
9 School-based gambling education

Key points

- There are high rates of gambling among teenagers. Many people reporting gambling problems as adults began gambling as a teenager.
- Evaluations of school-based education for gambling, while limited, mostly find improved understanding of gambling, but not positive behavioural change.
 - The richer evidence base for education aimed at other risky activities — alcohol, drugs and road safety — shows similarly modest impacts and, in some cases, increased risk-taking behaviour.
- This suggests caution in adopting school-based gambling education
 - the risks may be moderated by appropriately timing interventions and by presenting more than mere factual information about gambling.
- Existing school-based programs should be rigorously evaluated and either modified to address risks or abandoned if they are found to actually promote harmful gambling behaviours.

This chapter looks at the issue of school-based gambling education which has been strongly advocated by the Australasian Gaming Council (AGC). The existing approach to school-based gambling education is discussed in section 9.1. Section 9.2 looks at what is known about children and adolescents and gambling. The evidence on the effectiveness of school-based gambling education is examined in section 9.3. Section 9.4 looks at the evidence on school-based education aimed at other risky activities, such as alcohol and drugs, and road safety. The evidence is drawn together in section 9.5.

9.1 Existing approach to school-based gambling education

School-based gambling education programs, aimed at informing children and adolescents about gambling and equipping them with skills to make informed choices about gambling, have been developed in a number of jurisdictions in Australia (box 9.1).

Box 9.1 School-based gambling education programs

In *New South Wales* the focus is on addressing harms from gambling. A *Guide for Problem Gambling; Children and Young People*, has been developed for distribution to schools and TAFE colleges. The kit provides counsellors with the tools to identify and respond to a student developing a gambling problem. While no elements of the NSW curriculum explicitly relate to gambling, in mathematics, students have opportunities to explore chance and statistical probability. (sub. 247, p. 59)

In *Victoria*, the focus is on equipping students to make well-informed choices, including an awareness of the risks of gambling and the development of coping and problem resolution skills when faced with high pressure gambling situations (sub. 205, appendix 3, p. 12). The materials are mainly focused on high school, and include components designed to alter underage gambling behaviour.

Queensland has developed a *Responsible Gambling Teaching Resource Kit*, with several education modules covering a range of subjects across most school years. The materials, designed to be taught by the children's usual teachers, are intended to assist children make well-informed decisions about issues they will face as adults (OLGR Queensland, sub. 234, pp. 35–36, 45).

South Australia has two school-based approaches to address gambling education, delivered by teachers and integrated into the overall curriculum. *Dicey Dealings*, aims to teach children about gambling related-harm and factors contributing to gambling problems through 'a diverse range of simulated experiences'. The second approach is part of a broader program on health and financial literacy. (sub. 225, p. 51).

Western Australia does not have an education program explicitly relating to gambling. However, schools have scope to address problem gambling within a financial literacy framework, aimed at providing students with the skills and knowledge to make sensible financial decisions (Curriculum Council 2009).

Tasmania has a program called *What's the real deal?* aimed at students in years 7 and 8. The program explores society's attitude to gambling, the existence of gambling fallacies and how fallacies can contribute to gambling problems. The program presents information on the odds of winning, including the effect of the house edge, but does not promote gambling. It is an optional component, delivered by existing teachers (Department of Health and Human Services 2009).

In the *ACT*, gambling-related education is part of several 'essential learning achievements' relating to life skills in the new curriculum framework for ACT schools (ACT Department of Education and Training, 2007). Training is provided to address teachers' lack of knowledge about gambling.

The *Northern Territory* does not have a program specifically dealing with gambling, but it covers the concepts of odds and independence of events, financial literacy and making informed choices in their current curriculum framework (DET 2009a and 2009b).

While some jurisdictions don't have specific 'gambling' education programs, curriculums generally cover financial literacy and statistical concepts of odds and independence.

The Australasian Gaming Council (AGC), noting the variation in gambling education programs across the jurisdictions, called for the development of a nationally consistent approach to gambling education (within existing national curriculum frameworks), linking gambling education and financial literacy education as a prevention strategy for problem gambling. The AGC has developed a responsible gambling schools program (sub. 230, p. 79). The Australian Hotels Association (AHA) also supported a national approach to gambling education:

At present, schools throughout Australia teach students about safe sex, the dangers of smoking and drugs and the responsible consumption of alcohol. However, to adequately prepare students for life after school, gambling education needs to be included in the national school curriculum. The AHA strongly believes the Commonwealth Government has an important role to play in the co-ordination and implementation of a national approach to gambling education. (sub. 175, p. 79)

Other participants identified education as an important preventative strategy aimed at improving community resilience by dealing with faulty perceptions of gambling, developing students financial and skills to manage gambling behaviour, and more generally, to reduce future occurrences of problem gambling (box 9.2). Some participants pointed to the students reliance on the internet and exposure to 'increasingly sophisticated form of gambling delivered through an expanded array of media' as a key reasons for equipping students with skills to manage gambling (sub. DR326,p. 15, sub. DR382).

There was however, no consensus among participants supporting school-based gambling education in relation to the best approach and content. For example, the Women's Christian Temperance Union of Western Australia (sub. 6) proposed a focus on gambling problems, an approach opposed by the AGC (sub. 230, p. 79). A number of the jurisdictions are currently reviewing their curriculum materials, including the approach taken to problem gambling education.

Other participants questioned the value of gambling education programs in schools and warned about the danger of education encouraging adolescents to gamble. For example, Dr Livingstone said:

... I think education campaigns look good, they make people feel that they're doing something; whether they actually achieve anything is very doubtful, certainly in other areas of public health. I don't think an education program in schools about the dangers of gambling is likely to do anything other than to encourage risk-taking kids to have a go. That's, bluntly put, what the literature would suggest. (trans. p. 628)

Box 9.2 Some participants supported school-based gambling education programs — but different kinds

Women's Christian Temperance Union of Western Australia:

Our organisation would like to see an educational module introduced into the curriculum of school children at both upper primary and secondary schools so that the problems which can arise for some susceptible people can be addressed, and hopefully, more can avoid becoming problem gamblers. More education on the results of this addiction could assist young people in better understanding that this could happen to them unless they are aware and can take appropriate steps before there is a problem. (sub. 6, p. 2)

Betsafe:

Educative strategies and the provision of information and warnings about gambling products could be more effective. This should begin at school age and continue on into adult education. The focus of gambling marketing should be on the entertainment value of gambling rather than the prospect of winning or paying for living expenses with gambling winnings. (sub. 93, 17).

Australian Hotels Association:

It is an unfortunate reality that many young people do not understand the odds when gambling and overestimate their chance of success. ...there is a real need to include in the Australian school curriculum an education program delivering factual information on all forms of gambling to students before they reach legal age. (sub. 175, p. 76).

ClubsAustralia:

ClubsAustralia has no reservations in supporting the efforts of state and territory jurisdictions in funding school-based education programs: education in life skills is, in our view, always preferable to no education at all in this critical area. Further, it would be desirable if such programs became fully integrated into schools' Health and Personal Development curricula, rather than as isolated or oneoff studies. (sub. DR359, p. 34)

Council of Gambler's Help Services Incorporated

... the Council supports the introduction of an effective, evidence based schools program that contributes to both broad community resilience through addressing risk and protective factors and specific gambling harm minimisation through targeted education with respect to gambling forms and behaviour. Exposure to increasingly sophisticated forms of gambling delivered through an expanding array of media suggests there is an enduring need to equip future generations with the skills to effectively manage their gambling behaviour. (sub. DR326, p. 15)

Leagues Club Australia:

This issue needs to be reviewed as a matter of urgency, especially with the reliance of today's youth on the internet, and their potential exposure to overseas gaming sites. Virtually every google search on anything relating to gaming or gambling has sponsored links to overseas gambling sites such as playpokiesforfree.com. Serious consideration should be given for the provision of school-based educational programs and be based on the successful drug and alcohol awareness programs currently being conducted (sub. DR382, p. 7).

Uniting Care Australia also expressed some apprehension about aspects of school-based education for gambling:

We are highly suspicious of school education programs for gambling which are being actively promoted by the gambling industry, particularly the Australian Gaming Council. The more students know about gambling, the more they will want to experiment with it. Students are already conditioned to gamble on the plethora of trade promotion lotteries. It is an easy step to try the gaming machines when they make their first visit to the hotel and this could be exacerbated by an ill-conceived education. (Uniting Care Australia, sub. 238, p. 43)

9.2 Youth and gambling

This section looks at what is known about when children and adolescents begin gambling and what that means for gambling practices longer-term.

A reality — adolescents already gamble

Definitive evidence is not available to show when people first experiment with gambling, and there are inconsistencies between surveys that ask adults to recall when they commenced gambling, and surveys of children's current behaviour. The latter suggest earlier participation than the former, which may reflect recall biases or generational effects. Despite the inconsistencies, some clear patterns emerge. A substantial proportion of people begin gambling by the time they are 15 years old, with further significant increases in participation rates in the next few years of age (box 9.3). Given this age-related pattern, it is likely that some children begin gambling while at primary school, and evidence from Canada supports this (Gupta and Derevensky 1998).

This suggests that education programs need to be targeted at the first two years of high school, when children commence (generally illegal) experimentation with gambling. Experimentation with more hazardous forms of gambling, such as EGMs, accelerates in older children, suggesting that any 'booster' sessions might be best delivered around the final two years of school.

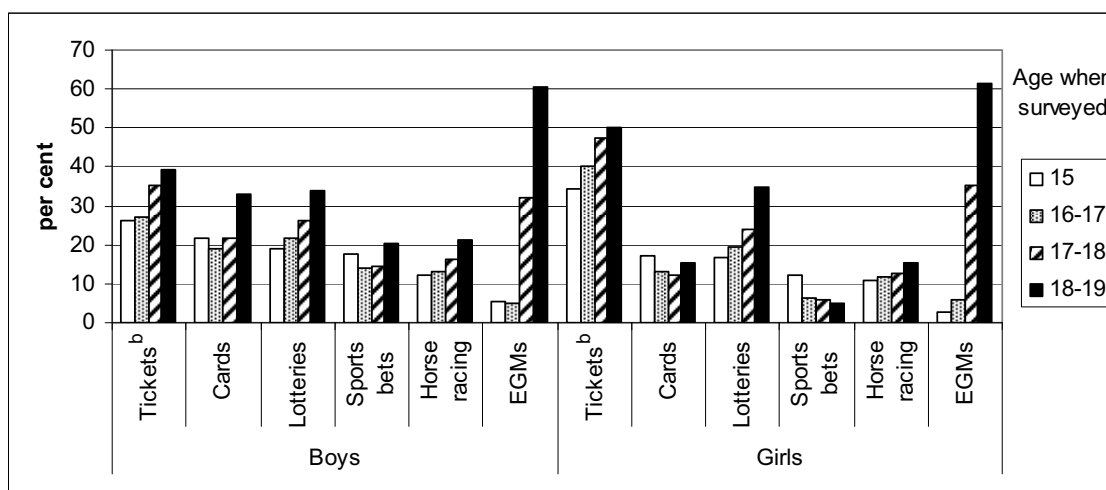
Box 9.3 Adolescents' participation in gambling

Surveys of adolescents show high rates of gambling. A study of gambling behaviour among students at five secondary schools in Melbourne showed that less than 12 per cent of students surveyed had never gambled (Moore and Ohtsuka 2001). A recent study that tracked the gambling activities of teenagers in South Australia over a number of years also found high rates of underage gambling across a range of gambling activities (Delfabbro et al. 2009). In fact, data collected for that study shows that over 60 per cent of those surveyed participated in at least one form of gambling before they were 18 years of age.

The Delfabbro et al. (2009) study also found many teenagers had experimented with gambling by the time they were 15 (figure below). But it is not clear how common gambling is among children under the age of 15. Moore and Ohtsuka (2001) included children as young as 13, but the gambling activity of those youngest students was not separately addressed. There is evidence that many people reporting gambling problems as adults commonly began gambling in their early teenage years or earlier (Volberg 1994, Ladouceur 1991, Delfabbro and Thrupp 2001).

In younger age groups, gambling on card games and instant lottery tickets appears to be the most common forms of gambling. But children appear to transition from playing these games to gambling on EGMs in older adolescence — with 60 per cent playing EGMs by the time they are 18. There is also a strong link between underage gambling and EGM play — as most of the people playing EGMs when 18 (87 per cent) had experimented with gambling while underage.

Adolescent participation rates in gambling by age^a



^a Relates to gambling in past year. The sample only includes people aged 15 years during the first survey. The survey does not indicate the age at which adolescents first gambled, just their gambling activities in the year before each survey. As such, it is possible that a higher proportion of adolescents have experimented with gambling than indicated by these figures. All participants are from South Australia.

^b Tickets include scratch lottery tickets and instant lottery tickets.

Data source: Delfabbro et al. (2009).

A number of industry participants correctly pointed out that a significant amount of underage gambling is occurring in unregulated environments (AGC sub. DR377, ClubsAustralia, sub. DR359). But underage gambling is not just restricted to unregulated environments. Some of the forms of gambling that underage students are participating in are only offered by licensed venues (box 9.3). This indicates that some of the underage gambling must be occurring illegally in regulated venues in Australia.

Another reality — many adolescents already have gambling problems

A major orientation of education programs is to provide children with knowledge that may subsequently help them as potential adult gamblers and to ‘immunise’ them from future problem gambling. However, the evidence in Australia and elsewhere consistently shows that young people experience difficulties when they gamble, though the long-run impacts are less clear:

- Most prevalence studies that include adolescents show that they have much higher rates of problem gambling than adults (Delfabbro and Thrupp 2001, Lambos et al. 2007, Delfabbro et al. 2005, Winters et al. 2005, Shaffer and Hall 2001).
- The fact that adult prevalence rates are lower, suggests that there is a process of ‘natural’ recovery. This is borne out by (limited) longitudinal evidence. A very small longitudinal study in the United States explored the link between adolescent and adult problem gambling (Winters et al. 2005). Of the 19 people identified as problem gamblers in adolescence, only seven were so classified in the final year of the study — potentially indicating that only a fraction of adolescents with gambling problems manifest as adult problem gamblers. Notwithstanding natural recovery, there would still be strong *prima facie* grounds for assisting young people with problems to reduce their harm to them or to accelerate their recovery — though the role that education could play in this is unclear.
- There is also evidence that risky gambling behaviour in adolescence increases the likelihood of problem gambling as adults. The longitudinal study described above found that of the twelve people identified as problem gamblers as adults, seven had been identified as adolescent problem gamblers and four had been classified as ‘at risk’ gamblers while adolescents (Winters et al. 2005). Similarly, many problem gamblers indicate that they began gambling as children (Volberg 1994, Ladouceur 1991) — with some even beginning as young as ten years old (Delfabbro and Thrupp 2001). This further bolsters the case for early interventions, though again this does not necessarily suggest that the form of that intervention should be education. What it does suggest is that any education

program may need to address, or at least recognise, the current problems faced by many adolescents, including information about where to seek help.

9.3 Evidence on the effectiveness of school-based gambling education programs

Evaluations of two Australian school-based education programs are publicly available.

In South Australia, the *Dicey Dealings* gambling education program was developed to allow school students to consider and understand the potential consequences of gambling-related choices. The evaluation of the education program (a program initially trialled in 2004 in eight middle schools) compared the views of students participating in the trial with those of students who did not. Metrics were also developed to assess how the attitudes of students changed after their participation. The evaluation showed that students who participated in the program:

- had improved understanding of the chances of winning money from gambling
- were more likely to know about gambling support services than students who had not participated
- displayed fewer erroneous beliefs about gambling (Glass and Williams 2007).

An evaluation of a Queensland school-based gambling policy — the *Lighthouse Project* — found that children had a better understanding of their chances of winning at gambling and understanding addictive behaviour after attending the program (Curtin and Honeyfield 2002). While *Dicey Dealings* and the *Lighthouse Project* reported changes in attitudes and knowledge, the evaluations of these projects did not examine changes in current or future gambling behaviour among students. This is obviously problematic. As Williams et al. (2007) said:

Knowing something and having this knowledge alter your behaviour are often two different things. (pp. 10–11)

Evaluations of school-based gambling programs undertaken in Canada and the United States also found that school-based gambling education can improve knowledge about gambling. For example:

- An evaluation of a gambling prevention program conducted in five high schools in Québec (134 participants participated in the program and 155 served as a control group) found the experimental group scored significantly higher on knowledge and skills, but there was no significant change identified in gambling participation or attitudes. At a six month follow-up, the experimental group

maintained significantly higher scores on knowledge about gambling and problem gambling, but not on skills (Gaboury and Ladouceur 1993).

- A US study looking at the rate of gambling-related cognitive errors, and applying a gambling screen to students before and after an education program, found that knowledge of gambling fallacies and awareness of gambling problems could be reduced through the program (Taylor and Hillyard 2009).

Two studies evaluating the use of a video to increase gambling knowledge and correct inaccurate knowledge about gambling also found this format effective in improving participants knowledge and correcting misperceptions. Video was chosen as a medium because it was thought to be able to capture students' attention and interest, is an inexpensive tool and allows standardization of information presented.

- Ferland et al. (2002) conducted a controlled study with 424 students from grades 7 and 8 and found that the video significantly improved participants' knowledge about gambling and corrected their misperceptions about the notions of chance and randomness.
- Lavoie and Ladouceur (2004) tested a video on 273 students in grades 5 and 6. Three classroom conditions were used — discussion and video, video only and a control group with no information or video — the results being that a video alone was as effective as the video and discussion. The authors concluded that the video was an effective medium for modifying students' knowledge and attitudes towards gambling. The long-term effect of increased knowledge and modified attitude were not examined.

The evidence from gambling studies is that the relationship between being better informed about gambling, and subsequent gambling behaviour, is not straightforward. Even when people are provided with good information, this can at times be overridden by prior irrational beliefs when they gamble (see chapter 11). Accordingly, the key evaluation issue is whether educational programs reduce current and future gambling related harm, not whether they merely inform. This point was also made by Dr Allcock:

Of course evaluation can show positive gains in education and has done in the case of Queensland with its gambling education program. Tell people about drugs; quiz them later on their knowledge and you hope they score highly on tests that show they understand the effects and dangers. But does that keep the prevalence of problems down? Only time, community surveys (which are costly), analysis of telephone helpline call numbers and visits to counsellors can show if this all works. Commonsense would say however, that education has to be more likely to assist than no education or information at all. (Australasian Gaming Council and Melbourne University School of Social Work 2007, Foreword).

One Canadian study that evaluated gambling attitudes, fallacies and behaviour, before and after separate gambling education programs were delivered to university and high school students in Alberta, found some evidence of behaviour change. Both the university and high school-based programs were found to improve students understanding of gambling odds, and there was a reduction in fallacious gambling beliefs (based on follow up surveys — six months after the university program and three months after the high school program). At the time of the follow up, a significant reduction in the time and money spent on gambling was found for the high school students, but not the university students (Williams et al. 2003).

By using data from the two programs, the authors modelled the effectiveness of different elements of gambling education programs. The five key findings of the study were:

- Teaching people about gambling odds is perhaps not that important in the prevention of problem gambling, and should never be used as the sole intervention.
- The factor that most strongly predicts decreased gambling behaviour is when students develop a negative attitude towards gambling after attending the program.
- Improving people’s knowledge about problem gambling appears to be important and is perhaps a mechanism by which attitudes change.
- Teaching people about cognitive errors underlying gambling fallacies appears to be important for some people in changing their gambling behaviour.
- Trying to improve generic decision making, problem solving, and coping skills is very difficult to do and is not necessarily needed to decrease gambling behaviour (in non problem gamblers). (Williams et al. 2003, p. 255)

Given the pioneering nature of this study, subsequent studies on school-based gambling regulation that explicitly tested these conclusions would be valuable. Such follow-up is important not only to assess the robustness of the conclusions, but also the relevance of the findings to other education systems. Unfortunately, no follow-up studies appear to have been conducted (or at least made public).

The challenges in assessing the effectiveness of school-based gambling programs

Measuring the effect of school-based gambling programs on behaviour is not without challenges, but given the thin evidence base, is an area requiring further research. Monaghan also made this point:

There is some empirical support for the effectiveness of educational campaigns in modifying youth gambling-related thoughts and behaviours. However, further research is necessary. It is essential that any education campaign be empirically tested during all phases of implementation, including follow-up effects to prevent unintended

consequences, assess whether the aim is being achieved and avoid misuse of funds on an ineffective program. (sub. 58, p. 5)

Some participants, however, raised concerns about the practicality, time scale and cost of assessing the behavioural impacts of school-based gambling education programs. For example, the AGC said:

Schools constantly review and evaluate all school programs for learning outcomes. This is not about measuring behavioral change but about assessing understanding.

To appropriately measure behavioral change a cohort of students gambling in unregulated environments would need to be followed through to adulthood. Their gambling experiences in venues once they reach eighteen and beyond would need to be monitored and examined for problem gambling behaviour. An unwieldy and, the AGC would suggest, unlikely piece of research. (sub. DR377, p. 17)

Given that the objective of school-based gambling education programs is to reduce the likelihood of future gambling related ‘harm’, evaluations should attempt to assess the impact of programs on behaviour. As Rundall and Bruvold (1988) said, in the context of school-based smoking and alcohol prevention programs, ‘programs should possess sound, explicitly stated theoretical bases for their expected knowledge, attitudinal and behavioural influences; and as much attention should be devoted to implementing and evaluating programs as is paid to their design’ (p. 330).

That said, the Commission acknowledges that it can be expensive and time consuming to evaluate behavioural change, particularly if the behaviour being modified is not observable for several years after the education program is implemented. But evaluations of behavioural change need not be resource intensive. Measures that could indicate the success of a gambling education program include:

- delayed onset of first gambling experimentation
- less acceleration of gambling expenditure compared with those not involved in the program
- lower likelihood of developing gambling problems (Messerlain et al. 2005)

Asking students involved in gambling education programs to self report their gambling behaviour before attending the program and at a suitable follow up interval — such as three or six months after of a program — would provide an indication of behavioural change. This is one of the approaches used in the behavioural assessment of the Canadian gambling program (Williams et al. 2003).

A recent study (Delfabbro et al 2009) showed that the proportion of children gambling and the frequency of their gambling increases with age. While decreased gambling activity may indicate the effectiveness of a school-based gambling

education program in the short run, to test longer term effectiveness the gambling behaviour of students attending a gambling education program need to be compared with students not participating in the program (a control group). This approach was also used by Williams et al (2003).

As discussed above, the AGC suggested that to measure behavioural change appropriately, a cohort of students would need to be followed through to adulthood. The Commission is not recommending that such a longitudinal study to be used to test individual school-based education programs. However, South Australia is already undertaking a longitudinal study of gambling behaviour, including people who were below the legal age for gambling when the study began. The study examines gambling behaviour and applies a gambling screen to identify participants with gambling problems. If similar studies are undertaken in the future, the inclusion of a survey question asking participants if they received any school-based gambling education, could provide the basis for a longitudinal study which could assess the effectiveness of school-based gambling education generally.

9.4 Lessons from other school-based education programs?

Given the lack of evidence on behavioural effects of school-based gambling education programs, a key question is whether it is possible to draw some insights for gambling policy from other school-based social education programs.

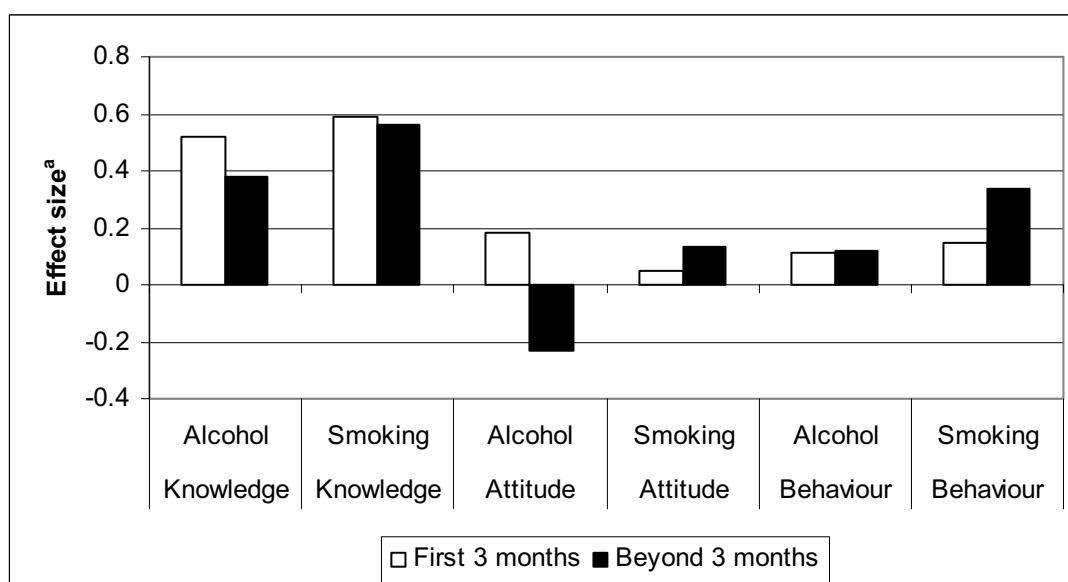
The evidence base on the effectiveness of school-based social education programs in areas such as drug and alcohol use and driver education is richer than that for school-based gambling education programs. It includes a number of meta analysis — studies which systematically analyse the relevant literature in the field using a strict study criteria which typically results in more robust analyses. And, there are many similarities between gambling and activities such as drugs, alcohol and driving, including:

- they are all activities where potential harm can arise for the individual and for society more widely
- uptake of all these activities is influenced by the attitudes of both peer group and the broader community
- the clear objective of education in these areas is to reduce the harm caused by individuals' decisions.

The findings of one study — covering 47 smoking prevention programs and 29 alcohol school-based programs — were that it is easier to change people's

understanding through school-based education programs than to change behaviour or attitudes (Rundall and Bruvold 1988). The results from the studies was pooled to create a measure of average effectiveness of the programs on knowledge of the risks, attitude to the risks and behaviour of students (figure 9.1). An effect size of 0.5 indicates that those who participated in the education programs had an average score that was half a standard deviation higher than students who did not participate. A negative effect size indicates that people who participated in an education program had a lower score on average than those not involved in the program.

Figure 9.1 Effectiveness of school-based smoking and alcohol prevention programs



^a Effect size is calculated as the difference in the mean rate between people in the treatment and control group divided by the standard deviation of the control group. The effect sizes are averages over a number of studies — some programs will have had higher than average change and others lower than average change.

Data source: Rundall and Bruvold (1988).

As shown in figure 9.1, the largest average effect size was for participants’ knowledge of smoking and alcohol and these average changes could only be considered moderately successful. Attitude and behavioural changes — particularly for alcohol programs — were far from encouraging. As the authors concluded:

The immediate and long-term pooled effect sizes for school-based alcohol interventions are also modest. While most program outcomes are in the desired direction, there are many instances where this is not true. It is particularly noteworthy that only one half of long term alcohol behavioural outcomes are desirable. (Rundall and Bruvold 1988, p. 329)

Adverse behavioural impacts have also been found in other education initiatives. Students attending a federally funded after school program in the United States, aimed at improving anti-social behaviour and academic performance, were found to have more behavioural problems in school than non participating students, and there was no measurable or noticeable difference in academic performance (James-Burdumy et al. 2005). The adverse behavioural impacts were only found after a comprehensive review was undertaken.

School-based driver education classes are another area where adverse outcomes have been found. For example:

- A review of three driver education programs in Australia, the United States and New Zealand found that students who attended the courses were more likely to be involved in accidents than students who had not participated. Students who attend the driver education courses appeared to have the same probability of being involved in accidents as people who did not attend, but because those attending the course began driving at an earlier age, they had more opportunities to be involved in accidents (Achara et al. 2001).
- Another systematic review found that school-based driver education programs were less effective than safety features and community health campaigns, but more importantly, that the programs actually resulted in increased crashes (Morrison et al. 2003).

Such findings suggest that increased knowledge of gambling in children and adolescents may have the unintended consequence of intensifying harmful behaviour, a risk that should be considered in the design (or even in considering the introduction) of school-based programs.

Nevertheless, several insights emerge from the drug, alcohol and driver education literature (McBride 2003; Rundall and Bruvold 1988) that may increase the effectiveness of any school-based gambling education programs and potentially reduce the risks of adverse behavioural responses:

- a school-based education program may be more effective if accompanied by a corresponding change in societal attitudes and a media campaign. For instance, Rundall and Bruvold (1988, p. 330) partly attributed the relatively greater success of school-based tobacco programs (compared with alcohol) to the fact that these were accompanied by ‘consistent anti-smoking messages in the general media and to the emergence of a strong anti-smoking social movement’
- the course is relevant to the needs and interests of participants and the students are enthusiastic and actively engaged in the program

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- the course is followed up with ‘booster sessions’ particularly focussed on decision making skills
 - the programs occur at an appropriate time, either immediately prior to or during the initial experimentation phase or when students started undertaking an associated risky activity — such as driving and drug or alcohol use
 - the course presents more than factual information.

Mimicking these features may improve the effectiveness of gambling education. Doing so, however, requires knowledge about the actual gambling behaviour of children and, in particular, the age when children commence experimenting with gambling and any problematic behaviour they may then exhibit.

Evidence of beneficial school-based programs?

Two Australian school-based education programs that appear to have been effective in changing behaviour include the *Sunsmart* program and general financial literacy programs.

Evaluations of the *Sunsmart* program indicate a strong and sustained change in behaviour for preschool and primary school aged children. The education campaign was supported by a broad public awareness campaign and coincided with increased medical evidence on the risks of exposure to sunlight. However, older adolescents were less likely to implement *Sunsmart* behaviours than younger children, and behaviours such as wearing sunglasses and protective clothing appear to be reverting to the lower levels observed before the programs were introduced (Department of Education and Early Childhood Development 2009, Anti-Cancer Foundation of South Australia 2001).

There has been a focus on financial literacy education programs in Australia following evaluations showing that Australian studies had poor financial literacy (Australian Securities and Investment Commission 2003). Subsequent testing has shown that the financial literacy skills of Australian children have improved (Commonwealth Bank Foundation 2006).

9.5 Drawing together the evidence

While there are limited evaluations of school-based education for gambling, they find improved understanding of gambling, but little evidence of positive behavioural change. The evidence base on education aimed at other risky activities,

including alcohol, drugs and road safety, also shows modest impacts and, in some cases, *increased* risk-taking behaviour.

There are costs to consider

The costs, as well as potential benefits, of school-based education programs are relevant when drawing together the evidence on the effectiveness of these programs for gambling. On the face of it, education programs seem inexpensive. The monetary costs of implementing and administering school-based problem gambling programs largely relate to the development of curriculum material and teacher training. In this regard, the monetary costs are largely subsumed into the existing budgets of education departments and schools.

However, a less visible, yet potentially more significant cost of the programs is displacement — the use of teaching time and resource development that would otherwise be directed to other educational outcomes of greater value. It is hard to assess these costs, but it should not be assumed that they are zero.

Overall, there appears to be insufficient evidence to conclude that school-based gambling education programs are either cost effective or that they result in reduced gambling-related harm. That said, as noted in chapter 3, it is often hard to substantiate the effects of social programs before their implementation, and a crucial issue is balancing the costs of not introducing a potentially effective program as well as the costs of introducing an ineffective one.

Effective programs need not be overly delayed

Some participants expressed concern about young people not obtaining valuable information about the risks of gambling and what this meant for the prevention and early intervention of gambling problems in adolescents.

Lifeline Canberra believes that it is essential that young people have an understanding of problem gambling and know how to gamble responsibly if they choose to gamble, before they leave school. Young adults are overly represented in the numbers of people identified as having problems with gambling. Further, research indicates young people are more vulnerable to developing problems if they do gamble and are less likely to seek professional assistance. Whilst supporting the Commissions' view that school-based educational programs must be evaluated, we felt the Commissions' recommendation that further roll out of programs be stopped was too strong. (Lifeline Canberra, sub. DR393, p. 2)

The Council has concerns that a call for a moratorium on school based interventions will impede efforts at prevention and early intervention (Council of Gambler's Help Services Incorporated, sub. 326, p. 3)

Recommending inaction in this area may in fact continue to put at risk many young Australians and as such the draft finding and recommendation about school-based gambling education programs should be changed in the PC's final report. (AGC, sub. DR377, p. 18)

The Commission notes that gambling education programs are not the only form of education provided to children and adolescents about gambling. General life skills and financial literacy programs can provide students with valuable and relevant skills. In addition, public awareness campaigns and in-venue warnings can raise awareness about gambling, how to recognise 'problematic' gambling behaviour and where to seek help for gambling problems. As such, these other preventative measures mean that children and adolescents are not denied information about gambling and where to get help for gambling problems.

The AGC argued that school settings can mitigate any potential harm.

The PC warns of potential for adverse outcomes from teaching about adult activities. These statements overlook the experience and responsibilities of school leaders and their communities in delivering education programs in ways that are student focused ie: continually evaluated for both content and sensitivity of approach. (sub. DR377, p.18)

School-based gambling education programs were also seen as helping identify students affected by gambling and that this was a positive outcome.

In the course of teaching and learning exchanges teachers may find that some students are affected by gambling (or alcohol, managing credit or other experiences which carry some risk) through parents, family, peers or their own experimentation in unregulated environments (perhaps the internet or a poker game). Learning exchanges enable teachers and school counsellors to work together to provide assistance. These are positive, not perverse outcomes. School education programs are for all students. (sub. DR377, p. 18).

While the Commission acknowledges that the active involvement of the school community can influence the effectiveness of educational outcomes (including identifying students experiencing problems with gambling), it is difficult to overlook the body of evidence that some school-based life skills programs have resulted in deteriorating behaviour. Without any basis for assuming a lesser commitment from educators and parents in the various schools where those trials were conducted, the Commission considers that there is scope for adverse outcomes to occur from school-based life skills programs including gambling.

What role for evidence?

Other participants thought that the risks associated with not educating students about gambling outweighed any potential risk associated with better equipping students with knowledge and skills related to gambling safely. For example:

It is not clear from the information provided (other than some research conducted into driver education) why the Commission sees ‘risks’ in terms of possible harm that may be associated with such programs, as the risk — if indeed there is any — would appear to be by far outweighed by the positives that may flow from expenditure in this area. (Clubs Australia, sub. 359, p. 34)

To suggest a position that governments should almost put a halt on the educative process until a full assessment is done we feel is misguided. We feel the benefits are obvious. Should further assessment processes be undertaken to improve educative programs – the answer is obvious. (Ainslie Football Club, sub. DR300, p. 7)

But requiring little evidence of ‘benefits’ of school-based gambling programs is inconsistent with the views expressed by the gambling industry itself in relation to other proposals. In other areas of the inquiry, the gambling industry has sought incontrovertible evidence of net benefits before an initiative should be recommended. For example, the Community Clubs Association of Victoria said:

Many of these initiatives, such as minimum luminance levels, clocks, warning messages on machines etc., seem to have come from the ‘Why don’t we try...?’ school of thought, rather than from any evidence-based consideration. They have imposed costs without providing any quantifiable mitigation of problem gambling. (sub. DR366, p. 4)

The AGC went further and argued that there isn’t a lack of evidence that existing programs have changed behaviour.

... comments on gambling education in schools, including statements that there is lack of evidence that existing programs have changed behaviour, are flawed and evidence a basic misunderstanding of the role of schools. (sub. DR377, p. 3)

Also, that the relevance of the evidence base upon which the Commission suggested caution in relation to school-based programs was questionable:

... research and anecdotes chosen by the PC to support the Draft Report view on this matter are not relevant to school-based responsible gambling education programs or any other life skills programs. (sub. DR377, p. 17)

They indicated that they would provide evidence supporting the benefits of school based gambling education:

... we must have been looking at different evidence. We will present obviously different evidence that says that school-based gambling education programs while they are contentious they are becoming very, very critical (trans., p. 761)

However, no such additional evidence on school-based gambling programs was provided to the Commission.

Some lessons for school based programs

Where school-based gambling education is undertaken, the Commission believes that such programs are more likely to be effective if:

- both the students and teachers are keen to participate
- the program is delivered around the time students start to experiment with gambling (around years one and two of high school) with follow-ups in years 11 and 12, when riskier behaviours appear more common (box 9.2)
- the program attempts to modify both existing and future risky gambling behaviour
- there is a strong focus on the scope for harm to occur from gambling, and on the reasons why.

Many of the suggested approaches to school-based gambling education programs are already in place in at least one jurisdiction. The diversity of programs provides a good opportunity to evaluate their relative effectiveness. The main focus should be on the extent (and nature) of behavioural change attributable to the programs. A number of participants also saw value in independent evaluations of school-based gambling programs.

The ACA agrees with draft recommendation 6.2 that the impacts of current school-based programs should be assessed before there is any extension of these programs and with a focus on financial literacy. (Australian Casinos Association, sub. DR365, p. 4)

We support the independent and ongoing evaluation of school based programs as part of a long term public health based approach to gambling. (Council of Social Services, sub. DR369, p. 3)

The Taskforce shares the concerns about school-based programs ... without further evaluation of such programs, assessing both the benefits they deliver and the risks of increasing the likelihood that students will engage in risky or problematic gambling as a result of the school-based program (Victorian InterChurch Gambling Taskforce, sub. DR357, p. 2).

As discussed earlier, the Commission considers that it is possible to undertake some basic evaluations of existing programs relatively quickly and at relatively low cost. Programs that are found to be effective in promoting positive behavioural change should not be overly delayed.

What is the nature of the risk of harm?

ClubsAustralia questioned what type of risks school-based gambling education can pose. ‘It is not clear from the information provided (other than some research conducted into driver education) why the Commission sees “risks” in terms of possible harm that may be associated with such programs’ (sub. DR359, p.32).

The potential risks with school-based life skills programs are that instead of decreasing the frequency of the potentially problematic behaviour, children who attend such programs may increase the frequency or seriousness of their experimentation. In relation to gambling, this could include:

- children beginning to gamble at an earlier age
- children who already gamble increase the length or number of their gambling sessions and
- children increase the amount of money they bet when gambling.

Research indicates that many problem gamblers began gambling as children, and that an early gambling experience is typically influential in guiding adult gambling behaviour. Therefore, there is a risk that increased experimentation with childhood gambling could increase the chances that a child may develop gambling problems that impact on their health and happiness throughout a large portion of their lives.

The bottom line

School-based gambling programs may have potential, but they also have an Achilles heel — there is not just a risk that they would be ineffective when introduced, but that they could actually cause harm. This suggests caution in their adoption (or, as they are mostly already in place, in their continuation or diffusion).

FINDING 9.1

Little evidence has been collected about the effects of school-based gambling education programs on students’ gambling behaviour. However, evaluations of similar programs in alcohol and vehicle safety have found that, while they can raise awareness, they tend to have no, or even adverse, behavioural impacts.

RECOMMENDATION 9.1

Given the risk of adverse outcomes, governments should not extend or renew school-based gambling education programs without first assessing the impacts of existing programs.