Education's uncertain saviour

A 20-year series of studies of a relatively unknown US programme kept hopes alive that schools can prevent drug use. The record is impressive – but is it enough to salvage drug education's prevention credentials?

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This issue's 'key study' spanned two decades, starting modestly in 1980 with a study in two schools and peaking in 1995 with an investigation involving over 3500 pupils from 56 schools followed up for six years. What all the studies had in common was a secondary school drug prevention curriculum called Life Skills Training. Behind the curriculum and the research is the psychologist Professor Gilbert Botvin of Cornell University's Institute for Prevention Research. For drug prevention, the importance of his work cannot be overstated. In any research-based guide, including official advice in the UK,[1] it features as the most solid justification for school lessons about drugs, a breach in the otherwise largely justified pessimism.

Understanding Dr Botvin's work – its strengths, its limitations, and its trans-Atlantic transferability – is an essential starting point for anyone planning school-based drug prevention. After reading this article, you will at least be towards the end of that starting point.

Twenty years of research

Dr Botvin's curriculum crystallised in the late 1970s when some Europeans too were querying the prevention utility of the drug education of the time. They shared an awareness of a growing literature showing that 'straight' information, warnings of dangers, and appealing to moral considerations, did not prevent drug use.

Against this negative backdrop, Gilbert Botvin was struck by findings from the University of Houston showing that smoking could be dramatically delayed by lessons based on an understanding of *why* children started to smoke.[2] Houston's tactics remain fundamental: pupils were taught the skills to resist social pressures and media influences, and enabled to compare their own smoking with that of their peers, correcting misconceptions that 'everyone is doing it' – the 'normative fallacy'.

> *In official UK advice* ***Life Skills Training*** *provides the most solid justification for school lessons about drugs*

Dr Botvin joined in the wave of research which followed. His approach was distinctive, teaching smoking resistance skills to adolescents within a broader programme fostering general social and personal skills and addressing the psychological factors – poor self-esteem, social anxiety, lack of confidence – which might impede exercise of those skills. From the start he called it "Life SkillsTraining".[3]

It has grown and diversified, but the curriculum's core remains as it was in the 1970s; the intervening 20 years can be seen as an extraordinarily in-depth investigation of a single approach. Here we concentrate on the studies which did most to illuminate the programme's worth, first among white middle class pupils, and then among America's ethnic minority urban poor.

In Middle America

Among America's white middle class, the high point for Life Skills Training came with a study which in 1995 published outcome data collected six years after baseline, an unprecedented follow-up period. Previous research had found that older pupils, teachers, and health educators could all profitably deliver the lessons, and that booster sessions in the years following the intensive seventh grade input helped maintain the impact. The new study was intended to test the real-world applicability of Life Skills Training and to do so over a longer time scale.

Conducted in 56 schools in New York state, the study started with nearly 6000 seventh grade (age 12–13) pupils.[4] Schools with comparable smoking rates were randomly allocated either to continue as normal (the control condition) or to 30 Life Skills sessions over three years delivered after one of two training inputs; teachers attended a one-day workshop with Botvin's team and received follow-up support, or were simply given a two-hour training video with instructions.

By the end of the three years of lessons, how often pupils smoked cigarettes, used cannabis or got drunk (but not drinking as such) were slightly but significantly lower in Life Skills pupils than controls.[5] However, the reporting of these results was badly flawed. An account of outcomes for whole schools rather than individual pupils was relegated to a footnote, yet this was the more appropriate analysis since schools, not pupils, were randomised to the conditions. It still came up with some significant results, but now drunkenness was unaffected and only the fully trained teachers reduced cannabis use. Still, the cuts in smoking may be considered worthwhile on their own.

In both analyses results from a quarter of the Life Skills pupils (and six whole schools) were excluded because they had received under 60% of the intended teaching, *yet no similar adjustment could be made for the control schools*, creating a potentially serious source of bias favouring Life Skills.[6] Outside a research context even more pupils might receive incomplete teaching; evaluations which exclude them risk divorce from reality.

Detailing six-year outcomes, the final report rectified these faults, yet still found worthwhile and statistically significant impacts, particularly on heavy, more damaging forms of drug use.[7] Life Skills had curbed the growth in regular smoking among the now roughly 18-year-old youngsters; most notably, 12% of controls

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smoked a pack a day compared to just 9% of the Life Skills pupils whose teachers had been video-trained. Though this is the recommended method, reductions in heavy smoking among pupils whose teachers had been personally trained were not significant. The 3% reduction in weekly cannabis use (6% versus 9% in controls) also failed to reach significance. Drinking as such was unaffected, though fewer Life Skills pupils admitted frequent drunkenness. The most convincing curbs were in regular use of two or more of alcohol, tobacco or cannabis. For example, compared to controls half as many Life Skills pupils (3% versus 6%) smoked, drank and used cannabis weekly.

The findings suggest that teachers can take the Life Skills manual and materials and end up with worthwhile, lasting curbs on regular smoking and multi-drug use and perhaps also problem drinking, curbs which if they outlast the teenage years could help preserve physical health throughout life.

Across the poverty/race divide

Life Skills Training was first developed and tested among mainly white middle class pupils from intact suburban and rural families. Exploratory studies suggested that basically the same curriculum amended only in technical (reading level) and cosmetic ways (illustrative examples and role-play situations) would be suitable for America's black and Latino urban poor.

Thoughnot the largest study of these groups, the most intriguing was a small-scale trial which tested the amended curriculum against a 'culturally focused' one designed from the ground up for ethnic minority pupils. Using techniques similar to Life Skills, it sought to affect the same skills and psychological variables over the same number of sessions with the same seventh-grade age group.

But instead of whole classes, it "targeted high-risk students" using a group counselling format.[8] Stories ancient and modern told how "heroes" had used life skills to overcome feelings of alienation and hopelessness similar to those afflicting America's urban poor. There was no place for drug-related knowledge, not even the data Life Skills used to correct the 'normative fallacy'. The two skills curricula were compared with a much shorter information-only intervention which did tackle the 'normative fallacy'.[9]

There were two key questions. First, would the longer interventions perform better than the information-only option? If not, it would be a strong indication that, for these pupils, skills teaching was a waste of resources. In fact, the skills-based approaches did add value, curbing the growth of drinking and drunkenness over the two years of the study as well as intentions to drink in future, though cannabis use and intentions were unaffected.[10]

The second issue was whether the major overhaul produced better results than the adaptation. On all the current drinking measures, the culturally focused curriculum did outperform Life Skills Training – *even though no drug knowledge was imparted* other than incidentally.

The data appeared to vindicate Dr Botvin's focus on improving the skills and psychological variables thought to underlie drug use – a result tarnished only by the fact that he was unable to show most actually *had* improved. The culturally focused curriculum's failure to increase self-esteem and self-efficacy is particularly disappointing, given that his own work highlights these as risk factors among the urban poor.[11]

Variables which did change as expected were how often pupils said they assertively refused drugs in a range of situations and their preferences for risktaking. Along with stronger anti-drinking attitudes, the analysis suggested that these underpinned at least part of the programmes' impacts on current and anticipated drinking.

Methodological defects included the fact that just 60%f the 757 seventh-graders who supplied baseline data could be re-surveyed two years later. The information-only sample also included far more Latinos, a third as many black pupils and many more intact families than the skills interventions samples. If black pupils respond better to skills interventions – or to *any* intervention – than Latinos, this alone could account for their apparent superiority. Lastly, *schools* were allocated to conditions whose outcomes were analysed by *pupil.*

A later study tested the amended Life Skills curriculum against control schools' usual teaching.[12] The racial mix of the samples differed in the *opposite* direction to the previous study, providing a partial check on whether this had been a source of bias. Shortly after the intervention, compared to controls Life Skills pupils evidenced less frequent drinking, smoking and cannabis use, as well as drinking less alcohol on each occasion and reporting fewer episodes of drunkenness. Effects were not large, but did coalesce into a 9% reduction (15% v. 24%) in the numbers using all three drugs at least once a month.

Golden Bullets

Essential practice points from this article

- Life Skills Training can result in **lasting curbs** on regular smoking, multi-drug use and problem drinking which could help preserve physical health throughout life.
- However, there is **insufficient consistency** in the findings to be confident that implementing Life Skills **will** cut legal or illegal drug use, only that it can do and has done, most consistently in relation to smoking.
- Keys to the programme's successes seem to be its intensity, use of booster sessions, **interactivity**, emphasis on **skills**, and its potential for delivery by peer leaders.
- Even the best school programmes usually only achieve **delays** and **small reductions** in the extent and intensity of drug use. Nevertheless, thousands of lives could saved at lower cost than many medical interventions.
- Use prevention effects are gained by correcting misconceptions about the normality and acceptability of drug use, improving drug-related knowledge and assertiveness in using drug refusal skills, and heightening anti-drug attitudes – all **drug-specific variables**. General skills and psychological variables seem less relevant.
- Whether any such programme can prevent **drug problems** is an open question; for Life Skills the evidence is strongest in relation to heavy smoking and drinking to intoxication.
- Normalisation of drug use creates a need for approaches which do not assume that personal and social **deficits** lead to drug use and for research and programmes permitted to adopt **harm reduction** objectives.
- To prevent serious drug problems, rather than universal programmes it may be more cost-effective to **target the few** potentially affected pupils with individualised help while still providing drug **education** to all.
- British schools could profitably adapt elements of Life Skills' teaching **methods** and **content**, especially as much of it could double as a general personal and social skills curriculum, but the full programme is unlikely to be considered appropriate or to be implemented.

The evidence is far from conclusive, but it does seem that Life Skills Training transfers across America's poverty/racial divide, producing worthwhile impacts on smoking and drinking which can nevertheless be improved on by programmes thoroughly tailored to the pupils, their social environments and cultural traditions.

Gaps in the evidence

Though methodologically advanced,[13] the Life Skills studies suffered from problems common to much prevention evaluation, and their thoroughness exposed weaknesses which might otherwise have remained hidden. Here we deal with issues pertinent to the studies as a whole.

Does it really work?

Most fundamentally, does the accumulated evidence really prove Life Skills Training reduces drug use? Some eminent voices are unconvinced.

Dennis Gorman, then of the US Rutgers University Center for Alcohol Studies, has argued that in successive evaluations the goalposts were shifted, in two ways.[14] First, what counts as success was reformulated to match the positive findings, perhaps most questionably in claims based on the use of several drugs when results for each individual substance were disappointing. Second, positive outcomes have been manufactured by excluding pupils who received incomplete teaching.

He also raised the issue of what counts as scientific proof. A varied heap of positive findings is used to back the generalised claim that Life Skills Training 'works', while the probably equally large heap of negative findings is discounted. Yet no amount of individual findings can prove the programme is and will be effective, only that it *has* been effective in certain ways at certain times with certain groups. Equally, at other times, in other ways, and in other circumstances, it has *not* been shown to have been effective.

Though valid, such criticisms perhaps understate the difficulty of proving effectiveness without excessive controls which undermine real-world relevance; perhaps it is justifiable to place more weight on the hard-won positives. And there is at least one relatively consistent stream of positive findings – with respect to smoking, the programme's original target. This may not be accidental (*Cracks in the theory*).

The bottom line? There is insufficient consistency in the findings to be confident that implementing a Life Skills programme *will* cut drug use, only that it *can* do and has done, especially in relation to smoking.

How does it work?

Confidence that something *has* worked is greatest when we can see *how* it worked – that a push at one end of a line of cards really did cause the last one to fall when we can see the intervening cards tumbling. Without this chain of 'mediating variables', there is always the suspicion that something else caused the outcome.

Professor Gilbert J. Botvin: developed Life Skills Training and researched its impact for over 20 years.

Life Skills' intervening cards derive from its theory of how drug use develops and how it intervenes in that development. For this theory, the most disappointing results are the curriculum's inconsistent impacts on the skills and psychological variables through which it is supposed to influence drugtaking.

Evidence is strongest for the knowledge and skills most closely related to drug use, which also tend to be those susceptible to classroom teaching: students' awareness of how (ab)normal drug use is and of its social acceptability; drug-related knowledge; knowing about social skills as opposed to practising them; and assertiveness in refusing drug offers as opposed to general assertiveness. Among the remainder, the most consistently documented is increased anti-drug attitudes.

In contrast, significant impacts have generally not been seen on psychological variables such as self-esteem and self-confidence nor on *general* skills like assertiveness and decision-making. The problem is that these go to the heart of what makes Life Skills distinctive – locating drug-specific content within "a large context of social skills kids need to navigate the minefield of adolescence".[15]

Showing that some mediating variables changed in ways *thought* to reduce drug use is not enough to prove these actually *caused* the reduction. The two Life Skills studies which tested causality more directly found evidence of a role for assertiveness in using drug refusal skills, anti-drug attitudes, drug-related knowledge, and correcting youngsters' misconceptions about the normality and social acceptability of drug use – all drug-specific variables.[16, 17]

Several explanations have been advanced to account for these failures. Those which leave the underlying theory intact either do not account for all the findings or cast doubt on positive as well as negative findings. A more damaging explanation is that skills and psychological variables not directly related to decisions about drugtaking have little impact on those decisions, perhaps why a review found programmes which focus on drug-related skills about as effective as broader programmes.[18] However, as in Dr Botvin's studies, the yardstick was drug use;

What is Life Skills Training?

Life Skills Training's publishers describe it as a "substance abuse prevention/competency enhancement program designed to focus primarily on the major social and psychological factors promoting substance use/abuse".[65] It consists of 15 45-minute classes implemented either in the equivalent of year seven (ages 11-12) or year eight in British schools, followed by ten and then five booster sessions in the next two years.

Specific aims are to:

- provide the skills to resist social (peer) pressures to smoke, drink and use drugs;
- help develop self-esteem, self-mastery, and self-confidence;
- enable children to effectively cope with social anxiety;
- increase knowledge of the immediate consequences of substance use.

The lessons cover: **personal self management skills** (solving problems, managing emotions, achieving goals); **social skills** (communication, interacting with others, boy/girl relationships, assertiveness); **drug-related information and skills** (knowledge, attitudes, normative expectations, skills for resisting drug offers, media influences, advertising pressures to use drugs).

Rather than a supplier of facts, the teacher's major role is that of skills trainer or coach, imparting skills through instruction, demonstration, role play, practice, extended practice in the form of homework assignments, feedback, and social reinforcement. In its information content the curriculum concentrates on the facts adolescents react to most readily, such as the immediate negative results of drug use and how many of their peers use drugs, rather than long-term health consequences. Materials include a detailed teacher's manual, a student guide, and audio cassettes with relaxation exercises.

http://www.lifeskillstraining.com. COLOURS NOT AS IN ORIGINAL.

http://dare-america.com. COLOURS NOT AS IN ORIGINAL.

Life Skills Training has a far better research record yet remains undersold compared to programmes such as D.A.R.E. – contrast the opening pages from their respective web sites.

ignoring general variables and skills might leave pupils vulnerable to drug *problems*.

The usual methodological problems

Remaining methodological shortcomings are endemic in schools-based prevention research. Though comonly done, analysing outcomes in terms of *pupils*, but allocating *schools* to control and experimental conditions, risks mistakenly finding an intervention successful. However, the reverse – shrinking the sample down to a handful of schools – risks missing an effect when there really was one.

Often control and Life Skills groups differed substantially; too little is known about children's development to be able to adequately adjust for this uneven playing field. Typically Life Skills Training has been compared against 'business as usual' in control schools, an unknown quantity. If this is ineffective or worse, then Life Skills had a head start.

Certainly in some (and probably most) studies data was collected by the research team who presumably also analysed the results. We are not told whether they knew which pupils had or had not received Life Skills Training; 'blinding' to such knowledge is an important safeguard against bias. Lastly, Dr Botvin has tested his own programme and benefited from its sales and from associated training; independent evaluation is always preferable.[19]

A way to cut drug-related harm?

Putting methodological queries to one side, there remains the issue of the *practical* as opposed to the statistical significance of the findings; in particular, whether Life Skills Training can cut drug problems as well as drug use, and whether the degree to which it can do so warrants the investment.

Mixed findings on problematic use

Life Skills Training's accolades have been received from assessors whose yardstick was use prevention rather than problem reduction, and its formally documented drug use outcomes have been limited to tobacco, alcohol and cannabis. For many the more pertinent issue is whether reduced use translates into less damaging use of the same or of other substances.

Whether Life Skills Training prevents heavy use of its target drugs is obscured by the reporting of a frequency index conflating the range of use levels. Where frequency has been specified, results have been mixed for regular or recent use of tobacco, and though rates of drunkenness have been reduced,[20] heavy drinking as such has not and neither has frequent cannabis smoking.[21]

Nevertheless, especially with respect to smoking, any reduction in use is a health bonus. Dr Botvin has estimated that nationwide the small % of youngsters prevented from regular smoking would mean 60,000 to 100,000 fewer deaths each year, an estimate derived from white middle class populations.[22] In his largest study of disadvantaged minority youth, post-intervention measures showed Life Skills curbed the increase in past-month smokers by 2%.[23] No study of a similar population gives us any clues about whether this would have been maintained, and past-week and past-day smoking were unaffected. On this basis few lives would be saved, but a longer follow up might have proved more encouraging.

Whether the curriculum leads to reduced use and fewer problems with drugs such as cocaine and heroin is even less clear. The few Life Skills studies measuring intention to use these have produced unconvincing results[24, 25] and one measuring actual use has apparently remained unpublished.[26]

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SECOND SIGHT

Right methods, wrong objectives

A reaction from one of our expert advisers

A leading British practitioner argues that targeting drug use prevention may be just the way to miss hitting that target.

by **Adrian King**
InForm Drug Education Consultancy

Despite a US policy environment hostile to balanced drug education, Life Skills Training addresses some of the general factors – poor self-esteem, social anxiety, lack of confidence – which feed drug (and other) problems. Moreover, it has pioneered or finessed teaching methods from which we have all learnt. But basic contradictions undermine this endeavour.

The most basic contradiction is that it foists a ready-made adult decision on pupils rather than trusting them to decide for themselves. While our avowed aim may be to enhance freedom of choice and empower young people to resist manipulation, distrust of their judgement when it comes to illegal drugs, allied to society's aversion to drug use, drives a search for ever more effective ways to constrain and manipulate young people's choices. We aim to produce responsible, rational and confident adults in full control of their behaviour; drug education aimed at changing behaviour by reducing freedom of choice undermines this objective.

Young people know when they are being trusted to think for themselves – and when they are not . The older they get, the more they reject education which assumes that only manipulation and control can prevent their making the wrong decisions, and which presents them with ready-made rights and wrongs, as if we had failed them so badly that they cannot work these out for themselves.

On other sensitive issues – politics, religion, abortion – teachers employ very different strategies: identifying objectivity, ensuring factual accuracy, inviting balance, neutral 'chairing' of discussions, etc. In contrast to illegal drugs, we trust young people to decide whether to rob, rape, or mug. Too many adults commit such crimes, yet there is no drive for lessons encouraging children to 'say no' to mugging, no guidelines on anti-mugging education, no Anti-Mugging Czar to cordinate policy.

Life Skills foists a ready-made adult decision on pupils rather than trusting them to decide for themselves

From this point of view, the issue is not how we can prevent drug use, but how can we modify our aims in such a way as to convey unstinting trust in young people's abilities to develop the judgement, skills and motivation to make their own choices about their behaviour, and to take responsibility for those choices. Measures of effectiveness would then shift from the behaviour of young people, to the quality of the developmental opportunities we provide. Paradoxically, this may do more to equip them to live safely in a world where drug use and illegal activity present real dangers.

Whatever we do, many young people will continue to try illegal drugs. Educators cannot support and must not collude with this, but neither can we avoid asking what 'prevention education' does for those it fails to deter. An approach predicated on mistrust risks alienating those in greatest need. Its 'success' may be hollow indeed if it only affects those unlikely in any event to become long-term, problem users.

Dr Botvin's research presumes the desirability of preventing certain predetermined behaviours; the *National Healthy Schools Standard* launched last October recognises that we can do better than that. To respect young people enough to educate them according to the needs they themselves identify may be more effective, and invite more worthwhile criteria for success.

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Lacking directly relevant evidence, we have to fall back on what is known about how early use of alcohol, tobacco and cannabis relate to later drug problems. Some research supports a role for these as 'gateways' drugs, implying that preventing their use will also prevent later use of drugs such as cocaine and heroin, but the evidence is contested.[27] British medical bodies interpret it as suggesting that early smoking and drinking do not in themselves act as gateways, but can form part of a syndrome of conduct problems leading to deviancy of various kinds, including illegal drug use.[28]

Perhaps it is not *whether* early use occurs, but *how* early. In Britain early heroin users also tend to have been early smokers and drinkers.[29] US research has shown that delaying the onset of drug misuse – which will generally mean cannabis use – is associated with reduced risk of later problems with illegal drugs.[30] But we do not know whether early use causes later use, even less whether 'artificially' (eg, through classes aimed at this end) delaying the onset of drug use will prevent later drug problems. Absence from school and a disregard for drug education suggest that classroom lessons would not have diverted contemporary young British heroin users.[31]

The upshot is unsatisfactory uncertainty. Whether Life Skills Training – or any similar programme – can prevent drug problems is an open question, with the evidence strongest in relation to heavy smoking and drinking to intoxication. This vagueness is unlikely to be dispelled until researchers focus on later drug problems rather than adolescent drug use as their key outcomes.[32]

Are the costs justified?

Even if school programmes do cut drug problems, there are other routes to the same end which may absorb less of society's monetary fuel. Here we can draw on a cost-benefit analysis of school-based prevention from the respected US RAND institute.[33] This relied partly Dr Botvin's work precisely because it was among the most convincing demonstrations of the effectiveness of such programmes.

RAND combined Life Skills' long-term outcomes with those from another programme to estimate the savings to US society from cuts in cocaine consumption, heavy drinking, and smoking. Per $ spent, savings totalled anywhere from $1 to $9, with a best guess of nearly $4. Though comparable to estimates for enforcement, this is under half the return of $10 per $ spent on treating heavy cocaine users – and that estimate suffers from a far smaller margin of uncertainty. More positively, RAND also estimated that prevention would cost $20,000 per life saved by cutting smoking alone, well within the accepted figure for justifying health interventions.

The key factor in these calculations is that while (especially for legal and more accepted forms of drug use) anticipated use reductions from prevention are modest,[34] so too is the cost of achieving them. Administrations with US-style drug problems might still be tempted to invest instead in the more secure and greater benefits of treatment. However, RAND's estimates omit an important benefit of preventing drug problems – also preventing the unhappiness, wasted years and lost lives which often precede drug treatment, and which treatment cannot recover.

In Britain perhaps the most optimistic substance use trend has been the reduction in child deaths attributable to solvent misuse. This appears to have been as much due to supply reduction as to demand reduction measures such as drug education.[35, 36]

Cracks in the theory

When a theory-based intervention produces inconsistent outcomes and few findings support its hypothesised causal chain, a possible explanation is that the theory is wrong. Underlying most life skills approaches are theories which start with psychological deficits and underdeveloped social and personal skills, and end with the drug use these are thought to cause. A fundamental readjustment would entail moving one or both of these end points. The more fixed is the outcome end – the 'no drug use' objectives to which any officially backed US education programme must subscribe.

Life Skills' record may have been held back by a clash between its broad personal development content and these narrow objectives. Even if it produces well balanced, socially skilled youngsters, such youngsters may still try drugs.[37] Sceptics argue that drug experimentation is neither a sign of social or psychological deficits nor of an inability to resist drug offers (◤ *It's normal*). If this is the case, then targeting these 'risk' factors is bound to lead to disappointing drug use outcomes, perhaps even the opposite of what's intended.[38, 39] Had Dr Botvin been able to pursue and measure 'responsible drug use' (which in one paper he suggests is the more feasible goal[40]) he may have found more encouraging results.[41]

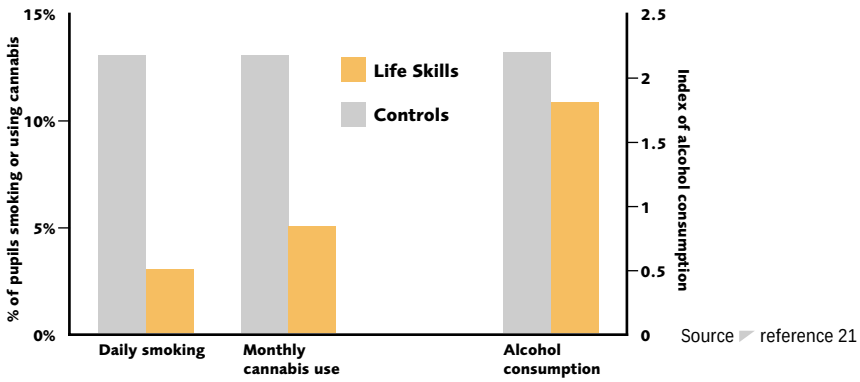
At a deeper level is the contradiction within any programme which seeks a *fixed* outcome (not trying drugs) by *widening* the scope for independent decision-making and freedom to act. Teaching drug refusal skills is teaching pupils how to implement a decision made for them, not how to make decisions for themselves. That argument is advanced by educators in Britain (◤ *Right methods, wrong objectives*) and in America,[42] with greater credibility the older are the children.

> ◤◤◤ *Even if Life Skills produces well balanced, socially skilled youngsters, they may still try drugs*

Another contradiction, which Life Skills suffers from less than other programmes, lies between the concern for child welfare purported to motivate drug prevention and the facts about the gravest threats to that welfare. These are tobacco, alcohol and motor cars, not illegal drugs, and not all illegal drugs and methods of use are equally risky.

If these structural weaknesses do undermine Life Skills' credibility with pupils, it would be no surprise that it works best where the contradictions are least – cigarette smoking. Here instead of reinforcing adult norms it challenges them, and does so clearly in the best interests of the pupils.

Some of Life Skills Training's most impressive results were recorded by peer educators after teaching the course to eighth grade pupils (age 13–14) and running booster sessions. As well as outperforming controls, they outperformed teachers.



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Practice implications

If we are to invest in school-based drug prevention, what does 20 years of research on Life Skills Training tell us about how to do it? Here the lessons are clear and accord with European experience: make it interactive; keep at it; use peer leaders; and don't expect too much – postponement and small reductions in the extent and intensity of drug use are more achievable than wholesale prevention of use.

Interactivity and persistence

On the evidence from Life Skills and other studies, the most important feature of effective drug education is interactivity – encouraging and responding to the two-way communication between pupils and teachers and between pupils.[43, 44] Life Skills' acceptability in suburbia and in deprived urban environments says much for its flexibility, a virtue which probably derives from highly interactive methods which reveal what pupils know, believe and feel, and enable these to be reflected in the lessons.[45]

What of allowing lessons to be led by pupils themselves? One of Dr Botvin's most thought-provoking studies was a one-year follow-up of seventh graders exposed to Life Skills Training led either by older peers or by teachers; half the schools ran booster sessions the following year.[46] *Only when basic and booster sessions had been led by peers* were there any significant reductions relative to controls in smoking, amounts drunk, or cannabis use. Some of the cuts were substantial and in relation to smoking involved every measure from monthly through to daily use. The results broadly held even when peer leaders were compared with just those teachers who had taught the lessons as intended.

On the core skills-teaching and interactivity dimensions, the youngsters may have been less inhibited than teachers versed in conventional teaching and unwilling to self-disclose to pupils for whom they held a control responsibility. Pupils are also likely to self-censor communication which might suggest to a teacher that they are unduly familiar with or interested in illegal drugs.

Peer education *may* confer benefits, but certainly carries risks – of unsound messages, classroom disorder, and lessons not being taken seriously. It works best if peer leaders are slightly older than their pupils, well prepared and supported, and supervised by adults who let them take the lead while maintaining classroom order. Dr Botvin's team made extensive efforts to meet these requirements.[47, 48]

This study also (at least for peer education) confirmed the role of 'booster' sessions in the two years following the basic course, which an earlier study had found to roughly halve the rate at which pupils moved to weekly or daily smoking.[49]

SECOND SIGHT

It's normal

by **Rodney Skager**

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A challenge to the most fundamental assumption made by Life Skills Training – that personal and social deficits lead to drug use.

For at least two decades substance use has been normalised among American adolescents. 'Normalised' implies more than statistics such as that 75% or more of 16-year-olds have tried alcohol and over half marijuana. Substance use is embedded in the teen social scene, the shared experience of users and non-users, many of whom accept contact with drugs as normal. Within this context drug prevention education has failed because it is based on three false assumptions about adolescent development.

The first is that young people try drugs because they are ignorant of the consequences. In fact, they have direct information from observing other people and the experiences of themselves and their friends. This is why unreal, exaggerated anti-drug indoctrination fails. Early prevention messages are forgotten or contradicted when teens enter secondary school, when newly matured powers to question and construct alternative views mean that what adults say is no longer taken for granted.

The second assumption is that adolescents use substances to erase negative feelings caused by personal deficits. Given the pervasiveness of substance use, this virtually amounts to an assertion that there is something wrong with adolescents in general. At first it was assumed they were deficient in self-esteem; now that they lack social and life skills.

Most teens say children try drugs because they are curious or to have fun. Curiosity and wanting to have fun are normal motives – even for some adults – and do not reflect personal deficits. Rather than lacking social skills, most children learn very well how to get along in their own social world, constructing an outside-the-home identity which has survival value in the peer social context where they spend their time and into which they project their future.

It's assumed that kids are ignorant, deficient, and pressured by friends. All three are wrong

In this world drinking or using drugs is to participate in a ritual relevant to group identity and therefore relevant to the child's own sense of self. The meagre and highly qualified results achieved by life skills programmes are thus exactly what we would expect.

The third false assumption is that children use drugs because peers pressure them to do so. Research in the USA and Britain suggests children spontaneously imitate what they know or believe their peers to do without having to be pressured. Given the normalisation of substance use, initiation into drugs is more accurately understood as spontaneous modelling of behaviours seen as normal or 'cool'.

Helping children who **are** deficient in social and living skills is fine. But most who experiment with or use substances occasionally are functional citizens of their own social world. Deficit-oriented programmes administered across the board waste the resources of hard-pressed schools and are unlikely to survive without outside pressure and resources. A reinvented prevention would instead emphasise interactive and participatory learning in which the experience of young people is valued. The nature of the relationship between youth and teachers or facilitators would be primary, more significant than the content itself.

Based on a seminar presentation "Reinventing Drug Prevention Education for Adolescents" as summarised at a conference sponsored by the Association of the Bar of the City of New York, the New York Academy of Medicine, and the New York Academy of Sciences in New York on 17 March 2000. Full presentation with supporting references available from Professor Skager, e-mail rskager@redshift.com.

Right for Britain?

In some ways Life Skills Training fits the British tradition in personal, social and health education. In others it is clearly the product of a culture whose distinctness is masked by a shared language.

Features which would sit easily in Britain include Life Skills' insistence on tackling drugs in the context of adolescent personal and social development, the emphasis on skills rather than knowledge, and its placing of legal drugs on a par with illegal. The UK drug policy target of implementing lifeskills approaches in all schools by 2002 "based on evidence of good practice"[50] makes the programme ripe for importation: there is only one off-the-shelf teaching package with 'Life Skills' in its title and at its core, and that one has an evidence base broader than any other.

However, rather than the structure and content of lessons, European health educators emphasise open communication based on a trusting, respectful relationship between teacher and taught, and prefer to see their role as offering opportunities for pupils to develop in ways not prescribed in advance and peculiar to each individual.[51] Life Skills' prescriptiveness – its set if modifiable content and predetermined outcomes – is alien to this agenda.

This prescriptiveness derives partly from America's more absolutist approach to drug use, reflected in policies which constrict the range of acceptable prevention objectives. Whatever Life Skills' ranking within the US drug education field, it is a limited field. The greater scope given European schools must bring other contenders into the frame.

For American under-21s alcohol is an illegal drug; in theory and even more in practice, for much younger Britons it is not, making 'responsible' use a practical objective – perhaps one reason why alcohol-specific interventions seem to work best.[52] Reinforced by federal regulations, prevention in the USA and the response to drug incidents at school are pervaded by zero tolerance attitudes[53] which must limit the scope for open communication between pupils and teachers, especially pupils considering or already using drugs illegally. Even with respect to illegal drugs, prevention in Britain is understood (though not openly) as having a high harm minimisation content, evident in the attempt to foster help-seeking and help-giving skills.

Among illegal drugs, Life Skills' focus on marijuana seems out of sync with UK priorities, now shifting towards preventing serious problems related to heroin and cocaine,[54] most of all drug-related crime. Dependent use and crime are concentrated among the psychologically and/or socially disadvantaged, and then just a small minority;[55] universally applied programmes are unlikely to be a cost-effective antidote

Education is not the same as prevention

Drug prevention aims to prevent substance use. Prevention may be primary – intercepting the development of drug use before it has started; secondary – stopping use which has started; or tertiary – reducing the extent and frequency of use, and possibly diverting users to less damaging substances and forms of use. Drug prevention is **against** substance use.

Drug education is intended to inform students about facts, contexts and consequences related to substance use. It includes the transmission of facts and information, discussion of this information, and opportunities to reflect on attitudes to the information and to the behaviours involved. Drug education is **about** substance use.

The hybrid term **drug prevention education** is confusing and contradictory. While not denying the links between education and prevention, British practitioners increasingly argue that an intervention which has a fixed intended outcome (ie, preventing certain behaviours) cannot also be accurately described as educational. In the latter the emphasis is on understanding and discussion, not behaviour change, and personal autonomy is acknowledged.

LINKS
The danger of warnings. *Findings* issue 1, p. 22–24.
Teaching in the tender years. *Findings* issue 1, p.4–7.
Nuggets 1.11, 1.12.

Do we need a programme?

Whatever the virtues of Life Skills Training, are universally applied school programmes of any kind the way to prevent drug problems? One view is that while **education** about drugs can and should be universal, **prevention** should be far more targeted and flexible.

The advantages of a set programme relate mainly to quality control. If a proven, high quality programme is implemented as intended by able and well trained teachers, schools and parents can feel confident that at the worst it will not backfire and that prevention effects are likely. A good programme will incorporate mechanisms to mould it to the pupils whilst ensuring that key inputs are effectively delivered, reducing performance variability between teachers. Schools under pressure to meet drug policy targets can clearly show they are doing something and justify it on scientific grounds.

The counter-argument is based on the fact that most children do not use illegal drugs and very few become problem drinkers or drugtakers. Perversely, while universal prevention programmes hit many who do not need intervention, they miss many who do. Serious drug use in adolescence is often accompanied by truancy, school exclusion and a disdain for drug education. In this vision what schools need is not a universal prevention programme, but **mechanisms to pick up on the atypical few** at serious risk (who will often manifest a range of behaviour problems) and then suitable people and services to refer them on to for individualised help.

Given its prevalence, the likely escalation in use once started, and the resultant health damage, advocates of targeted prevention might make an exception for tobacco. From this perspective there is a case for Life Skills Training to return to its roots – the prevention of smoking.

(*Do we need a programme?*). In the adolescent years themselves, preventing dangerous forms of solvent and stimulant use are probably more of a priority than cannabis.

Life Skills is most thoroughly proven in its impact on smoking, the form of drug use associated with the greatest damage, but not the one highest on the public's agenda. Also its content is mostly about fostering general adolescent development, a tack which might lack appeal for parents and politicians keen to see children 'taught' not to use drugs.

Such considerations raise questions over Life Skills' portability to Britain, as do social differences, especially with respect to race. Within Britain the US association between racial minorities and (known) problem drug use is not replicated, and claims for Life Skills suitability for minorities rest heavily on studies of Latino pupils.

Beyond content and style, the biggest question mark over Life Skills' potential role in the UK is the demands it makes on teachers and on the school timetable.

Demands outstrip resources

Though considered good practice, Life Skills' extended inputs led by regular teachers mean schools pressured to deliver academic results will be pushed to implement it in full. Its 30 45-minute lessons straddle key stage three, the years under greatest pressure from the statutory curriculum and where OFSTED inspectors found drugs teaching reached its nadir, often being relegated to tutorial lessons.

Following the report which in 1997 delivered that verdict,[56] little seems to have been done centrally to monitor and improve drug education. Demands and expectations are high, but have not been matched by statutory obligations or resources. Inevitably short cuts will be taken whose main attractions are price and minimising the load on teachers rather than quality.

Adequate resources are not in themselves enough; teaching styles and abilities are critical. Interactive teaching – integral to Life Skills – makes heavy demands on classroom management. Teachers must themselves possess good life skills and feel comfortable about allowing children leeway to interact on the contentious topic of illegal drugs. Life Skills' training should help, but requires teachers to be released for two days. Even among teachers trained by Dr Botvin's team, few have the "skills, confidence or motivation to teach the ... skills training components";[57] "selecting high quality teachers" may be needed.[58]

The resource implications are substantial and perhaps unrealistic. An officially acknowledged shortage of teachers trained in drug education[59] is unlikely to be turned round in the near future. Latest guidance on initial training[60] omits an earlier call[61] for a grounding in drug education, and in their general content the courses major on knowledge rather than teaching skills such as active learning.

In-service training might help but is vulnerable to competing priorities. The £7 million per year Drugs Prevention Standards Fund is now incorporated in a Social Inclusion Fund. There is no obligation to spend this money on training, or even on schools, and the requirement that local authorities match spending £ for £ could deter some.[62] Previous drug training grants failed to benefit over 8 in 10 schools.[63]

Beyond frontline teachers are the heads, school governors, local education authorities, politicians and schools inspectors who provide the resources and set the parameters within which teachers feel able and motivated to teach, and outside of which they feel vulnerable. To sustain a life skills programme, teachers need to feel confident of their support and that the school values this kind of work.

In its favour, there is far more to Life Skills Training than drugs. Much of it could double as a personal and social skills curriculum and its teaching methods (rather than the detailed programme) could inform

More information

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and improve drug prevention and education in Britain. Helping to legitimise the required investment will be the new non-statutory framework for personal social and health education, which incorporates legal and illegal drugs.[64] The *National Healthy Schools Standard* signifies a revived concern for fostering personal growth and autonomy and the acceptance of responsibility among pupils. If schools can be allowed to follow such an agenda rather than being pressured to deliver unrealistic drug use outcomes, there may yet be a role for what after all are the most distinctive elements of Dr Botvin's approach – its teaching methods and its holistic approach.

A fully referenced and more extended version of this paper is available by e-mail from findings @mashton.cix.co.uk.

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