitational basis and visits schools annually or biennially to provide two to four sessions to classes of students in a mobile classroom. The classrooms are equipped with technology that aims to create an experience that will capture children's imaginations. Life Education has around 40 of these classrooms, each of which is run by a local community trust. The trustees raise funds and employ an educator (a registered teacher) who delivers the modules to class groups. Module content and resources are developed by Life Education Trust National Office staff, and educators can adapt the modules and link them to school or syndicate programmes wherever possible. National Office staff also provide training, ongoing PD, and appraisal services to all educators.

The evaluation focus and design

The main focus of this evaluation is on exploring: users' perceptions of Life Education; the context within which Life Education is offered; the short-term outcomes for students and schools; and the fit between Life Education and good practice. The aim of the evaluation is to generate information to assist Life Education staff to reflect on and improve their services to schools. The evaluation design draws on qualitative and quantitative methods. The use of a multi-method approach allows for a greater breadth of analysis than could be obtained in a single-method study (Patton, 2002; Yin, 2003). The evaluation utilises understandings from the education and health sectors.

Evaluation questions

To frame the data collection, a series of evaluation questions was developed with Life Education staff from National Office. These are:

1. Why do schools choose to use Life Education?
2. How do schools actually use Life Education programmes?
3. What is the evidence of impact of Life Education on students' learning (and in particular, in the case study schools)?
4. How does the design of Life Education programmes, and their use in schools, align with contemporary understandings of the principles of "good practice" in health education and promotion in schools?

Data collection

Four main methods were used to gather data for this evaluation. These are:

- a literature review on current good practice in health education and promotion in schools

- informant interviews
- case studies of schools that use Life Education
- a survey of staff at primary schools (this includes a survey for those that use Life Education, and a survey for those that do not).

The range of data collection methods addresses a range of purposes. The literature review provides an overview of the principles of effective health education and promotion in schools, to which we are able to compare Life Education practice. The interviews with informants gather the perspectives of those involved in the development of Life Education. They also gather information from those involved in supporting the Health and PE curriculum at a national level. The case studies provide the context for how Life Education is nested within school practice and illuminate elements of good practice. The survey gathers the perspectives of a large and representative group of users of Life Education. Table 1 shows how the data collection methods map to the evaluation questions. More than one source of information was used to inform the findings for each question. Each data collection method is described in more detail later in this report.

Table 1 **Data collection methods used to explore the evaluation questions**

Evaluation question	Data collection method			
	Literature review	Informant interviews	School case studies	School survey
1. Why do schools choose to use Life Education?			√	√
2. How do schools actually use Life Education programmes?			√	√
3. What is the evidence of impact of Life Education on students' learning?	√		√	√
4. How does Life Education align with good practice in health education and promotion?	√	√	√	√

Data collection methods

Literature review of good practice in health education and promotion

The literature review aimed to inform Life Education practice by comparing their approaches to health education to the principles of effective school health education and promotion as suggested by research. To keep this review within budget and time constraints we focused on recent overviews. These included key texts, NZ studies, literature reviews, and meta-analyses that have been recently published (that is, mostly between 2000–2007).

To source literature, a number of education and health databases were searched. These included: ERIC; Australian Education Index; SocIndex; PsychFIRST; Index New Zealand; Te Puna; Medline; the Cochrane Library database which incorporates The Cochrane Database of Systematic Reviews (Cochrane Reviews), Database of Abstracts of Reviews of Effects (Other Reviews), The Cochrane Central Register of Controlled Trials (Clinical Trials), The Cochrane Methodology Register (Methods Studies), Health Technology Assessment Database (Technology Assessments), NHS Economic Evaluation Database (Economic Evaluations), and About The Cochrane Collaboration (Cochrane Groups); the World Health Organization database; WorldCat; Books in Print; and the Ministry of Health library database and publications list. We also sourced literature from a Web search using Google Scholar and abstract searches of the following journals:

- *Australian and New Zealand Journal of Public Health*
- *Curriculum Matters*
- *Health Education*
- *Health Education and Behavior*
- *Health Education Journal*
- *Health Education Research*
- *Health Promotion International*
- *Journal of School Health*
- *Promotion and Education: International Journal of Health Promotion and Education*
- *Teachers and Curriculum.*

The search terms we used were:

Document type:

- meta-analysis; comparative analysis; systematic review; literature review; comprehensive review; review; synthesis; or bibliography.

Study focus:

- school/classroom/curriculum
- health promotion; health education
- theory/theories/models/paradigms/approaches
- Life Education (Trust/Centres/Australia).

In general, we found three types of studies: textbooks that overviewed models and theories of health education and promotion; systematic reviews and individual studies which explored whole-school models of health promotion; and literature which focus on health education in the context of individual aspects of health such as: physical health and activity; healthy eating and nutrition; emotional and social health and wellbeing; sexuality; and substances, that is, tobacco, alcohol, or drug education. We have used the textbooks as a basis for our overview, and used one area, tobacco and drug education, to explore some of the concepts discussed in this overview.

Informant interviews

The informant interviews aimed to gather background information about current Life Education practice, its underpinning theories, and fit with the curriculum. We interviewed four informants. Two were from Life Education National Office, and two from agencies involved in curriculum policy and provision in schools. The information collected during these interviews has been used to inform various sections of this report, and in particular, the section that describes current curriculum practice.

Case studies of schools

The case study component of the evaluation aimed to document how schools use Life Education and the outcomes for students. A case study design allows us to explore the complexities of the context within which school practice occurs (Yin, 2003).

Research indicates that to maximise the impact of programmes offered by external providers, their input is best located within a wider multifaceted programme that is developed by a school and reflects the values of the school and community (Buckley & White, 2007). Given this, we used educators' local knowledge to identify five schools that had well-developed processes for integrating Life Education programmes and resources into their school programme.

We selected the case study schools to reflect a range of school characteristics (that is, decile, rural and urban, North and South Island, large and small, primary and contributing, state and state-integrated, and schools with different patterns of student ethnicity). Table 2 shows the characteristics of the five case study schools.

Table 2 **Characteristics of the case study schools***

School name**	School type and target student year level	Roll size	Decile	Student ethnicity***	School location	Modules completed by target students	Schoolwide and curriculum focus connected to Life Education
Pounamu School	• Contributing • Students Years 5/6	370	Decile 1	48% Māori 21% Pacific 21% NZ European 5% Asian 5% Other	• Main urban • Nth Island	Modified version of *Friends* and *It's great to be me*	• Schoolwide focus on decision making and positive behaviour • Health topic on celebrating uniqueness • Social studies topic on celebrating cultural differences
Valley School	• Contributing • Students Years 5/6	315	Decile 7	90% NZ European 7% Māori 1% Pacific 1% Asian	• Small urban • Sth Island	*It's great to be me*	• Schoolwide focus on positive behaviour • Health topic on making decisions
Plains School	• Full primary • Students Years 6/7/8	136	Decile 7	87% NZ European 11% Māori 3% Pacific	• Rural • Nth Island	*Brainy bunch* and *Making choices*	• Schoolwide focus on caring culture • Health topics on body systems and decision making
Bay School	• Contributing • Integrated • Students Years 5/6	200	Decile 10	92% NZ European 4% Māori 4% Asian 1% Other	• Main urban • Nth Island	*Brainy bunch*	• Schoolwide focus on brain-based learning and positive behaviour • "Big health idea" topic on leisure
Village School	• Full primary • Students Years 7/8	400	Decile 10	83% NZ European 8% Māori 8% Asian 1% Pacific	• Main urban • Nth Island	*Keeping a balance*	• Schoolwide beliefs about teaching and learning • Health unit on puberty

* The school characteristics are taken from Ministry of Education 2006 roll return data.

** To protect the schools' confidentiality, each school has been allocated a pseudonym.

*** Percentages do not always add up to 100 because of rounding.

Each school was visited twice in Terms 3–4 of 2007. One visit occurred ***before*** the Life Education mobile classroom visit (to explore plans to incorporate the Life Education visit into school practice and prior student learning), and one ***after*** (to explore how the Life Education visit was incorporated into school practice and what impact the visit had on student learning). During the case study visits we focused on two target classes of students from the older year groups in the school (that is, Years 5–8). The case studies included interviews or focus groups with the principal, the Health and PE curriculum leader, the teachers and students from the two target classes, and the educator from that region. We also viewed Life Education support materials,

collected curriculum or teaching plans, and in some schools we observed some Life Education sessions in the mobile classroom.

School survey

The school survey aimed to provide an overview of the use of Life Education programmes and their fit with curriculum practice, and the outcomes for students and schools stemming from this use. We developed two surveys: one for schools that use Life Education and one for schools that do not. We sent both surveys to the school principal and asked them to give the appropriate survey to the health curriculum leader or teacher. Most of the survey questions were fixed-choice.

Survey responses

The surveys were sent to a random sample of 284 schools that had Years 0–8 students on their roll, that is, approximately 13 percent of schools in the primary sector. The sample was stratified by decile to ensure that a mix of schools was represented. Of these schools, 158 returned surveys giving an overall response rate of 56 percent. Most of the respondents reported their school made use of Life Education (137: 87 percent). A smaller number were nonusers (21: 13 percent). Most of the results on which we focus in this report are from respondents at the 137 schools that made use of Life Education.

Table 3 provides an overview of some of the demographic information from the schools that responded to the surveys and compares them to the general population of primary schools. Overall, the characteristics of the schools that responded were similar to those in the general population, suggesting that the sample was broadly representative of schools in this sector.

Table 3 **Demographics of survey schools and total population**

Aspect	Survey schools that *do* use Life Education (N=137) %	Schools that *do not* use Life Education (N=21) %	Total population of primary sector schools (N=2189) %
Decile			
1–2	19	24	21
3–8	55	67	58
9–10	26	10	21
Type			
Composite	4	5	6
Contributing	47	38	36
Full primary	45	43	52
Intermediate	4	14	6
Roll size			
1–50	15	19	16
51–300	53	38	52
301–500	20	29	19
501+	9	10	9
Funding			
Private	2	5	4
State/State-integrated	98	95	96
Location			
Rural	30	24	29
Urban	70	76	71

Data analysis

Case studies

During case study and telephone interviews and focus groups, notes were taken and/or interviews were recorded. These notes or tapes were qualitatively analysed for themes related to the focus questions for the study. The insights gained from observations of Life Education sessions and Life Education and school documents were also used to inform the case studies.

Surveys

The information from the fixed-choice questions in the surveys was entered into a SAS dataset. Codes for the open-ended responses were developed. Frequency tables were produced for all data. To enable similarities and differences between schools to be identified, we compared the data in relation to demographic variables such as school decile, school size, rural or urban location, and how long the school had been using Life Education. We used two variables to compare staff's responses to questions: level of seniority; and class levels taught.

Chi-square statistics from contingency tables were used to test for significance. Where statistical differences were found, this is indicated in the text with phrases such as "more likely to" or "less likely to". We only reported statistically significant differences where the p-value was equal to or less than 0.01. This indicates that there is a 99 percent probability that the differences observed were not a chance association. In some cases, relationships were not statistically significant but a pattern seemed evident. These are indicated in the text with phrases such as "pattern" or "tended to".

Ethics and informed consent

Prior to collecting data, an ethics application for this study was approved by the NZCER ethics committee. All school staff, students, Life Education educators, and informants who participated in interviews or focus groups were given an information sheet about the study and asked to complete a consent form. Parents or caregivers of the students who participated in focus groups were also provided with an information sheet and asked for consent for the child to participate. School staff, educators, and informants were sent a copy of the interview questions before each interview. School staff who were sent a survey were provided with an information sheet about the study and asked for their participation. To ensure that the information collected from staff at case study schools fairly represented the experiences of staff, each school was sent a draft of their case study for staff to review and suggest amendments.

Limitations of this study

The student outcomes discussed in this report are mostly short term and based on self-report. A different design would be needed to assess the longer term impact of Life Education. For a number of reasons, the assessment of long-term outcomes for a resource such as Life Education is likely to be a complex and expensive endeavour. Because many students attend Life Education sessions over a number of years, the impact is cumulative, and therefore is likely to become intertwined with school curriculum practices and schoolwide approaches to student health and wellbeing. This makes it difficult to attribute changes to Life Education specifically. In addition, most schools also involve other outside providers in their health initiatives. International studies that attempt to explore the impact of health initiatives show mixed results. For example meta-

analyses indicate that, although some types of initiatives show evidence of short-term changes (Tobler et al., 2000), most show little evidence of longer term changes (Thomas & Perera, 2007; Wiehe, Garrison, Christakis, Ebel, & Rivara, 2005). One of the reasons for this is the methodological difficulties inherent in trying to ascertain longer term impacts. For example, Wiehe et al. (2005) comment that, when reviewing studies, they found it difficult to ascertain whether differences in outcomes were due to differences in programme content, intensity, or delivery, or in the analysis of findings.

Study team and advisers

This study was co-ordinated by Sally Boyd. The team also included: Keren Brooking who led the survey analysis; Jonathan Fisher who developed some of the case studies and assisted in the survey analysis; and Rachel Dingle and Magdalene Lin who managed and analysed the survey data.

2. Overview of the literature about school health education and promotion

Defining health promotion and health education

In a review of health promotion practice in schools, Lister-Sharp et al. (1999) note that there is no consensus as to the goals or the definition of health education and promotion. One reason for this lack of clarity is that there has been a shift in views about health, and therefore health promotion and health education practice, over the last few decades. Prior to the 1980s, an "individualised" approach to health predominated. This approach is underpinned by the assumption that individuals have control over their health-related behaviours. Disease prevention for individuals is the ultimate aim of this approach, and it is associated with behaviour change theories and their emphasis on teaching "about" health by providing health-related information. This view of health is sometimes called the "medical model".

In the late 1980s and 1990s a shift away from the individualised approach to health was evident, and a "societal" view of health started to gain prominence. The societal view recognises that an individual's capacity for change is affected by the social and physical environment in which they live. Definitions of health education and promotion that stem from a societal focus are often underpinned by ideas of participation and community empowerment. In the classroom, as well as focusing on students "learning about" health, these approaches also emphasise the need for students to "learn *for* health" by "learning by doing" health promotion activities.

Lister-Sharp et al. (1999) note the individual and societal approaches are premised on different views about what it is to be healthy. The individual view prioritises physical health; whereas the societal view encompasses physical, social, and emotional wellbeing.

Health promotion

The signing of the 1986 Ottawa Charter (World Health Organization, 1986) was a defining moment in the shift between these two views. The charter is underpinned by a societal view of health and is focused around ideas of participation and empowerment. In the charter, health promotion is defined as:

> …the process of enabling people to increase control over, and to improve their health. (World Health Organization, 1986, p.1).

The Ottawa Charter outlines three strategies for health promotion: advocacy; enabling; and mediating. The Ottawa Charter has set current directions in the definition and practice of health promotion in NZ schools (as noted in the NZ curriculum, see Ministry of Education, 1999).

Health education

Like views on health, definitions of health education have shifted over time. As Nutbeam (1998) notes, current definitions go beyond the communication of information, in that they are now also concerned with fostering motivation, skills, and self-efficacy. Nutbeam states that:

> Health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health. (Nutbeam, 1998, p. 353)

Nutbeam also notes that, in the past, the term "health education" was used to encompass a wider range of actions, such as advocacy, that are now included in definitions of health promotion.

Although practice in health education and promotion is changing, Buchanan (2006) suggests that the "dominant metaphor" of health education is still a medical model, in which health education is seen as an "intervention" that will successfully prevent people engaging in harmful behaviours such as smoking, illicit drug use, or unhealthy eating. Buchanan notes that this model contrasts with approaches in the education sector, in which the dominant goal is to develop a "cultivated, well-educated mind" through supporting students to develop: critical thinking skills as they explore the determinants of health; self-understanding; and a sense of community and global responsibility. Buchanan considers that, rather than providing information to support behaviour change, the main aim of health education should be to increase human autonomy by aiding people to make their own choices and contribute collectively to ensuring social justice.

The information presented above suggests that there has been considerable change in regard to theories and practices surrounding health education and promotion. In the current environment, which is characterised by a range of definitions and views in regard to health education and promotion, it is unlikely that a consistent view is being presented to schools.

Examples of types of theories

Paralleling the various definitions described above, there is an abundance of models and theoretical approaches to health education and promotion. These can be located on a continuum between individual and societal approaches to health. Glanz, Rimer, and Lewis (2002), Breinbauer and Maddaleno (2005), and the *Curriculum in Action* support materials for the NZ Health and PE curriculum (Ministry of Education, 2004), distinguish between a number of different types of theories and models of health behaviour and education. In general, most key texts group these theories into three categories, that is, theories that promote change at an:

- individual level
- interpersonal level
- group or societal level.[1]

Is it important to note that the distinctions between these theories are not always clear cut. Some writers, such as Nutbeam and Harris (2004), collapse the individual and interpersonal categories into one, and others classify the same theory or model at a different level. This suggests that it is likely that some of the concepts in the theories will overlap. Descriptions of some common theories that are applicable to a school setting are outlined below.

Theories that explore change at an individual level

Glanz et al. (2002) note that most efforts of health professionals are directed at changing the health behaviour of individuals. Theories that aim to explore change at the individual level are called Health Behaviour Theories.[2] Individual theories mostly focus on exploring the barriers and facilitators of change, and are underpinned by behaviourist assumptions. One key assumption is that giving people information about the harm that they could do to themselves will result in behaviour change. Other key assumptions are that people have control over their health-related behaviours, are rational, and will make predictable decisions (Glanz et al., 2002). Another commonality between many individual theories is their focus on self-efficacy, that is, an individual's assessment of their ability to make changes (Rimer, 2002). Three of the main individual theories are overviewed below.

Health Belief Model

The Health Belief Model (Rosenstock, 1966, cited in Janz, Champion, & Strecher, 2002), was developed in the 1950s, and is one of the early theories of health behaviour change which underpins health education practice. Nutbeam and Harris (2004) note that this model is premised on the idea that taking positive action in regard to health rests on the interaction of four beliefs. These are people's perceptions about:

- their susceptibility to the problem
- the seriousness of the consequences of nonaction
- the benefits of action
- the barriers to action.

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[1] Nutbeam and Harris (2004) distinguish between community- and organisational-level models. In this summary, these two types of models have been collapsed into one category given that they both address change at a group level. This group of theories could also contain national-level approaches. Examples of these are mass media campaigns or law changes to regulate public smoking.

[2] Social Cognitive Theory, which is discussed later in this overview, is also categorised by some writers as a Health Behaviour Theory (Noar & Zimmerman, 2004).

This model predicts that individuals are most likely to act if: they perceive themselves to be susceptible; the consequences of nonaction are serious; there is a course of action available to them; and the benefits of this action outweigh the costs. In later years the model has been adapted to include ideas about self-efficacy and the personal and social modifying factors that might impact on behaviour (such as prior personal experience or media publicity about a health issue). Approaches that have been connected with the Health Belief Model are early health education campaigns about HIV/AIDS prevention that focused on persuading people they were at risk, and showing the benefits of condom use.

Theories of Reasoned Action and Planned Behaviour

Theories of Reasoned Action and Planned Behaviour (Ajzen & Fishbein, 1980, cited in Nutbeam & Harris, 2004), assume that people have control over their behaviour and their intention to act is the most important determinant of behaviour. Nutbeam and Harris note that this model assumes people's behaviour is influenced by three key factors:

- attitudes towards behaviours (that is, individual's beliefs about the consequences of a behaviour and their beliefs about whether the behaviour is positive or negative. The short-term, rather than long-term, consequences of a behaviour are considered to be the most influential)
- perceived norms (that is, an individual's beliefs about the views of significant people in their life, and societal normative beliefs about the behaviour)
- perceived control (an individual's beliefs about whether they have control over a behaviour and the presence of factors that could facilitate or impede action).

This model highlights the need to understand a target group's beliefs about health behaviour, as well as identifying those who have the most influence over behaviour and barriers to change. A common approach associated with his model is the use of role models to influence beliefs. In the 1980s, this model was used to develop programmes to reduce youth smoking uptake (Nutbeam & Harris, 2004). These programmes make use of peer leaders and positive youth role models, and emphasise the short-term consequences of smoking, such as the cost and its impact on appearance, as opposed to the longer term consequences such as lung cancer.

Transtheoretical (Stages of Change) Model

The Transtheoretical (Stages of Change) Model describes five common stages of the behaviour change process people tend to go through as they adopt healthy behaviours or cease unhealthy ones (Prochaska & DiClimente, 1984, cited in Nutbeam & Harris, 2004). These stages are:

- precontemplation
- contemplation
- preparation
- action

- maintenance (of healthy behaviours) or termination (mostly for unhealthy behaviours).

This model assumes that behaviour change is a process rather than a single event. The developers of this model note people can get "stuck" at different stages, and suggest there are a number of predictors of progression which include decisional balance (the weight a person places on the pros and cons of making change) and self-efficacy. Nutbeam and Harris (2004) note that this model has been useful in developing understandings about the need to tailor programmes to the needs of people at different stages and planning the types of processes, information, and support needed to move people to the next stage. This model has been used to develop smoking cessation and weight control programmes.

Debates about individual-level theories

Nutbeam and Harris (2004) note that individual theories stem from psychological theories of behaviour change. These theories assume people's health behaviour can be mostly accounted for by their attitudes and beliefs, thus ignoring other influences on health such as the social, environmental, or economic conditions that may cause barriers to action. Nutbeam and Harris suggest that individual theories have been more successful in the areas for which they were initially designed, including preventative approaches around aspects of health such as immunisation. They have been less effective in addressing behaviours that are longer term and socially determined such as alcohol and tobacco use. Tasker (2004) cites evidence from Australia that shows individually-focused initiatives are more effective for middle- or upper-class children, and less effective for those from working-class backgrounds because they fail to address the impact on health of factors such as the social, environmental, and economic context within which children live.

Likewise, Breinbauer and Maddaleno (2005) note that current evidence as to the effectiveness of health interventions tests some of the underpinning assumptions of individual theories. This evidence shows that these sorts of interventions can increase young people's knowledge about healthy behaviours, but an increase in knowledge in itself does not necessarily lead to changes in behaviour.

Stage theories, such as the Transtheoretical Theory have also been critiqued. For example, Rimer (2002) notes that these theories have been criticised for not taking into account the diversity of people who may be within any one stage.

Theories that explore change at an interpersonal level

A core assumption underpinning interpersonal theories is that interpersonal relationships and interactions are one of the most powerful sources of influence on individuals' health-related behaviours and outcomes. This section of this overview describes the most well-known of the interpersonal theories: Social Cognitive Theory. Other interpersonal theories are touched on briefly.

Social Cognitive Theory

Social Cognitive Theory (SCT) stems from Social Learning Theory. Albert Bandura is the most influential writer about this theory (see for example, Bandura, 2004). This theory recognises a number of factors that influence health behaviour. These are: an individual's beliefs, values, and self-confidence; social norms; and the environment within which the individual is located. This theory acknowledges that these variables interact to provide incentives and disincentives for different behaviours. SCT has a number of underpinning constructs which are used to design health education initiatives. Nutbeam and Harris (2004) note that SCT has been useful in designing initiatives that include modifications to the social and physical environment. Table 4 outlines the key constructs in SCT, the implications of these for programme design, and provides an example of a school health initiative, designed using SCT, which addresses the physical and social environment. Most of the SCT focus is around providing positive role models and individual and interpersonal skills training to students.

Table 4 **Major concepts in SCT and implications for programme design***

SCT concept	Definition	Implications for programme design	Example of actions based on SCT concepts for a school fruit and vegetable (FV) intervention
Environment	Factors physically external to the person	Provide opportunities and social support	Increased access to FV at school; align school healthy eating policies and practices
Situation	Person's perception of the environment	Correct misperceptions and promote healthy norms	Provide information about healthy options
Behavioural capability	Knowledge and skills to perform a given behaviour	Promote skills training	Develop students' skills in cooking and asking for FV
Expectations	Anticipatory outcomes of a behaviour	Model positive outcomes of healthy behaviour	Inform that FV will enhance student outcomes
Expectancies	The value a person places on a given outcome; incentives	Present outcomes (incentives) that have a meaning	Provide information about health benefits of FV
Self-control	Personal regulation of goal-directed behaviour	Provide opportunities for decision making, self-monitoring, goal setting, problem solving, and self-reward	Encourage student goal setting around FV consumption
Observational learning	Behaviours that stem from watching the actions and outcomes of others' behaviour	Include credible role models of the targeted behaviour	Students observe teacher and other role models eating healthily
Reinforcements	Responses to a person's behaviour that increase or decrease the likelihood of reoccurrence	Promote self-initiated rewards and incentives	Incentives offered to students for eating more FV
Self-efficacy	The person's confidence in performing a behaviour and overcoming barriers	Approach change in small steps to encourage success; be clear about the change sought	Enhance students' confidence in requesting FV through role playing
Emotional coping responses	Strategies that are used by a person to deal with emotional stimuli	Provide training in problem solving and stress management; include opportunities to practise skills in difficult situations	Enhance students' skills through role playing
Reciprocal determinism	The dynamic interaction of the person, their behaviour, and the environment in which the behaviour is performed	Consider multiple avenues for behavioural change including environment, skill, and personal change	Students eat more FV at school, and start to ask for more at home. As they become more available, students' preference for FV increases

* Table adapted and modified from Baranowski, Perry, and Parcel (2002, pp. 169 and 180).

Other interpersonal theories

A number of other theories fit into the interpersonal category. These include theories that explore: social networks and social support; social influence; and stress and coping behaviour.

Social Networks and Social Support Theories analyse the networks and social support available to a person in an effort to understand how these impact on health status, behaviours, and decision making. These understandings are then used to decide who could provide extra support (for example, health professionals, local community members, or family), and when and what sort of support could be offered (Heaney & Israel, 2002). Youth mentoring programmes are examples of initiatives that have been designed using these approaches.

Social Influence Models explore how formal and informal relationships and power dynamics can impact on health behaviours. This information is then used to design interventions which involve groups of people such as families (Lewis, Devillis, & Sleath, 2002).

Theories that explore stress and coping also fit with interpersonal level approaches. Wenzel, Glanz, and Lerman (2002) consider that an understanding of these concepts is essential to health education and promotion, and disease prevention. Some of the ideas explored in these theories include the situational factors that impact on how people experience stressful life events, psychological and physiological reactions to stress, and people's coping mechanisms and social support. These understandings can then be used to design support mechanisms and programmes for enhancing coping skills.

Debates about interpersonal-level theories

Glanz (2002) notes that critiques "abound" in the literature in regard to health education and promotion initiatives that only target the individual and interpersonal level and therefore do not address the social, economic, or environmental determinants of health. In addition, Noar and Zimmerman (2004) note that many of the theories that come under the umbrella of Health Behaviour Theories (which includes SCT as well as the individual level theories described earlier) contain constructs that are very similar but use terminology that is different, creating a sense that they are different. They note that the literature about these theories is fragmented in that there is a lack of information about which theory is the most effective. They suggest the health sector would benefit from an approach which explores the similarities between theories and develops an agreed set of constructs. In a related vein, Baranowski et al. (2002) note that some health educators complain that SCT is too comprehensive and therefore it is possible to find a construct to explain almost any approach, thus making the outcomes of SCT approaches difficult to measure.

Theories that explore change at a group level

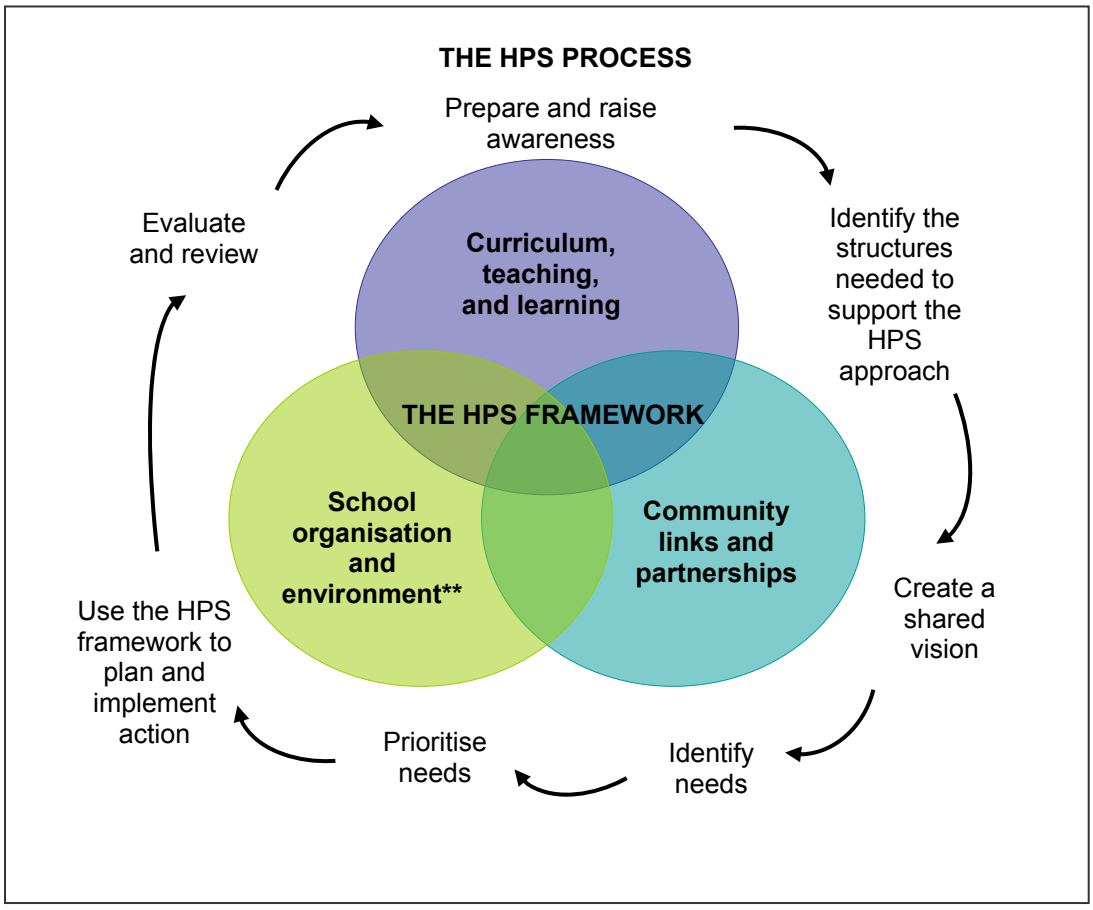
Group-level theories have a group of people as a target population. These groups could include the people located: within a setting such as a school; within an organisation; or within a community group. A core assumption underpinning group-level theories is that there are different

layers or levels of interaction within a group or community. Therefore initiatives need to address these layers. Some common group, organisational, or community approaches are overviewed below.

Settings-based approaches: Health Promoting Schools

Settings-based approaches explore how to effect change within a particular setting, such as a school. The Health Promoting Schools (HPS) model is an example of a settings-based approach. In NZ, a number of schools use the HPS model shown in Figure 1. HPS is a whole-school approach. Three interconnected levels of the school system are identified (curriculum, teaching, and learning; school organisation and environment; and community links and partnerships). Schools are encouraged to use the HPS process to identify priorities and a plan of action that addresses change at these three levels. One focus of the model is empowering the community through the use of strengths-based approaches. As part of the HPS process, schools are encouraged to develop a health team of activists to identify priorities and progress health initiatives. Representation on this team varies but can include students, staff, parents and whānau, and local health and community providers.

Figure 1 **The HPS framework and process***



* Diagram adapted from Fruit in Schools*: A 'how to' guide* (Ministry of Health, 2006, p.9).

** Also called school organisation and ethos.

The NZ Ministry of Health's Fruit in Schools (FiS) scheme is an example of an initiative that uses the HPS approach. As part of this initiative, low-decile schools are supported to use the HPS process and framework shown in Figure 1 to address four health priority areas: healthy eating; physical activity; sun protection; and smokefree behaviours.

Ecological approaches

HPS is also called an "ecological" model, in that it takes into account not only individuals and their sociocultural environment, but also the physical environment in which behaviours occur; that is, the ecology of the system. The physical environment includes "the space outside the person" such as the material resources people have access to. Ecological approaches have been used to create health-promoting environments in an effort to address lifestyle-related health issues such as obesity and smoking. One component of the recent Mission-On initiative provides an example of an environmental intervention. Mission-On is designed to promote healthy eating and healthy action for young people, and represents a collaboration between the Ministries of Health, Education, Youth Development, and SPARC (Ministry of Education, 2006). The key environmental change in Mission-On is an addition to the school National Administration Guidelines (NAGs) that requires all state and state-integrated schools to promote healthy eating and sell only healthy food and beverages onsite. Another example of an approach that draws on an ecological model is policy regulation that restricts access to cigarettes. Sallis and Owen (2002) note that ecological models are multilevel and can be integrated with individual, interpersonal, and group approaches. They also note that the complexity of multilevel ecological approaches means they are best implemented by an intersectorial group. Internationally, this multilevel and intersectorial approach is becoming more common. In NZ, this approach is used in the recent FiS and Mission-On initiatives.

Organisational Change Theories

Organisation change theories explore how the culture and practices of an organisation can be changed. One common organisational theory that has been used in schools is the Theories of Organisational Change Model outlined by Steckler, Goodman, and Kegler (2002). This is a stage-based model that assumes that, as a change is initiated, an organisation goes through a set of four stages:

- awareness raising (stimulating interest in key leaders)
- adoption (planning for the adoption of a programme or policy)
- implementation (providing training and the resources needed to support change)
- institutionalisation (setting up systems that support longer term maintenance of changes).

This model also explores how organisational culture, climate, and capacity impact on the change process.

Other group-level theories

Other community or organisational approaches include community organisation and community building models. These models explore the different ways community groups can be supported to identify problems and goals and develop localised initiatives to address these goals. Examples include the needs-based, as well as the more recent strengths-based, approaches outlined in Minkler and Wallerstein (2005).

The Ministry of Education's Wellbeing-Mental Health Education[3] contract is an example of a health promotion initiative in NZ schools that uses a whole-school approach, and that appears to be underpinned by a strengths-based model of community development. This contract supports schools to utilise teachers', students', and parents' knowledge and strengths to design localised initiatives that aim to enhance students' resilience and connectedness.

Other community organisation and building models include a typology of three community organisation models (Rothman 2001, cited in Minkler & Wallerstein, 2005), and the diffusion of innovation theory that explores how health innovations can be spread to other groups or settings (Nutbeam & Harris, 2004).

Debates about group-level theories

Glanz (2002) notes that group-level theories address some of the criticisms levelled at individual- and interpersonal-level theories as they are better placed to address the social, economic, or environmental determinants of health. Likewise, Nutbeam and Harris (2004) suggest that group theories acknowledge the strengths that already exist in a community, and have the potential to more explicitly address the wider determinants of health. Glanz (2002) also notes that group-level theories are not intended to be stand-alone, but are best used in combination with individual and interpersonal theories.

The top-down–participatory continuum

Along with the individual–group/societal continuum, theories of health education and promotion can also be divided into a top-down–participatory or empowerment continuum. In general, top-down approaches tend to be associated with individual theories of health education and promotion, while empowerment approaches are associated with group-level theories. It is important to note that it is also possible to use an empowering individual approach or a top-down group approach. For example, at the group level, organisational change approaches can use top-down approaches whereas community building models mostly use participatory approaches.

Nutbeam (2000) suggests there is a need to move towards theories that are done "by" or "for" communities such as community building approaches. A similar view is also held by Lister-Sharp et al. (1999). They suggest that initiatives that are empowering are likely to also promote positive

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[3] http://www.tki.org.nz/r/hpe/prof_supt/pd_prog/moe_prog_e.php

changes in mental health (thus addressing health in a more holistic sense), while those that are top-down may have adverse impacts on participants' mental health. In this way top-down approaches may not promote a holistic view of health.

What do the theories look like in a school setting?

So what could individual-, interpersonal-, and group-level approaches look like in a school setting? Table 5 outlines some of the differences between these three approaches. Two documents were used as a foundation to develop this table: Jensen (1997, p.420); and *The Curriculum in Action: Making meaning: Making a difference* (Ministry of Education, 2004, p.16).[4]

Table 5 **Three levels of health education and promotion**

Aspect	Level		
	Individual (Behaviour change)	**Interpersonal (Self-empowerment)**	**Group (Collective action)**
Focus	• Educates ***"about"*** health by transmitting information • Top-down approaches • Healthy school	• Educates ***"for"*** health through the development of individual competence • Self-awareness	• Educates ***"for"*** health through the development of individual and group competence • Empowerment/strengths-based • Health promoting school
Health concept	• Individual behaviour • Disease-oriented with a focus on physical health	• Individual skills • Individual physical, social, and mental health and wellbeing	• Living conditions/lifestyle • Group physical, social, and mental health and wellbeing
Aim of teacher practice	To promote behaviour change	To use action competence processes to encourage independence and critical thinking skills	To use action competence processes to encourage community action
Teacher roles	Provides access to information and acts as role model (e.g., healthy eating, smokefree)	Facilitator	Democratic/facilitator
School environment	Focus on policies (e.g., canteen food, smokefree)	Focus on behaviour change and student skill development	Focus on challenge, student decision making, and autonomy
Links between school and community	Medical professionals seen as "experts" who provide advice to the school and students	Medical professionals are facilitators or change agents	Schools and students are social/change agents
Evaluation	Measurement of students' behavioural changes	Measurement of students' behavioural changes and individual skills and competencies (e.g., critical thinking skills)	Measurement of students' skills and competencies (e.g., critical thinking skills)

[4] This resource is a support material for the NZ Health and PE curriculum.

Bringing the three levels together

Lister-Sharp et al. (1999) note that rather than viewing one theory as paramount, emerging practice in health education and promotion views different theories and modes of delivery as complementary or synergistic. That is, current good practice employs multifaceted approaches that use a range of strategies to address barriers at the individual, interpersonal, and group level. Sallis and Owen (2002) note that tobacco control is an area in which multifaceted approaches appear to have had the most success in supporting long-term changes in behaviour. An example of a multifaceted tobacco control intervention is one that targets: individuals (for example, through smokefree education or cessation assistance); societal norms (for example, through TV media campaigns); policy and regulatory initiatives (for example, through smokefree workplaces or cigarette taxes); and environment changes (for example, through reducing the availability of cigarettes through age or sale restrictions).

In relation to school-based initiatives, the literature tends to support Lister-Sharp et al.'s (1999) position. Those initiatives which are multifaceted and combine individual- and interpersonal-level classroom programmes, with changes to the wider school environment and associated community initiatives, appeared to show the most evidence of success (Thomas & Perera, 2007; Tobler et al., 2000). There is also some emerging evidence to suggest that empowerment or participatory approaches (such as HPS) are likely to enhance student outcomes (see, for example, Boyd, Dingle, Campbell, King, & Corter, 2007; Lister-Sharp et al., 1999).

A closer look at tobacco and drug education

Given that some components of Life Education have a fit with tobacco and drug education,[5] we selected these two areas to use as a case study. This enables us to take a closer look at how some of the three levels of theories outlined previously could be enacted in a school setting, and what evidence is available as to the impact of these approaches.

A number of reviews attempt to summarise the tobacco and drug education literature. Some overview approaches to, and impacts of, drug education (Allen & Clarke, 2003; Cuijpers, 2002; McBride, 2003; Ministry of Youth Development, 2004b); some specifically explore smokefree education (Health Sponsorship Council, 2005; Lantza et al., 2000; Thomas & Perera, 2007; Tobler et al., 2000); and others examine approaches and impacts across a range of health areas (Lister-Sharp et al., 1999; Lynagh, Schofield, & Sanson-Fisher, 1997; Summerfield, 2001). In these reviews, a number of different approaches to tobacco and drug education are identified. In general, the authors of these reviews group these approaches in the following categories:

1. **Information-provision approach** (which aligns with **individual** theories): This approach is characterised by the provision of information about cigarettes or drugs, and the consequences

[5] There is overlap between these two areas. Some reviewers include tobacco education within the broader categories of drug or substance use education.

of use. The use of "scare tactics" can be a feature. Underpinning this approach is an assumption that increased knowledge will result in negative attitudes towards smoking or drugs, which will reduce the likelihood of use.

2. **Affective approach** (which aligns with **individual** theories): This approach is characterised by a focus on enhancing self-esteem and clarification of attitudes and values (with less focus on information about smoking or drugs). Underpinning this approach is an assumption that greater self-esteem and self-awareness will lead to responsible behaviour.

3. **Generic life skills approach** (which aligns with **interpersonal** theories): This approach is focused on developing students' communication, decision-making, assertiveness, and goal-setting skills. Underpinning this approach is an assumption that the development of these skills will support students to make healthy choices.

4. **Social influence resistance approach** (which aligns with **interpersonal** theories): This approach tends to include three components: information about the effects of smoking or drugs; normative education (for example, norms such as "Everyone's doing it" are challenged); and resistance skills training (for example, students are encouraged to practise the skills they will need to resist peer pressure and media influences). This approach is often coupled with a focus on generic life skills. Underpinning this approach is an assumption that actively teaching skills will support students to resist peer pressure and other influences.

5. **Combined classroom approach** (that is, a combination of aspects of 1–4 above).

6. **Associated school environment or community initiatives** (which align with **group** theories). Some reviews reported on classroom initiatives which have an associated group-level intervention that addressed the wider environment. These vary in nature from changes to school policies and practices to better align them with classroom approaches, to media campaigns or initiatives which involved the local community and parents.

7. **Protective factor approach** (which aligns with **interpersonal and group** theories): This approach is characterised by a more holistic view of health and a focus on enhancing those factors shown to be protective against risk behaviours such as smoking. Examples of protective factors include a sense of wellbeing and connectedness to family and school (Resnick et al., 1997), and doing well at school or participation in sports teams (see Health Sponsorship Council, 2005). It could be argued that affective and generic life skills approaches are components of a protective factor approach. Although there is evidence that shows the longer term health impacts of protective factors, only one meta-analysis explicitly included a category for studies that explored these factors. This was Tobler et al. (2000) which included studies that explored students' opportunities to participate in sports teams, cultural activities, or volunteering.

Literature overviews show some commonality in the features of the programmes that are identified as more effective in regard to tobacco and drug education. One is that the programmes are based on social influence resistance approaches (Cuijpers, 2002; Lantza et al., 2000;

Summerfield, 2001; Tobler et al., 2000) but also draw from some of the other categories outlined above. The approach most commonly cited as effective was a social influence resistance model combined with:

- generic life skills approaches which may also include an affective component (Cuijpers, 2002; Lantza et al., 2000; Tobler et al., 2000)
- an associated intervention targeted at the wider environment (that is, the school environment, or families and the wider community) (Cuijpers, 2002; Lantza et al., 2000; Summerfield, 2001; Tobler et al., 2000).

Other features included:

- the use of student-centred interactive teaching approaches (Cuijpers, 2002; McBride, 2003; Summerfield, 2001; Tobler et al., 2000)
- the use of peer leaders for older student groups (Cuijpers, 2002; McBride, 2003; Summerfield, 2001; Tobler et al., 2000)
- ongoing reinforcement or booster sessions (Lantza et al., 2000; McBride, 2003; Summerfield, 2001)
- teacher training or programmes that are delivered by a trained teacher (McBride, 2003; Summerfield, 2001).

Thomas and Perera (2007), the authors of a recent Cochrane Systematic Review of school-based programmes for smoking prevention, present a more qualified view of evidence as to the success of these programmes. The aspects they report as effective are similar to those suggested above. But they caution that, although many programmes showed a short-term effect, there is a lack of evidence of longer term success. They also note that many programmes include an "eclectic mix" of components, and there appears to be a lack of agreement between those conducting meta-analyses as to how to categorise these components, and therefore which components are the most effective. This point is also raised in the Health Sponsorship Council's (2005) review. Given these caveats, Thomas and Perera (2007) suggest that the programmes that appear to be most successful use interactive teaching strategies, are based on a combination of social influence resistance and generic life skills approaches, and are associated with school or community initiatives that are aligned with programme goals.

Other debates are evident in the literature. A number of writers note that programmes often show the most success for middle- and upper-class participants, and therefore point to a need to develop programmes that target specific student populations such as social, gender, or cultural groups (Health Sponsorship Council, 2005; McBride, 2003; Tasker, 2004; Thomas & Perera, 2007). The drug education literature also includes debates about harm minimisation approaches (one example is the use of real-life scenarios to support young people to learn the skills needed to minimise the harm that could occur from drug or alcohol use) compared with harm elimination approaches (that is, a focus on abstinence or delayed use, such as is promoted by social influence resistance approaches) (McBride, 2003).

In summary, the evidence as to the success of school-based drug and tobacco education programmes is mixed. But, as noted by the Health Sponsorship Council (2005), it is difficult to find other locations in which large numbers of young people could be supported to develop the types of skills which have been shown to have at least some positive impact on their behaviour. Accordingly, in an education setting, one way forward could be to use available evidence to strengthen existing approaches. Taking this approach, the NZ Ministry of Youth Development (2004b) has provided a set of evidence-based principles that encapsulate the main findings from the literature in regard to drug education. The tobacco education literature suggests most of these principles can also be applied to this area. The NZ Ministry of Youth Development notes that student outcomes are better when drug education:

Content

1. is evidence-based
2. aims to prevent and to reduce drug-related harm
3. has clear, realistic objectives
4. is relevant to the needs of young people
5. is responsive to different cultural views and realities
6. is associated with family-based training
7. is coordinated with other community initiatives

Processes

8. uses interactive teaching styles
9. teaches young people social skills
10. provides age-appropriate, accurate and relevant factual information on the health effects and social consequences of drug use
11. critically analyses mass media messages

Context

12. follows classroom safety guidelines about the discussion of drugs and drug issues
13. is supported by a comprehensive schoolwide approach
14. is long term and delivered over several years
15. provides adequate training and ongoing support for programme deliverers
16. includes ongoing review and regular evaluation. (Ministry of Youth Development, 2004b, p. 10)

These principles are aligned with individual (for example, principle 10) and interpersonal (for example, principles 6, 8, 9, and 11), and group (for example, principles 6–7 and 12–13) approaches to health education. Life Education appears to be aligned with many of these principles, and in particular, 1–4, 8–11, and 14–16. But some principles are more difficult for Life Education, in its current form, to directly address. These are the principles which pertain to the wider school and community environment within which Life Education operates (that is, principles 6–7 and 12–13). To address this, Life Education has a policy of encouraging connections to be made to schoolwide practices.

Applying evidence about substance education to other aspects of health

In the literature there appears to be substantial overlap about the principles of effective tobacco and drug education. But there is mixed evidence as to whether these approaches can be generalised to other health areas. Lister-Sharp et al. (1999) note that, to date, health promotion initiatives in schools have been less successful in changing smoking and substance use behaviours, and most successful in promoting mental wellbeing, healthy eating, and physical activity. These differences in success rates could reflect the difficulty of changing behaviours that are more socially-related. Or they could suggest that a different approach may be needed for different aspects of health.

A further confounding factor in assessing which approaches are more effective is evidence that suggests that different approaches may suit different age groups. In an overview of the findings from school-based obesity prevention programmes, Budd and Volpe (2006) found that most programmes drew on Social Cognitive Theory. They noted that programmes which used self-monitoring, goal setting, and cognitive restructuring (that is, approaches to changing inaccurate beliefs) in regard to reducing sedentary behaviours tended to be successful with younger students. Programmes that combined opportunities for physical activity with a focused nutrition and physical activity curricula were more successful with older students.

In an overview of current approaches to nutrition education, Summerfield (2001) notes that the programmes that have been the most successful:

- are behavioural and skills-based programmes that target specific behaviours
- involve family and community involvement
- are co-ordinated with schoolwide nutrition policies and approaches and include physical activity
- involve training for staff
- are of a sustained duration

With the exception of the behavioural nature of nutrition programmes, these features are generally aligned with those mentioned in the tobacco and drug education literature.

The impact of external contributors to school health programmes

There is debate in the drug and tobacco education literature about who should provide health education to students. McBride (2003) cites studies that suggest that drug education is best delivered by classroom teachers as they have first-hand knowledge of student needs and are able to adapt their programme to suit. In contrast, a meta-analysis of adolescent school-based drug prevention programmes by Tobler et al. (2000) found that health clinicians, followed by peer leaders, were the most effective leaders of the interactive programmes which the analysis showed were the most successful.

NZ schools use a range of external providers to support health education initiatives, for example, Life Education educators, DARE educators, community police officers, and local public health

nurses. A similar approach is taken in the UK and US. Recently, Buckley and White (2007) provided an overview of the literature about the effectiveness of UK and US external providers in relation to drug, tobacco, and alcohol education. They note that in the UK and the US, over 80 percent of schools use external contributors. Buckley and White conclude that the evidence suggests that external contributors can effect some outcome measures (at least in the short term) if their programmes are based on practices the literature shows to be effective; that is, they: use effective teaching strategies such as social influence approaches and interactive activities; aim to reduce risk factors and increase protective factors such as social competency; and are long term, age-specific, culturally sensitive, and adapted to meet student needs and address local conditions. These approaches are more effective than those which mainly focus on information provision and use scare tactics and traditional teacher-centred teaching approaches.

From this review, Buckley and White (2007) offer a set of criteria for maximising the impact of external providers' programmes. These are that:

- external contributors' programmes are used as a supplement within a programme planned by the school to meet student needs and reflect the values of the school and community
- external contributors' expertise and school needs are matched (for example, providers selected share similar values and approaches to the school, offer services that the school cannot, or offer programmes for the target age group)
- school staff and providers plan a programme that takes into account school lesson plans and objectives, their respective roles, and includes student preparatory and follow-up work.

Another related area of literature that is relevant to Life Education is research which examines the impact of educational visits and experiences, such as Learning Experiences Outside the Classroom (LEOTC) or Virtual Field Trips (VFT). There is a body of research into schools' use of such learning environments, and in particular, for the purposes of science education. Like the studies about external providers of substance education, this research suggests that the educational value of these environments is maximised when they: are used to complement classroom learning; involve some form of interaction; and involve related before or after activities and discussions in classrooms that connect the experience to prior or current learning (Hovell, 2003).

Health education and promotion in the context of the NZ curriculum

Since 2000, Life Education has aligned its modules with the NZ Health and PE curriculum (Ministry of Education, 1999). Given that this curriculum is the main vehicle used by schools for shaping classroom approaches to health education and promotion, we will now take a look at this curriculum to see how it fits with the theories discussed previously. The 1999 Health and PE curriculum, and the latest revision (Ministry of Education, 2007b), has four strands:

A) Personal health and physical development
B) Movement concepts and motor skills
C) Relationships with other people
D) Healthy communities and environments.

The curriculum includes seven key learning areas (or contexts): mental health; sexuality education; food and nutrition; body care and physical safety; physical activity; sports studies; and outdoor education.

The curriculum is underpinned by a number of "big ideas" or theoretical perspectives. The Māori concept of hauora (generally interpreted as wellbeing),[6] and its interrelated dimensions,[7] is central to the curriculum, as is the idea that students need to develop the knowledge, lifelong learning skills, and motivations and attitudes that will enable them to make informed decisions. Another foundation for the document is a socio-ecological perspective towards health which aligns with societal views of health. This perspective acknowledges that learning is socially constructed, and recognises that health and wellbeing is influenced by a number of interconnecting aspects of a wider system: individual; social; environmental; community; and policies. Another "big idea" underpinning the curriculum is the need for students to engage in health promotion, which is defined as:

> …a process that helps to develop and maintain supportive physical and emotional environments and that involves students in personal and collective action. (Ministry of Education, 2007b, p. 22)

This view of health promotion process was derived from the Ottawa Charter (World Health Organization, 1986). This definition of health promotion is founded on the idea that students (and communities) need to do more than "learn about" an area by being the recipients of health information; they need to be able to understand and critically evaluate the interconnecting factors that affect health and wellbeing; and be empowered as they "learn by doing" as they take action on issues of concern to themselves and society. *Strand D: Healthy communities and environments*, is the strand which most encompasses ideas about students taking action in regard to their or community health and wellbeing. To support teachers to design programmes that address the curriculum and Strand D, curriculum support materials provide models such as the Action Competence Learning Process (developed for secondary students) shown in Figure 2.

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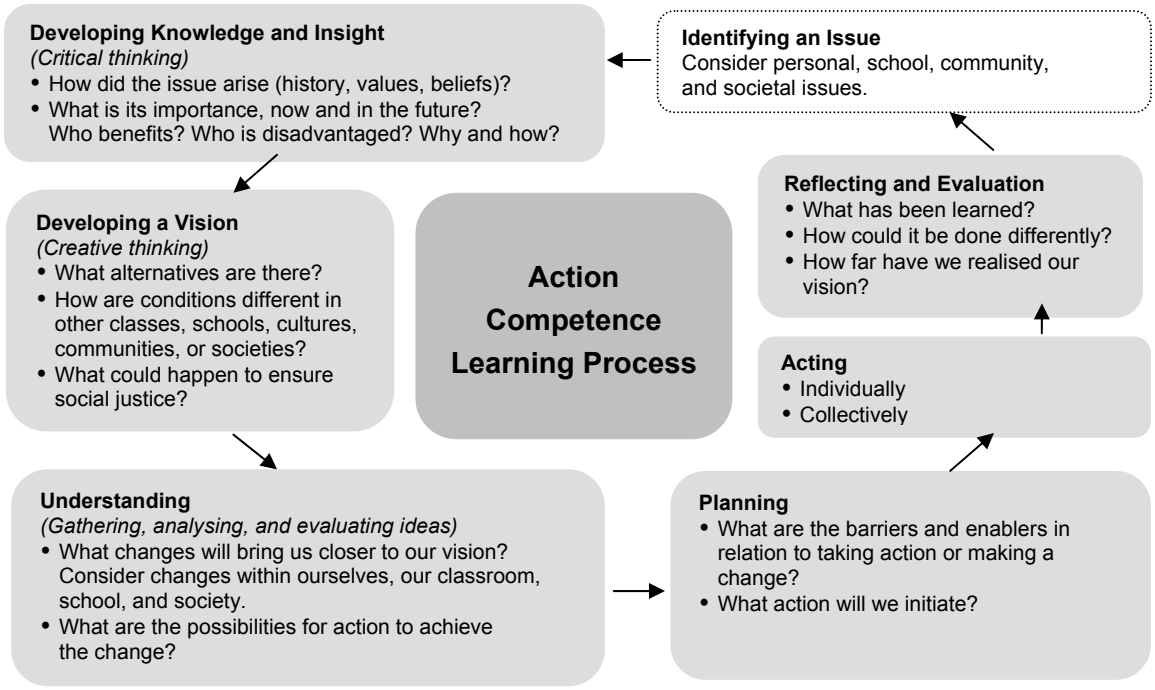
[6] Concepts such as hauora carry cultural meanings which do not necessarily neatly map onto the cultural concepts of their translated meaning (that is, wellbeing).

[7] Hauora encompasses four dimensions that influence and support each other: taha tinana (physical wellbeing); taha whānau (social wellbeing); taha hinengaro (mental and emotional wellbeing); and taha wairua (spiritual wellbeing).

Figure 2 **An action competence process***



* Diagram from Ministry of Education (2004, p.28).

Tasker (2004) notes that the intent of the curriculum supports a societal view of health. That said, the curriculum also aligns with current practice, as noted by Lister-Sharp et al. (1999) and Glanz (2002), in that it also takes a synergistic approach to incorporating aspects of individual, interpersonal, and group approaches. An example of this is the way that the four strands of the curriculum parallel these three different levels of engagement. For example: *Strand A: Personal health and physical development* and *Strand B: Movement concepts and motor skills* could be seen to be more aligned with an individual focus; *Strand C: Relationships with other people* with an interpersonal focus; and *Strand D: Healthy communities and environments* with a group or societal focus.

The entire NZ curriculum has recently been revised (Ministry of Education, 2007b). This revision places more emphasis on schools designing a curriculum that is responsive to the local community and student interests, and that is structured around significant themes such as sustainability and citizenship. The curriculum revision also prioritises student decision making, student-centred practice, lifelong learning approaches, and reflective practice. In the round of curriculum development prior to the 2007 revision, the 1999 Health and PE curriculum was one of the last areas to be developed, and therefore it incorporates a focus on many of these practices. The 2007 revision of the entire curriculum sends a stronger steer to schools about these new directions. These changes have implications for Life Education in that it is likely that, increasingly, schools will be requiring external providers to fit with their particular focuses.

How does current school practice align with these findings?

So what do we know about current health education and promotion practice in NZ schools? Tasker (2004) notes that, in NZ, the health curriculum is a relatively recent addition to the compulsory core curriculum, and for a number of reasons many teachers do not necessarily have ownership over this area. These reasons include a lack of familiarity with health content and academic training in health education. Tasker argues that this lack of ownership is exacerbated by outside agencies and individuals offering school packages for covering particular aspects of the curriculum. These packages may or may not be aligned with the pedagogical strategies promoted by the curriculum, or with effective practices noted in the health education literature. They also may not be delivered by trained teachers or may result in a situation in which the responsibility for delivering the health curriculum is taken away from a school. Tasker also notes that school policies, processes, and teaching approaches need to be aligned to support the work of health teachers. She considered there is limited scope for outside providers to influence the wider school environment in this way.

Although the intent of the curriculum appears to be to support a range of approaches to health education and promotion, a key emphasis is the need for students to actively engage in health promotion to address barriers to health and wellbeing (Tasker, 2004). Recent NZ studies suggest that this intent is not always being fulfilled (Boyd et al., 2007; Robertson, 2005). Although teacher practice is changing, evidence from the Healthy Futures study (Boyd et al., 2007), suggests that some teachers are still prioritising individual-level approaches and are focused on teaching "about", rather than "for", health. Boyd et al. (2007) suggest there are a number of reasons for this. One key reason is that making a shift from an individual focus to societal focus requires teachers to hand some of their decision-making power to students as they make a shift from transmission teaching to student-centred practice. This takes time and requires adequate support and PD. Another reason could be that shift in practice that is represented in the curriculum, along with the combination of different theoretical perspectives within the curriculum, makes it difficult for teachers to gain a clear sense of direction from the document. Aitken (2006) makes a similar argument in relation to the social studies curriculum. He argues that there is a need for curriculum policy statements to signal shifts in meaning in ways that enable teachers to see how reforms build on, as well as change, past practice. Otherwise, he suggests, there is a risk that the intention of curriculum documents will be misconstrued.

Other recent NZ findings suggest that schools may need more support in delivering the health curriculum. An Education Review Office (ERO) review of sexuality education teaching practice in Years 7–13 noted that over half of the schools in the study provided programmes that did not effectively meet student needs (ERO, 2007a). Although this finding could be viewed as disheartening, a companion report also identified a range of good practices (ERO, 2007b).

In NZ, a recent survey about tobacco education in primary schools also suggests that schools may need more support in identifying and using effective smokefree education practices. Walker and Darling's (2007) study suggests that NZ schools may not be using external providers in ways that

meet the criteria suggested by Buckley and White (2007). Walker and Darling's evidence suggests that, rather than using the external providers as a supplement to school programmes, some schools were relying on providers to provide the whole package of smokefree education. Many of the teachers in that study did not answer a question about the components of external providers' programmes (the most common external provider was Life Education). This suggests that teachers are not aware of these components, and thus were unlikely to be aware of whether they were connected to evidence concerning effective practice in smokefree education.

In the US, Ennett et al. (2003) compared Tobler et al.'s (2000) meta-analysis findings with the findings from a survey about school substance use education. They reported that a number of schools used either evidence-based content ***or*** teaching practice, but very few incorporated both. They concluded that the transfer of research evidence to school practice was limited, and suggested that this evidence needed to be more widely promoted through strategies such as teacher training. In a similar vein, in the UK, an Ofsted (2002) report about drug education in schools noted that, since 1997, there had been improvements in school approaches, but drug education was often still too narrowly focused on content knowledge rather than students' development of skills and strategies, and that schools needed to ensure that teaching approaches were kept up to date through evaluation and ongoing training.

Looked at together these NZ, US, and UK studies indicate that evidence about effective practices in health education and promotion may be slow in filtering through to school staff. This suggests that better systems are needed to support teachers to keep up to date in this area to ensure that schools are using health content and health education and promotion teaching practices that are evidence-based.

3. The Life Education approach to health education

Life Education's fit with the NZ curriculum

Life Education is a resource that supports teachers to deliver the curriculum, and in particular, the Health and PE curriculum. Life Education offers a series of age-appropriate modules that are developed for students in Years 0–8. These modules are organised into content strands: self-esteem; social relationships; body systems; food and nutrition; and substance use (such as alcohol and drugs). The curriculum map in the Life Education *Teacher's Resource Folder* (Life Education Trust, 2006), shows that most Life Education modules map onto two main strands of the NZ Health and PE curriculum: *Strand A: Personal health and physical development;* and *Strand C: Relationships with other people*. A few modules also map onto *Strand D: Healthy communities and environments.*

The main module content and resources are developed by staff at the Life Education Trust National Office. All modules have an associated student booklet, a copy of which is given to each child. The Trust National Office is in the process of updating the student booklets and translating them into te reo Māori. National Office has also recently updated the *Teacher's Resource Folder*, one copy of which is sent to each school. This folder contains information about Life Education, its fit with the curriculum, and provides suggestions for classroom activities to accompany each module.

Visiting schools

Each year, Life Education mobile classrooms visit about 60 percent of schools in the primary sector. Most schools are visited annually, and some biennially. At the end of each year, most schools book a Life Education visit for the next year. As part of their training, educators are provided with a suggested process for working with school staff. This process is interpreted by each educator, and is also dependent on the willingness of school staff to take part. Therefore, practice varies slightly between regions and between schools. The general process is as follows. About one month prior to the booked mobile classroom visit, it is expected that the educator will visit the school to discuss the upcoming visit and school needs. Ideally is it expected that, during this visit, the educator will talk at a staff meeting and work with staff to plan a programme that fits with schoolwide curriculum plans, students' needs, or individual teacher's interests. To

provide continuity between school practice and Life Education sessions, educators also gather information on schoolwide focuses (such as relationship management strategies or healthy eating initiatives) and common school pedagogies (such as the use of approaches to learning styles or De Bono's thinking hats) and endeavour to weave these into their sessions.

During the visit of the Life Education mobile classroom, educators discuss individual class needs about physical, emotional, or social health with teachers and attempt to tailor their sessions to these needs. During this main visit, class groups of students attend two to four sessions. Sessions vary in length from approximately 30 minutes for younger students, to 90 minutes for older students. Sessions are run by an educator with the classroom teacher in attendance. Educators also offer to run sessions to explain their approaches to parents.

Life Education teaching practice

Educators are provided with resources, such as activities and charts, to teach each module. They also use their own teaching resources and the technology in the mobile classrooms. In addition, all educators are trained in a set of key "non-negotiable" practices. These are:

- modelling respectful behaviours (for example, greeting students, attempting to remember and use students' names, and thanking students and teachers for their contribution)
- use of "decentralised" language and inclusive behaviour management strategies (for example, use of group pronouns, such as, "Shall we all…?" rather than "I want you to…")
- use of the third person and scenarios for discussion about sensitive topics (for example, "If a man called John starts smoking, what would happen to his lungs?")
- working at the child's level (for example, by sitting on the floor with students or modelling desired behaviours)
- use of positive body language (for example, eye contact or use of open palm hand gestures rather than finger pointing)
- supporting self-esteem (for example, by acknowledging all responses and contributions, giving affirmations, and use of a "no answer is wrong" approach and redirection of inaccurate answers)
- ensuring all students participate (for example, by "teaching in waves" from the front to the back of each group, and ensuring a gender balance when asking for volunteers)
- use of open questions and techniques that encourage deeper thinking such as prompts and probing, rather than a simple repetition of students' responses
- use of a mascot, Healthy Harold the Healthy Giraffe, as a teaching and behaviour management tool, a model of positive behaviours, and as a "brand"
- delivering lessons in an enthusiastic and positive manner
- providing revision and reflection opportunities for students.

Other features of Life Education teaching practice include:

- a focus on key sets of health information (for example, the food pyramid or information about the impact of different activities and substances on the body system)
- a focus on students developing and practising healthy choice strategies (for example, assertive behaviours, strategies for resolving friendship conflicts, and "resistance skills" such as strategies for avoiding peer pressure to smoke)
- a focus on acknowledging difference through key messages such as "It's OK to be different", and "We are all unique and special"
- a focus on "harm elimination" messages in regard to alcohol, tobacco, and other drugs (that is, a focus on abstinence or delaying use till after puberty when the body has matured)
- use of interactive and student-centred pedagogies (for example, co-operative group work, discussion strategies such as Think–Pair–Share, and role playing)
- use of activities that cater to a range of learning styles
- use of resources and technology in interactive ways to encourage student engagement
- alignment with common NZ teaching practice (for example, each module includes learning intention statements called "We are learning to…" statements (WALTs). Educators are encouraged to use questioning techniques and activities that promote critical thinking and higher order thinking, for example, that go beyond content knowledge recall questions to prediction, or enable students to use the knowledge they have gained in a new setting).

In general, these features aim to model an approach to teaching that is inclusive and promotes wellbeing, and which is aligned with current NZ teaching practice. This approach emphasises health content knowledge and the building of self-esteem, and aims to support students to develop a range of interpersonal strategies they can use to improve their health and wellbeing.

Focus on continuous improvement

In recent years, the Life Education Trust National Office has increased its focus on continuous improvement. The main areas of focus are: ensuring programmes are aligned with the curriculum and current educational practice; and finding new ways to match school needs. As a result, in the last few years, the following changes have been made to Life Education practice.

Aligning modules with the curriculum

- The *Teacher's Resource Folder* has been updated to clearly align Life Education modules with the curriculum and achievement objectives. The folder also contains statements that make connections to concepts in the revised curriculum such as the key competencies.

Aligning modules with current education practice

- Educators have been trained to incorporate common NZ pedagogies into their practice. These include an increased focus on: peer interaction; using resources that address a range of learning styles; and use of questioning to promote higher order thinking.

- Learning intentions (WALTs) have been developed for each module.

Matching school needs

- Educators are encouraged to be flexible in responding to school needs and active in seeking to embed Life Education within the curriculum; for example, educators work with school staff to assist in planning, adapt modules to suit schoolwide focuses, or use individual teacher's concerns as a teaching tool.
- Educators have moved towards offering two or more sessions per class group so that they can build stronger relationships with students and provide follow-up.
- Life Education is working towards developing stronger relationships with schools through: newsletter updates; attending whole-school events such as healthy eating celebrations; providing a website, blog, and a Harold email address for students; and providing advice to teachers during the year.
- Life Education has a programme of updating its resources and DVDs to reflect the changing NZ student community and their interests.

Training for educators

Educators are experienced and qualified primary school teachers who are selected for their good practice. To ensure that educators are trained in Life Education teaching approaches, when they start with Life Education, they take part in a 10-week training process that involves:

- weeks 1–2: on-the-job observations with a lead educator who acts as a mentor
- week 3: a two-day seminar at National Office on non-negotiable teaching strategies
- weeks 3–10: further on-the-job observations and trial teaching
- week 10: educators are observed by National Office staff and provisionally registered.

During this 10-week training period, educators also complete a number of assignments designed to assist them to acquire health content knowledge. At six months, educators are observed, and if they reach the required standard they are "signed off" as a registered educator.

Once educators are trained, to ensure a consistency of teaching practice across the country, they take part in an annual appraisal process that is focused on the "non-negotiable" practices listed above. Educators are also required to attend regular PD sessions which include:

- twice-yearly two-day regional seminars, and an annual four-day conference. At these sessions, guest speakers are invited to update educators on new health content and innovations, and educators share their innovations with each other
- regular professional readings
- an educator email network.

National sessions are organised by National Office with input from educators. Regional seminars are organised by regional trusts and educators.

The alignment between Life Education and contemporary approaches to health education and promotion

What is the fit between Life Education and individual theories?

A number of aspects of Life Education practice appear to align with the theoretical underpinnings of individual theories, and the methods promoted by these theories for changing health behaviours. For example, Life Education appears to be underpinned by assumptions that young people are in control of their health-related behaviour and that they will act rationally when they receive evidence about behaviours that are bad for them such as smoking, use of alcohol and illicit drugs, and eating unhealthy food. Therefore, one focus of Life Education is on providing information that is designed to alert young people to the short- and longer term consequences of different behaviours. Life Education's focus on self-esteem and self-efficacy could also be seen to be aligned with individual level approaches. This incorporates encouraging young people to understand: their worth as human beings; that they have choices; and that they have the power to make changes. Aspects of Life Education practice also conform to "harm elimination" approaches, that is, a focus on abstinence, or delayed use, that appear to have their best fit with individual theories. One example is Life Education's message about not trying substances such as smoking, illegal drugs, or alcohol till your body had been through puberty and you are old enough to make an informed decision. The use of role models, in the form of Harold the Healthy Giraffe, is another feature of Life Education that aligns with individual approaches.

Some Life Education modules appear to be more closely aligned with individual theories than do others. These include the modules that were developed early on, and those which target younger students. Examples are modules in the body systems and food and nutrition strands.

What is the fit between Life Education and interpersonal theories?

Life Education's best fit is probably with interpersonal theories. These theories address social dynamics and incorporate ideas about "social influence resistance" and "harm minimisation". That is, one aim of these approaches is to support people to develop the skills they need to manage their lives and make informed choices in social contexts. A number of aspects of Life Education practice align with interpersonal theories. One is the focus on approaches that support young people to recognise and practise assertiveness, decision-making, and interpersonal skills. These include the skills they will need to manage social relationships and interactions. Another is Life Education's focus on students developing social influence resistance skills. Examples of this include a focus on students critically reviewing advertising and media messages, and developing skills that support them to recognise and address peer pressure around unhealthy behaviours such as smoking.

Some Life Education modules appear to have more interpersonal features than others. These modules are those that are aimed at older students or are located in the self-esteem, social relationships, or substances strands.

What is the fit between Life Education and group theories?

Life Education appears to be best aligned with individual and interpersonal theories, but aspects of Life Education practice could also be seen to fit with group theories. Recent modifications to Life Education practice have seen a greater emphasis on working with schools to ensure that Life Education is integrated into schoolwide as well as classroom practice (and therefore addressing different levels of the school system). Examples are Life Education being used to support schoolwide healthy eating initiatives, or educators working with schools to meet identified needs by supporting schools' development of a consistent approach towards bullying at the whole-school and classroom level. In general, though, Life Education has limited scope to address health and wellbeing concerns at a group level, or influence whether individual schools adopt these practices.

Looking to the future

At the time Life Education was developed, the individual and interpersonal models of health education were the predominant approaches. The analysis above suggests that Life Education mostly supports students to address barriers to health at an individual and interpersonal level. Current evidence suggests that effective health programmes also need to support schools and students to make changes at the group or societal level (that is, address Strand D of the curriculum: *Healthy communities and environments*). Thus, this suggests a key area of future focus for Life Education.

4. Summary of the survey findings

This section of the report overviews the findings from the school surveys. These surveys were sent to a representative sample of 284 schools in the primary sector. Of these, 137 completed the survey for schools that *do* use Life Education, and 21 completed the survey for schools that *do not* use Life Education.

This section is divided into two parts. The first section discusses the results of the survey from the schools that *do* use Life Education. This survey was mostly completed by principals or deputy principals (46 percent) and health curriculum leaders (31 percent), followed by a member of the health curriculum team (9 percent) and classroom teachers (9 percent). Over two-thirds (72 percent) were women. Almost three-quarters (74 percent) taught in the classroom, covering the range of year levels from new entrant to Year 8. The most common levels were Year 5 (30 percent) and Year 6 (37 percent). Most respondents (70 percent) taught more than one year level.

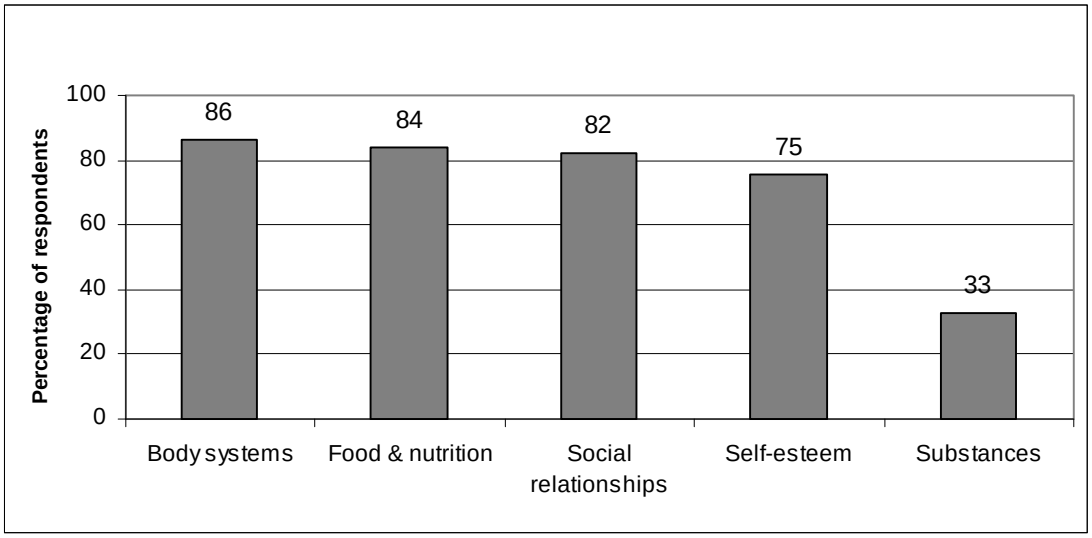
Schools that *do* use Life Education

The majority of the 137 schools that used Life Education did so regularly, either on an annual (54 percent) or biennial (38 percent) basis. Rural schools were more likely to have annual visits. Most schools had a longstanding relationship with Life Education, with 63 percent reporting Life Education had been visiting for more than five years. This included 28 percent that had Life Education visits for 5–9 years, 25 percent for 10–14 years, and 10 percent for over 15 years. A number of respondents (16 percent) were not sure how long Life Education had been visiting.

What Life Education modules did schools use?

Figure 3 illustrates the Life Education modules used by schools, showing the use in descending order. Modules in the body systems strand were used the most. Two-thirds (67 percent) indicated that their school used modules from four or five different strands. Substances modules appear to be used by the fewest schools. One reason for this is likely to be because these modules are designed for older students. Almost twice the proportion of Years 7 and 8 teachers reported using these modules compared to teachers of other year levels.

Figure 3 **Modules used in school programmes**



There was one difference in use by school decile, with food and nutrition modules being used more by deciles 1–2 and 9–10 schools (92 percent and 97 percent respectively). Only 76 percent of deciles 3–8 schools did the same.

There was also a difference in the use of modules depending on the length of time Life Education had been visiting a school. Schools that had been involved with Life Education for more than five years were more likely than newer schools to report using the social relationships and self-esteem modules. This may suggest that, when they start using Life Education, schools tend to select modules that are based around physical health and health content knowledge. Over time, as they become more familiar with the resources Life Education has to offer, they may progress to use modules related to emotional and social wellbeing.

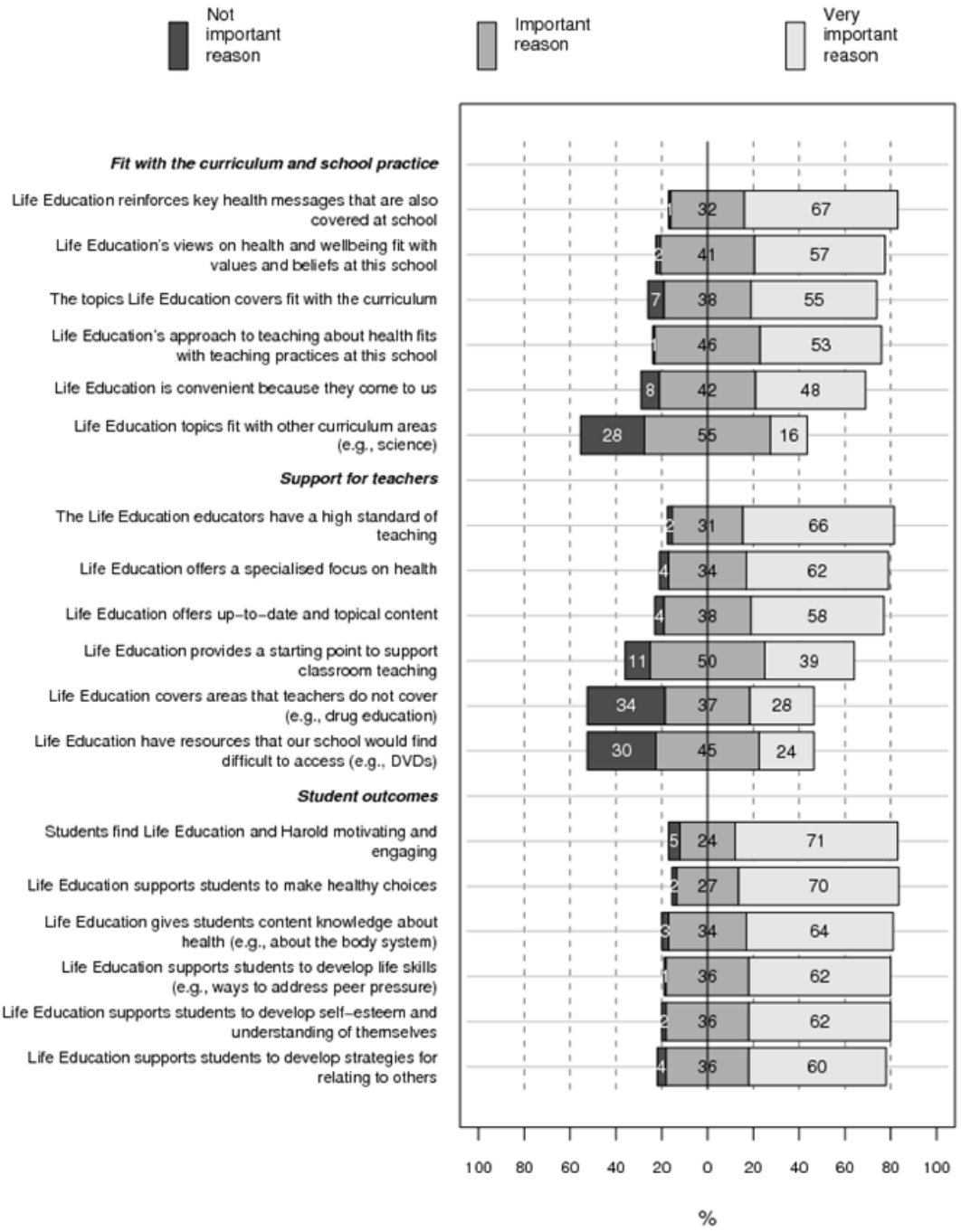
Why did schools use Life Education?

We asked respondents to select, from a list of options, the reasons their school used Life Education. These options were clustered into three main themes:

- Fit with school curriculum, practice, and values
- Support for teachers
- Outcomes for students.

Figure 4 shows that the majority (90 percent) of respondents considered there were important reasons for using Life Education that spanned all three theme areas. Overall, more respondents tended to rate the options related to student outcomes as "very important", suggesting that adding value to student learning was a key reason for schools' use of Life Education. These results also suggest that respondents believed there to be a close fit between school values and practices and Life Education.

Figure 4 **Reasons why schools use Life Education**



Four reasons were considered *very* important by two-thirds or more of respondents:

- Students find Life Education and Harold motivating and engaging
- Life Education supports students to make healthy choices
- Educators have a high standard of teaching
- Life Education reinforces key health messages that are also covered at school.

This suggests that, along with adding value to student learning, connections with school priorities, and the skills of the educators were important considerations. Teachers' comments reinforced these messages:

> Great facilitation, engaging, supportive, and entertaining.
>
> Teachers of Life Ed bring a fresh message to health issues…often a new way of presenting, clicks / motivates children and reinforces message.

Three reasons stand out as being less important. These were that Life Education:

- has resources that schools would find difficult to access (e.g., DVDs)
- topics fit with other curriculum areas (e.g., science)
- covers areas that teachers do not (e.g., drug education).

The fact that Life Education covers content that teachers do not focus on was the least important reason. This suggests that teachers see Life Education to be a support for the classroom programme rather than a stand-alone resource (as responses to later survey questions confirm). Another reason is that the example given (drug education) tends to be covered with older students, therefore this could be perceived to be a less relevant reason by junior school teachers.

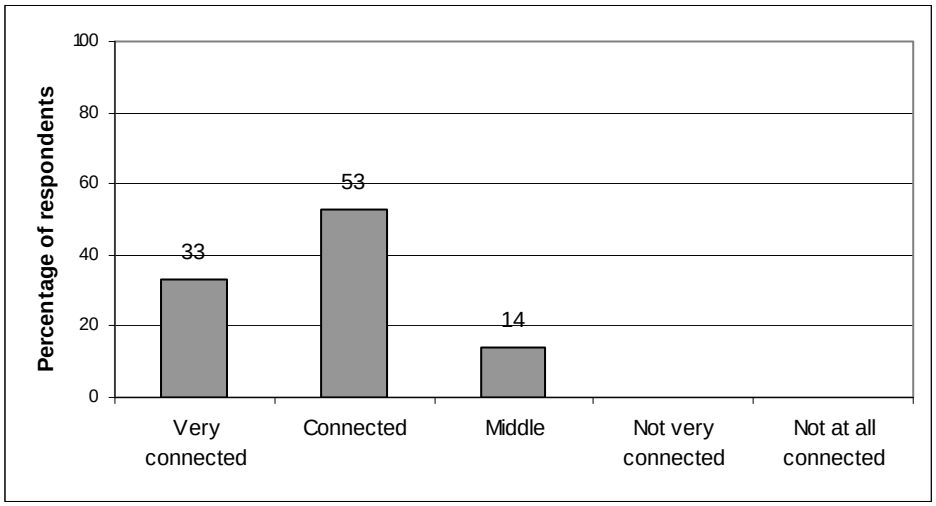
Alignment between Life Education and school policies and practices

Research indicates that to maximise the impact of programmes offered by external providers, they are best located within a wider multifaceted programme that is developed by a school (Buckley & White, 2007). Given this, we were interested to know to what extent Life Education visits were integrated into school policies, schoolwide and classroom planning, and teaching and learning practices.

Reinforcing schoolwide policies and approaches

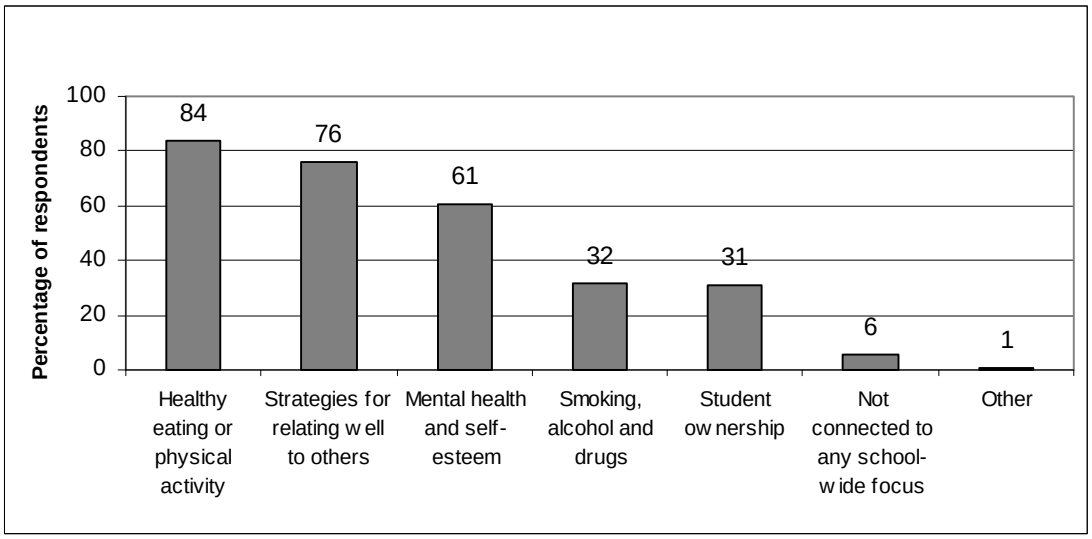
Overall, 85 percent of respondents considered Life Education was connected or very connected to schoolwide policies and approaches (as shown by Figure 5).

Figure 5 **Connection between Life Education and schoolwide practices**



Nearly all respondents (94 percent) reported they used Life Education to reinforce some form of schoolwide policy or approach (see Figure 6). Three main schoolwide practices were connected to Life Education: approaches to healthy eating and physical activity; strategies for relating well to others; and approaches to mental health and self-esteem. Fewer respondents noted the Life Education was connected to schoolwide approaches to substance use or practices that promoted student ownership over learning.

Figure 6 **Life Education's connections to schoolwide policy and practices**

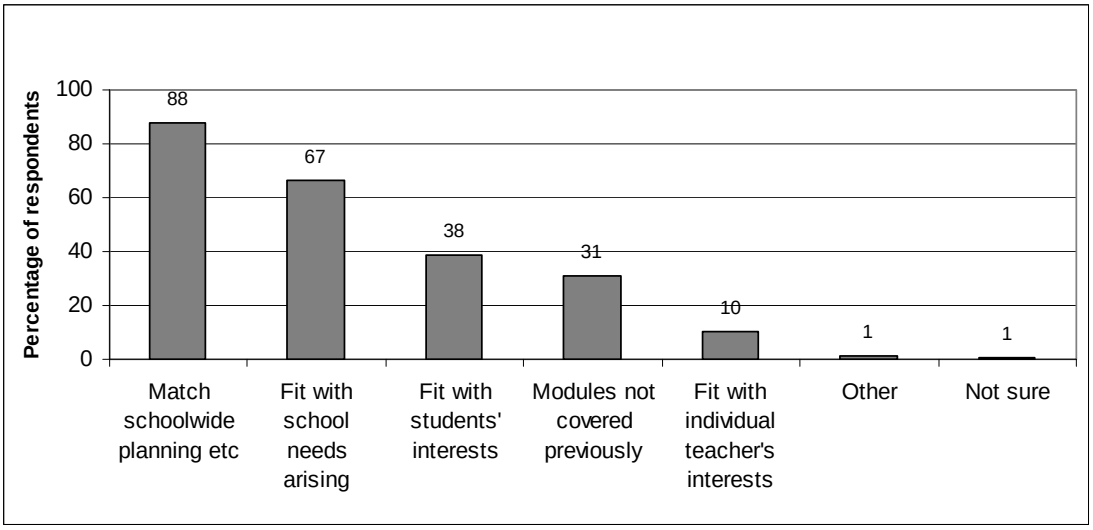


Decision making and planning in connection with Life Education

We were also interested in the level of integration between Life Education and health curriculum planning processes at schools. The results show that the majority of respondents (88 percent) selected modules to fit with schoolwide plans, suggesting a close connection between Life

Education and curriculum plans (see Figure 7). The second most reported consideration (by 67 percent of respondents), was a fit with school needs as they arise.

Figure 7 **How do you select Life Education modules?**

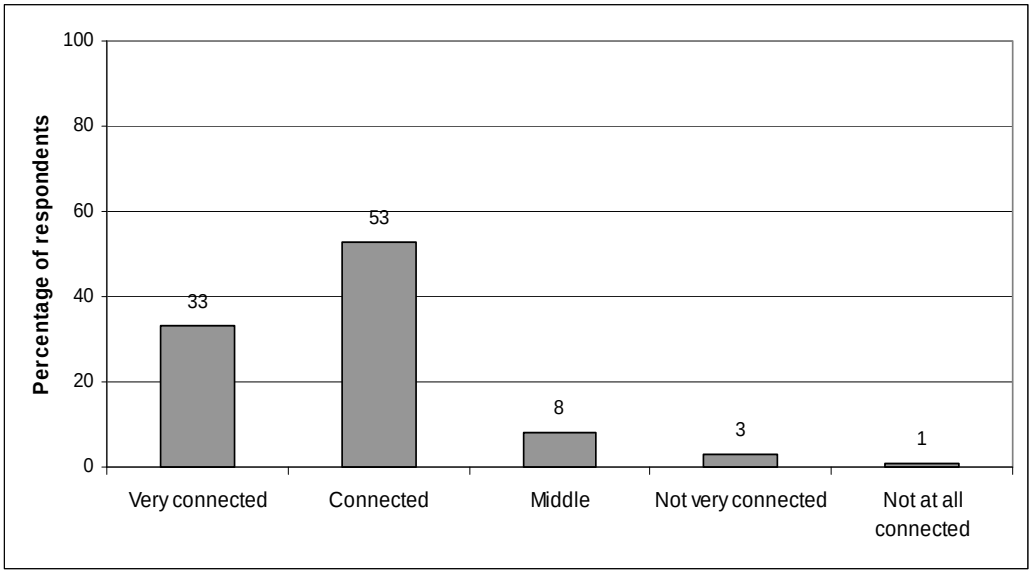


Most respondents (78 percent) reported that all staff or a syndicate made joint decisions about which Life Education modules would be selected, indicating that discussion about Life Education was part of planning meetings. Staff at urban and large schools were more likely to be involved in collaborative decision making about which Life Education module they would use than staff in smaller or rural schools. This is likely to reflect the number of staff in sole charge positions in small rural schools.

Integration into classroom programmes

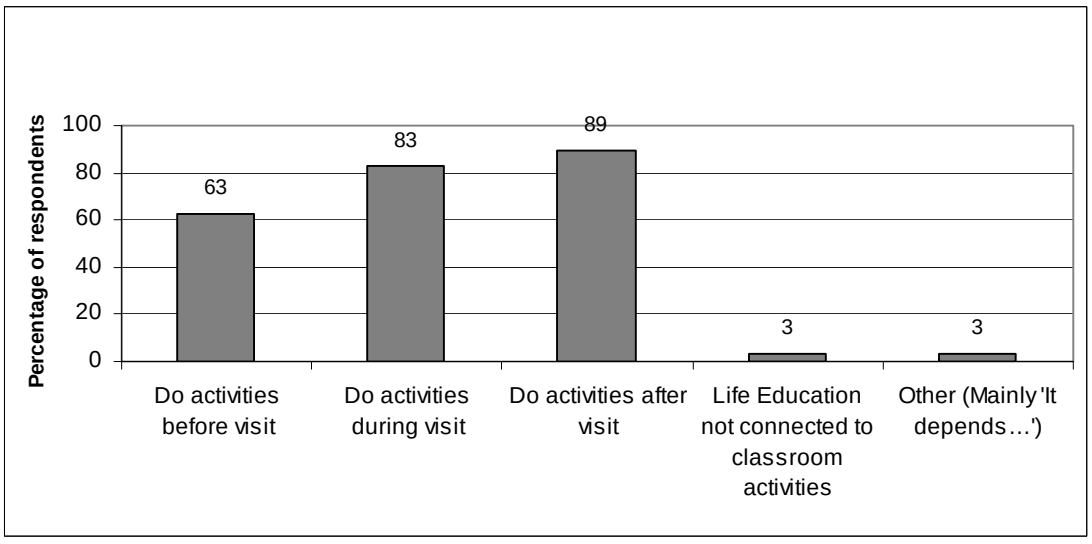
Like the information on the fit between Life Education and schoolwide practices, the majority (81 percent) also noted that Life Education visits were "very connected" or "connected" to classroom programmes (as shown in Figure 8).

Figure 8 **Connection between Life Education and classroom programmes**



As shown in Figure 9, the majority of respondents reported incorporating Life Education visits into classroom activities, and therefore using the resource in a way that is aligned with good practice. Over half (57 percent) used Life Education in a way that most conforms to good practice; that is, they organised related activities before, during, and after the visit. The largest proportion (89 percent) did follow-up classroom activities, suggesting the most common use of Life Education is as a "starter" activity. Only 3 percent reported using Life Education as a stand-alone activity.

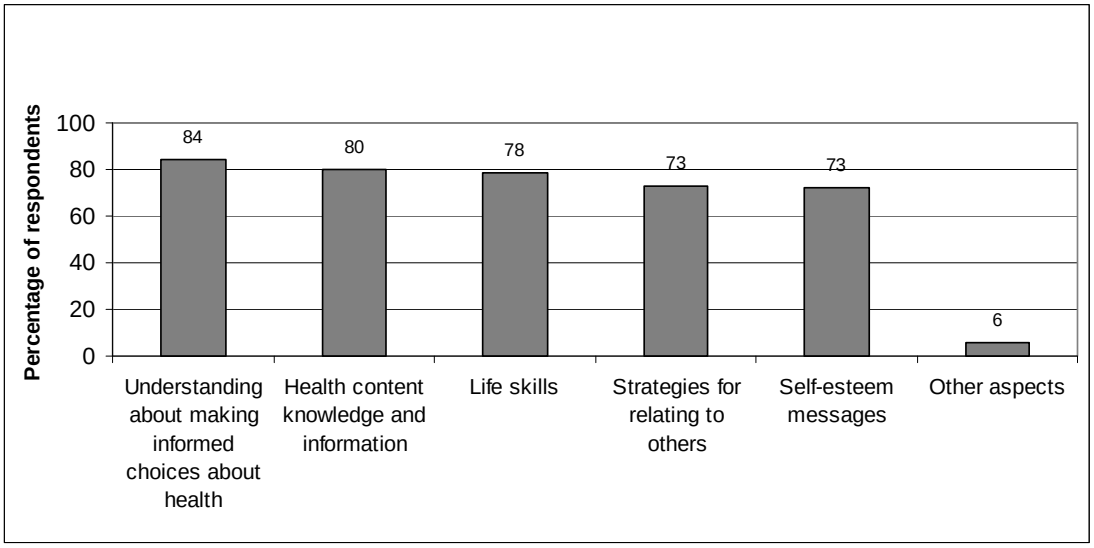
Figure 9 **Classroom activities linking with Life Education visits**



When asked which aspects of Life Education were connected with classroom programmes, over half of the respondents (53 percent) ticked all five areas in Figure 10, suggesting a relatively high level of connectedness. The aspects most focused on were health content knowledge and

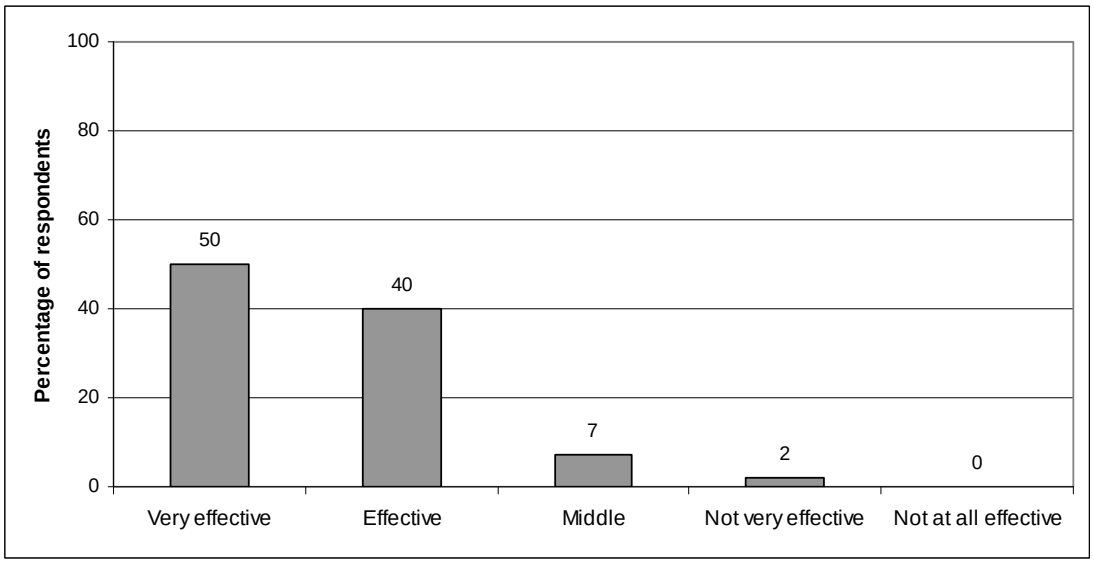
understanding about making informed choices, closely followed by the skill, strategy, and affective components of Life Education.

Figure 10 **Aspects of Life Education linked to classroom programmes**



Overall, the majority (90 percent) of respondents considered Life Education to be "very effective" or "effective" in supporting them to deliver the Health and PE curriculum (as shown in Figure 11). This shows a significant satisfaction rate on the part of teachers. Teachers in rural schools were more likely than their counterparts in urban schools to consider that Life Education was an effective support. Although respondents' views were on the whole very positive, the data in Figures 7, 8, and 9 suggest there is potential for a closer alignment between Life Education and schoolwide and classroom practices, which is likely to further enhance effectiveness.

Figure 11 **Effectiveness of Life Education to support curriculum delivery**



Use of Life Education resources

Nearly all respondents said they used the Life Education student booklets in some way (as shown in Figure 12). Only 3 percent did not use the booklets. The booklets were mostly used: as worksheets in class; to get ideas for activities; as homework; and as a starter for class discussions. Schools that had used Life Education for more than five years tended to use the booklets for homework more than newer schools. Additionally, a higher proportion of respondents from larger schools (of over 300 students) indicated that they used booklets as worksheets in class. There are a number of possible explanations for this. One could be that those in larger schools might have more need of resources to support classroom programmes. Another is that these teachers may have larger classes and therefore more likely to use traditional teaching approaches such as completion of worksheets.

Figure 12 **Use of Life Education student booklets**

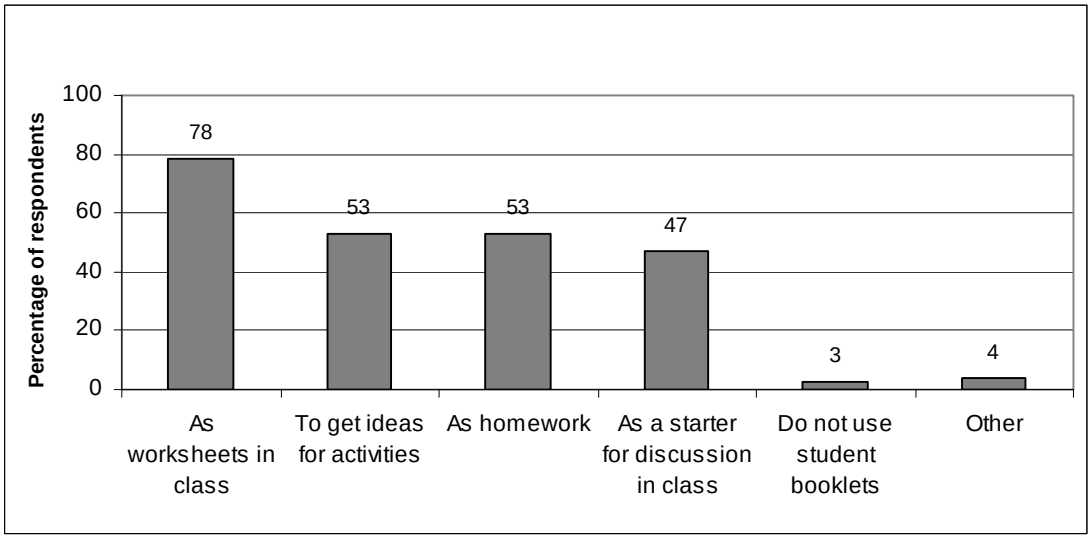
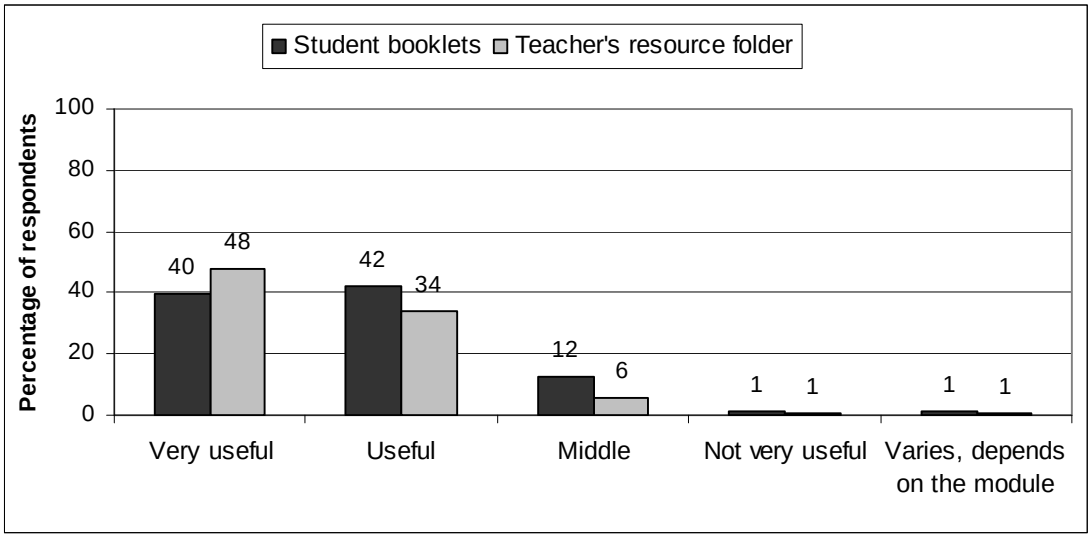


Figure 13 shows that 82 percent of respondents considered that the student booklets were either useful or very useful.

Most respondents (84 percent) noted that they used the *Teacher's Resource Folder* to help plan units and topics. A small number (3 percent) stated they were aware of the folder, but did not use it. A significant proportion (10 percent) indicated they were not aware of the folder. Most (82 percent) found the *Teacher's Resource Folder* either useful or very useful (as shown in Figure 13). This indicates a relatively high level of satisfaction with the supplementary resources that Life Education produces, but also that the *Teacher's Resource Folder* could be promoted more or made more accessible.

Figure 13 **Usefulness of the student booklets and *Teacher's Resource Folder***

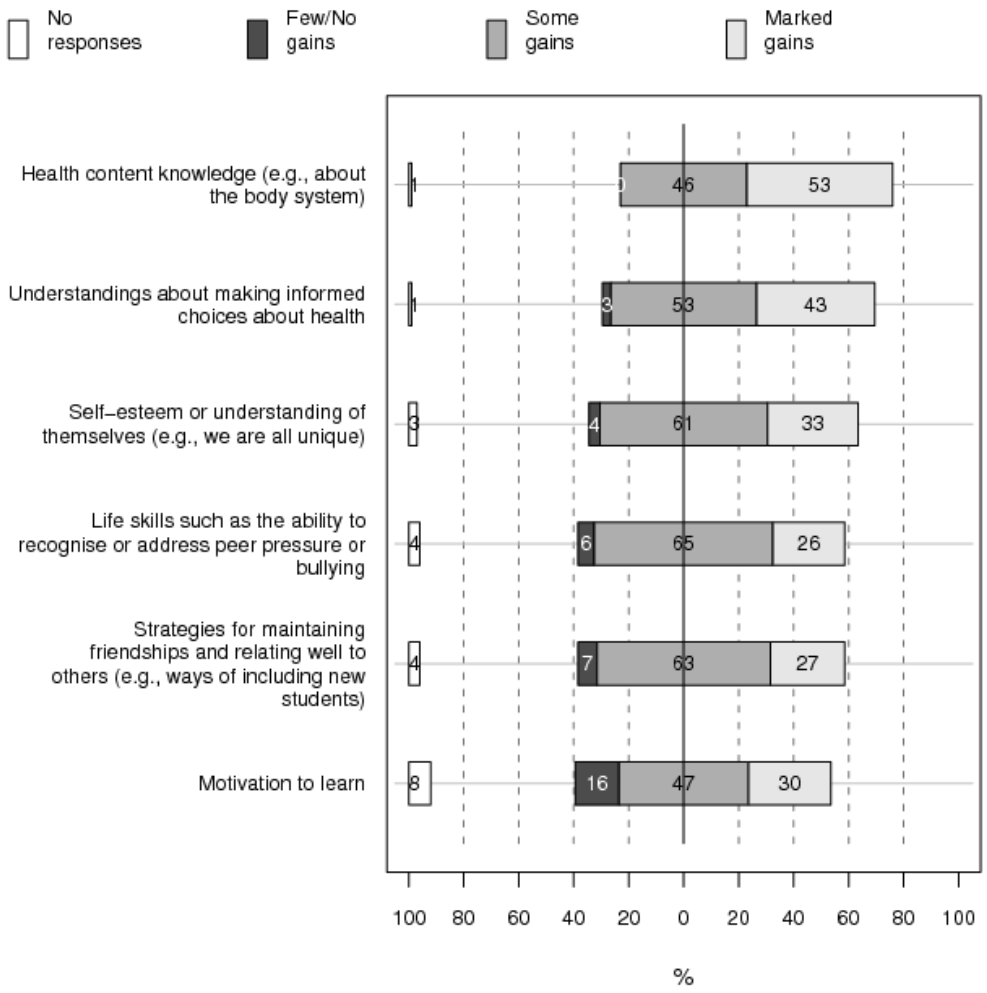


The impact of Life Education on students and teachers

Gains for students

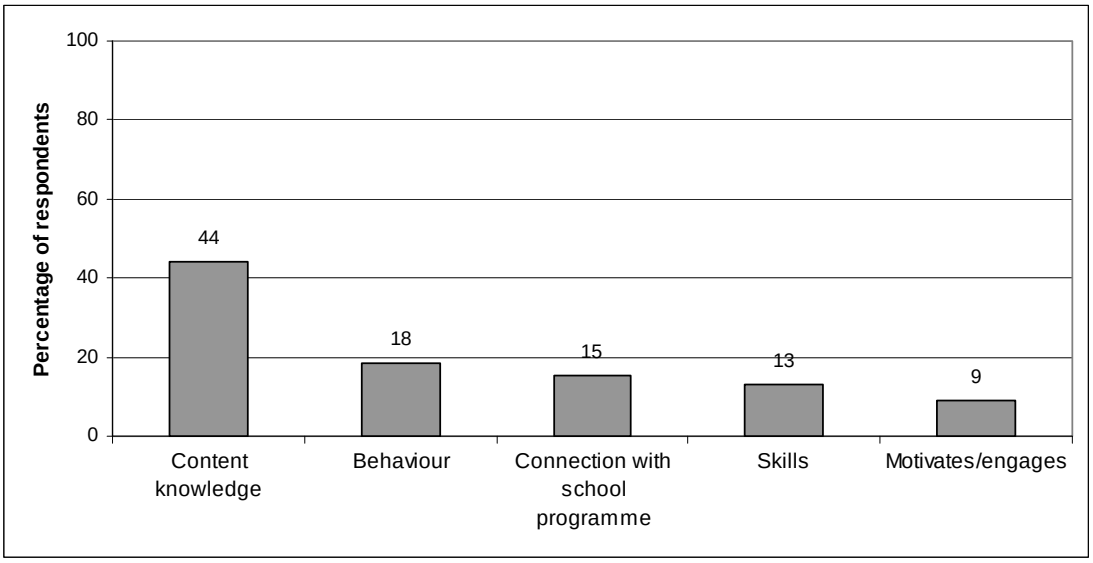
To explore respondents' views about the short-term outcomes of Life Education, we asked what students gained from Life Education (as shown in Figure 14). All but one respondent identified either marked or some gains relating to health content knowledge, and almost all noted gains in students' understandings about making healthy choices. About 90 percent also identified either marked or some gains relating to the social and emotional aspects of Life Education, that is: self-esteem; life skills; and strategies for relating well to others.

Figure 14 **What do students gain from Life Education sessions?**



We also asked respondents to give an example of how Life Education had supported changes in students' knowledge, skills, or behaviour. These examples were grouped into the categories shown in Figure 15. Most respondents described changes related to health content knowledge. Fewer described changes in students' behaviour or skills. This, along with the information in Figure 14, gives some indication that respondents prioritised outcomes relating to health content knowledge over skills, strategies, or improvements in self-esteem.

Figure 15 **Examples of changes in students' knowledge, skills, or behaviour**



The following quotes are examples of the changes mentioned by respondents. The first comments on how Life Education supports students to develop health content knowledge:

> Having a factual-based approach provides student with new knowledge, can clarify prior knowledge and dispels myths and misconceptions… Seeing the effects of the visual information also provides students with real-life scenarios that do have an impact on the way the students think. This can be seen through the informal conversations occurring after each learning session.

Common examples of changes in behaviour and skills provided by respondents included:

> [Students] working together socially in the playground, inviting other children to join in activities and sharing equipment. Taking responsibility for their behaviour in the classroom and playground. With the senior children, Harold has a profound impact on their desire to be friends and help others.

A number of respondents noted that it was difficult to attribute changes solely to Life Education, but many also described how the sessions supported and strengthened their classroom programme:

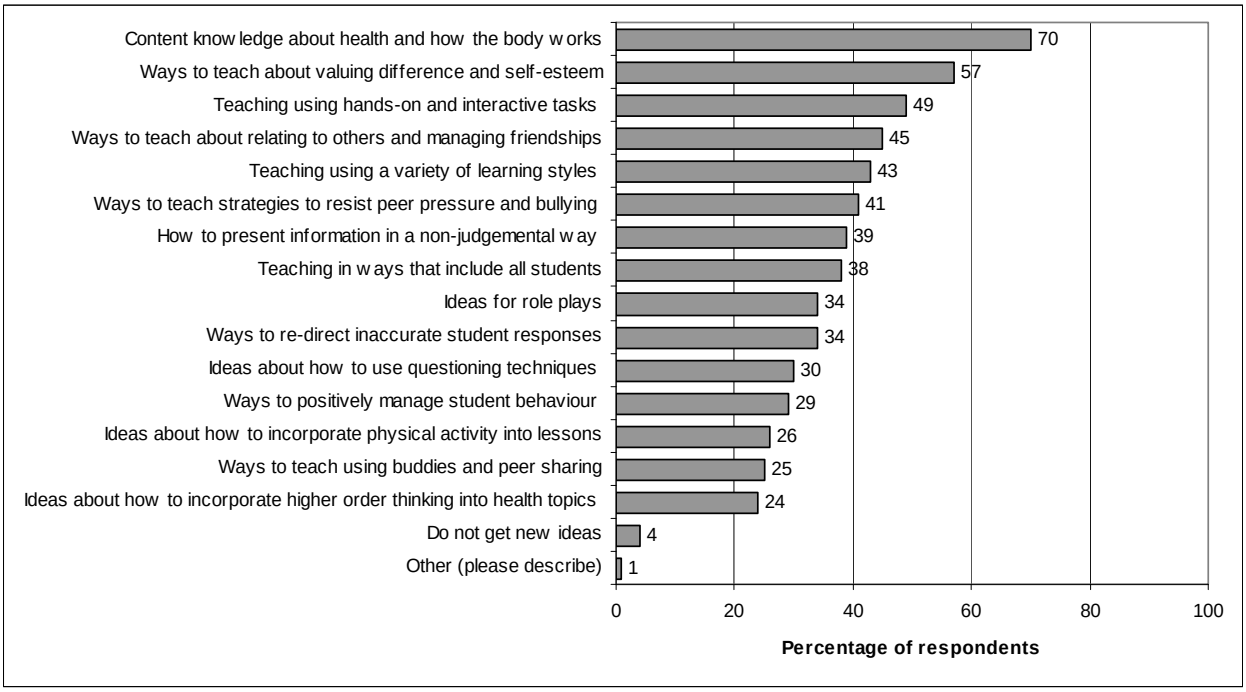
> Children really enjoy the sessions, are highly motivated and openly discuss learning/concepts and actions back in the classroom. [Teachers] are able to discuss and follow this through—evidenced through teacher observation. Children are able to flick back into Life Ed learning/messages during the year, revise and apply to situations.

Gains for staff

We also asked teachers if they gained any new ideas from being part of Life Education sessions. Almost all (97 percent) indicated that they did. As shown in Figure 16, most common were new ideas for teaching about health content knowledge and how the body works (70 percent). Over

half also reported they gained new ways to teach: about valuing difference and self-esteem; strategies for relating to others and managing friendships; and strategies to resist peer pressure and bullying. A higher proportion of respondents from large schools indicated that they gained ideas for ways of positively managing students' behaviour than those in smaller schools. About half the respondents also gained new ideas for teaching using interactive tasks or a variety of learning styles. This suggests that Life Education is acting as an informal source of PD for teachers.

Figure 16 **What do teachers gain from Life Education sessions?**

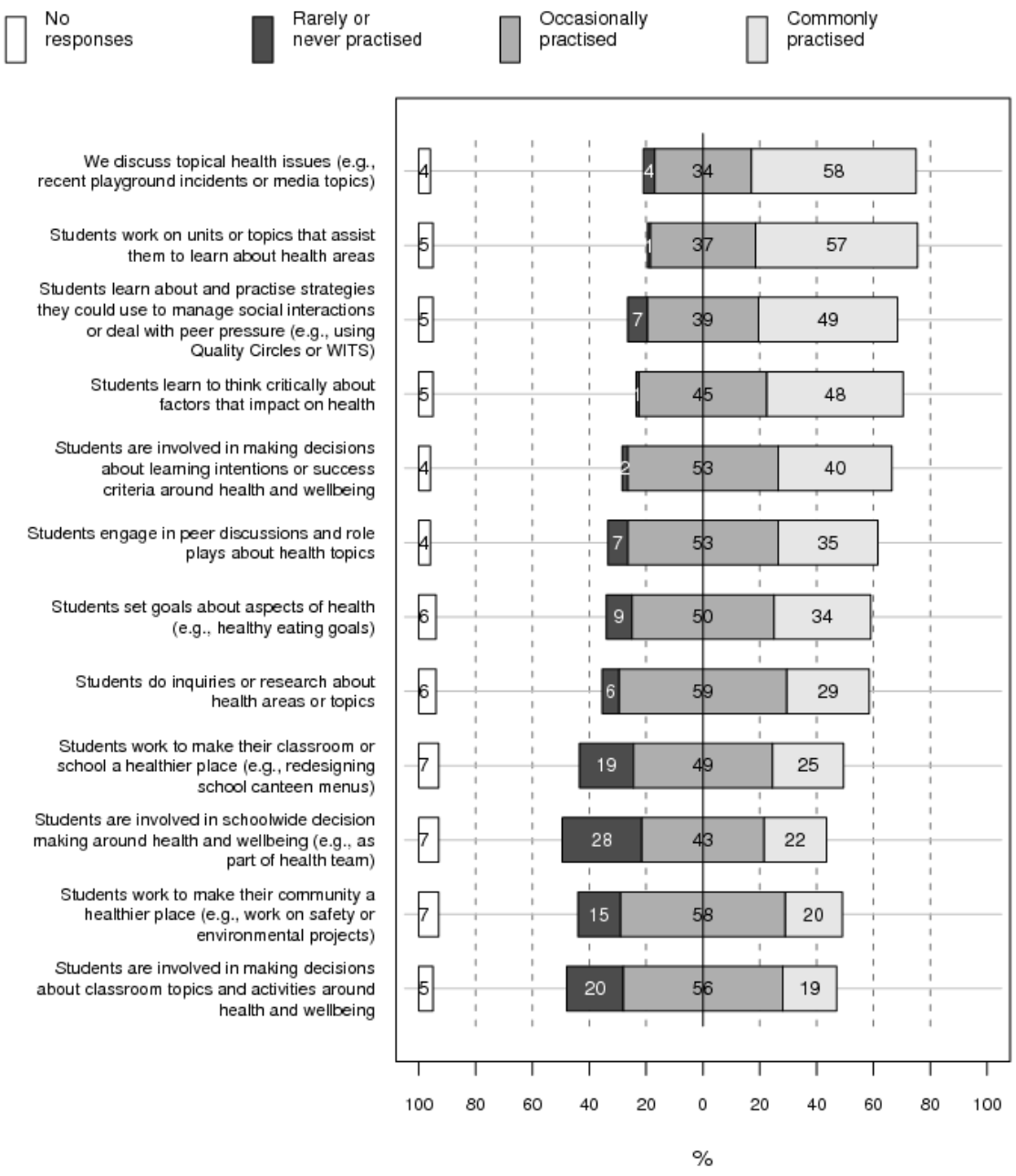


School approaches to the Health and PE curriculum

To ascertain Life Education's fit with school approaches to the Health and PE curriculum, we asked respondents a number of questions about health teaching approaches, and their access to PD and support around the Health and PE curriculum.

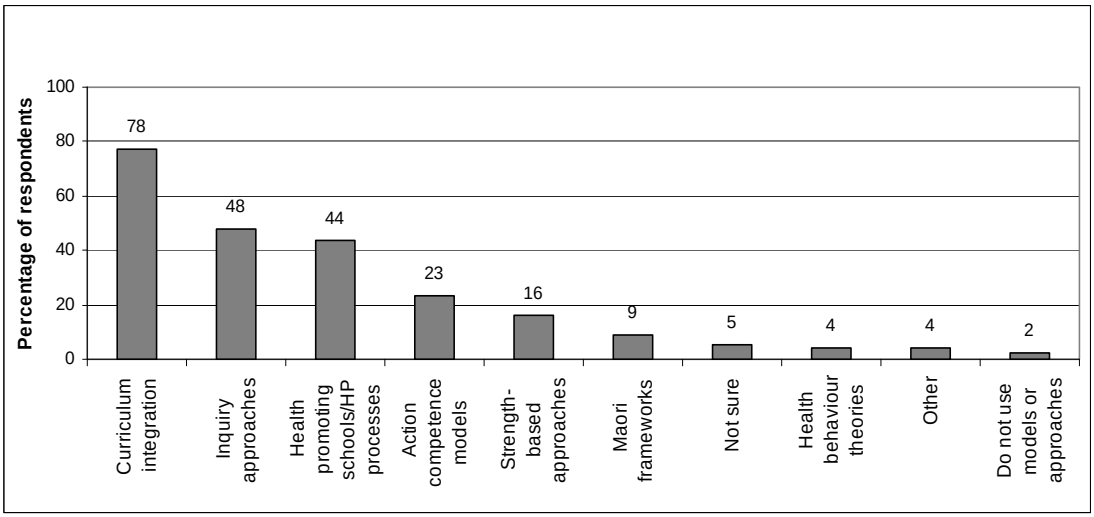
As illustrated in Figure 17, respondents used a range of teaching approaches to teach about health. Most common were the more traditional "learning about" practices such as students working on health units or topics or having discussions about topical issues. These practices have their best fit with Strand A of the curriculum. Practices connected to Strand C were also common; that is, students learning about and practising strategies for relating to their peers. Less common were approaches that were connected to Strand D of the curriculum. These involve students "learning for health" by taking action. For example, less than one-third of respondents reported that students were commonly involved in classroom or schoolwide decision making around health or in taking action to make their classroom or school a healthier place.

Figure 17 **Use of health teaching approaches**



We were interested in which pedagogical models respondents were using in their health programme, so we used current NZ curriculum models as well as approaches to health education as a basis for a question in the survey. Figure 18 shows that curriculum integration (78 percent) and inquiry approaches (48 percent) were the most common. These results are to be expected as both are current approaches used across the curriculum.

Figure 18 **Pedagogical models or approaches used for health education**



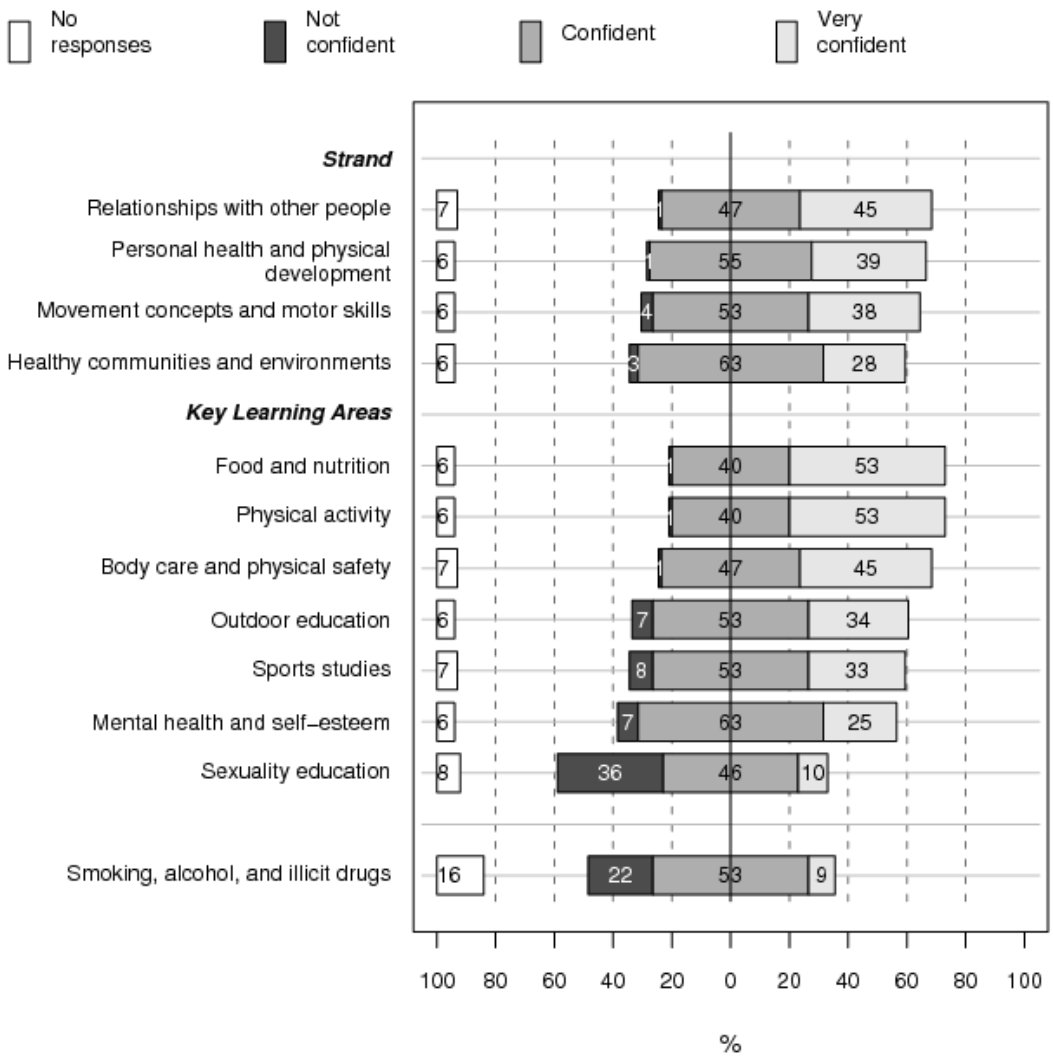
Almost half the schools (44 percent) were also using Health Promoting Schools processes, and this use was greater amongst lower decile schools. These schools are likely to be using this model as part of the Ministry of Health's Fruit in Schools initiative.

We also asked respondents how confident they felt to teach the four Health and PE strands and the seven key learning areas (see Figure 19). We added substance education given that this is a focus of Life Education, and there are guidelines for schools about how to approach drug education (Ministry of Youth Development, 2004a).

These data suggest that, overall, teachers were confident in teaching the four strands and in particular, Strands A–C. The strand teachers were least confident with was *Strand D: Healthy communities and environments*.

Over 90 percent were also confident or very confident with most of the key learning areas. Two topics where there was less confidence stood out. These were substance use (smoking, alcohol, and illicit drugs) and sexuality education. These topics are more likely to be applicable to students in Years 5–8, which helps explain the lower numbers of teachers who reported to be confident teaching these topics, and the higher number of no responses. But these topics are also known as sensitive areas, suggesting that there are differences in the support needs of teachers in relation to different strands and topic areas.

Figure 19 **How confident are teachers to teach health strands and key learning areas?**

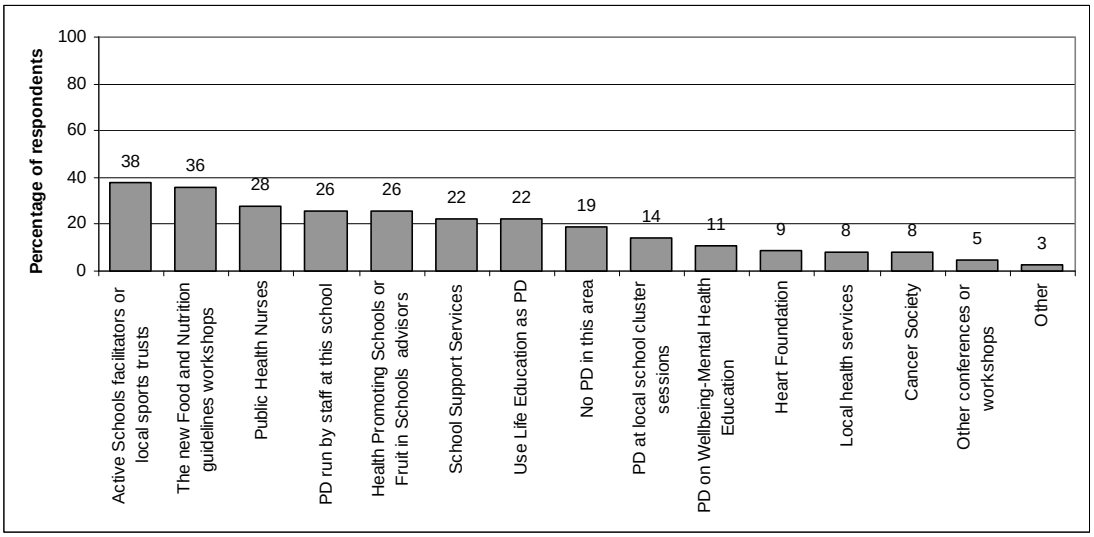


Health-related professional development

Respondents were asked about any health PD in which they had taken part in the last two years (2006–2007), as shown in Figure 20. Types of PD that over one-third of respondents reported recently attending were: PD from Active Schools facilitators (38 percent) and workshops about the recent food and national guidelines (36 percent). These reflect two new areas of focus in the Ministry of Education's National Administration Guidelines (NAGs).

Health Promoting Schools advisers, public health nurses, and school health leaders were the next most common forms of PD, and were used by approximately one-quarter of schools. Life Education features in the next bracket of most used forms of PD, along with School Support Services advisers. A smaller number of respondents also reported that they had received PD from representatives from organisations such as the Cancer Society, Heart Foundation, and police.

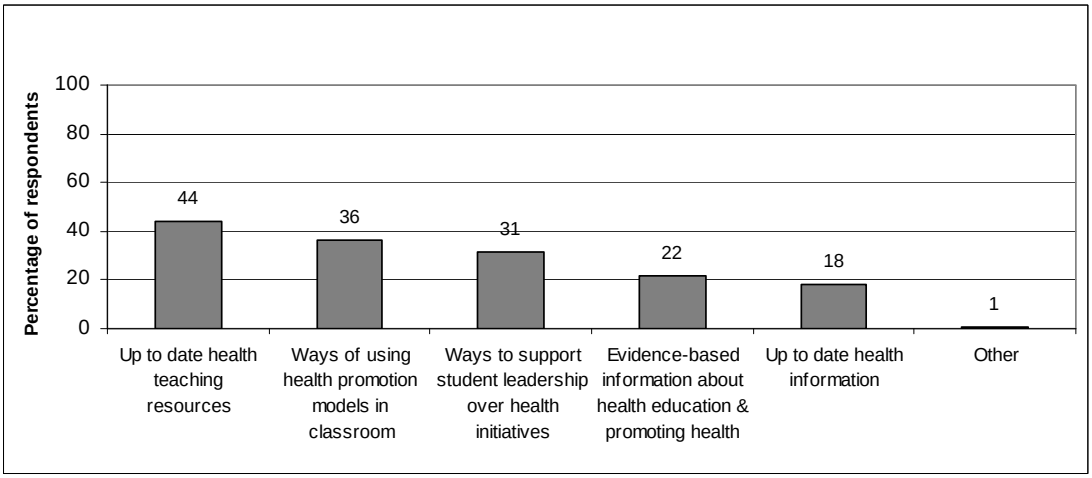
Figure 20 **Health-related PD attended by respondents**



As you would expect, health curriculum leaders were more likely to have attended PD than other types of respondents. One-fifth of respondents indicated they had not attended any forms of health PD in 2006–2007. This suggests that some teachers have limited access to PD that could support them to keep up to date.

We also asked respondents to identify if they needed any additional forms of support for the Health and PE curriculum (as shown in Figure 21). Two-thirds (66 percent) indicated they did.

Figure 21 **Forms of support for the Health and PE curriculum that schools would like**



Almost half (44 percent) wanted more up to date health teaching resources, and around one-third identified that they would like more support about how to use health promotion processes in the classroom (36 percent) or ways to support student leadership of health initiatives (31 percent). These approaches are mostly connected to Strand D of the curriculum. Around one-fifth also noted that they would like more evidence-based information about health education and promotion (22 percent) or up to date health information (18 percent), reflecting the increasing

drive in NZ for evidence-based practice. Overall, this suggests that teachers have a range of support and resource needs in relation to the Health and PE curriculum.

Improvements to Life Education

At the end of the survey we asked respondents if they had any additional comments about Life Education. Nearly all were highly positive, as the following comments indicate:

> It is a fantastic programme which the students love and respond to! The educators are amazing and so motivated with what they are doing. The children get a lot out of it—learn and gain knowledge.
>
> Keep up the good work. We need it as part of our programme every 2 years. Cost...must keep it at a reasonable level...free preferably.
>
> I think the whole concept is great. Teachers are very skilled at presenting information that is useful, important and humorous. Children are very motivated to learn through this opportunity.

We also asked respondents for suggestions about how Life Education teaching practices or modules could be improved, and one-third offered ideas. Most suggestions were about improving rather than changing current practice, and many also included positive comments. The most common theme (9 percent) was about ensuring Life Education was kept up to date in terms of changes in health content knowledge and curriculum and teaching practice. Other suggestions included that Life Education:

- allows schools to make more independent use of Life Education resources such as books or Harold
- develops processes that ensure a close fit between school needs and Life Education (for example, more joint planning or more flexible booking times)
- offers more or longer sessions
- improves access by providing more mobile classrooms
- has more resources or support in te reo Māori
- reduces costs per child.

Examples included:

> Adapting to the school's unit focus is how we see the effectiveness of Life Education improving—it's a great support for delivering the health and wellbeing programmes in schools. One-off delivery of 'rigid' programme that does not relate to what is being taught in the school is when the modules are less effective.
>
> We have had a shift from 'unit' teaching to inquiry-based learning, i.e. facilitating in context rather than teaching knowledge. It will be good to see if the [Life] Education has also made that shift although it may be difficult given the 'time frame' they have to work with in each school.

> The children love the visits—the content is relevant—we have requested longer sessions to allow the presenter more time to deliver/reinforce/wind down—this has been given and that has been beneficial. Thank you.

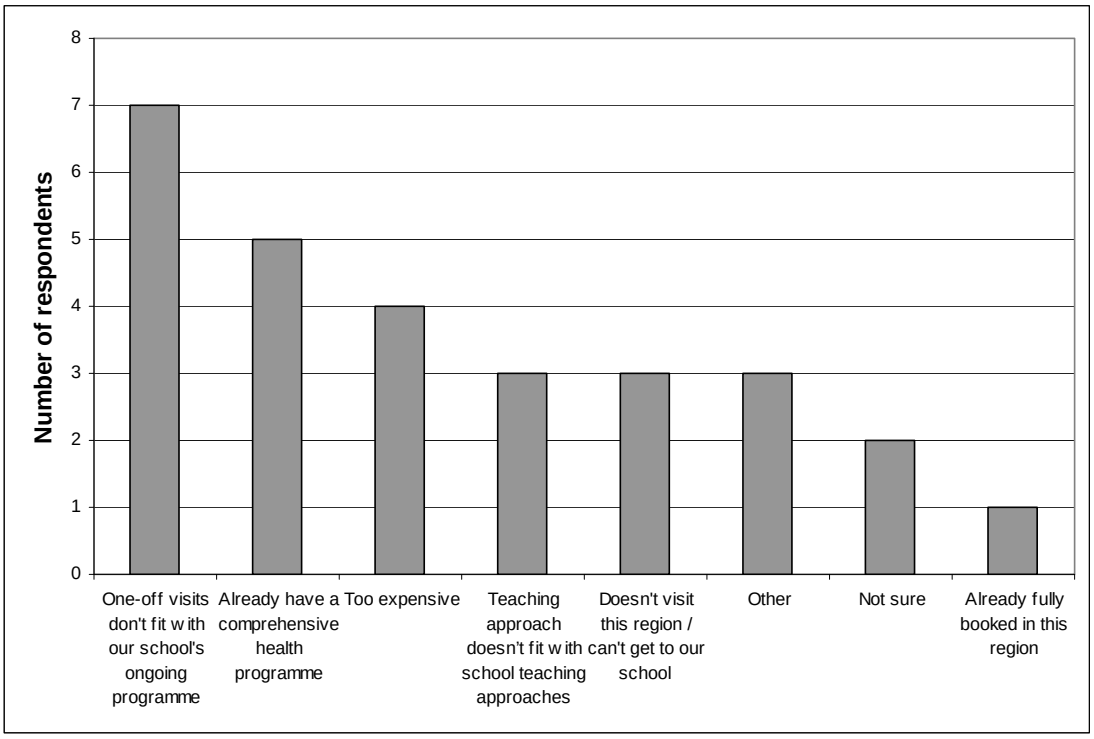
Schools that *do not* use Life Education

This second section discusses results from the 21 schools that *do not* use Life Education. This survey was mostly completed by principals (11) and health curriculum leaders (6), followed by classroom teachers (3). As for respondents from schools that used Life Education, over two-thirds (16) were women, and almost three-quarters (13) taught in the classroom, covering all year levels. The most common levels taught were new entrant, Year 1, and Year 8.

Some of the questions we asked respondents from schools that *do not* use Life Education were the same as the questions we asked of those who *do* use Life Education. These were questions about: school approaches to the curriculum; teacher confidence in teaching about health; teacher access to PD about health; and extra support needed for the Health and PE curriculum. Respondents from these schools replied to these questions in a very similar way to their peers in schools that *do* use Life Education. It seems that staff from these two groups of schools are similar in terms of their approaches to the curriculum and curriculum needs. For this reason, and because of the small number of respondents, these data are not reported.

We also asked respondents from schools that *did not* use Life Education a number of additional questions designed to gather information about their awareness of Life Education and their reasons for not using the resource. All respondents noted they had heard of Life Education, and the majority (16) had had visits in the past. However, for a range of reasons, these schools had decided not to use Life Education (as shown in Figure 22). The most common reason was that Life Education's one-off visits did not fit with their ongoing programmes. Other reasons included that the school already had a comprehensive health programme. This suggests that the main reason schools do not use Life Education is because they cannot see how it could support their current programme.

Figure 22 **Reasons for not using Life Education**



Six respondents made additional comments. Two emphasised that Life Education did not meet their school's needs. One noted that it was difficult getting contributions from parents to pay for Life Education. The remaining three comments were positive. These schools would like to have visits from Life Education but already had busy programmes or did not know how to book visits.

Summary of survey findings

Overall, respondents to the survey had very positive views of Life Education. They used Life Education because it was perceived to be well aligned with school values, schoolwide approaches, and classroom programmes. The majority of schools had processes in place for ensuring Life Education was integrated into school practice, and considered Life Education to be effective in supporting delivery of the Health and PE curriculum at their school.

The way Life Education motivated students and supported their learning was another key reason for using the resource. Respondents identified that Life Education contributed to three key outcomes for students, that is, improvements in: health content knowledge and knowledge about making healthy choices; self-esteem; and life skills and interpersonal strategies. Although most respondents identified three outcomes, the data suggested that one, health content knowledge, was most reinforced in the classroom.

Schools also used Life Education because of the perceived high quality of educators' teaching practice. Students found this engaging and it provided teachers with a source of informal PD.

Although the survey findings were very positive, the data also suggest there is potential for an even closer alignment between Life Education and schoolwide and classroom practices. This alignment is likely to further enhance the effectiveness of Life Education. In addition, the information we collected about school approaches to health suggests that current practice prioritises "learning about" health content knowledge and practices that have their best fit with Strand A of the curriculum. Practices that support students to learn about relating to others (Strand C) are also a priority. These are the two strands mostly strongly supported by Life Education.

There were two areas teachers were least comfortable with. One area was sensitive topics such as substance use (smoking, alcohol, and illicit drugs) and sexuality education. Life Education is already providing support in relation to substance use. The other area teachers were less comfortable with, and where they needed more resources, was related to *Strand D: Healthy communities and environments.* This suggests an area of future focus for Life Education.

5. Summary of the case study findings

Introduction

This section summarises the key themes that emerged from the five case studies of schools' use of Life Education, and discusses some of the similarities and differences between schools. These schools were nominated by educators for their effective processes for integrating Life Education within school programmes. The case studies explore the schoolwide and classroom contexts within which Life Education was located. Each individual case study is located in the appendix to this report.

The value of Life Education for schools

As in the survey data, interviews with school leaders, teachers, and students at the case study schools paint a picture of Life Education as a much valued resource. For staff at the case study schools, there were three key reasons for this view. These are discussed below. These were that Life Education:

(1) supported delivery of the Health and PE curriculum

(2) aligned with schoolwide practices

(3) offered high-quality delivery and resources.

(1) Life Education supported delivery of the Health and PE curriculum

The main reason the case study schools used Life Education was that it provided support for teachers to deliver the Health and PE curriculum. Teachers commented that curriculum overcrowding and the recent focus on literacy and numeracy PD could lead to health being less of a priority. Life Education visits helped to keep health on the agenda at their schools. School staff also saw Life Education as an affordable form of LEOTC, similar to visits such as museum trips. School leaders noted that increasing costs and safety requirements were making it harder to organise visits out of school. Therefore they valued the way Life Education came to them. This was especially the case for more isolated schools.

School leaders and teachers saw Life Education as a valuable tool for reinforcing and strengthening messages that were also provided at school. School leaders in particular noted that

Life Education needed to be integrated with classroom or schoolwide practice to be of lasting value to students. Educators were also clear that the resource they offered was a support for the Health and PE curriculum, and ***not*** a stand-alone programme. They considered their resource was most effective when teachers and educators were reinforcing the same key concepts. Most school staff considered the processes developed to support the integration of Life Education with school focuses were effective. These included planning discussions between educators and school staff prior to the main mobile classroom visit. How this planning occurred differed between schools. In some cases, educators adapted their practice to meet a particular school need or to fit with a health topic or schoolwide theme. In other cases, teachers used Life Education modules as a starting point to develop a unit. When teachers and educators met to plan the Life Education visit, educators also offered to adapt module content to match school needs, and collected information about any common pedagogies used at each school and attempted to match their practice with this. During Life Education visits, educators also attempted to match their delivery to class needs by asking teachers about classroom practice, student needs, or recent events that could be woven into individual Life Education sessions. This flexible approach towards matching Life Education to school focuses and needs was highly valued at some schools.

To support teachers to plan related classroom activities, educators also provided other resources, such as reading books with a health focus and activity sheets. Some teachers also used the educator as a resource person at other points during the year. Most schools also made use of a range of other providers, for example DARE educators, to support their programmes.

The schools had different approaches to the health curriculum, including planned as well as "just-in-time" approaches. The most common planned approach was incorporating Life Education within a schoolwide long-term plan, which included set health topics, and ran on a two-year cycle. Some schools also used an integrated approach to the curriculum and centred learning around "big ideas" or themes. Others left the selection of health topics to individual teachers. Life Education was also incorporated within these approaches. All schools also had some form of "just-in-time" approach to topical health issues. Examples included: a focus on sun and water safety in summer; a focus on dog or stranger-danger safety as a response to local events; or weekly class discussions about students' concerns. At some schools, the inclusion of "just-in-time" approaches was an acknowledged part of school practice; at others, it was more incidental.

Given these different approaches, all schools had developed ways to integrate Life Education into either planned or "just-in-time" approaches. One common way Life Education was integrated into "just-in-time" approaches was by promoting the same set of relationship management strategies. These strategies were covered in Life Education and used during "just-in-time" discussions with students. Common approaches to planned topics included using the Life Education *Teacher's Resource Folder* and other resources provided by the educator, school resources, and the Life Education student booklets to plan related pre-, during, or post-classroom activities around the time of the Life Education visit. Some teachers used Life Education to support the information gathering part of an inquiry or research cycle.

Some educators considered it essential that students had completed related activities prior to the Life Education visit so they had experiences they could connect with Life Education. But most educators and teachers saw Life Education as a "starter" for teachers to support them to further develop a health topic or focus on the content or strategies covered during the Life Education visit. For some teachers, having a starting point was vital for content they did not feel knowledgeable about, or perceived as sensitive, such as smoking and use of illicit drugs. Teachers considered themselves to be generalists, and therefore valued the specialised health content knowledge of the educators. They saw Life Education as a recognised external agency which provided an "anchor" they could refer to later, and which gave them ideas about how to approach sensitive topics in ways that did not criticise home practices. This idea of Life Education as an "anchor" point for student learning, which teachers could refer to during the year, was also mentioned in regard to less sensitive topics such as nutrition and healthy eating.

Most Life Education modules map onto two strands of the NZ Health and PE curriculum: *Strand A: Personal health and physical development;* and *Strand C: Relationships with other people*. In general, the information collected from the case study schools suggests that Life Education was mostly supporting school staff to address these two strands. Fewer learning activities that had connections with Life Education were mentioned in relation to *Strand B: Movement concepts and motor skills* or *Strand D: Healthy communities and environments*.

(2) Life Education aligned with schoolwide practices

Another key reason for schools' use of Life Education was its perceived fit with schoolwide practices. At the case study schools, Life Education fitted with three main aspects of schoolwide practice, namely:

- beliefs about learning and valuing uniqueness
- student-centred pedagogy and positive relationship management strategies
- healthy choice and healthy lifestyle initiatives.

At most of the case study schools, school leaders viewed the Life Education educators as part of the school community. They noted that Life Education's positive approach and key messages such as "You are unique and special" fitted well with school philosophies and values. This was the case for all five schools, even though they varied substantially in location, student characteristics, decile, or character. For example, staff at the high-decile integrated Bay School saw Life Education to be well-aligning with their schoolwide pedagogy, religious education curriculum, and approaches to healthy lifestyles. Staff at the low-decile urban Pounamu School viewed Life Education as a good fit with their approaches to creating a positive student culture which acknowledged and valued difference.

The degree to which schoolwide practices were aligned with Life Education practices varied between schools. At some, this alignment was substantial. These schools were approaching health at a system-wide level as well as within individual classrooms, thus using approaches to health

that align more with group theories. Similar messages and strategies were reinforced at the whole-school level, in the classroom, and during Life Education. Some schools had schoolwide approaches to promoting the use of student-centred pedagogies that were reinforced by Life Education. These included encouraging students to reflect on their choices, and learn about, and practise, the skills they needed to self-manage relationships and interactions. Two often-mentioned strategies, promoted by both schools and Life Education, were the use of "Put ups, not put downs" and the WITS framework. WITS gives students four strategies they can use to address classroom or playground incidents:

- W = Walk away
- I = Ignore
- T = Tell an adult
- S = Say an "I" statement, such as "I don't feel comfortable when…"

Other schools drew on Life Education as a support for their schoolwide approaches to healthy eating or healthy lifestyle choices. At some schools this synergy between Life Education and school practice seemed to have developed over time. Other schools and educators were actively trying to develop a closer alignment between Life Education and school practice. For example, the Pounamu School case study shows how school staff worked with an educator to tailor Life Education sessions to meet a particular schoolwide need around positive student interactions.

Multilevel alignment is one of the underpinning constructs of whole-school models such as HPS. A premise of these models is that schools' ability to promote health and wellbeing will be enhanced if consistent approaches and messages are in place across different levels of the school system (for example, in the case of HPS, three levels of the system are specified: curriculum, teaching, and learning (the classroom programme); school organisation and environment (schoolwide); and community links and partnerships (links with agencies such as Life Education and parents). Some whole-school models also advocate for the use of approaches that empower students and the community to take action to address health and wellbeing concerns; that is, address Strand D of the curriculum. At most of the case study schools, one or two examples were given of student involvement in decision making about health that could be seen to fit within Strand D. The most common example was students explicitly discussing, developing, and practising a range of strategies to manage their social interactions, during some form of quality circle or class discussion time. However, the use of approaches that actively involved students in this way did not appear to be common practice in regard to other aspects of health and wellbeing.

(3) Life Education offered high-quality delivery and resources

Schools also used Life Education because educators' teaching practice and resources were perceived as high quality and up to date. School staff held the unanimous view that the educators were highly trained and their teaching practice was of a very high quality. We asked teachers to identify the key features of Life Education teaching practice. Most of the focuses or practices they

identified were similar to those outlined by Life Education staff (see page 34, Life Education teaching practice). In particular, half or more teachers commented on how educators:

- offered specialised health content knowledge
- offered age-appropriate health content and facts
- offered clear messages that were reinforced over a number of years
- were enthusiastic, positive, and nonjudgemental role models
- used strategies that showed respect for students
- had clear behavioural expectations and good behaviour management techniques
- were flexible and adapted their delivery or content to suit student needs
- ran well-paced sessions
- catered to a range of learning styles other than written
- used hands-on and interactive tasks that students found engaging
- used a range of student-centred strategies, such as discussions, peer sharing, and small-group work
- used physical activity to keep students interacting and motivation levels high.

Some Life Education focuses or practices were mentioned less frequently by teachers. These included the Life Education focus on "interpersonal" competencies such as the development of skills and strategies to manage social interactions such as peer pressure. Teachers noted that educators had good questioning skills, but only one talked about a recent addition to Life Education practice: the incorporation of approaches to higher order thinking. This information suggests that teachers were more focused on the content knowledge aspects of Life Education, and less focused on the ways Life Education supported students to develop thinking skills or strategies for managing their health and wellbeing. To a certain extent, this depended on which module students were completing. The modules that aligned the most with interpersonal theories, that is those in the social relationships, self-esteem, and substance strands, tended to have a greater strategy component than those in the body systems or food and nutrition strands. Therefore the teachers of students who were taking part in the modules that were more aligned with interpersonal modules tended to place more emphasis on the strategies educators were teaching.

School staff considered that the teaching approaches used by educators were aligned with those used at their school. But a number also commented that educators used a wider range of teaching strategies than classroom teachers, and had a greater focus on student-centred practices. Teachers and educators considered it would be unrealistic to expect classroom teachers to replicate the educators' consistently enthusiastic, high energy, and varied delivery in ongoing classroom teaching.

Like their teachers, students considered educators' teaching practice to be of a high standard. Students at all the schools valued the safe and fun environment that educators created, and noted they felt included in the Life Education sessions and that their opinions were respected. Students also described the practices educators used that they considered supported their learning, for

example: catering for a range of learning styles; the use of interactive and hands-on tasks; and the use of approaches that encouraged student interaction and participation, such as peer sharing and group discussions. Most of these could be broadly classified as student-centred.

Overall, students considered the way the educators approached learning was more "fun" than everyday classroom teaching. Given this, each group of students had a different view as to the closeness of the match between educators' and teachers' practice. Some groups noted that, like the educator, their teachers used a range of approaches that encouraged student interaction and participation. A more common view was that teachers tended to prioritise more traditional approaches such as written work.

Students also identified some similarities and differences between the messages promoted at school and during Life Education. All identified some similarities between school and Life Education messages, but the points of similarity differed between schools. For example, most groups noted that their school and Life Education both had a focus on being healthy, others noted similarities in relation to messages about how to address conflict or bullying. There was more consensus on the differences between school and Life Education messages. Most groups commented that school messages were more about doing good work (achievement) and classroom behaviour. In contrast, Life Education was more about feelings, getting on with friends, and peer pressure.

In combination, students', teachers', and educators' views concerning Life Education teaching practice suggest that educators are modelling what could be called "wellbeing-centred" teaching. One example of this sort of practice is Life Education's focus on modelling respectful, positive, inclusive, and nonjudgemental interactions. Another is the use of student-centred practices that encourage students to actively participate and develop social skills. A third is the active teaching of strategies for managing interactions with others. Overall, the educators appeared to be modelling approaches that are likely to address Strands A and C of the curriculum and support students' development of self-esteem and skills in managing their health and wellbeing.

In general, students and teachers were nearly unanimous in considering that Life Education had age-appropriate content, messages, and teaching strategies. One exception to this was that some of the Year 8 students were starting to become disengaged with Life Education teaching approaches or content. One common theme was that these students wanted to do more modules such as, *From the shadows,* as they considered the content to be more relevant to the interests of their age group. Another was that these students wanted to do more "learning by doing" real tasks, rather than "learning about" health. That is, students were interested in approaches to learning that have their best fit with Strand D of the curriculum: *Healthy communities and environments*.

Teachers and students also held the unanimous view that Life Education resources were of high quality. Teachers commented on the high-tech resources that educators had access to, such as body models with parts that lit up, and age-appropriate DVDs and videos that covered key health concepts. Teachers noted they would find it difficult, time consuming, or costly to source or develop these resources, or some of the other games and activities the educators used.

Teacher and educator knowledge of recent advances in health education and promotion

School staff and educators were able to clearly describe many aspects of Life Education teaching practice, but when lead teachers and educators were asked about the models or approaches underpinning this practice, many were unclear as to its origins. Many were also unsure about the fit between Life Education and theories or models of health education and promotion, or were unaware of recent developments in this area (such as the use of whole-school health promotion and community empowerment models like HPS or those used in the Wellbeing-Mental Health Education PD contract). Some of the school leaders and teachers in this study did not appear to have access to recent PD about health, indicating this is an area which may require more support.

Outcomes for students and teachers

Teachers' views on students' learning

All the school staff we interviewed described how Life Education was a special experience that stood out in students' minds. Teachers considered the high standard of educators' teaching, combined with the use of up to date resources, interactive tasks and peer discussions, and Harold as a health mascot, all contributed to students finding Life Education highly engaging. Accordingly, students stayed on task and retained information. Interviews with students confirmed these views.

All school leaders and teachers had a clear sense that all students gained valuable content knowledge or "facts" about their bodies and health during Life Education sessions. There was less consensus about the other outcomes of Life Education. Some noted other outcomes including improvements in students': self-esteem; knowledge about themselves and their peers; or knowledge about the range of strategies they could use to manage friendships, peer pressure, and social interactions. Other teachers placed less emphasis on the interpersonal aspects of Life Education. These teachers tended not to "see" the affective or strategy component of Life Education or, alternatively, perceived this to be a "given" part of teaching practice. They therefore tended not to explicitly make connections between these aspects of Life Education and their classroom programme. Some educators also noted that some teachers were focused on facts or health content and did not necessarily consider that their role also encompassed modelling ways to promote self-esteem or the explicit teaching of strategies. Interviews with teachers suggested that, in schools with a schoolwide focus on student-centred pedagogies or the use of strategies such as WITS, this focus was a more explicit part of teachers' role. Teachers at these schools tended to make connections to the interpersonal aspects of Life Education, as well as the content knowledge.

School staff and educators' descriptions of student outcomes in connection to Life Education suggest that both groups prioritised learning experiences that led to students gaining content knowledge, self-awareness, and interpersonal skills. There was less mention of learning experiences that could support students to address Strand D by "taking responsible and critical action" (Ministry of Education, 2007b, p.22) to make their communities and environments healthier places.

Students' learning in the short term

When talking about recent Life Education sessions, nearly all students had a very clear recall of these sessions and could describe the activities they undertook, the messages that were promoted, and the knowledge they gained. What students took from Life Education was related to five factors:

(1) which module the students were completing

(2) whether students perceived the module content to be relevant

(3) whether the module was reinforced in the classroom

(4) whether the module was reinforced by schoolwide practices

(5) the aspects of the module that were reinforced at school (that is, content knowledge, promotion of self-esteem, or promotion of life skills and strategies).

Depending on the module students were experiencing, what students took from Life Education varied. Modules in the body systems and food and nutrition strand appeared to be more weighted towards content knowledge; and those in the self-esteem and social relationships strands towards the promotion of self-esteem and the development of relationship management strategies. Modules in the substance strand appeared to contain both aspects (that is, facts about the impact of smoking, drugs, or alcohol on your body; and a focus on promoting self-esteem and the development of strategies to address peer pressure around the use of these substances).

In general, all students were able to recall at least some of the content knowledge or "facts" presented during Life Education. Common examples were names of different parts of the body system and their function or the impact of different substances or experiences on the body. Students who did the self-esteem and social relationships modules also tended to recall some of the strategies suggested.

The way in which the Life Education sessions were reinforced in the classroom or at a schoolwide level also impacted on what students took from Life Education. If schools had a focus on aligning both content learning and strategies (at a classroom or schoolwide level) students appeared to be more likely to recall both these aspects of Life Education practice. This was particularly the case at those schools that had schoolwide strategies for managing social interactions, or schoolwide approaches to healthy lifestyle choices and healthy eating. At the schools that had this alignment,

school and Life Education practices were so synergistic that both teachers and students commented it was difficult to attribute change to any one particular aspect of their programme. School staff noted that it was the "total package" that was important; that is, student learning was likely to be enhanced if similar messages were reinforced more than once and by different people: during Life Education; in the classroom; and at a schoolwide level. At the schools that had the most synergy between schoolwide and classroom focuses and Life Education practice, students appeared to be more likely to transfer what they had learnt during Life Education into their wider school or home lives.

If the school only made connections to the content learning aspects of Life Education, like their teachers, students tended not to "see" the strategies. This shows the importance of clearly communicating to teachers the ideas underpinning the activities in each module, and of aligning school and Life Education practice so that both parties are reinforcing the same content, concepts, and strategies.

Students' learning in the longer term

Their position as seniors in their schools potentially allowed many of the students we interviewed to comment on the longer term cumulative impact of Life Education. Nearly all had clear recollections of past Life Education visits, the activities they undertook, and the messages that were being promoted, suggesting that Life Education had a longer term impact. When asked to comment on what they had learnt from past visits, students tended to talk more readily about the content knowledge or "facts" they had gained, and had more difficultly talking about the affective or strategy components of Life Education. However, with prompting, many described how they had: gained more understanding of themselves or others' behaviours; learnt better ways to be inclusive and relate to their friends; learnt how to use a range of strategies to deal with disputes, peer pressure, or stress; strengthened their resolve not to smoke or take drugs; or taken onboard self-esteem messages such as "You are unique and special" and "It's OK to be different".

Many students also reported they had transferred at least some of this learning to new situations. They were able to describe recent or past changes that they attributed to Life Education or to a combined school and Life Education focus. In particular, students described how they had used ideas from Life Education to: be more inclusive and improve their friendships and interactions with peers or siblings; change aspects of their lifestyle to make it healthier (two commonly mentioned changes were eating more fruit and vegetables or watching less TV and doing more physical activity); address smoking behaviour in their immediate environment, for example, by asking family members not to smoke in the car or by using strategies to avoid or address peer pressure around smoking.

In summary, evidence from the student focus groups suggests that Life Education is supporting both short- and longer term changes in students' content knowledge about health. This evidence also suggests that Life Education is supporting other outcomes that are connected to Life

Education's underpinning principles. Again, this was particularly the case at the schools that had the most synergy between Life Education and classroom as well as schoolwide practice.

Some of the changes students described were subtle. It is likely that a different approach, such as a broader quantitative analysis, would not have detected these changes. This has implications for the types of approaches that are used to explore student outcomes in relation to resources such as Life Education.

Teachers' learning and practice

Most school staff noted that, like students, they learnt something new every time they observed a Life Education session. Most teachers commented that they gained health content knowledge. Many also noted that watching the educator reminded them about ways they could enhance their teaching practice. Commonly mentioned practices that teachers valued were: inclusive behaviour management strategies; tasks that could be used to teach health content in a more engaging way; how to include student views by peer sharing or discussion time; and how to cater to a wider range of learning styles.

Teachers also gained knowledge about students from observing Life Education sessions. Watching their class had a number of benefits. One was that it supported teachers to gain a deeper knowledge of students' prior learning about the content areas and strategies covered during Life Education. Another was that teachers gained more understanding of how students reacted in different situations. During these observations, teachers were also able to gain information about students' interests to follow up in class.

School staff's suggestions for improvements to Life Education

School staff held a unanimous view of the high quality of Life Education teaching practice and resources. They found it difficult to think of ways Life Education could be improved. They did, however, make a few suggestions. The most common were:

- Provide a teacher resource booklet for each module. This booklet could summarise the key components of each module and the learning outcomes they were supporting. This booklet could also include up to date background information about the key components, further ideas for teaching activities, and links to other resources.
- Move to a flexible menu approach that enables schools to select aspects of different modules to match their needs (for example, at some schools staff noted that the content of some of the modules designed for Years 7/8 students was relevant for their Years 5/6 students).
- Continue the current move towards incorporating more local and topical content in resources, DVDs, and delivery (for example, include more references to the range of cultural groups in NZ and information about their social and healthy lifestyle practices).

- Develop new modules that cover areas that are increasingly important for young people, such as anger management or dealing with grief and loss around family separations.

Looking to the future

The students in this study found Life Education highly engaging. This "wow" factor, combined with the student-centred practices used by the educators, supported both short- and longer term changes in students' content knowledge about health and feelings of self-worth, and to a lesser extent their knowledge, and use, of strategies to improve their health and wellbeing. These outcomes were enhanced at schools that had multiple points of connection between school health initiatives and Life Education practice.

The school leaders and teachers at the case study schools saw Life Education philosophies and practices as closely aligned with beliefs and practices at their school. They unanimously viewed Life Education as offering high-quality teaching and resources that were perceived as extremely valuable in supporting teachers to address the health curriculum. Notwithstanding this overwhelming positive view, a comparison of the themes from the school case studies, the intent of the curriculum, and current theories and evidence concerning health education and promotion in schools, suggests there are some aspects of Life Education practice that could be reviewed to ensure a closer alignment with recent developments.

The case study schools all had different approaches to the health curriculum. Overall, these approaches appeared to fit mostly within a topic-focused "learning about" approach to health that sometimes also included "learning for health" by "learning by doing" health promotion. School practice most commonly sits within approaches to health education that could be categorised as "individual" and "interpersonal" (using the individual–interpersonal–group continuum outlined in the literature review). The curriculum, on the other hand, supports the use of all three approaches. Therefore, inclusion of health promotion approaches is an ongoing challenge.

At the case study schools a few "group" approaches, that usually involved students "learning by doing", were also described. One common example was students taking part in the development of a positive classroom culture by developing and practising strategies for managing their interactions with peers. Another example was students learning about healthy eating and then taking action by planning ways they could offer healthier food during classroom celebrations or at school occasions.

This suggests that current Life Education practice is supporting schools to continue to use a model that mostly emphasises an individual or "learning about" approach to health. Although this does not appear to be out of step with current curriculum practice in NZ schools, in order to better support schools to address the full intent of the curriculum (and in particular, Strand D) as well as the recent curriculum revision, it appears that Life Education could explore different ways their resource could be further embedded in school practice and address recent shifts in health

education and promotion practice. The data collected during the school case studies suggest that this is likely to enhance the impact of Life Education. Given the esteem in which Life Education practice is held, there is an opportunity for Life Education to take a lead role in supporting schools to further develop processes that enable students to take action around health and wellbeing.

6. Summary and recommendations

The case study and survey data summarised in this report paint a picture of Life Education as a much valued resource that supports teachers to address the Health and PE curriculum. School leaders, teachers, and students were nearly unanimous in their positive view of Life Education. The four main reasons for these views were that:

- students find Life Education and Harold motivating and engaging
- Life Education supports students to make healthy choices
- Life Education offers high-quality teaching and resources
- Life Education reinforces key messages that are also a focus within the school.

Conversations with students at the case studies schools indicated that there are positive short-term outcomes for students that were connected to their participation in Life Education. We gained a clear sense that Life Education's engaging and student-centred delivery supported students' learning. This view was confirmed by the survey data. The main outcome noted by students and staff was an increase in students' health content knowledge and understandings about making informed choices. Other outcomes were also evident. These were that Life Education supported positive changes in students' sense of self-worth, and their knowledge, and use, of a range of strategies to improve their health and wellbeing. Although Life Education supports all three outcomes, and the literature suggests that all three are important to young people's health and wellbeing, improvements in health content knowledge was the outcome that was most prioritised by teachers, and reinforced in classrooms.

The majority of school staff considered there was a good match between Life Education and school values and practices. Schools commonly integrated Life Education into classroom practice by selecting modules that complemented long-term curriculum plans or schoolwide themes. The majority of school staff also found Life Education resources such as the student booklets and *Teacher's Resource Folder* useful supports for this. Most classroom teachers planned activities that linked with Life Education either during or after the visit of the mobile classroom. The most common approach was for schools to use Life Education as a "starter" activity. Effective practice also involves prior learning that connects with visits, suggesting an area which could be further developed.

Schools also had "just-in-time" approaches to health into which Life Education was incorporated. Student discussion time was one example. Most schools also made connections to Life Education at a schoolwide level. This happened when links were made between Life Education and whole-school focuses such as healthy eating policies or relationship management strategies. Only a very small number reported using Life Education as a stand-alone programme.

Life Education is clear about its position as a resource to ***support*** the health curriculum, and that it is ***not*** a replacement for teaching. The case studies provide examples of where Life Education was an important part of a bigger picture surrounding school approaches to health. Although there are limits to what can be achieved in two or three sessions per class a year, the case studies show how the value of Life Education can be maximised by using strategies to ensure that Life Education is aligned with, and integrated into, both classroom and schoolwide practices. The case studies suggest that student outcomes were enhanced at schools that had multiple points of connection between school health activities and Life Education. Buckley and White (2007) note that this type of alignment is good practice when using external providers. Multilevel alignment of this type also allows Life Education to contribute to approaches to health that have their best fit with the group or societal perspective that is promoted in the curriculum. However, these types of connections were not occurring at all schools, suggesting there is potential for further alignment. The evidence presented in this report suggests that school staff are more comfortable using approaches that fit with the two curriculum strands that Life Education also most supports: Strands A and C. Approaches that have their best fit with *Strand D: Healthy communities and environments*, such as active student involvement in decision making and health promotion, appeared to be less of a focus for either teachers or Life Education.

The fit between Life Education, current theories of health education and promotion, and the curriculum

One aspect of this evaluation involved exploring Life Education's fit with good practice in health education and promotion. To do this, we categorised models and approaches to health education and promotion using an individual–interpersonal–group continuum. Underpinning each of these three levels are different assumptions about what it means to be healthy, and how change occurs. In brief:

- Individual theories assume that people have control over their health behaviours and therefore focus on addressing the behaviour of individuals. These theories are underpinned by the assumption that giving people information will result in behaviour change.
- Interpersonal theories assume that individuals' health behaviours are affected by interactions with others, and therefore address these interactions, by example, through skill and strategy teaching.
- Group or societal theories acknowledge the impact both social and physical environments have on health behaviours, and therefore how the wider determinants of health, such as poverty, impact on people. Their target population is a group of people, such as those located within a school. Another assumption underpinning group theories is that there are different layers or levels of interaction within a group or community. Therefore, initiatives need to have different strategies to address these layers. One common strategy used to effect change is the use of student or community empowerment processes.

Over time, as health education and promotion theories have developed, there has been a shift away from prioritising the individual perspective, towards an emphasis on the group or societal perspective. Lister-Sharp et al. (1999) note that rather than viewing one theory as paramount, an emerging practice is to view the three theories as complementary. That is, current good practice is to employ multifaceted approaches that use a range of strategies to address barriers at the individual, interpersonal, as well as group or societal level.

In summary, contemporary ***health education*** has moved beyond a focus on providing health information and now contains a focus on: self-esteem; supporting students to think critically about the determinants of health and the messages they gain from the media and society; and supporting students to gain health content knowledge as well as develop the skills and strategies they need to maintain healthy lifestyles and positive relationships, avoid peer pressure, deal with emotions, set goals, and take action to address individual or group health concerns. Contemporary ***health promotion*** practice in schools makes use of whole-school models that empower students to take critical action to address individual, school, and community health and wellbeing concerns and create a protective climate at their school or in their community.

An analysis of school and Life Education practice suggests that school approaches to health often align with individual and interpersonal theories. In general, Life Education's best fit is with interpersonal theories. Some of the main features of Life Education that align with good practice in health education and promotion are listed below:

- Rather than viewing health as primarily being about physical health, Life Education has a focus on the whole person. This is shown by Life Education's emphasis on self-esteem and self-worth as being essential components of health and wellbeing.
- In keeping with their holistic model of health, educators are trained to use a range of wellbeing- and student-centred teaching practices that appear to enhance students' sense of empowerment and self-esteem.
- A number of Life Education modules incorporate a mix of individual and interpersonal approaches that have been shown to be effective in drug and tobacco education. These blend information provision with skill and strategy teaching through the use of "social influence resistance", "affective", and "generic life skills" approaches. Evidence suggests that these approaches support students to develop the knowledge, attitudes, strategies, and skills they will need to make healthy lifestyle choices.
- Increasingly, educators are focusing on adapting modules to support school needs and provide continuity with school pedagogies and focuses. This enables Life Education to have multiple points of connection to the wider school system and therefore supports schools to address health concerns at a group level.

Some of the main features of Life Education that align with current good practice in teaching are:

- Life Education has a focus on student-centred, interactive, up to date, and engaging teaching approaches (for example, peer sharing, role playing, higher order thinking and questioning

techniques, and inclusive behaviour management strategies) that are becoming more widely used in the NZ education sector.

- Life Education links with teaching strategies common in NZ that encourage the process of learning to be made more explicit to students and promote student ownership over learning, such as the use of learning intentions or "We are learning to..." statements (WALTs), and reflection techniques.
- Life Education offers a range of modules that support schools to focus on a number of health areas including those that teachers are less comfortable with such as substance use.
- Life Education uses resources that students find engaging, and schools could find costly to access (for example, videos and DVDs, and models of the body).

Although there are a number of aspects of Life Education that align with effective practice in addressing health at an individual and interpersonal level, the model of good practice provided by the Health and PE curriculum shows that it combines all three theoretical perspectives, and is underpinned by group- or societal-level theories. These three perspectives are made explicit to teachers in curriculum resources, but the rationale underpinning the recent changes in health education and promotion practice are not explicitly outlined in the curriculum document. It is likely that the shift towards placing more emphasis on the societal perspective, and the fact that this shift is not specifically discussed in the curriculum document, acts to create a situation in which teachers are not provided with adequate support to gain a clear sense of direction in regard to recent changes. Life Education may also benefit from having a clear sense of how it fits with this shift, and societal perspectives on health.

The findings from this and other studies suggest it could be timely for both schools and Life Education to revisit their approaches to health to ensure that the content, messages, and teaching approaches they promote are made explicit, and align with recent evidence and shifts in health education and promotion practice, as well as current curriculum practice.

Where to next?

In keeping with Life Education's focus on continuous improvement, this study suggests a number of changes that could increase the alignment between Life Education and contemporary views of health education and promotion, and also support Life Education to address recent developments in NZ curriculum practice. These are summarised below.

Making the alignment between Life Education and good practice more explicit

The findings from this study suggest that both classroom teachers and educators may not be fully aware of what constitutes effective health education and how this fits with either Life Education or classroom practice (see page 67). The case studies and surveys show that school leaders and

teachers are aware of three key outcomes for students that were connected to Life Education. These are improvements in students': health content knowledge and understandings about making informed choices; self-esteem; and knowledge, and use, of strategies that are likely to improve their health and wellbeing. Although aware of these three outcomes, the one that is given the most priority, and therefore reinforced more in classrooms, tends to be health content knowledge. In contrast, the evidence base suggests that all three are important. It may be that teachers are not aware of evidence that suggests a focus on developing social influence resistance skills rather than providing health content is more likely to support short-term changes in student outcomes. Likewise, educators were not necessarily aware of the theoretical approaches that underpin their practice (such as the way their practice is most aligned with social influence resistance approaches). This suggests that both school staff and educators could benefit from information which shows the connections between effective practice and Life Education practice.

Our data also suggest that educators vary in how much they adapt their work to school focuses. Another area of effective practice that could be further shared is the strategies educators are using to adapt Life Education modules to school needs. Once educators are made more aware of effective practice in these areas, systems could be developed to share this with school staff.

Recommendation: Explore ways to make the aspects of Life Education practice that align with effective health education and promotion more explicit to educators and teachers. This could be a focus for educator PD or professional reading. For school staff, this could be achieved through the provision of additional PD or resources (such as information in the *Teacher's Resource Folder*, or observation sheets for staff to complete during Life Education sessions).

Supporting the societal perspective and "learning for" health

The evidence presented in this report suggests that school staff are more comfortable teaching some aspects of the Health and PE curriculum, and in particular, Strands A and C (the strands most connected to individual- and interpersonal-level approaches). This may well be due, at least in part, to the support Life Education provides. The area that is less focused on is *Strand D: Healthy communities and environments*. It is important to note that the strands are not stand-alone, as learning in Strands A, B, or C can be built on to address Strand D. The fact that teachers are most comfortable with Strands A and C, and the way Life Education also mostly focuses on these two strands, helps to create a situation in which the use of "learning about" approaches to health are prioritised, rather than approaches that also support schools and students to "learn for" health by "learning by doing" health promotion (thereby addressing Strand D).

A closer look at the smokefree education component of Life Education provides an example of the prioritisation of "learning about" health. The Life Education approach to teaching about smokefree behaviours involves: "learning about" health through the provision of information about the short- and long-term harmful effects of smoking; and "learning by doing" as students identify and practise assertive behaviours and peer pressure resistance skills. Life Education sessions also focus on unpacking media messages, healthy lifestyle choices, and building self-

esteem. In combination, these approaches align with a number of aspects of good practice to smokefree education (see, for example, Thomas & Perera, 2007; Walker & Darling, 2007). For best effect, classroom smokefree education also needs to be combined with a wider "protective factor" approach, opportunities for students to actively engage in health promotion around smokefree behaviours, and initiatives that are designed to align schoolwide policies or make connections to local community initiatives.

The teachers at the case study schools tended to focus on how students had "learnt about" health and the harmful effects of substances such as cigarettes. Less often mentioned was Life Education's emphasis on promoting self-esteem or supporting students to develop strategies to avoid pressure to smoke. Teachers' emphasis on "learning about" health content is also shown in other NZ studies (Boyd et al., 2007; Robertson, 2005; Walker & Darling, 2007). In Walker and Darling's (2007) study of tobacco education in NZ primary schools, many of the teachers did not answer the question about the components of external providers' programmes (the most common external provider was Life Education). Those who did, tended to focus on the "learning about" or content knowledge components. Such evidence suggests that teachers may not be aware of the other components of external providers' programmes, or whether they are connected to evidence concerning good practice in smokefree education.

Supporting schools to view the curriculum and health in a wider sense is a key challenge for Life Education. The recent curriculum revision also encourages school leaders and teachers to take a holistic view of the curriculum, and suggests schools organise the curriculum in a way that is responsive to local needs and/or is structured around significant themes. Increasingly, schools are using inquiry models as a vehicle to explore these themes. Inquiry processes usually involve students "learning about" an area. They also tend to culminate in students "learning for" as they take action to address a concern. In the Health and PE curriculum again, these processes have their best fit with *Strand D: Healthy communities and environments*.

The one-off nature of Life Education visits makes it harder for educators to support schools in this way. But there is scope for Life Education to more actively assist schools to address the health curriculum in its entirety by showing how the resource it offers can be embedded within a bigger picture or connected with inquiry models. A recent survey conducted by Life Education also noted the need to explore the fit between Life Education and inquiry learning (McLennan, 2007). A few possibilities for how this could be achieved are suggested below.

The school staff who responded to the surveys noted they would like more health resources, and more information about how to use health promotion processes and encourage student leadership over health initiatives. To support teachers to access this information, Life Education could increase the emphasis placed on resources that complement Life Education modules. These resources could draw on health promotion processes and inquiry models to show how Life Education could link with schoolwide themes and "learning by doing" approaches that encourage student leadership. Two possible examples are resources that:

- make suggestions about how teachers and students could use the information and skills they gained during Life Education to work together to review and redesign an aspect of their school's food, physical activity, classroom, or wider social environment to make it healthier. There are many examples of occasions at school that involve food. Students could use health promotion processes to research and improve one such occasion. Possible contexts are: shared lunches or learning celebrations; school snack shop or breakfast club food; food provided at school events like sports days or cultural celebrations; or food offered for fundraising
- provide suggestions for how students could consult with their peers and the parent community about health and wellbeing concerns.

Given that about 10 percent of the respondents to the survey were unaware of the current *Teacher's Resource Folder*, this suggests that any new resources need to be actively promoted to schools. PD for school staff to accompany these resources could foster greater alignment between Life Education and school practice.

Recommendation: Life Education works with the school sector to develop processes and resources that support schools to view the curriculum as a whole and to address Strand D. These could take the form of PD for school leaders and teachers, ideas for pre-planning discussions with school staff, additions to the *Teacher's Resource Folder*, or teacher booklets for each module.

Promoting schoolwide connections with Life Education

The case studies show us that Life Education is most effective in supporting student learning and behaviour changes when the sessions are integrated into school practice at more than one level of the school system (and thus aligning with the underpinnings of group-level theories). Some schools have developed ways to ensure there are many synergies between school and Life Education practice. One example is when strategies such as WITS[8] are taught in the classroom and in Life Education, and are also actively used in the classroom and reinforced at a schoolwide level by all teachers and school leaders. Building on this base, students are also supported to develop new strategies. This enables learning during Life Education to reinforce learning at school, and this in turn is reinforced by schoolwide policies and approaches. This approach also empowers students and gives them a sense of ownership over the strategies.

There are a small number of schools that appear to use Life Education as a stand-alone programme. A larger number may only reinforce some aspects of Life Education practice, and in particular, the content knowledge covered. Given Life Education's status as an invited guest, it would be difficult to set standards that require schools to integrate Life Education into wider programmes, but more support could be given to schools and educators to encourage this alignment. Advocating that schools use whole-school approaches to health that address different

[8] W=Walk away; I=Ignore; T=Tell an adult; S=Say an "I" statement.

layers of the school system, and showing how Life Education can support this, is one way of enhancing the outcomes that stem from Life Education.

Recommendation: Provide PD or information to school staff about how Life Education is likely to be more effective if it is integrated at different levels of the school system (for example, at both a schoolwide and classroom level). This information could be provided in the *Teacher's Resource Folder,* on the website, or during pre-planning or teacher PD sessions. This information could include case studies about how schools have achieved this, or information about Life Education's fit with whole-school models such as Health Promoting Schools.

Working with schools to meet topical needs

A number of teachers noted that Life Education practice would be improved if the modules were able to be more easily adapted to school needs. One common suggestion was that the content in modules aimed at Years 7 and 8 students could be made pertinent to Years 5 and 6 students. This suggests Life Education could better meet school needs by providing a more flexible system that allows school staff to select content. Some educators are already using this approach. An example is shown in the Pounamu School case study.

Another suggestion was that Life Education could have a more flexible booking system. The intermittent nature of Life Education, and the difficultly some schools have getting bookings at times that suit their health programme, does not always support schools to integrate Life Education into their wider practice.

The evidence presented in this report also suggests that some new areas or content could be included in Life Education modules. There are possibilities for new modules in the areas of: coping with change, loss, or grief; and anger management skills. Another suggestion was ensuring that module content and associated resources reflect and celebrate the cultural diversity of NZ, or enable educators or schools to select materials and resources that match the community of each school. One possible process could be for Life Education to convene a school and health agency action group to work on new processes, modules, or content. Another could be to develop extra resources that are located on the website for educators to access.

Recommendation: Support educators to better meet school needs, for example, by developing processes for: offering a more flexible service to schools; prioritising new areas; and developing new content that reflects the different communities in NZ.

Reviewing the balance of content knowledge and strategies in modules

When observing Life Education sessions and talking to students, we noted that different Life Education modules place different levels of emphasis on content knowledge and strategies. It is likely that Life Education's effectiveness could be enhanced by a review of modules to ensure that they contain a balance of the components that are known to be the most effective. For example, in

the smokefree area, the literature notes that school programmes that are the most successful are based on social influence approaches. These approaches tend to include three components: information about the effects of smoking; the challenging of norms; and resistance skills training. The successful programmes also contain a mix of:

- interactive teaching strategies
- affective approaches (these approaches are focused on enhancing self-esteem and the clarification of attitudes and values)
- generic life skills approaches (these approaches are focused on developing students' communication, decision-making, assertiveness, and goal-setting skills)
- associated schoolwide or community initiatives.

Smokefree education is less effective if it focuses too much on "facts" or content knowledge at the expense of the strategies and approaches outlined above. The more recently developed Life Education modules appear to contain a more even balance of these components than those which were developed early on. As the older modules are reviewed, this provides a chance to ensure that they contain opportunities for students to develop and practise a range of strategies and communication skills, develop critical thinking skills, and set goals. A review is particularly pertinent for the modules that target Years 7 and 8 students. Interviews with students at the case study schools suggest that these students were starting to become disengaged with some of the Life Education teaching approaches. The recent survey conducted by Life Education also reported similar findings (McLennan, 2007).

Recommendation: When reviewing and updating modules, ensure they are not weighted towards content knowledge, and contain a balance of the components of health education that evidence suggests are the most effective.

Developing further alignments with the health and education sector

The literature suggests that, to best support schools to address health and wellbeing concerns, agencies that promote health need to work together. Life Education initially developed as a stand-alone service. Recently the Life Education Trust National Office has developed links with some government and health agencies in order to keep up to date with developments. There is scope for Life Education to further engage with key players in the health and education sector at a national and regional level. At a national level, further processes could be developed to ensure Life Education has access to the most recent resources and evidence of effective practice in each of the focus health areas, and is networked with the other agencies that support schools. These include government agencies such as: the Ministry of Education and School Support Services Health and PE curriculum advisers; the Ministries of Health and Youth Development; and SPARC. These agencies also include NGOs such as the Health Sponsorship Council, the National Heart Foundation, the Cancer Society, and FADE.

One possible avenue for making these connections could be for Life Education to develop an advisory group of key people in the health and education sectors to inform its practice. Another could be that the *Teacher's Resource Folder* or website is updated to ensure that connections are made with the resources from other agencies that support Life Education modules. This is the approach Life Education has already taken to the Ministry of Youth Development's (2004a) principles of effective drug education. A similar approach could be used in regard to the recent resources stemming from the interagency Mission-On initiative. Two key resources include the *Food and Nutrition for Healthy, Confident Kids* toolkit (Ministry of Education, 2007a) and the *Food and Beverage Classification System Framework* (Ministry of Health, 2007). The same applies to a range of other resources such as the Health Sponsorship Council's smokefree resources.

At a regional level, to ensure educators are networked with the representatives from other agencies, educators could be allocated time to network with the interagency groups that support schools or with local public health nurses, Health Promoting Schools advisers, FiS co-ordinators, representatives from sports trusts, or other health promoters. Educators could also promote the resources from other agencies that support Life Education modules. Some examples of this networking are already occurring; for example, in some regions, Harold, and representatives from a range of other agencies, work together to support school healthy eating celebrations or events.

Recommendation: Develop further connections and processes for engaging with related agencies at a national and regional level.

Exploring the balance between quantity and quality

As noted above, the evidence presented in this report suggests that student outcomes from Life Education are enhanced at schools that have a schoolwide approach to health, and multiple ways of integrating Life Education into school practice. In order to maximise outcomes for students, a key question for Life Education is whether to continue to focus its efforts around reaching as many students as possible (a "quantity" focus) or to provide more support to school leaders and teachers so that they can develop their school as a health-promoting institution and become more effective health educators (a "quality" focus). Given that teacher PD is a key factor in supporting improvements in student outcomes (Timperley, Wilson, Barrar, & Fung, 2007), Life Education could review how it provides support to schools and who is targeted. Similarly, the Erebus report (Carbines, Wyatt, & Robb, 2006), suggested that Life Education Australia could provide PD for teachers to build capacity. The survey results in this current study show that educators are already regarded by teachers as a rich source of informal PD. To promote effective practice, educators could be provided with more time to work with school staff to pre-plan ways to integrate Life Education with school practice. The connection between pre-planning and improved integration is also mentioned in the recent survey conducted by Life Education (McLennan, 2007).

There is also scope for educators to provide formalised PD to staff groups or to clusters of school leaders and teachers. This PD could occur at a regional or national level. Some possible focus

areas include: the integration of Life Education into whole-school and classroom activities; wellbeing-focused teaching practices; strategies that support students to make healthy choices; or how Life Education could support student-led health promotion activities.

Recommendation: Review the balance between the "quantity" and "quality" focus of Life Education, and the way support is provided to school staff.

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