Alcohol truth: A counter marketing intervention to address adolescent alcohol consumption



Sandra C Jones, Kelly Andrews and Ross Gordon

This research was funded by the Foundation for Alcohol Research and Education.







About the Foundation for Alcohol Research and Education

The Foundation for Alcohol Research and Education (FARE) is an independent, not-for-profit organisation working to stop the harm caused by alcohol. Alcohol harm in Australia is significant. More than 5,500 lives are lost every year and more than 157,000 people are hospitalised making alcohol one of our nation's greatest preventative health challenges.

For over a decade, FARE has been working with communities, governments, health professionals and police across the country to stop alcohol harms by supporting world-leading research, raising public awareness and advocating for changes to alcohol policy. In that time FARE has helped more than 750 communities and organisations, and backed over 1,400 projects around Australia.

FARE is guided by the World Health Organization's (2010) *Global Strategy to Reduce the Harmful Use of Alcohol* for stopping alcohol harms through population-based strategies, problem directed policies, and direct interventions.

If you would like to contribute to FARE's important work, call us on (02) 6122 8600 or email info@fare.org.au.

About the Centre for Health and Social Research (CHaSR)

The Centre for Health and Social Research is a dynamic and contemporary research centre specialising in social marketing. The Centre's mission is to work with Australian communities to improve their health and wellbeing through research that has a direct and sustainable impact.

CHaSR provides social marketing advice and consultancy services to a range of organisations. These include: assistance with problem identification; formative research including systematic literature reviews; focus groups and interviews; surveys and content analysis. CHaSR also has extensive expertise in the development and implementation of social marketing interventions, including message development and testing; intervention delivery; and the implementation of evaluations. We also undertake health services development and evaluation projects, working in collaboration with funders and providers, focusing particularly on alcohol and other drugs, as well as inclusion of disadvantaged groups.

Researcher affiliations

Sandra C Jones,¹ Kelly Andrews,¹ Ross Gordon.²

- 1. Centre for Health and Social Research (CHaSR), Australian Catholic University
- 2. Macquarie University

The correct citation for this publication is:

Jones, S.C., Andrews, K., & Gordon, R. (2015). *Alcohol truth: A counter marketing intervention to address adolescent alcohol consumption.* Canberra: Foundation for Alcohol Research and Education.

Acknowledgements

The authors thank Georgia Draper and Amanda Reid for research assistance, Danika Hall and Chloe Gordon for assistance with curriculum development, Josh Beard for graphic design, and the staff and students of the participating schools.

Contents

Summary	5
Method	5
Findings	6
Recommendations	7
Introduction	8
Media literacy	8
Alcohol media literacy	8
Inoculation theory	9
Project aim	9
Methods	10
Recruitment of participating secondary schools:	10
Development of data collection tools:	11
Development of the alcohol counter marketing curriculum package:	11
Results and analysis	13
Process evaluation: Perspectives from the classroom	13
School A	13
Content and materials	13
Format and delivery	14
General comments	15
Researcher observations	16
School B	16
Content and materials	16
Format and delivery	17
General comments	
Researcher observations	
School C	19
Content and materials	19
Format and delivery	19
General comments and researcher observations	20
School D	21
Researcher observations	21
Content and materials	21
Format and delivery	22
Outcome evaluation: Pre-post intervention survey data	22

Demographics
Baseline sample22
Follow-up sample24
Pre-post demographic differences26
Pre-post changes on primary measures: Alcohol company attitudes/literacy
Pre-post changes on other measures28
Attitudes to binge drinking
Injunctive norms
Moral norms29
Perceived behavioural control30
Role of alcohol
Discussion
Process evaluation and analysis of feasibility
Outcome evaluation
Recommendations
Recommendations for future interventions
Recommendations for further research32
References
Appendix: Focus group discussion guide

Summary

Media literacy is a key skill that young people need to develop in order to be able to critically engage with media and the increasing barrage of marketing messages. Research on smoking prevention programs has suggested that higher rates of media literacy are associated with reduced rates of smoking among adolescents, and there have been a number of effective 'counter marketing' interventions developed and delivered, primarily in the United States (US), to increase young people's media literacy and raise their awareness of the manipulative nature of the tobacco industry.

However, there have been few counter marketing/media literacy interventions developed to equip young people with the knowledge and skills to critically engage with alcohol advertising and marketing.

The aim of this school-based intervention was to build the skills, knowledge and understanding of young people to view and analyse alcohol-related media, advertising and other communications such that they are able to think critically about alcohol messages in a way that empowers them to re-think their choices and behaviours regarding the consumption of alcohol.

Method

A comprehensive counter marketing/media literacy program was developed for Stage 5 students (years 9 and 10, 14-15 years of age). The curriculum was developed to comply with both Australian English Curricula requirements and New South Wales (NSW) Personal Development, Health and Physical Education (PDHPE) curricula requirements. However, all participating schools chose to deliver it as part of the PDHPE program.

The materials developed included Teacher Manuals, student activities and worksheets, audio-visual materials (including PowerPoint Slides, still images and video clips), and assessment tasks. The curriculum included six core topics/lessons (alcohol industry and consumption trends; alcohol industry, products and brands; media literacy; advertising; industry action v real action; and other alcohol promotion) and two elective lessons (debate preparation; and the great debate).

The program was delivered by classroom teachers in the PDHPE classes in four schools in 2014; one Catholic girls school (n=193) and three public high schools.

Students who provided parental and own consent completed a survey at baseline (n=518) and after completion of the program (n=335). The significant decrease in post survey sample is unfortunate, yet reflects the real-life barriers of action research in busy school settings. Primarily, at the end of the unit, the scheduling of time to complete the survey was not perceived by teachers (or students) as critical. Further, health classes, and the teachers who teach them, are often 'sacrificed' in the general school schedule for other activities such as school camps and this lost time is never recovered. Weather also has an impact; outside activities (still required by the school in addition to this intervention) which were postponed earlier in the term due to bad weather were made up in finer weather, detracting from class time to do the survey. Despite education around the importance of data to help measure the impact of the curricula, competing priorities between teachers' and researchers' core needs were apparent. Numbers of respondents per school ranged from 63 to 193 at baseline, and from 39 to 152 at follow-up.

The survey included measures of alcohol-related attitudes, beliefs and intentions, injunctive and moral norms, perceived behavioural control, alcohol expectancies, and attitudes to alcohol advertising and marketing (and to the alcohol and advertising industries).

Findings

Process evaluation

Across the four intervention schools, we found both consistencies and variations in program implementation. Three out of the four schools tried to complete all components of the curriculum, including the optional debate, which resulted in a sense of rushing through some of the earlier activities. There was considerable variation in the fidelity adherence with prescribed content and activities across schools. While most teachers attempted to stay 'on message', all schools regularly deviated from the prescribed content.

Teachers reported that student participation was limited by the extent and nature of the activities, and felt that more handouts were needed to complement the videos, as well as more self-directed tasks and additional time for discussion. While there was some variation, most students were satisfied with the curriculum content and engaged with the materials. Student satisfaction was higher with more local content (advertisements and alcohol beverages which they could easily recall); and teachers felt the students would have been more engaged had they moved on to 'health' topics. Execution through an English curriculum, where the emphasis is on a critical thinking process and not a health outcome, may be more appropriate.

An important finding was the teachers consistently expressed concern about the focus on alcohol media literacy education and were sceptical of its merit from a health point of view; they expressed a strong preference for inclusion of comprehensive information regarding physical harms and harm minimisation principles. This is perhaps not surprising given that the schools delivered the program as part of the PDHPE (health) curriculum; and suggests that the material would likely be more beneficial if delivered within the English curriculum, by teachers who are more comfortable with this type of material.

Outcome evaluation

The analysis of changes between the pre-intervention and post-intervention surveys suggests that the curriculum package had some success in increasing the students' alcohol advertising literacy. Particularly notable changes were seen in relation to scepticism towards the alcohol industry; such as the belief that 'alcohol companies try to get young people to start drinking alcohol', 'alcohol companies lie', and that they 'did not want to drink as it would mean they were being manipulated by alcohol companies'. However, overall attitudes towards the alcohol industry were largely unchanged following the intervention, perhaps as a result of their already significant exposure to alcohol and alcohol marketing.

We also found significant reductions in a number of injunctive norms for drinking alcohol following the intervention, which may have been a result of the material presented in the curriculum and/or the conversations that were stimulated among young people as a result of exposure to the intervention.

While some of these changes were consistent across all four participating schools, others were significant in only one or some of the schools. This is likely due to a combination of underlying differences between the samples in the schools and inter-school differences in the implementation of the intervention.

Recommendations

Recommendations for future interventions

- Given that the key concern of the PDHPE teachers was the coverage of alcohol marketing at the
 perceived expense of detailed coverage of the health effects of alcohol consumption, it is
 recommended that future interventions consider trialling the program within the English
 curriculum (where media literacy is a core learning outcome).
- Detailed suggestions for revision of each lesson are contained in annotated curriculum; and future interventions should incorporate these revisions.
- It was clear that some of the teachers felt uncomfortable delivering the content given their lack
 of expertise in the area of alcohol marketing and media. Future interventions could consider the
 feasibility of converting the content into workshop(s) delivered by an external party such as the
 Foundation for Alcohol Research and Education (FARE) with the expert knowledge and related
 enthusiasm for the topic to better engage students.

Recommendations for further research

- Future research could usefully consider the impact of different delivery formats including program duration, location, and modality – on participants' engagement with the material presented.
- It is likely that many secondary school students will have had substantial prior exposure to both alcohol advertising and alcohol consumption (either their own or observing that of others) and this may impact on the effectiveness of a program to increase alcohol advertising literacy. Acknowledging the limitations of self-report data and the potential difficulties in obtaining approval from an ethics committee, future research could consider collecting data on and controlling for these potential confounders.
- Also related to the exposure of adolescents to alcohol marketing and alcohol per se, and initial evidence of the effectiveness of interventions targeting younger children (Gordon et al. 2015), future research could compare the relative effectiveness of interventions targeting primary-aged versus secondary-aged students.

Introduction

What is media literacy and why is it important?

The term 'media literacy' (ML) refers to the skills, knowledge and understanding needed to access, analyse, evaluate and produce media/communications (Ofcom, 2004). Muto (2004) emphasises that it must include the skills that enable someone to think critically. Mass media messages and social media engagement in 2016 are such that their power and sophistication influence our attitudes, beliefs and behaviours, even without our awareness (Potter, 2014). Music, fashion, food, cars, holidays are all promoted extensively to consumers every day. Adolescents are especially susceptible to these influences as they develop a sense of identity in these formative years, and are often unaware of the strategies and techniques that are being used to attract their attention and influence their engagement with commercial brands, including alcohol brands.

Learning how media, marketing and advertising work to shape, or even determine, a person's way of thinking and being is a powerful tool in redressing the 'programming' by the media and empowering people to make better, more informed decisions. Increasing media literacy equips consumers with the skills required to consciously question messages that they are exposed to, and process them in a way that sees them make decisions that are good for them, not just the advertisers (Potter, 2014).

There are now many school programs that integrate media education into the K-12 curriculum, for example Media Smart, which focuses on teaching media literacy in United Kingdom primary schools. A study of Media Smart effectiveness showed that the teaching materials had increased awareness of advertising techniques and enhanced children's knowledge of where advertising might appear, especially via media other than television (Muto, 2004). Research on smoking prevention programs has suggested that higher rates of media literacy are associated with reduced rates of smoking among adolescents and college students (Primack et al. 2006; Primack et al. 2009).

Alcohol media literacy

Two studies on third graders (Austin & Johnson, 1997a; 1997b) found that media literacy education resulted in children being less likely to choose toys that looked alcohol-related and less likely to expect positive results from drinking alcohol. The effects were sustained after a three month interval and, in fact, some of the positive effects were delayed until this time. The second study included general media literacy training as well as the alcohol specific training used in the first study (that is, the specific training used beer and soda pop advertising, and the non-specific training used food and other drink advertising). The results suggested that any general media literacy training can have positive outcomes, but unsurprisingly lessons specific to the alcohol context are likely to have a stronger and longer lasting effect on alcohol-related outcomes.

The longitudinal research on alcohol advertising conducted by Ellickson et al (2005) included students who were exposed to the alcohol prevention program ALERT Plus, which is described as using a variety of approaches, including specific media lessons. They found that although exposure to in-store beer displays predicted drinking two years later for non-drinkers in year 7, those who were exposed to the program were less likely to drink and less susceptible to the persuasive appeals of in-store advertisements. The results suggest that alcohol education can moderate the relationship between advertising and behaviour.

Inoculation theory

Inoculation theory forms the implicit theoretical foundation underpinning media literacy programs (Eagle, 2007). Inoculation theory proposes that psychological 'immunity' can be produced in a similar manner to a bio-medical model of immunisation: resistance to future attitude attacks is conferred by prior exposure to refuted counterarguments.

The steps essentially involve making the person feel vulnerable to attack, warning the receiver of an impending attack, making a persuasive attack, and getting the receiver to actively defend the attitude. That is, a person is familiarised with persuasive arguments before actual contact and given help to defend against them.

In the alcohol prevention literature, this framework has been sporadically used to inform immunisation against future peer pressure (Godbold & Pfau, 2000; Duryea, 1984). Godbold and Pfau incidentally used beer commercials as the 'attack', which was used as a proxy for the pressure that youth feel from peers. The framework should work well for informing an explicit inoculation against alcohol marketing, as it has recently shown promise in fostering resistance to credit card marketing (Compton and Pfau, 2004).

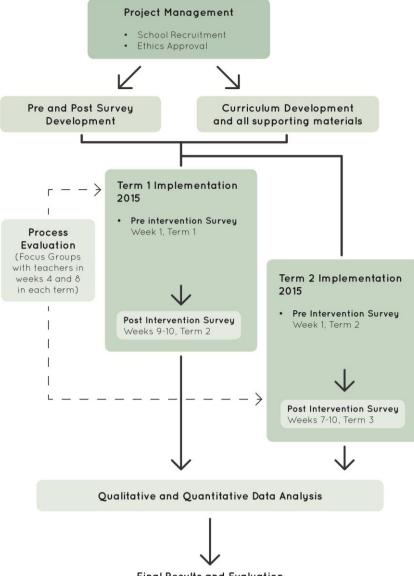
Early research by Evans and colleagues (1976, 1981; cited in Duryea et al, 1990) showed reduced rates of smoking uptake after a systematic inoculation against persuasive messages from peers and media; it is fitting to revisit this framework in the expansive media environment of today.

Project aim

To build the skills, knowledge and understanding of young people to view and analyse alcohol-related media, advertising and other communications, such that they are able to think critically about alcohol messages in a way that empowers them to re-think their choices and behaviours regarding the consumption of alcohol.

Methods

The following Flow Chart provides an overview of the methodological process for this project:



Final Results and Evaluation

Recruitment of participating secondary schools:

Enrolment and demographic information of 13 local secondary schools from the South Coast region of New South Wales were examined by the research team to ascertain schools' suitability for participation. Aspects such as enrolment numbers, location of the school, proportion of Indigenous students, proportion of students from a language background other than English, distribution of students in the bottom academic quarter, and current or previous participation in alcohol-related research projects and/or alcohol media literacy programs were all considered.

The schools were emailed information detailing all aspects of participating in the project, including relevant ethics approvals and a \$500 incentive. In addition, the project was tabled at a regional Principal's conference where a researcher provided a verbal overview of the project and written material.

Many schools declined to participate causing lengthy delays in project implementation. The barriers to participation in action research projects such as this are very real in today's education environment, where much is demanded of teacher's time and school resources. The most cited reason for declining to participate were the expectations of curriculum outcomes and the need to cover many other topics such as tobacco and illicit drugs, harm minimisations topics such as safe partying and other personal wellbeing topics such as bullying and sexual health. Many teachers did not feel (or know) that they could afford to dedicate a whole term of health lessons on the topic of alcohol alone. The other common reasons were teachers who were unwilling to take on another responsibility to spearhead a new unit as well as the administrative burden of collecting parental consent forms and supervising the online surveys.

Four schools were confirmed during term four of 2013 for participation in 2014; one Catholic independent girls school and three public high schools. Due to the sensitive nature of the data, we will refer to the schools as Schools A, B, C and D.

After receiving ethics approval from Australian Catholic University's Human Research Ethics Committee (21/10/14 #2014 249V) and State Education Research Application Process (SERAP, NSW Education and Communities) (5/12/14 #2014265), the students in years 9 and/or 10 of the participating schools were invited to participate in the project. Participation consisted of a pre and post online survey for students who were taught the Alcohol Counter Marketing Curriculum as part of their PDHPE studies. Teachers also participated in qualitative group discussions (focus groups) for rich process evaluation data.

Development of data collection tools:

The baseline survey included quantitative measures on students' alcohol-related attitudes, beliefs and intentions, moral and injunctive norms (perceptions of which behaviours will be approved or disapproved of by others), perceived behavioural control, alcohol expectancies, and attitudes to alcohol advertising and marketing (and to the alcohol and advertising industries).

The post-test survey was designed to repeat the measures collected in the baseline survey to assess changes as a result of the intervention. The survey can be found in the Appendix.

Development of the alcohol counter marketing curriculum package:

The development of the curriculum package was informed by inoculation theory and reviewing successful elements of other counter marketing approaches (for instance, Florida Truth). The development of the curriculum was further informed by recent evaluations of an Alcohol and Social Norms curriculum developed for New South Wales PDHPE (and trialled by Kiama High School) by Professor Jones.

Several possible combinations of program content and delivery methods were considered, including:

- the year level(s) at which to pitch the curriculum
- the delivery format (for instance, traditional lesson structure of 45 minute or a workshop style with two to two and a half hours)
- the delivery method (including in traditional classroom setting by the participating school's teachers, or, a dedicated 'project teacher' who would teach all participating school students)
- whether the curriculum would be best placed within an English program or a PDHPE program. This was an important consideration (at the time of development, the English Curriculum was being

'nationalised' Australia wide, making it unlikely to attract any English departments willing to deviate from the agreed national syllabus)

• most relevant qualitative and quantitative process and outcome evaluation methods.

Each was discussed on merit and within the time and financial constraints of the pilot project. It was decided that:

- Stage 5 students (school years 9 and 10, aged between 14 and 15) would be the target audience for the curriculum. These students were expected to have sound foundation knowledge of alcohol and other drugs already covered in the New South Wales PDHPE curriculum in Stage 4 and sufficient literacy levels and critical thinking skills to manage a 'new' counter marketing concept. Furthermore, Stage 5 students are provided with laptops in New South Wales secondary schools, removing a barrier to computer access and venue availability in order to complete pre and post surveys.
- The curriculum would be developed to comply with both Australian English curricula requirements and New South Wales PDHPE curricula requirements, making the lessons adaptable to both areas depending on where the best position was in relation to interested schools.
- The curriculum would include six core topics (lessons) with two elective topics (lessons) if teachers
 were progressing well with their class. It was agreed that a six to eight lesson unit was feasible in
 a ten lesson term, but that the development provided some flexibility depending on class literacy
 levels, levels of engagement and any unforeseeable circumstances.
- The curriculum would be taught by Stage 5 teachers in participating schools to reflect a 'real life' teaching and learning platform.

In the time taken for initial development and ethics approval, interest was obtained primarily from PDHPE departments (see section on recruitment). Therefore, the curriculum was provided to a 'PDHPE Expert Reviewer' for critical feedback and refinement according to the 'NSW BOSTES PDHPE Curriculum for Stage 5'. The expert reviewer was well qualified to provide a critical review as a current Head Teacher PDHPE in a New South Wales Secondary School, Athletics Convener (New South Wales Combined High Schools Sports Association, or NSWCHSSA, and Executive Committee Member) New South Wales PDHPE Teachers' Association. Note that the curriculum still complies with Australian Curriculum Assessment and Reporting Authority (ACARA) Australian curriculum for English.

Based on his feedback and suggestions, the final curriculum package consists of:

- six dedicated lessons:
 - > Alcohol industry and consumption trends.
 - > Alcohol industry, products and brands.
 - > Media literacy.
 - > Advertising.
 - > Industry action v real action.
 - > Other alcohol promotion.
- two optional lessons:
 - > Debate preparation.
 - > The great debate.

- student activities and worksheets
- teacher manuals
- audio visual materials including PowerPoint Slides, still images and video clips
- assessment tasks.

Results and analysis

Two methods of evaluation were employed to assess the feasibility and effectiveness of the 'Alcohol, Media and Marketing' curriculum for Stage 5 PDHPE:

- pre and post surveys from participating students, and
- qualitative focus groups with teachers who taught the unit.

Process evaluation: Perspectives from the classroom

Undertaking research interventions in a 'real life' secondary school setting has many variables within and between school settings (such as socio-economic status, literacy levels, class sizes, teacher engagement). We undertook a process, or monitoring style of evaluation in order to:

- monitor the delivery of the Alcohol, Media and Marketing curriculum against specified lesson milestones and against applicable learning objectives
- provide evidence for or against the delivery of the curriculum as per the desired research outcomes within the broader research and education contextual settings
- develop an understanding of the strengths and weaknesses of the curriculum and provide recommendations for fine tuning or revisions based on these findings.

This was undertaken with a practical perspective in mind; for instance how feasible is it to actually teach the pilot curriculum in a real school setting? A central indicator was how well the target audience (students AND teachers) were engaged with the concept of alcohol counter marketing.

While observation and rating of lessons' implementation by a trained observer are considered the 'gold standard' for classroom evaluation (Steckler and Linnan, 2002), this was not possible due to budgetary and personnel limitations. Rather, focus groups were used at two points (mid-way, and end of term) to gather information from teachers regarding the barriers and facilitators to implementation as well as reflecting on content and delivery methods. These focus groups were recorded and analysed for key themes such as content and materials, format and delivery.

Summaries of these findings for each school follow.

School A

Content and materials

Lessons 1-4

The information and materials presented in the lessons were clear and understood by most students. The students related to most of the content and were able to discuss most concepts. One element which required more 'work' and exploring was for students to view the producers of alcohol as an 'industry' and what this means. Students questioned why the alcohol industry shouldn't be allowed

to advertise their products, as with other companies who advertise and market their products. Students were able to identify alcohol brands and determine the brand personality associated with each. They were also able to decide what was perceived as good or bad news for the alcohol industry.

The videos used throughout these lessons were useful in engaging students, described as visual learners who relate better to videos rather than print advertisements. For example, the videos on 'pulling power', 'Pit-bull' and the emotional drivers in advertising all evoked a response from students. Teachers believed the British videos did not have the same effect as they were unfamiliar, difficult to understand and felt that because the curriculum focused on Australian media the videos should be Australian. The activities were the most engaging type of content, particularly those which required writing answers, using handouts, group discussions, peer presentations or group work. For example, the brand personality group activity in lesson two was very appealing.

Lessons 5-8

The students (all girls) at School A had difficulty understanding some of the information presented in lessons 5-8. In particular, they found lesson five had a lack of relevant material and the students struggled to make sense of the information. For example, James Bond was an unfamiliar character causing them to be uninterested in the work. Teachers felt it was inapt to read the James Bond article (which referred to erectile dysfunction) and that the 'Push to ban alcohol ads on the field' article was irrelevant due to the focus on males and sport. The DrinkWise 'How to drink properly' video, however, evoked a strong response from the female students who found it to be offensive in the way it was 'carrying on'.

The teachers commented that more videos, activities and handout sheets are required to improve student engagement; a lot of information seemed to go 'over the top of their head' and at the end of the curricula they didn't have much tangible work to show for what they had learnt (perhaps another example of the expected outcomes in secondary education and the intent of this program). School A in particular always commented on their preference for local materials. 'Game Changer' and the community advocacy campaign in Kiama were well received while 'Youth Alcohol Advertising Council' and the 'Truth: Tobacco kills' videos were not, highlighting the importance of including material that is relevant to the age group, gender and location.

There were mixed opinions regarding the debate activity. One teacher found that her students were relieved to start the debate as they were ready for an activity and became very involved. Although the students didn't have an extensive understanding of a debate format, they had the ability to demonstrate their points, share them among group members and a few students were able to rebut. Most teachers didn't have time to run the full format of a debate. Teachers agreed that, although the whole unit focuses on 'advertising', they would have liked to see a range of debate topics; for example, changing the legal drinking age to 21. Both the social media debate topic and alcohol branded merchandise debate topic were perceived as being too similar. Teachers commented that a broader variety of topics would have been beneficial in terms of meeting syllabus points and to increase the level of interest of the students.

Format and delivery

Lessons 1-4

The slides, videos and activities used in lessons 1-4 were appropriate, however the information presented is very teacher-centred, similar to a university style lecture as opposed to a 'normal' secondary classroom lesson. The level of variety in the information presented in the lessons differs. Lesson two was regarded as the most engaging lesson, however feedback regarding lessons 2-4

pointed to needing more activities, group work, handout sheets and videos. For example, in lesson three the decoding of a print advertisement activity could have been improved if video clips were used as an alternative. The students found it difficult to decode the advertisement based on the print and teachers found the decoding grid to be too detailed.

All teachers agreed that the amount of content to work through was too much and in some areas too detailed. This made it difficult to finish lessons and restricted the amount of discussion they could have with students about what they were learning. They believed that more peer leadership in group activities would help students engage with the information more, for instance, having students present discussion results to the class on behalf of their group.

Lessons 5-8

Teachers felt there was a lack of variety in how the lessons were presented and also a lack of studentled (inquiry based learning) work. Again, they felt there was too much content for the amount of time allocated. The lessons were perceived as being heavily 'scripted'; teachers found it difficult to alter this and incorporate different activities. Suggestions to make the lessons more engaging included requiring students to research a local campaign or advertisement and bring it into class to discuss.

General comments

- Overall, teachers believed that the lessons achieved their goals in terms of facilitating student thinking about the alcohol industry's financial investment in persuading young people and the community to drink alcohol.
- The curriculum is too long; students lost interest half way through.
- To increase student interest, the lessons require more videos, activities, graphs and class discussions.
- Additional handout sheets were also recommended by teachers as they believe that in writing notes, students are assisted in retaining information and provides something tangible to show their parents what they are learning in class.
- By altering lesson structure to include some of the above suggestions, teachers felt it would allow discussions to be less teacher-centred and more interactive.

BUT

- Overall teachers were not committed to the curriculum believing that for students 'this age', media literacy and counter marketing "are not the most important parts of learning about alcohol".
- Teachers cited the following alcohol-related issues as being lacking (note that this list was provided to teachers by students after being asked by the teacher to 'brainstorm' what they would still like to know about alcohol:
 - > information about standard drinks
 - > physical effects of alcohol (how many drinks to 'feel tipsy' or 'pass out')
 - > safe partying
 - > making informed choices
 - > how to stand up to peer pressure.

Researcher observations

- The perceived value of teaching media literacy and alcohol counter marketing strategies was low among these teachers. Therefore, without teacher 'buy in' (and skills in teaching this particular concept), the enthusiasm for implementation suffers.
- Teachers felt that students could have 'learnt more' by looking at physical effects of alcohol and harm minimisation strategies.
- Researcher concern regarding teachers' true understanding on what the media literacy curriculum is trying to achieve (and how) and some teachers grouping of the term 'advertising'.
- One teacher's viewpoint was that the curriculum was set out to 'slam' the alcohol industry by showing students how negative it is and that this approach may encourage them to try alcohol more (there is no evidence to suggest this is the case). This teacher was further concerned that the 'negative team' for the debate were 'too vocal'. Another teacher disagreed, explaining that the lessons aimed to help students develop knowledge and skills to be aware of the techniques used by the industry which manipulate and target young people.
- There are many contradictions in teacher feedback regarding the need for flexibility, less content, more discussion and more interactive activities versus also needing quite specific, prescriptive tasks, assessments.
- Curriculum in its current from may be better suited in the English curriculum and taught by English teachers.
- This school is an all-girls Independent Catholic School.

School B

Content and materials

Lessons 1-4

There was a mixed response to these lessons depending on the academic level of the students. Remedial groups struggled to find the content interesting, they were disengaged and cynical. Teachers of the higher classes commented that additional handouts and activities/homework would have been good for students requiring extension work. There were some comments from teachers which inferred that the topic was conceptually new to both teachers and students. One teacher commented that "I didn't think it was very relevant to young people". Another teacher inferred that looking at alcohol in this way was new: "...they don't think what we are presenting here is relevant to the way they see alcohol". It is interesting that teachers reported that lesson one was well understood by students but felt it made no difference to their perceptions of alcohol companies.

The slides, videos and activities used were perceived as being very useful, however teachers felt the lessons were too teacher-directed and require more student-directed work which enables them to learn for themselves. The videos were the most engaging form of information and students relate best to these. For example, the emotional drivers in advertising was a useful resource which students enjoyed – teachers thought this could have been capitalised on by providing a worksheet to go along with it. The XXXX Gold island advertisement was a good choice of video to deconstruct because it was particularly popular with the students who had seen this advertisement and wanted to 'visit the island'.

Alcohol advertising and sport was particularly interesting to most students. The statistics engaged the students and teachers recommended incorporating more into this topic, videos and handouts. Teachers felt that lesson four seemed to really engage students as they began to ask questions: "The kids started asking why there weren't more regulations or more fines".

Lessons 5-8

The nature of the information presented was generally understood by most students with some materials (such as social media and online activity) more relevant and engaging than others (James Bond and Baz Luhrmann were considered irrelevant and outdated). While most students understood the information, teachers recommended additional activities with questions to answer in order to facilitate applied learning rather than only reading. This was a common theme; slides, videos and activities were appropriate and engaging, however more handout sheets or questions are needed for students to further develop an understanding of the information.

"I found that the whole unit needed to have more activities for the kids to do and less lecture style work so that they are more engaged."

"They need to use the information they are learning."

"The whole lesson is basically just a slide show and it's a bit long."

Skills, knowledge and exposure to debates at School B was 'non-existent'. This activity was challenging to all teachers and classes.

Format and delivery

Lessons 1-4

A common experience was that the lessons were too teacher-directed and there was not enough student-led work. There is a great deal of information to cover, and the variety of information is good, however more activities are required to help student engagement, and less need for teacher explanation and discussion. Teachers felt that they wanted further tailoring to suit all student learning abilities including extension work. Overall, teachers commented on there being too much content to work through in the allocated class time, a need for more videos, handouts and student-led activities.

Lessons 5-8

Concerns regarding lessons 1-4 above are also applicable to lessons 5-8. Some suggestions to improve the format and delivery included research tasks where students find examples of advertisements on their social media accounts and bring them in to class to share and discuss. This type of activity requires students to seek information themselves and then process it, making their own connections between instances in their daily life and alcohol companies targeting young people. Teachers advised to incorporate social media wherever possible and to reduce the amount of content to provide more time for discussion and questions.

The debate task was challenging for all classes as most students had very little knowledge and exposure to debating, requiring teachers to show an example of a debate online and provide more explanation. The ability to verbally express themselves was daunting for most students, which acted as a deferent to participation even though students were generally very interested in the topic. Teachers of remedial classes altered the debate lessons and created a persuasive writing task instead of the debate. The alcohol branded merchandise topic was very relevant for the male students who used sporting references from matches such as the Stage of Origin to demonstrate their points. Overall, there were mixed feelings about the success of the debate topic due to the variety of the

nature of student personalities in the classes. Debates were hard to sustain in a mixed class of outspoken, streetwise students and shy, quieter students.

General comments

- The school has a very wide range of student abilities. The teachers had to do extra work to make the content and activities applicable to lower/remedial groups and also extension classes.
- It was suggested that the social media debate topic could be edited to "The alcohol industry should be banned from promoting alcohol to young people" in order to remove the focus on social media and open it up to broader issues. This suggestion, however, is at odds with the general feedback from all schools regarding increasing references to social media in order to engage students.
- There was a very strong theme that while the content is great, it is also information overload. Students then 'switch off' and the didactic delivery style further hinders student engagement.
- The content planned for eight lessons is probably more realistically executed in 12 lessons. A sample of teacher observations has been included below. It is interesting to note that these comments demonstrate a great investment in the current alcohol content in the PDHPE curricula (including standard drinks, harms, consequences and harm minimisation); question the merit of teaching media literacy and counter marketing; and contextualise the home environment of many students:

"For the amount of time it takes up in our syllabus it's probably only meeting a few dot points so it's probably over catered for. In terms of spending a whole term on teaching alcohol we have only really looked at the advertising side, whereas you need to go into more detail like discussing the risks and effects of alcohol and the amount in standard drinks."

"A lot of the content could be compressed into 3-4 lessons where it starts with the negative effects of drinking alcohol because still some of these kids don't think it's that bad because they are out drinking and their parents let them drink and go to parties."

"Need to scare the tougher kids by showing them documentaries about what drinking can do like brain damage, which will make them rethink it. Whereas with this they only think "oh yeah the companies are trying to sell me alcohol."

"I don't think the fact that the industry trying to make money will stop young people from drinking. It's not important to them."

Researcher observations

- Faculty staff attended a briefing session with Project Manager prior to implementation.
- School B has a high percentage of students from non-English speaking backgrounds.
- It is also the most socially disadvantaged area; School D (SEIFA = 751.80).
- The Deputy Principal and Head PDHPE were two of the most enthusiastic supporters of trialling this curriculum and overall, the staff were some of the most enthusiastic, clearly demonstrating their dedication for student-centred learning and making proactive modifications to suit their teaching needs (such as a photocopied work book for students).
- Despite this, there is still a heavy investment in harm minimisation and teachers felt they did not do the right or valuable thing by their audience and/or that the unit provided enough of a deterrent to challenge the alcohol companies (and achieve true media literacy).

• Curriculum in its current form may be better suited in the English curriculum and taught by English teachers.

School C

Content and materials

Lessons 1-4

Teachers reported that students seemed to fall into two distinct categories, the 'higher' academic classes where most had never had a drink of alcohol and the 'lower' academic classes where the majority are regular drinkers. Drinkers were very open and honest about their experiences with alcohol (and the home environment) in the discussion topics. Overall, the first four lessons were well understood and students were sufficiently engaged. These students enjoyed the alcohol and sport lessons and were highly aware of alcohol sponsorship:

"Kids mentioned State of Origin and the VB logo being on the stomach of the players, some fathers bought cases of VB in the hope to get their name on the shirt as a competition. So students were aware that VB tried to target sportsmen who drink while watching the game."

Lessons 5-8

The information and materials were generally well targeted for the students at School C. Students began to question whether alcohol marketing is going in the 'same direction' as the tobacco industry because of how much alcohol is costing individuals, communities and the government. Most students had the ability to make this connection, and often compared alcohol and tobacco related issues. The feedback on slides, videos and activities were mixed. For example, the DrinkWise video evoked a strong response from students who found the advertisement message to be very strange and confusing. This allowed them to understand the problems that arise with a self-regulated alcohol industry and the difficulty of them being accountable for their actions.

The example of a local community advocacy campaign in Kiama was particularly interesting and relevant to students. Teachers felt it was useful for them to hear about other students in the area who are learning about alcohol-related topics and this created discussion around what could be done in their local area. On the other hand, James Bond was considered outdated and irrelevant and his association with alcohol went unnoticed. Surprisingly, the social media content didn't engage the students, however the information on alcohol branded merchandise was very relevant to these classes. They claimed to be very aware of this type of alcohol promotion because websites like Tooheys New and XXXX Gold often encourage visitors with free hat and football giveaways. Students stated that alcohol branded merchandise was the form of advertising which interested them the most and was the most recognisable.

The students in the 'top classes' enjoyed the debate task and teachers found it to be a good way to finish the topic. More remedial classes however, struggled with this activity, and some teachers reported that by this stage they were 'over it'. Due to insufficient time, the class debate wasn't implemented as prescribed and various modifications were made to save on time (for both levels of academic abilities).

Format and delivery

Lessons 1-4

Overall, teachers reported that there was not enough variety in the format of the lessons and that students began to lose interest in the 'constant theme of advertising'. Much of the discussion often

(and quickly) moved away from how alcohol companies market to young people and the prescribed topics onto their opinions and experiences of underage drinking. Teachers facilitated this discussion, perceiving it was important: "You have to listen to them - and then remind to not just talk about them getting drunk".

Teachers of the 'bottom classes' were more selective with what they taught the class (for instance, skipping slides and activities). There was a perception that once students understood that the unit was 'about advertising', then they wanted to 'move on' – presumably to 'more important' alcohol-related matters. For example, the 'Don't turn a night out into a nightmare' ad [not prescribed content] was shown to one class which promoted a discussion about effects and consequences of binge drinking.

Lessons 5-8

Consistent with other schools, the debate activity was better suited to 'higher' classes while the 'bottom' classes struggled with the concept and the time taken to implement it. Teachers commented that by the time of the debate, most students and teachers were 'over it' [the topic of alcohol and counter marketing in general]. However, they also suggested that it was a good measure of how well students actually understood the content given how effective their arguments were. Generally, students who participated, really enjoyed the debate activity, though they would have like more time to prepare.

Overall, the mixture of discussion and visual presentations was good, although suggestions for more student-directed learning were again highlighted:

"Another activity I'd put in is to look up beer commercials on YouTube, and also finding playlists of older commercials and seeing who they were/are targeting and how the product [marketing] changed. Here you could see they are targeting young people and now they have refined their product and aiming it towards a classier target market."

General comments and researcher observations

It is interesting to note that School C, while extremely enthusiastic about implementing this pilot curriculum, often deviated from the prescribed lessons, activities and content. Some teachers introduced other materials (related to high fear messaging, recent binge drinking initiatives and even the Sydney 'lockout' policy in the CBD) which they felt was more relevant to the students. This may have been because of the knowledge of current drinking behaviours at the school, but it is also worth noting that this school, for a variety of reasons, did not have a faculty briefing by the project manager. While the project manager met in person with the PDHPE Head Teacher and outlined the objectives of the project, research parameters and the need to maintain fidelity, the importance of this may not have been directly passed on to the teachers themselves.

Similar to other schools, teachers and students reported a perceived gap in information on more personal issues around drinking alcohol such as the implications if minors 'get caught' drinking underage, what to do if they have a friend who they are concerned about, and alcohol consumption in the home. In response to this, teachers thought more problem solving scenarios could be included to help the students handle different situations they may find themselves in.

School D

Researcher observations

Overall, School D was unsuccessful in delivering the Alcohol, Media and Marketing curriculum. Researchers cannot confirm the extent to which the curriculum was taught beyond lesson four, or how consistent even these first four lessons were across the faculty. There were multiple reasons for this, however, significant teacher and student disengagement provide the key explanation.

While it offers a specialist sports program for promising and talented sportspeople, School D provides a broad comprehensive curriculum for students from southern Wollongong, particularly the suburb where it is located. This suburb and surrounding postcode areas suffer high social disadvantage, high rates of unemployment and public housing (SEIFA = 882.4). There were many challenges in working with this school, and for the school itself in implementing a pilot curriculum for research purposes. After many months of recruitment, communication and relationship building the Head PDHPE agreed to participate. However, when this Head Teacher was promoted to Deputy Principal, a new Acting Head Teacher assumed responsibility (at short notice) for working with researchers, liaising with parents and facilitating her teachers to teach this unit. The school had high numbers of relief and casual staff due to core PDHPE staff taking personal leave or entering retirement, and over the course of the term, staff turnover was high.

Those teachers who were new to either the school or to the teaching profession, reported that their lack of implementation was partly due to needing to build rapport and credibility with their students before (or instead of) teaching this particular unit. Longer term staff simply seemed disinterested and not committed to trial the curriculum. They cited the problematic nature of the students' behaviour which regularly distracts from regular classroom teaching, time taken in student discipline, and general interest in the topic. Their overall feedback was that most teachers did not enjoy teaching the proportion of the unit which they did teach, and the students were not engaged. Only one teacher (a new graduate and casual relief teacher) taught a significant proportion of the unit.

The evaluation from this single teacher is consistent with feedback from teachers at the three other schools and includes the following remarks.

Content and materials

- Too much content to teach in the time provided.
- Some videos weren't understood due to British accents.
- Indication that conceptually, counter marketing and media literacy was not well understood:
 - > "The students understand the alcohol industry is a business that is after profit, but the material didn't expand much more on this concept."
 - > "The girls are a bit more interested, but struggle to make a link between advertising and how it relates to them in their own lives."
 - > "CEO information was irrelevant to students."
 - "Kids are already aware of the size of the industry, and know it is successful so not sure what point this is trying to get at."
- Advertising and sport was very relevant for this class, because it is a sports school.
- Teachers report wanting more information about the effects of alcohol.

Format and delivery

- Perception that the unit was not relevant for students: "Not aimed very well at young people".
- Lack of variety in the lessons.
- Format is too much like university lectures:
 - Students should be given the data themselves and actually put the information together on a graph, rather than giving them the finished product."
 - > "Get the students to come to their own conclusions."
 - > "More activity based lessons are needed."
- Not enough time to teach the lessons due to the disruptions that occur with students' behaviour.
- Some kids pick it up well and some don't want to hear about it, which is a real Australian problem.
- Decoding grid activity was good, especially for creative students.

Outcome evaluation: Pre-post intervention survey data

Demographics

Baseline sample

Overall sample

There were 518 students in the overall baseline sample, with a mean age of 14.8 years (see Table 1). The majority (75 per cent) were in Year 10, and just over two thirds were female (69 per cent). Around ten per cent were of Aboriginal or Torres Strait Islander descent. Over half of the sample indicated that their cultural background was Australian (59 per cent), with the remainder predominantly of European background (23 per cent), and only four per cent of Asian background. A small proportion (16 per cent) spoke a language other than English at home. A substantial proportion of the sample indicated that they were of no religion (43 per cent), and a large proportion (30 per cent) that they were Catholic. Most of the sample (86 per cent) considered themselves average or above average in their school work. The amount of pocket money available varied considerably, with almost a quarter (22 per cent) receiving over \$60 per week.

Table 1. Baseline demographics¹

		All	School A	School	School	School D
				B(n=63)	C(n=86)	(n=150)
		(n=518)	(n=193)	D(11-03)	C(II-00)	(11-130)
Age	(mean)	14.8yrs	15.0yrs	14.7yrs	14.6yrs	14.7yrs
Year level	9	25.3% (127)	0.5% (1)	1.6% (1)	48.8% (42)	52.7% (79)
	10	74.7% (374)	99.5% (190)	98.4% (60)	51.2% (44)	47.3% (71)
Gender	Male	30.8% (155)	0	41.0% (25)	41.9% (36)	56.7% (85)
	Female	69.2% (348)	100% (193)	59.0% (36)	58.1% (50)	43.3% (65)
Pocket money	None	16.4% (82)	11.5% (22)	9.8% (6)	11.6% (10)	25.3% (38)
	\$10 or less	14.4% (72)	16.8% (32)	18.0% (11)	24.4% (21)	5.3% (8)
	\$11\$20	18.4% (92)	17.8% (34)	23.0% (14)	19.8% (17)	16.7% (25)
	\$21\$40	17.6% (88)	16.2% (31)	9.8% (6)	17.4% (15)	23.3% (35)
	\$41\$60	11.0% (55)	12.6% (24)	13.1% (8)	7.0% (6)	10.7% (16)
	\$61\$80	5.4% (27)	5.2% (10)	9.8% (6)	3.5% (3)	4.7% (7)
	Over \$80	17.0% (85)	19.9% (38)	16.4% (10)	16.3% (14)	14.0% (21)
School work	A lot above average	9.0% (45)	4.2% (8)	6.6% (4)	16.3% (14)	9.3% (14)
	Above average	36.5% (183)	47.1% (90)	29.5% 18)	29.1% (25)	33.3% (50)
	Average	49.7% (249)	46.6% (89)	55.7% (34)	47.7% (41)	52.0% (78)
	Below average	3.8% (19)	2.1% (4)	8.2% (5)	4.7% (4)	4.0% (6)
	A lot below average?	1.0% (5)	0	0	2.3% (2)	1.3% (2)
Aboriginal &	No	90.8% (455)	99.0% (189)	88.5% (54)	88.4% (76)	84.7% (127)
Torres Strait	Aboriginal	7.6% (38)	0.5% (1)	11.5% (7)	11.6% (10)	11.3% (17)
Islander	Torres Strait Islander	0.6% (3)	0	0	0	2.0% (3)
descent	Both	1.0% (5)	0.5% (1)	0	0	2.0% (3)
Cultural	Other	15.4% (77)	11.0% (21)	21.3% (13)	10.5% (9)	19.3% (29)
background	Australian	58.5% (293)	57.1% (109)	37.7% (23)	72.1% (62)	62.7% (94)
	Asian	3.6% (18)	3.1% (6)	8.2% (5)	1.2% (1)	4.0% (6)
	European	22.6% (113)	28.8% (55)	32.8% (20)	16.3% (14)	14.0% (21)
Main language	English and another language	14.6% (73)	11.0% (21)	34.4% (21)	1.2% (1)	16.0% (24)
spoken at	English	83.8% (420)	88.5% (169)	62.3% (38)	98.8% (85)	81.3% (122)
home	Another language only	1.6% (8)	0.5% (1)	3.3% (2)	0	2.7% (4)
Religion	Other	9.8% (49)	5.8% (11)	16.4% (10)	5.8% (5)	13.3% (20)
	No religion	42.9% (215)	27.2% (52)	34.4% (21)	66.3% (57)	53.3% (80)
	Buddhist	2.2% (11)	1.6%(3)	6.6% (4)	0	2.7% (4)
	Anglican	5.4% (27)	8.9% (17)	1.6% (1)	5.8% (5)	2.0% (3)
	Catholic	29.9% (150)	52.4% (100)	14.8% (9)	15.1% (13)	18.0% (27)
	Other Christian	4.8% (24)	2.6% (5)	8.2% (5)	5.8% (5)	5.3% (8)
	Islam	3.8% (19)	1.0% (2)	14.8% (9)	0	4.7% (7)
	Jewish	1.2% (6)	0.5% (1)	3.3% (2)	1.2% (1)	0.7% (1)

1. Not all participants provided a response to every item, thus column n's may not add up to 518

School A

There were 193 students in the School A baseline sample, all female with a mean age of 15 years. With the exception of one student, all were in year 10. Only two students were of Aboriginal or Torres Strait Islander descent. Over half indicated that their cultural background was Australian (57 per cent), with the remainder predominantly of European background (29 per cent), and only three per cent of Asian background. A small proportion (12 per cent) spoke a language other than English at home. Over half (52 per cent) indicated that they were Catholic, and over a quarter (27 per cent) that they were of no religion. Most (94 per cent) considered themselves average or above average in their school work.

School B

There were 63 students in the School B baseline sample, with a mean age of 14.7 years. With the exception of one student, all were in year 10, and 59 per cent were female. Around 12 per cent were of Aboriginal or Torres Strait Islander descent. Just over one third indicated that their cultural background was Australian (38 per cent), and another third were predominantly of European background (33 per cent), and only eight per cent of Asian background. Over a third (38 per cent) spoke a language other than English at home. Over a third indicated that they were of no religion (34 per cent), around 15 per cent that they were Catholic and another 15 per cent Islamic. Most of the sample (85 per cent) considered themselves average or above average in their school work.

School C

There were 86 students in the School C baseline sample, with a mean age of 14.6 years. Approximately half of the sample was in year 9 (49 per cent), and half (51 per cent) in year 10. The sample was 58 per cent female. Around 12 per cent were of Aboriginal or Torres Strait Islander descent. Nearly three quarters indicated that their cultural background was Australian (72 per cent), with the remainder predominantly of European background (16 per cent), and only one student of Asian background. Only one student spoke a language other than English at home. Two thirds indicated that they were of no religion (66 per cent), and 15 per cent that they were Catholic. Around half (48 per cent) considered themselves to be average in their school work, 29 per cent above average and 16 per cent a lot above average.

School D

There were 150 students in the School D baseline sample, with a mean age of 14.7 years. Approximately half of the sample was in year 9 (53 per cent), and half (47 per cent) in year 10. There was a slightly greater proportion of males in the sample (57 per cent). Around 15 per cent were of Aboriginal or Torres Strait Islander descent. Just under two thirds indicated that their cultural background was Australian (63 per cent), with 14 per cent of European background, and only four per cent of Asian background. A small proportion (16 per cent) spoke a language other than English at home. Around half indicated that they were of no religion (53 per cent), and 18 per cent that they were Catholic. Most (85 per cent) considered themselves average or above average in their school work.

Follow-up sample

Overall sample

There were 335 students in the overall follow up sample, with a mean age of 15.1 years (see Table 2). The majority (77 per cent) were in year 10, and around three quarters were female (75 per cent). Around ten per cent were of Aboriginal or Torres Strait Islander descent. Over half of the sample indicated that their cultural background was Australian (54 per cent), with the remainder predominantly of European background (21 per cent), and only seven per cent of Asian background.

A small proportion (19 per cent) spoke a language other than English at home. A substantial proportion indicated that they were of no religion (39 per cent), and a large proportion (33 per cent) that they were Catholic. Most of the sample (80 per cent) considered themselves average or above average in their school work. The amount of pocket money available varied considerably, with over a quarter (29 per cent) receiving over \$60 per week.

		ALL	School A	School B	School C	School D
		(n=335)	(n=152)	(n=39)	(n=53)	(n=89)
	· · ·					
Age	(mean)	15.1yrs	15.3yrs	15.2yrs	15.0yrs	14.8yrs
Year level	9	23.3% (75)	0	0	48.0% (24)	52.4% (44)
	10	76.7% (247)	100% (143)	100% (36)	52.0% (26)	47.6% (40)
Gender	Male	25.1% (81)	0	63.2% (24)	36.0% (18)	46.4% (39)
	Female	74.9% (242)	100% (149)	36.8% (14)	64.0% (32)	53.6% (45)
Pocket money	None	16.8% (54)	11.5% (17)	28.9% (11)	16.0% (8)	21.4% (18)
	\$10 or less	14.3% (46)	17.6% (26)	2.6% (1)	18.0% (9)	11.9% (10)
	\$11\$20	16.1% (52)	14.9% (22)	26.3% (10)	14.0% (7)	13.1% (11)
	\$21\$40	14.0% (45)	14.9% (22)	13.2% (5)	18.0% (9)	10.7% (9)
	\$41\$60	10.2% (33)	12.8% (19)	7.9% (3)	10.0% (5)	7.1% (6)
	\$61\$80	5.3% (17)	5.4% (8)	2.6% (1)	4.0% (2)	7.1% (6)
	Over \$80	23.3% (75)	23.0% (34)	18.4% (7)	20.0% (10)	28.6% (24)
School work	A lot above average?	12.7% (41)	8.1% (12)	15.8% (6)	14.0% (7)	19.0% (16)
	Above average?	34.8% (112)	43.9% (65)	18.4% (7)	32.0% (16)	27.4% (23)
	Average?	45.3% (146)	43.9% (65)	52.6% (20)	46.0% (23)	44.0% (37)
	Below average?	2.8% (9)	0	10.5% (4)	4.0% (2)	3.6% (3)
	A lot below average?	4.3% (14)	4.1% (6)	2.6% (1)	4.0% (2)	6.0% (6)
Aboriginal &	No	89.8% (289)	96.6% (143)	86.8% (33)	88.0% (44)	79.8% (67)
Torres Strait	Aboriginal	6.5% (21)	0	5.3% (2)	12.0% (6)	15.5% (13)
Islander descent	Torres Strait Islander	0.6% (2)	0.7% (1)	0	0	1.2% (1)
uescent	Both	3.1% (10)	2.7% (4)	7.9% (3)	0	3.6% (3)
Cultural	Other	17.4% (56)	15.5% (23)	23.7% (9)	16.0% (8)	17.9% (15)
background	Australian	53.7% (173)	51.4% (76)	42.1% (16)	70.0% (35)	53.6% (45)
	Asian	7.5% (24)	6.1% (9)	15.8% (6)	2.0% (1)	9.5% (8)
	European	21.4% (69)	27.0% (40)	18.4% (7)	12.0% (6)	19.0% (16)
Main language	English and another language	15.8% (51)	14.9% (22)	34.2% (13)	4.0% (2)	16.7% (14)
spoken at	English	81.1% (261)	83.1% (123)	60.5% (23)	92.0% (46)	81.0% (68)
home	Another language only	3.1% (10)	2.0% (3)	5.3% (2)	4.0% (2)	2.4% (2)
Religion	Other	10.6% (34)	8.8% (13)	18.4% (7)	8.0% (4)	11.9% (10)
	No religion	38.8% (125)	25.0% (37)	31.6% (12)	64.0% (32)	51.2% (43)
	Buddhist	3.4% (11)	1.4% (2)	5.3% (2)	2.0% (1)	7.1% (6)
	Anglican	5.3% (17)	5.4% (8)	7.9% (3)	4.0% (2)	4.8% (4)
	Catholic	32.6% (105)	54.7% (81)	15.8% (6)	10.0% (5)	15.5% (13)
	Other Christian	4.0% (13)	2.0% (3)	5.3% (2)	8.0% (4)	4.8% (4)
	Islam	3.4% (11)	1.4% (2)	13.2% (5)	0	3.6%(3)
	Jewish	1.9% (6)	1.4% (2)	2.6% (1)	4.0%(2)	1.2% (1)

Table 2. Follow-up demographics¹

1. Not all participants provided a response to every item, thus column n's may not add up to 335

School A

There were 152 students in the School A follow-up sample, with a mean age of 15.3 years. All were in year 10 (although seven did not report their school year), and all were female. Only three per cent were of Aboriginal or Torres Strait Islander descent. Over half indicated that their cultural background was Australian (51 per cent), with the remainder predominantly of European background (27 per cent), and only six per cent of Asian background. A small proportion (17 per cent) spoke a language other than English at home. A substantial proportion indicated that they were Catholic (55 per cent), and a quarter (25 per cent) that they were of no religion. Most (88 per cent) considered themselves average or above average in their school work.

School B

There were 39 students in the School B follow-up sample, with a mean age of 15.2 years. All were in year 10 (although there were five students for whom year was not reported), and there was a higher proportion of males in the sample (63 per cent). Around 13 per cent were of Aboriginal or Torres Strait Islander descent. Less than half indicated that their cultural background was Australian (42 per cent), with 18 per cent of European background, and 16 per cent of Asian background. Nearly 40 per cent spoke a language other than English at home. One third of the sample indicated that they were of no religion (32 per cent), 15 per cent Catholic, and 13 per cent Islamic. Around half (53 per cent) considered themselves average in their school work, 18 per cent above average and 16 per cent a lot above average.

School C

There were 53 students in the School C follow-up sample, with a mean age of 15.0 years. Around half (52 per cent) were in year 10, and half (48 per cent) in year 9. About two thirds were female (64 per cent). Around 12 per cent were of Aboriginal or Torres Strait Islander descent. Most indicated that their cultural background was Australian (70 per cent), with 12 per cent of European background (23 per cent), and one student of Asian background. A small proportion (eight per cent) spoke a language other than English at home. A substantial proportion indicated that they were of no religion (64 per cent), and ten per cent they were Catholic. Most (78 per cent) considered themselves average or above average in their school work.

School D

There were 89 students in the School D follow-up sample, with a mean age of 14.8 years. Around half (48 per cent) were in year 10, and half (52 per cent) in year 9. Just over half were female (54 per cent). Around 20 per cent were of Aboriginal or Torres Strait Islander descent. Over half indicated that their cultural background was Australian (54 per cent), with the remainder predominantly of European background (19 per cent), and ten per cent of Asian background. A small proportion (19 per cent) spoke a language other than English at home. About half indicated that they were of no religion (51 per cent), and 16 per cent that they were Catholic. Most (71 per cent) considered themselves average or above average in their school work, and 19 per cent a lot above average.

Pre-post demographic differences

Chi-squared tests and ANOVA (analysis of variance) were performed to examine differences between the baseline and follow-up samples on demographics (to ensure a minimum cell count of five, some categories were collapsed). Although less participants completed the follow-up, comparison on demographics indicate that the follow-up participants did not differ significantly to baseline participants overall with regard to year level, gender, or any other demographic measure except mean age, which was slightly higher (as expected) at follow-up. School D was the only school for which age did not significantly increase (14.7 vs. 14.8 yrs; F(1,252)=1.58, p=.211). School B was the only school for which there was a significant difference for gender: a greater proportion of females were in the baseline sample compared to the follow-up (χ^2 =4.61, df=1, p=.032). The only other significant differences were for School C, which had a slight but significant increase in the proportion of participants (from one to four) who indicated that they spoke a language other than English at home (χ^2 =4.17, df=1, p=.041), and School D, for which there was a significant difference in pocket money, where a lower proportion of the follow-up sample indicated that they earnt \$21-60, and a greater proportion \$60+ (χ^2 =11.84, df=3, p=.008).

Pre-post changes on primary measures: Alcohol company attitudes/literacy

Students responded to a series of five questions on attitudes towards alcohol companies, modified from the items used in the Florida Truth campaign evaluation to assess attitudes towards tobacco companies (Farrelly et al., 2002). These items were changed to refer to alcohol (rather than tobacco) companies, and rated on a 5-point scale, whereby a <u>decrease</u> in the mean score suggests that the counter marketing curriculum increased the participants' scepticism towards the alcohol industry and its marketing.

There was no significant change in students' response to the question "*How do you feel about alcohol companies?*" with both the pre- and the post-survey means close to the neutral point. It is noteworthy that the proportion who said that they felt 'worse' about alcohol companies than they had in the past increased from 6.9 per cent in the pre-intervention survey to 14.8 per cent in the post-intervention survey (χ^2 =20.59, p>.001), although this change was only statistically significant for School A (χ^2 =22.44, p>.001).

The pre-post comparison identified significant changes for "Alcohol companies try to get young people to start drinking alcohol" [from 2.5 (neutral point) to 2.1 (towards agree); p < 0.01)], for the overall sample and for each school individually, although the change for School B did not reach significance (see Table 3). The change in proportion who agreed with this statement was also statistically significant (from 38.0 per cent to 61.1 per cent, χ^2 =43.99, p>.001); for comparison, in the Truth evaluation this figure (for tobacco companies) shifted from 74 per cent to 83 per cent (Farrelly et al., 2002).

There were also significant changes for "Alcohol companies lie" (from 2.7 to 2.4, p <0.01) and "I don't want to drink because it would mean alcohol companies are using me" (from 3.4 to 3.2, p = 0.02). These latter two changes were mainly driven by significant changes on these items for participants from School A and/or School C. The change in proportion who agreed with this statement was also statistically significant (from 37.6 per cent to 52.8 per cent, χ^2 =18.67, p>.001); for comparison, in the Truth evaluation this figure (for tobacco companies) shifted from 75 per cent to 84 per cent (Farrelly et al., 2002).

Students responded to four attitudinal statements about alcohol companies, modified from those used by Ashley and Cohen (2003) to assess public attitudes towards alcohol companies. These items were rated on a 5-point scale, from 1 = strongly agree to 5 = strongly disagree. There was a significant change for *"The alcohol industry is most responsible for young people starting to drink alcohol"* (from 3,2 to 3.1. p = 0.03), this was mainly driven by change on this item for participants from School A. There were no significant changes overall or for any school on the items *"The alcohol industry rarely/never tells the truth about the health effects of drinking alcohol"*, *"Alcohol is too dangerous to*

be sold at all" or "The alcohol industry is mostly/completely responsible for health problems drinkers have because of their alcohol consumption".

Table 3. Changes on key outcome measures¹

	PRE (n=510)	POST (n=324)	Sig-test	Ρ	
Items modified from the Florida Truth campaign					
How do you feel about alcohol companies ²	2.7	2.8	-0.49	0.63	
Would you say that today you feel better, about the same, or worse toward alcohol companies than you have in the past?	2.7	2.6	1.84	0.07	
Alcohol companies try to get young people to start drinking alcohol	2.5	2.1	6.47	0.00*	
Alcohol companies lie	2.7	2.4	3.77	0.00*	
I don't want to drink because it would mean alcohol companies are using me	3.4	3.2	2.28	0.02*	
Attitudinal items modified from Ashley & Cohen (200	Attitudinal items modified from Ashley & Cohen (2003)				
The alcohol industry rarely / never tells the truth about the health effects of drinking alcohol	2.5	2.5	0.18	0.85	
Alcohol is too dangerous to be sold at all	3.5	3.5	0.11	0.91	
The alcohol industry is mostly / completely responsible for health problems drinkers have because of their alcohol consumption	3.3	3.2	1.25	0.21	
The alcohol industry is most responsible for young people starting to drink alcohol	3.2	3.1	2.19	0.03*	

 $^{\rm 1}$ Where 1 = strongly agree to 5 = strongly disagree if not otherwise stated

² Where 1=don't like at all to 5= like very much

Pre-post changes on other measures

Attitudes to binge drinking

There were no significant differences between the pre- and post-intervention scores on attitudes to binge drinking for the full sample or any of the participating schools.

Alcohol expectancies (self and others)

There were no significant differences between the pre- and post-intervention scores on alcohol expectancies for the full sample or any of the participating schools.

Injunctive norms

There were several significant reductions in mean scores for injunctive norms (on a scale where 1 = definitely should and 7 = definitely shouldn't), suggesting that participating in the intervention

reduced the perceived injunctive norm for drinking alcohol. As shown in Table 4, there were significant decreases in mean ratings for perceiving that their best friend thinks they should 'drink alcohol regularly' and 'drink enough to pass out'; that their parents think they should 'drink alcohol regularly' and 'drink enough to pass out'; and that health experts think they should 'drink enough to pass out'.

These changes appeared to be driven mainly by significant decreases on these items for participants from School D and/or School B. The lack of significant changes among School A students is likely to be the result of a celling effect (as the majority of pre, and post, mean scores were 6.0 or above.)

	PRE (n=493)	POST (n=321)	Sig-test	Р				
My best friend thinks I should								
Drink alcohol occasionally	4.6	4.5	0.84	0.40				
Drink alcohol regularly	5.6	5.3	2.18	0.03*				
Drink enough to pass out	6.2	5.8	3.11	0.00*				
My other friends think I should								
Drink alcohol occasionally	4.7	4.5	1.34	0.18				
Drink alcohol regularly	5.4	5.1	1.77	0.08				
Drink enough to pass out	5.9	5.7	1.66	0.10				
My parents think I should								
Drink alcohol occasionally	5.6	5.5	1.09	0.28				
Drink alcohol regularly	6.3	6.0	2.15	0.03*				
Drink enough to pass out	6.6	6.3	2.95	0.00*				
Health experts think I should								
Drink alcohol occasionally	5.8	5.6	1.24	0.22				
Drink alcohol regularly	6.3	6.1	1.98	0.05				
Drink enough to pass out	6.6	6.3	2.16	0.03*				
I want to do what								
My best friend thinks I should	3.3	3.1	1.55	0.12				
My other friends think I should	3.2	3.0	1.10	0.27				
My parents think I should	4.0	4.1	-0.69	0.49				
Health experts think I should	3.9	4.2	-1.33	0.19				

Table 4. Changes in injunctive norms

[Where 1 = definitely should to 7 = definitely shouldn't]

Moral norms

There were significant reductions in mean scores for both of the moral norms items for the full sample (on a scale where 1 = strongly disagree (it would be morally wrong) and 7 = strongly agree), suggesting that participating in the intervention reduced the perceived moral norm <u>against</u> drinking alcohol (from 4.5 to 3.9, p < 0.01) and getting drunk (from 4.9 to 4.4, p < 0.01). This change was evident on both

items in two of the schools (School B and School D sports) and one item in two of the schools. However, further analysis on the 182 participants for whom we were able to match pre- and post- data showed that this change was <u>not</u> significant.

Perceived behavioural control

There were no significant changes in perceived behavioural control for the sample as a whole. However, participants from School B showed a <u>reduction</u> in perceived behavioural control (that is were less confident) for *"If one of my friends offers me a drink I can say no"* (from 6.2 to 5.2) and *"If one of my friends tried to persuade me to drink I can say no"* (from 6.2 to 5.3).

Role of alcohol

There were no significant changes in the 13 items measuring perceptions of the role of alcohol in young people's lives for the sample as a whole. However, participants from School B showed an increase in agreement with the statement that *"Drinking is an important part of social life"* (from 2.3 to 2.9).

Discussion

Process evaluation and analysis of feasibility

While there were unique differences between research intervention sites, the four participating schools presented some common findings. We have summarised these below in relation to Steckler and Linnan's (2002) four key components of process evaluation in schools:

1. Completeness (the amount of planned activities implemented)

While the debate activity was always presented as an 'option', three out of the four schools tried to complete it. A consequence of this was that previous activities were 'rushed' to keep the lessons moving along 'on schedule'. The debate itself was prepared and delivered, though most agreed that more time was required for this activity. Most teachers felt that the amount of activities was, in fact, lacking and that the curriculum was 'content heavy' and overly teacher-directed, resulting in less time for interactive, inquiry based learning activities.

2. Fidelity (adherence with prescribed content and activities)

Fidelity stands out as an area of high variation and unpredictability in the real-life school setting. While it is fair to say that overall, most teachers attempted to stay 'on message', it is also true that all schools regularly deviated from the prescribed content. A combination of factors, such as wanting to find more 'relevant or engaging' video clips, or as a means to support the emergent, organic discussion between students explains some instances of this. However, it is important to note the significant investment in the current alcohol-related education in the New South Wales PDHPE curricula regarding physical harms and harm minimisation principles by these teachers. Overall, teachers did not tend to support such detailed alcohol media literacy education and were sceptical of its merit from a health point of view. We note that the same curriculum could be comprehensively re-interpreted and executed by English teachers within an English curriculum where critical thinking, persuasive text and potentially debating are perceived with merit from both a teaching and learning point of view.

3. Coverage (extent of student participation)

Overwhelmingly, teachers reported that student participation was limited mostly by the extent and nature of the activities, not by the suitability or level of interest in the activities. Where interactive activities were presented, such as ad de-coding, or even the debate activities, students' participation levels was pleasing. Teacher's consistent feedback was that more handouts to complement videos and self-directed tasks were needed in addition to more time for discussion.

4. Reaction (student reaction/satisfaction)

There were some variations, however, most students were satisfied with the curriculum content and remained engaged with the materials – up to a point. Many teachers commented that the idea of advertising, marketing, big business and advocacy was understood by students relatively quickly and they wanted to move on [to other alcohol-related topics]. Staying with these concepts for what was generally perceived as 'too long' led to both students and teachers feeling overloaded and 'over it'. Student satisfaction was higher with more local content (advertisements and alcohol beverages which they could easily recall). Additionally, the topics on sport and the decoding exercise were generally very popular, while there were several elements (such as the use of James Bond) which were deemed irrelevant for today's adolescents (see Annotated Bibliography for more information throughout). Again, execution through an English curriculum, where the emphasis is on a critical thinking process and not a health outcome per se, may reflect better outcomes.

Outcome evaluation

The analysis of changes between the pre-intervention and post-intervention surveys suggests that the curriculum package had some success in increasing the students' alcohol advertising literacy.

Following the intervention, students were more likely to agree that "Alcohol companies try to get young people to start drinking alcohol", with the proportional increase in agreement (from 38 per cent to 61 per cent), greater than that reported in the Truth evaluation (from 74 per cent to 83 per cent); although it is important to note that students in our intervention were clearly less sceptical of alcohol companies at both pre- and post-survey than their United States counterparts in relation to tobacco companies.

Similarly, following the intervention, students were more likely to agree that "Alcohol companies lie", with the proportional increase in agreement (from 38 per cent to 53 per cent), greater than that reported in the Truth evaluation (from 75 per cent to 84 per cent); although again the pre-intervention level of scepticism was lower than for tobacco companies. There was also a small but significant increase in the students' agreement with the statement "I don't want to drink because it would mean alcohol companies are using me".

Finally, a greater proportion of students reported that they felt worse about alcohol companies than they had in the past at post-intervention than pre-intervention, although this was only statistically significant for one of the four schools.

However, overall attitudes towards the alcohol industry were largely unchanged following the intervention. There were no significant changes in endorsement of the statements "*The alcohol industry rarely/never tells the truth about the health effects of drinking alcohol", "Alcohol is too dangerous to be sold at all"* or "*The alcohol industry is mostly/completely responsible for health problems drinkers have because of their alcohol consumption"*. There was a significant change for one item ("*The alcohol industry is most responsible for young people starting to drink alcohol"*); however, this was mainly driven by participants from one school.

We also noted significant reductions in a number of injunctive norms for drinking alcohol, including perceptions that their best friends and their parents think they should drink regularly and drink enough to pass out. It is unclear whether this change was a result of the material presented in the curriculum and/or the conversations that were stimulated among young people as a result of exposure to the intervention. However, given the substantial evidence of the role of social norms in driving adolescent alcohol consumption, this is an encouraging finding.

While some of these changes were consistent across all four participating schools, others were significant in only one or some of the schools. We posit two complementary explanations for this. One is underlying differences between the samples in the schools (as shown in the demographic data); and the other is differences in the implementation of the intervention (as discussed in the process evaluation section). For example, while some changes were greater in the all-girls Catholic school (suggesting greater engagement with, and acceptance of, the messages) other changes were non-significant in the same school largely as a result of being extremely high even at pre-intervention (a ceiling effect).

Recommendations

Recommendations for future interventions

- Given that the key concern of the PDHPE teachers was the coverage of alcohol marketing at the perceived expense of detailed coverage of the health effects of alcohol consumption, it is recommended that future interventions consider trialling the program within the English curriculum (where media literacy is a core learning outcome).
- 2. Detailed suggestions for the revision of each lesson are contained in annotated curriculum; and future interventions should incorporate these revisions.
- 3. It was clear that some of the teachers felt uncomfortable delivering the content given their lack of expertise in the area of alcohol marketing and media. Future interventions could consider the feasibility of converting the content into workshop(s) delivered by an external party such as the Foundation for Alcohol Research and Education with the expert knowledge and related enthusiasm for the topic to better engage students.

Recommendations for further research

- 1. Future research could usefully consider the impact of different delivery formats including program duration, location, and modality on participants' engagement with the material presented.
- 2. It is likely that many secondary school students will have had substantial prior exposure to both alcohol advertising and alcohol consumption (either their own or observing that of others) and this may impact on the effectiveness of a program to increase alcohol advertising literacy. Acknowledging the limitations of self-reported data and the potential difficulties in obtaining approval from an ethics committee, future research could consider collecting data on and controlling for these potential confounders.
- 3. Also related to the exposure of adolescents to alcohol marketing and alcohol per se, and initial evidence of the effectiveness of interventions targeting younger children (Gordon et al. 2015), future research could compare the relative effectiveness of interventions targeting primary-aged versus secondary-aged students.

References

Ashley, M.J. & Cohen, J.E. (2003). What the public thinks about the tobacco industry and its products. *Tobacco Control*, 12, 396–40.

Austin, E.W., & Johnson, K.K. (1997a). Effects of general and alcohol-specific media literacy training on children's decision making about alcohol. *Journal of Health Communication*, 2(1), 17-42.

Austin, E.W. & Johnson, K.K. (1997b). Immediate and delayed effects of media literacy training on third graders' decision making for alcohol. *Health Communication*, *9*(4), 323-349.

Compton, J.A. & Pfau, M. (2004). Use of inoculation to foster resistance to credit card marketing targeting college students. *Journal of Applied Communication Research*, *32*(4), 343.

Duryea, P.J.E. (1984). An application of inoculation theory to preventive alcohol education. *Health Education* (Jan/Feb), 4-7.

Duryea, P.J.E., Ransom, M.V. & English, G. (1990). Psychological immunization: Theory, research, and current health behavior applications. *Health Education Quarterly*, 17(2), 169-178.

Eagle, L. (2007). Commercial media literacy: What does it do, to whom—and does it matter? *Journal of Advertising* 36(2),101-110.

Ellickson, P.L., Collins, R.L., Hambarsoomians, K. & McCaffrey, D.F. (2005). Does alcohol advertising promote adolescent drinking? Results from a longitudinal assessment. *Addiction*, *100*(2), 235-246.

Farrelly, M.C., Healton, C.G., Davis, K.C., Messeri, P., Hersey, J.C. & Haviland, M.L. (2002) Getting to the truth: Evaluating national tobacco countermarketing campaigns. *American Journal of Public Health*, 92(6), 901-907.

Godbold, L.C. & Pfau, M. (2000). Conferring resistance of peer pressure among adolescents: Using inoculation theory to discourage alcohol use. *Communication Research*, *27*(4), 411-437.

Gordon, C., Jones, S.C., Kervin, L., Lee, J.K. (ePub ahead of print). Empowering students to respond to alcohol advertisements: Results from a pilot study of an Australian media literacy intervention. *Australian and New Zealand Journal of Public Health.*

Muto, S. (2004). Children and media. Young Consumers, 6(1), 37-44.

Ofcom. (2004). Childhood obesity - Food advertising in context. Children's food choices, parents' understanding and influence, and the role of food promotion. Unpublished manuscript.

Potter, W.J. (2013). Media Literacy. SAGE Publications.

Primack, B.A., Gold, M.A., Land, S.R. et al (2006). Association of cigarette smoking and media literacy about smoking among adolescents. *Journal of Adolescent Health*, 39(4), 465–72.

Primack, B.A., Fine, D., Yang, C.K., Wickett, D. & Zickmund, S. (2009). Adolescents' impressions of antismoking media literacy education: qualitative results from a randomized controlled trial. *Health Education Research*, 24(4), 608-621.

Steckler, A.B., Linnan, L. (2002). *Process evaluation for public health interventions and research*. San Francisco: Jossey-Bass.

Appendix: Focus group discussion guide

Teacher Evaluation Discussion Guide

These questions are designed to inform a group discussion with teachers about the lesson that they have just taught to enable process data collection for ongoing refinement and review.

Information and Materials

Review the material and topics from the preceding week's lesson, then ask:

- Do you think they type of information presented was understood and pitched at a level the students could relate to? Why/Why not?
- What areas did you feel you wanted more information?
- What areas did you feel that the students wanted more information?
- What feedback could you provide on the slides/videos etc that were used in this lesson?

Format and Delivery:

- Do you feel that there was enough variety in how information was presented (eg: slides, reading material, video etc)
- Do you have any suggestions on how we can make the lessons more engaging?
- Do you have any other feedback regarding the lesson plans, timing, presentations etc
- Do you have an opinion on how peer leadership could be better incorporated into this lesson?

Ongoing Development of the Curricula:

- How valuable do you believe counter-marketing is when it comes to learning about alcohol related attitudes and behaviours?
- What were some of the positive things about teaching this lesson?
- What are some additional activities or strategies you think the students would engage with in this lesson?







Foundation for Alcohol Research & Education

PO Box 19, Deakin West ACT 2600 Level 1, 40 Thesiger Court Deakin ACT 2600 Ph 02 6122 8600 info@fare.org.au www.fare.org.au

ISBN: 978-0-9944917-1-8