

Education programs for business sustainability – obtaining behaviour change the true measure of success.

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Abstract

Traditional government education programs focus on positivist awareness raising methods. They are expert controlled and attempt to coerce or motivate business personnel to change. They have had little impact despite years of implementation. Research into the psychology of behaviour change in individuals, and change management in business organizations suggests that such expert derived methods will not be effective. An alternative participative, learning focused approach is required. Where the educator becomes a facilitator working with groups of business personnel who interact, learn of each other, decide on steps to take, then meet at a later time to discuss the outcomes of their actions and plan their next steps. The educator supports the business personnel in their efforts and helps build their capacity to take action through training, coaching, and supply of decision support tools. The result is voluntary participation and behaviour change in those companies where management is motivated to address the issue. As the group develops over time participation will increase, as a result of other business personnel hearing what is achieved, feeling confident in the process, and their ability to become involved, and achieve the changes in their own organization.

Key words

Behaviour change, organizational learning, critical education approaches, systems thinking, change management.

Traditional government education approaches

The majority of education programs being implemented by governments within Australia are positivist, awareness raising programs (Environment Australia 1999; Infotech & Australian Centre for Cleaner Production 1997; Cunningham, Sinclair & Burritt 1997; NSW Environmental Education Council 2001). They are developed by government officers without audience involvement. The programs use a combination of information, motivation and coercive based education techniques, as listed in Table 1.

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Table 1: Typology of selected behaviour change techniques (Developed from: De Young 1993 p492; Geller 1995 p181 and Dwyer et al 1993 p279)

Source of change	Behaviour Change Techniques		
	Information based	Positive motivation based	Coercive manipulation based
Environment / Others (Tangible)	<ul style="list-style-type: none"> • Written material Declarative knowledge i.e. you should change and Procedural knowledge i.e. how to change • Awareness & education sessions i.e. training, seminars, information nights • Feedback i.e. progress report or equipment showing resource use levels over time • Modelling i.e. case study reports, demonstrations, videotape • Prompts i.e. signs, stickers, buttons, TV adverts, verbal reminders 	<ul style="list-style-type: none"> • Material incentives i.e. rewards, discounts, • Social support i.e. recognition, social approval, purchasing preference • Goal setting i.e. agreed upon targets • Commitment procedures i.e. pledges to take action • Use of respected or influential person i.e. movie & sports stars, industry bosses encouraging action 	<ul style="list-style-type: none"> • Material disincentives i.e. fines, taxes, penalties • Social pressure i.e. lobbying, boycotts, peer pressure • Legal mandates i.e. laws, standards, regulations, • Engineering and design strategies i.e. changes that make environmentally responsible behaviour more salient and convenient • Fear tactics i.e. arguing business will not survive without changing
Internal (Intangible)	<ul style="list-style-type: none"> • Direct experience i.e. learning from surroundings and events • Personal insight i.e. learning from reflection and analysis of thoughts • Self-monitored feedback i.e. consciously observing the consequences of any actions taken and modifying behaviour accordingly 	<ul style="list-style-type: none"> • Commitment i.e. belief in and want to act • Intrinsic satisfactions i.e. pleasure from taking action • Sense of competence i.e. pleasure from feeling capable • Sense of confidence i.e. pleasure from knowing can do it 	<ul style="list-style-type: none"> • Sense of duty i.e. feeling that you must take action even if you don't want to, leading to minor action • Feeling of remorse i.e. feeling guilty or sorry for damage to environment and human health leading to person taking minor action

Despite significant amounts of time and money being spent on such programs little is often achieved. Two programs that the author has been involved with will be outlined, and used to demonstrate the problems associated with utilising these typical education techniques.

The first program called the 'Changing Streams Pollution Reduction Project' commenced in 1996 and continues to be operated by the City of West Torrens, in conjunction with the SA EPA and the Patawalonga & Torrens Catchment Water Management Board. Its original aim was to reduce stormwater pollution from businesses within the Council area. However, other issues such as waste minimization and cleaner production are also addressed. A range of typical education methods have been used in the program, such as brochures, case studies, site visits, training seminars, demonstration sites, grants for improvement, community involvement exercises, award & recognition programs, and regular newsletters. The project officers utilized school children to design posters and slogans for the awareness raising materials, recognising that adults often pay more attention to materials that children have produced (the proud parent syndrome), and that they learn from their kids about the environment (Simmons & Widmar 1990). A role model, olympic gold medallist, Kate Slatter, was also used to promote the projects message, and the Council's own practices were reviewed to ensure that its staff did not pollute the stormwater system.

The second program was called 'Do it right on site'. Its aim was to help 12 Councils in Southern Sydney improve the way they addressed stormwater pollution issues with the construction sector. It involved four main tasks. The first was to design new brochures that the Council officers could use to educate builders. The second was a review of the practices used at 3 of the Councils to look for improvement opportunities. The third was the design and delivery of training for Council officers on the importance of the issue, pollution prevention and control measures that builders should be using, and the legal responsibilities of the Council and its officers. The fourth was to actually coach the Council officers from the 12 Councils in their duties, by travelling around with them when visiting sites and making suggestions. The hope was that the Council officers would continue to address the issue once the project officer was no longer employed.

Both projects were declared successful and have been copied and implemented by other local governments. They both resulted in some changes to some individual company's practices, which did reduce the levels of stormwater pollution. However, these were often simple pollution reduction measures i.e. moving oil and chemical drums from outside to inside, or placing them in bunded areas; stopping truck and part washing from entering the stormwater system by installing proper wash bays, or in the case of the second project the storage of sand and cement indoors or in hessian bags so that it could not be washed away

by rain; or ensuring that cement mixers, paint brushes, and other equipment were not rinsed out in areas that could drain to the stormwater system.

These outcomes while beneficial, certainly did not result in major advancement to sustainable practices and much, much more needs to be done at each business. Particularly when one considers that 'the actual efficiency improvements required within the next half century are estimated to be in the range of five to twenty fold' requiring major increases in technological efficiency and the 'dematerialisation' of production and consumption (Bakkes & Woerden (eds) 1997 in Yecken 2000). Simply reducing individual pollution sources is not enough. Nor is it a satisfactory outcome considering the amount of time and money spent by the government on these kinds of education programs.

An unintended consequence of running individual environmental media programs i.e. stormwater, energy, contaminated land, greenhouse, and other such programs, is that business personnel begin to think that this is what sustainability involves. The 'triple bottom line – social, environmental and economic' focus of sustainability is not explained, and its potential benefits to business are lost. In explaining the significance of this Hawken, Lovins and Lovins (1999 p157) use a house cleaning analogy. They state that:

The gap in understanding would be comical were it not potentially tragic. It's as if you are intent on cleaning your house, which is situated on a flood plain whose river is rising. Cleaning house is an admirable activity, but it's not an appropriate response to the immediate problem.

The situation is made worse by the confusion created from the many different project officers all asking business personnel to take action. These officers compete against each other for the limited time that business personnel have to devote to the issue. Faced with many different requests it is not surprising the business personnel are not sure which actions to take or how to take them.

A disturbing example of how ineffective our current approaches are, can be seen in the results of a review of the 'Changing Streams' education program in 2000. As mentioned above, this program has been operating since 1996 and has been copied and implemented within many other local governments. The City of West Torrens (2000 p8) review found that only:

- 47% of business personnel knew the difference between the stormwater system and the sewer system;
- Only half the respondents claimed a project officer had visited their site despite all being visited; and
- 40% did not even know what the Council was doing to reduce pollution.

The results frustrated the program's funders and the many project officers implementing similar programs within SA. Some officers have assumed they just need to keep repeating the message, till it gets through. Others assume that

industry personnel do not care about the environment and that they will not respond to education. They feel that it is now time to focus on enforcement (Newland 2000). They do not appear to have considered that improving their educational methods may help. Nor have they recognised that making their project Officers also law enforcement Officers may decrease the willingness of business personnel to trust and confide in them, which will result in even less impact from their education programs.

The second program being used as an example targeted the construction sector. It was found that how well the builders performed on the ground, was largely a response to how much attention the Councils dedicated to the issue. Staff at some Councils did not think it was a priority, and therefore had inconsistent or very little education or enforcement. This low priority attitude reflects the fact that many Councils see the role as imposed on them by state government without funding, and they do not want to accept it (or the many other new duties that continue to be given to them without funding). The result of Councils failing to address it adequately, however, is that builders who do not care about the environment or are not aware of the impacts of their business continue to pollute. They may be told once in a while to take action, but since there is no follow up, they are not fined, and doing the right thing requires significant change and effort, they continue with their poor practices.

Council officers' ignoring the issue confirms to the builders that it's not important and doesn't need to be addressed. Those builders who do care implement the controls and accept the additional costs involved in purchasing the control materials and the time to install and maintain them. Doing so, however, requires these caring builders to charge more for their jobs, which means that they may not win contracts, as the industry is very competitive and profit margins are very small. The result is extreme frustration in these caring builders, who either accept the added costs or stop doing the right thing, so that they can compete with everyone else. Meanwhile, the Council officers unaware of the impact of their actions blame the builders for not doing the right thing.

In summary most education programs being implemented by governments today, utilise positivist awareness raising approaches. They are expert derived and controlled, telling people what to do. They try to motivate or coerce the audience to change and expect them to respond to their efforts. They focus on fragmented sustainability solutions and penalties, despite the fact that a focus on threats and fines has been shown in the literature to lead to resistance, not cooperation (Geller 1989; Kaplan 2000; De Young 2000).

More sophisticated positivist approaches to sustainability education exist. Applied behaviour analysis recommends that experts should design their programs and test them prior to widespread implementation. This way the most effective combination of motivational and coercive techniques can be discovered (Geller 1989; De Young 1993, 2000; Dwyer et al 1993).

Community based social marketing goes one step further to recognise the need to consult with the audience member before designing the program. The consultation identifies their barriers to change and their needs in order to take action. Programs are then designed to overcome these barriers and meet the general audience's needs. These programs are then implemented over mass areas (Day & Smith 1996; McKenzie-Mohr & Smith 1999; Kassirer 1999). Control is still maintained by the educators and audience members are expected to respond appropriately to the educator's message.

Looking at the psychology of individual behaviour change and organizational behaviour suggests that positivist educational approaches will not be effective. That is because they are like a top down change directive, issued by management. All of us have probably experienced such directives. When they occur, staff members are often skeptical and scared of the changes. They want to know more, they want to know why the change is needed, what it will involve, and mean for them. They want to have a say in what occurs and how. They want to feel safe. Unless this safety is created they resist change (Coghlan 2000; Suarez 1993; Kofman & Senge 1995; Gerard & Ellinor 2000; Isaacs 1999; Jaworski, Gozdz & Senge 1997).

To get change a positive attitude needs to be created so that people embrace the change. They understand what it means, accept that it is important, that it will be beneficial and worthwhile, and most importantly that they believe they can undertake the change successfully (Robinson 1998; De Young 2000; Kaplan 2000; Fien 1993). They have to believe that they will be provided with support to help them and that they will achieve it. This kind of detailed understanding and confidence cannot result from simple awareness raising or written material. It requires interaction and support, it requires dialogue and exploration, it requires critical education approaches that focus on learning (Smyth 2002; Sterling 1996; Robottom & Hart 1993; Greenall Gough 1993).

This learning in turn can only occur if there is a learning supportive culture in the organization, where staff are involved in decision making, where they are encouraged to take time to reflect on practices, raise questions and problems, where mistakes are seen as learning opportunities, and management walks the talk (Cairnes 1998; Senge 1990; Handy 1995; Berdish 2001). However, many organizations do not have such cultures, they are still management controlled and driven. They are filled with politics and departments that operate as isolated silos. This hinders learning and change. Such an organization is not equipped to undertake major changes, such as those required by sustainability.

To address sustainability holistically (i.e. Industrial Ecology, Natural Capitalism, The Natural Step), not just reduce individual sources of pollution, requires significant time and effort. It involves changes to business policies, procedures, products, and ultimately overall strategic plans (Johnson & Wilson 1998;

Cunningham, Sinclair & Burritt 1997; Roome & Oates 1996). Companies are unlikely to take such changes unless they truly believe in the importance of sustainability, and are prepared to devote time and effort to it. The huge amount of change required is likely to be seen as scary and resisted by staff unless a learning focused approach is taken. That is all parties are involved in understanding the need for change, developing a shared vision of what the company should be, and participating in choosing the actions to take, implementing, and reviewing them.

This kind of extensive change and effort is never going to result from simply telling business personnel that they must address sustainability. Our current approaches not only fail to help business personnel with these large tasks, they also create confusion. As mentioned there is a lack of consistency in education and enforcement across regions and states. There are also many different education programs, each with a project officer asking business personnel to take different actions. There are many different definitions of sustainability and approaches to take to become more sustainable. It is not surprising under such a situation that business personnel are confused. And when people are confused they resist change (Kaplan 1991; Fagan 1996; De Young 2000; Schein 2001). Clearly a different educational approach is required.

An alternative educational approach

My educational experience and PhD research suggests that a combination of the theory and techniques of critical education approaches and organizational learning approaches will be most effective. This would mean locally implemented programs. Where the educator does not control the program, but invites business personnel to participate in a dialogue about sustainability and how to achieve it. Only some business personnel will want to participate, but these are the core people who already have an interest in sustainability or a positive attitude towards it. They will voluntarily participate.

This core group could then work together to understand and implement sustainability within their organizations. They would become a learning community. The educator would act as a facilitator for the group and help all parties to undertake dialogue, to think systemically about the issues, and problem solve. The group would come together regularly to discuss issues and learn of each other. They would decide on steps to take and implement these in between the next meeting. At the next meeting they would discuss what occurred in their organizations and decide on further steps. This cyclical, interactive process is known as action learning (Fisher, Rooke & Torbert 2000; Gibbons 1999).

The educator would also provide training and tools that build the capacity of the individuals to undertake sustainability within their organizations. This would include building capacities such as change management, organizational learning,

problem solving, systems thinking, sustainability techniques and more. The educator would coach the business personnel in undertaking the process in their organizations, and in small businesses may even facilitate it within them. This recognises the fact that many small to medium sized enterprises may not have the resources available to dedicate a staff member to oversee the process within their organization.

This alternative educational process acknowledges that determining meaning and learning is a social process (Innes 1995; Molloy 2001; Allen 2000; Allen 2002 et al). It recognises the importance of creating a positive attitude, and the increased likelihood of this if business people can discuss the issues with others in their situation, not just the government officers. It recognises that all people have expertise and can learn of each other. Such a program requires the educator to let go of control, to accept the decisions made by those business personnel participating, and the actions they want to take. Some groups may want to start small addressing pollution reduction, only being willing to move onto larger, more complicated issues once they've felt some success from tackling the smaller issues. Other groups may want to start by envisioning a sustainable entity and then planning small steps to take to achieve it. The educator has to accept this and cannot fall back into expert telling mode at any time. To do so would undermine the whole process (Huckle & Sterling 1996).

Such a program requires educators to use a range of skills not necessarily equated with a government educator in the past – facilitation, dialogue, systems thinking, problem solving, change management skills and much more. In parallel to the above process, the educator should interact with the remaining business organizations to increase their understanding of the issues, to answer their questions, to tell them what the learning community is achieving, and invite them to become involved when they are ready. Building a relationship of trust.

Implications

Implementing such a program has significant implications for the way that our government programs are currently operated. Firstly, it suggests the need for the many different education programs currently asking business personnel to take action, to be combined into one initiative that addresses sustainability holistically. This should be the same across regions or even across the states. Basic educational processes i.e. television adverts, magazine articles, and posters on individual topics could still be used to raise general awareness, but there should be only one education program with one project officer who asks and helps business personnel to take action to address sustainability holistically.

While the education programs need to be delivered locally to build the learning communities and address local barriers to change and needs, it makes sense to have one higher level government agency coordinating the process, researching sustainability solutions and educational methods, developing training to build the

capacity of the educators, and developing tools and training to build the capacity of industry personnel. The local educators would then deliver this training to their local industries and use these tools. The coordinating government agency could also work to remove the larger societal barriers to change that affect business personnel i.e. market systems, labelling systems, taxation, and subsidies that make it difficult for industry to act. The agency could work with politicians and the public to recognise the need for and make the changes to these items.

To ensure that a program is implemented in each local area and business personnel get the same treatment wherever their business is located, will require the programs to be funded by the higher levels of government for implementation at the local level. This is the only way to get consistency in delivery. Obtaining the funds to do this can be achieved by redirecting all the money currently being spent on education programs, by officers at different departments in each of the three levels of government into a single whole-of-government education program. This will also require working with the local government elected members, management, and staff to ensure that they understand the importance of the issue, that they confirm the messages in their interactions with business personnel, and that enforcement occurs. The enforcement officer(s) can refer business personnel to the educator when they discover people polluting. This will aid in the process of interaction and help in the creation of a positive attitude, ultimately leading to more and more industry personnel participating in the learning community.

Conclusion:

Our traditional education programs for business sustainability have resulted in minimal improvements. They utilise positivist educational methods telling business personnel what to do. The literature suggests that critical, learning focused approaches, which focus on creation of a positive attitude, joint ownership, problem solving, and building capacity will be more effective. Implementing such an approach will require significant changes to current practices of all levels of government. While this may seem daunting it will result in greater value for money spent on educational programs, improved relationships between all parties, and a cleaner environment for us all.

Note: This paper is a very brief summary of the author's PhD thesis. She will be happy to provide further information and detailed references to support the arguments upon request.

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