

Chapter 5

Learning based change for sustainability: perspectives and pathways

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Change for sustainability

No country is sustainable or has come close to becoming sustainable and after years of experience in implementing sustainability initiatives there is still no generic recipe for success. As Robert Prescott-Allen reminds us “making progress towards (sustainability) is like going to a country we have never been to before... We do not know what the destinations will be like, we cannot tell how to get there” (2001, p. 2). Given this reality, the people around the globe has come to recognize that sustainability is essentially an on-going social learning process that actively involves stakeholders in creating their vision, acting and reviewing changes (Tilbury and Cooke 2005). This realisation also explains why learning in the context of sustainability is understood as a reflective process rather than as a message or level which must be achieved. There are no templates to be followed or lists to be adhered to. Instead, ‘learning through doing’ is now seen as vital to help us grow in understanding sustainability, human motivations and visions which provide the key to social change (UNESCO 2002).

The official documents associated with UN Decade in Education for Sustainable Development (UNESCO 2004, 2005, UNESCO – Asia Pacific Regional Bureau for Education 2005) acknowledge that this type of social learning can manifest itself in a variety of forms. It can range from the formal capacity building or training of individuals which often occurs within a college or higher education programme to informal but structured processes in the community or organization which use action learning, reflection and change to improve the effectiveness of a strategy, program or action plan for sustainability.

Learning based change helps challenge established structures and empowers individuals and groups to enable change towards sustainability. Professional development, group cohesion and cultural change are often outcomes also associated with this process.

This chapter explores the links between sustainability and social learning. It attempts to define the characteristics of learning based change approaches as well as

the key components which underpin these approaches to sustainability. It explores a variety of pathways to this social learning process which engages stakeholders in a consideration of power, participation and possibilities for change.

Sustainability and social learning¹⁹

The sustainability literature has clarified that the major problems cannot be solved from our current way of living and will require a shift from traditional ways of thinking and acting upon environmental and socio-economic problems (Milbrath 1996, Environment Canada 2004, SustainUs 2005, Eckersley 1998, Doppelt 2003, UNESCO 2002, 2005). Sustainability will require social learning at a grand scale and although there are no templates for change, there are suggestions that we begin by challenging our existing practice. It has been suggested that environmentalism in the past has been a movement against things – for example stopping pollution and other harmful activities – while the sustainability approach aims to do things differently in the first place, instead of just cleaning up the symptoms of underlying problems (PCE NZ 2004). The sustainability approach is also associated with futures thinking and a move away from a ‘doom and gloom’ approach which aim to frighten people into action (Tilbury 1995, Tilbury and Cooke 2005).

In essence, three key concepts underpin the notion of social learning for sustainability:

- the need to *challenge the mental models* which have driven communities to unsustainable development. This involves questioning and reflecting upon our actions and developing a much deeper understanding of our social dispositions so that we can re-think and re-design our activities;
- the need for *new learning approaches* which help us explore sustainability and build skills that enable change, such as mentoring, facilitation, participative inquiry, action learning and action research; and,
- the need for utilising pluralism and diversity in joint explorations of more sustainable futures.

Few grasp the fundamental paradigm shift that is required to achieve change for sustainability. Changes to the way we think and learn are needed. For example, sustainability involves more than just understanding how society, environment and economic systems are linked – which is the aspect of sustainability which is more immediately associated with the concept. Sustainability is often graphically

¹⁹ This section refers to the term ‘Learning Based Change’. In this context, the term can be used interchangeably with ‘Social Learning Based Change’ since it focuses on broader social learning rather than curriculum or formal education structures.

represented by three overlapping circles each labelled 'social', 'environmental' and 'economic' representing various dimensions of issues (for an example see Bhandari and Abe 2003, p. 16). Although sustainability does promote holistic thinking this graphical representation is a simplification of what sustainability is really about – which is more about transforming current systems than about merely linking them. Sustainability is about challenging our mental models, policies and practices not just about accommodating dimensions into current work or finding common ground between related programs.

Many groups have struggled to see this difference and have simply changed the label they use to describe their work rather than challenge their thinking and practice. More and more we are seeing the word 'sustainability' being added to the titles of programs, project, activities, departments or units – however, few have actually been redesigned to address new social learning approaches. Many of those who have struggled to understand this difference often refer to the concept of sustainability as 'vague; or tend to interpret the word 'sustainability' literally (Tilbury and Cooke 2005). They are not familiar with the literature or thinking that underpins this concept or recognize the sustainability movement which represents a particular intention – envisioning and negotiating change rather than 'sustaining' the status quo.

The more radical interpretation of sustainability supports the use of learning approaches as ways of exploring the sustainability agenda. These approaches enable people to reflect on their experiences, learn how to make change and move forward. The concepts are not new to the organisational change literature which recognizes that change which is collaborative and context specific (such as that sought by sustainability) must involve learning. It is for this reason that an organisation aligned with sustainability is often defined as a 'learning organisation' (see Senge 1990, 1999, Connor and Dovers 2002).

What type of change?

A great deal of the work which takes place under the label of education or learning for sustainability seeks to engage people in action, for example, consumer action or volunteer conservation action. Learning based change for sustainability takes this a step further, helping learners develop the skills to influence change within a system, organization or wider society. It engages the learner in identifying relationships which can embed change as opposed to single actions which may not challenge root causes. It seeks structural and institutional change rather than focusing on individual change or using end-of-pipe approaches. Systemic change underpins learning based change for sustainability which encourages changes to be mindful of the whole system so that longer-term positive change is more

likely to come about. This approach involves the study of how change happens in particular contexts and to consider people's assumptions and strategies for change. By looking at the world in a more holistic way, more systemic changes in our lives and in our society can occur through a 'redesign' of many of our current systems and established ways of living along sustainability principles.

In addition, learning based change encourages education processes which question the thinking and assumptions behind our actions rather than judge our actions. Certain problems can be encountered if particular actions are criticized or demonized without providing an opportunity for people to question why this is the case or without providing alternative and practical solutions. For example, some educators have seen limited value in children coming home from school to lecture their parents about the negative impacts on the environment of using their car. Parent's options may be limited due to socio-economic factors or lack of alternatives e.g. public transport. In any case, being told what not to do is likely to yield unsustainable change. Learning for sustainability focuses on encouraging people to think on why certain decisions are being taken and what the real alternatives available to them are.

The goal is to get to the root of the issues. Traditionally, while citizens have been active in the alleviation of environmental problems they have not addressed issues of sustainability at source. Learning based change for sustainability challenges educators to think beyond raising awareness and go beyond involving learners merely in one-off activities such as cleaning-up or planting of trees. They encourage learners to develop critical and systemic thinking skills, enabling them to get to the core of the issues. This reflects the major shift in thinking from environmentalism to sustainability.

Dealing with the issues at source is an important aspect of this new approach. Critical and systemic thinking enable this by assisting people to identify the root of the issues and to work actively towards trying to address these.

The learning based change approach to sustainability challenges the role of the educators and seeks to break down the traditional teacher-student hierarchy in a classroom as well as the sending out of key messages to target audiences in community education. Learning based change for sustainability encourages collaborative learning environments which do not merely impart knowledge but build capacity of the learner. Negotiation, evaluation and action are essential parts of this process. Approaches such as facilitation and mentoring, redefine the role of the change agent (i.e. the teacher, the policy-maker, NGO-representative, etc.) and encourage learning to be driven by the learner. They challenge traditional power; politics and participation relationships associated with teaching and provide

compatible reflective learning and capacity building processes. As Hamú (2004) points out few educators or change agents are trained or experienced in these new learning approaches.

Approaches to learning based change

In essence, learning based change is seen as a process which can motivate and engage people in creating sustainable futures. It is interpreted not only as a process which builds competence but also a change strategy which will assist people and organizations to move towards sustainability. There are a variety of pathways which enable learning based change:

- **Mentoring** provides individuals and groups, who are grappling with sustainability with support, advice and understanding so they can engage with this concept. The process allows people to critically examine opportunities for change within their home community or workplace.
- **Facilitation** encourages learning to be driven by the learner. It equips the learner with the necessary skills and knowledge to take action and participate in change and decision-making. It develops the ability of people to 'critically' reflect on their existing practice and identify the change necessary. The process encourages people to engage in open dialogue and eliminates inequitable power hierarchies by, for instance, not relying solely on expert knowledge.
- **Participative inquiry** is the engagement with and deep exploration of sustainability questions which stimulate new ideas for further interrogation and action. Participatory inquiry offers a new way of understanding and engaging with the community and/or organizational change. It requires participants to collectively strive to understand a question that is important to them by freely examining their existing ideas and practices.
- **Action learning** is a process designed to build capacity using a form of reflection and assessment. The ultimate goal is the improvement of practice. The process involves the participant's developing an action plan, implementing the plan and reflecting on what they have learnt from this. A facilitator assists the participants to develop their plan and learn from their experiences.
- **Action research** is a research method that pursues action (change) and research (understanding) at the same time, through a cyclical process of planning, action, observation and reflection. It aims not just to improve but to innovate practice. Action research provides a valuable process for exploring ways in which sustainability is relevant to the participants' workplaces and or lifestyles. It views change as the desired outcome and involves participants in investigating their own practice. The competence building occurs within a specific context and issue to be addressed. It differs from those processes, often labelled 'capacity building', which consists of training through the dissemination of information of materials.

All these approaches are based on informed collaborative but structured processes which use learning, reflection and change to improve the effectiveness of an organization, strategy, program or action plan. They all engage the learner in exploring notions of participation, power and possibilities of change. Ultimately, they also develop professional skills and learn how to work individually and in a group to achieve change.

Stakeholders are using these approaches to mainstream sustainability approaches within education, training and capacity building in the community. Others are using it to develop Local Agenda 21 plans or Corporate Social Responsibility (CSR) policies or even Education for Sustainability strategies.

Learning based change in practice

‘Learning is a process that influences the way people think, feel and act. We learn through experiences throughout our entire lives. Learning happens consciously and subconsciously. We often learn by interacting with people and the environment’ (PCE NZ 2004, p. 1).

Learning based change for sustainability is often most effectively used within the Local Agenda 21 context and other planning initiatives where participants are seen as learners as well as contributors (Tilbury *et al.* 2005). It occurs when members of a local community come together to plan for a better quality of life within their local area. In order to move towards a better future, resolve existing conflicts and develop realistic action plans, those involved learn, reflect and negotiate visions for their community. Skilled facilitators provide informal structured learning opportunities during meetings and create a culture of participation, engagement and ownership necessary for implementing sustainability at the local level.

Learning based change for sustainability underpins the organizational change for sustainability literature. Some corporate and government agencies are using the approach as a way of advancing the sustainability agenda internally. They are using: (a) envisioning to align the entire organization with sustainability principles (Tilbury and Wortman 2004); (b) critical and systemic thinking to identify the difference between cause and effect, and understanding the root causes of unsustainability (Doppelt 2003); (c) participation in decision-making as a way of motivating stakeholders to engage in changes for sustainability (Government of Victoria 2004); and, (d) developing partnerships to stimulate dialogue and assist with the implementation of sustainability strategies and action plans (Tilbury and Cooke 2005).

Doppelt's text on 'Leading Change for Sustainability' (2003) supports the learning based change approach in business, government and civil society. It provides insights into the components of this approach as well as case studies which document its value and impact. The book contrasts case studies which have used learning based change approaches with those which have worked with traditional models of training and change – arguing that long term change for sustainability is attainable if this emerging approach is used.

An IUCN publication 'Engaging People in Sustainability' (Tilbury and Wortman 2004) also documents case studies from around the globe, from executive education to volunteer conservation programmes, which use a learning based approach to bring about change for sustainability. Although a variety of terms may be used to describe these examples, common components underpin these case studies (see Key Components). The book documents how learning based change motivates, equips and involves both individuals and institutions in reflecting on how they currently live and work. The process assists them in making informed decisions and creating ways to work towards a more sustainable world.

Key components of learning based change for sustainability

Learning based change seeks to implement systemic change within the community, institutions, government and industry through a process which is underpinned by the following key components:

Systemic thinking

Systemic thinking is a way of thinking based upon a critical understanding of how complex systems such as environmental and social systems function by considering the whole rather than the sum of the parts. Systemic thinking offers a better way to understand and manage complex situations as it emphasizes holistic, integrative approaches which take into account the relationship between system components. Systemic thinking works towards long-term solutions that are vital to addressing issues of sustainability. It is a critical component of learning based change for sustainability as it assists people to understand the systems they are attempting to change.

Traditionally we have come to understand things by taking them apart, deconstructing and breaking down components into smaller parts. Sterling (2004) argues that in a complex and every changing world there is a strong argument that analytical thinking is not enough and that it might indeed be increasing our problems. Systemic thinking offers a better way to understand and manage

situations marked by complexity. It can replace the old ways of thinking challenging fragmented thought with its emphasis on integrated and adaptive management.

Systemic thinking challenges the current tendency to segregate thought. It encourages us to see connections between things and how 'this' relates to 'that' or recognize that there might be implications to our actions which were not foreseen (Sterling 2004). 'Joined-up thinking', 'integrative thinking', 'relational thinking' and 'holism' are words often used to describe systemic thinking. Systemic thinking recognises that we are sometimes blinded by our current ways of thinking which do not often recognize the importance of connections or linking thinking.

Envisioning

Envisioning is a process that engages people in conceiving and capturing a vision of their ideal future. Envisioning, also known as 'futures thinking', helps people to discover their possible and preferred futures and to uncover the beliefs and assumptions that underlie these visions. It helps learners establish a link between their long term goals and their immediate actions. It also helps contextualize socio-environmental contexts within one's own ambitions and attempting to resolve differences in expectations. Envisioning offers direction and provides impetus for action by harnessing people's deep aspirations which motivates what people do in the present. It contrasts with the doomsday projections of the future which disempower people by their negative images.

Today's media are dominated by stories of poverty, environmental degradation, species extinction, corruption and terrorism. While such issues require urgent attention, basic knowledge about them does not lead us to a clear path to action, nor does it motivate participation in their solution. Rather, such all encompassing negativity often leads to feelings of powerlessness, apathy, guilt and disillusionment, clouding the path towards real solutions.

Many current educational practices are focused on trying to problem-solve their way out of unsustainable development rather than on creating alternative futures (Hicks and Holden 1995). In addition, some traditional education programs and resource have offered a particular view of the future which is not questioned in any way or do not encourage people to engage in change.

Sustainability facilitators and educators have been exploring futures thinking and envisioning tools as a way of helping people, schools, communities and organisations to see 'sustainability' not as a vague concept but something that is directly relevant to their lives. Key questions relating to this process include:

- Q. What assumptions underpin my vision?
- Q. What has influenced or informed my/someone else's vision
- Q. How and why might others not agree with my vision?
- Q. What are the implications of this vision for life, work and everyday choices and actions?

Critical thinking and reflection

Critical thinking and reflection challenges us to examine the way we interpret the world and how our knowledge and opinions are shaped by those around us. Critical thinking leads us to a deeper understanding of the range of community interests and the influence of media and advertising in our lives. It helps identify power relationships within the community and question the cultural assumptions which influence our choices.

Critical thinking is triggered by a questioning process which helps people uncover assumptions, challenge assumed knowledge and question current thinking. This questioning might take place through dialogue in a workshop, during a meeting, through role-playing exercises, or through constructing visual maps.

Throughout the course of a day, people constantly absorb information by reading newspapers, listening to radio, watching television and browsing the internet. They frequently interact through conversations with family, friends, social groups and work colleagues or school peers. They are targeted by companies seeking to sell their products or services. All of these sources influence how people perceive the world and what is considered to be of value in everyday living.

Moreover, these sources present a particular viewpoint, or have bias. Media interests shape the news. Corporations influence government regulation. National interests and priorities reflect cultural perspectives. Through advertising, companies encourage people to consume or link products to feeling of self-worth and status. Friends, family and co-workers also influence as they can lead to 'group thinking' where many simply adopt the opinions and views of those around them – sometimes subconsciously. Critical reflective thinking empowers the individual to identify these influences in their thoughts and actions and to clarify for themselves whether they are making the appropriate choices (Tilbury and Wortman 2004).

Ultimately, sustainability depends on fundamental changes in lifestyles and the choices people make day-to-day. These changes can come about by critical questioning of our current dispositions as well as the social assumptions and practices which threaten our quality of life.

Partnerships for change

Working towards sustainability will require transformation of social structures. These and other challenges of sustainability are daunting and so many are finding networks and partnerships as a vehicle for sharing responsibilities and learning how to address issues. Over the past ten years, many voluntary, multi-stakeholders initiatives, partnerships between government, NGO and business have begun to take root, demonstrating that they are a motivating force for change towards sustainability.

Because they are non-hierarchical, partnerships can be a strong innovative force in transforming institutions such as within the formal education sector and reorienting them towards sustainability (Henderson and Tilbury 2004)²⁰. Cross-sectoral partnerships among local, regional and national groups can add value to local initiatives by helping change larger institutional frameworks while maintaining local relevance.

References to networks and partnerships have featured regularly in many pronouncements and international commitments on sustainability which reflect the prominent role they have played in discussions ever since 'Agenda 21'. It was at the Rio Summit (UNESCO 1992) where partnerships were identified as a critical component of sustainability. The Summit promoted an 'action-oriented' formulation of sustainability partnerships. Since then, there has been an increasing recognition that partnerships which share learning experiences can accelerate the process of change towards sustainability (UNESCO 2002). The World Summit on Sustainable Development reinforced this view, ending with a call for greater global partnerships for sustainability.

Today, over 290 voluntary and self organising partnerships between government NGOs and the private sector have been registered with the United Nations (Tilbury and Cooke 2005). These partnerships cut across several themes relevant to sustainability, from health to consumption and poverty alleviation. Many focus on the benefit of capacity building or technology transfer while others seek to affect change in institutional frameworks. Partnerships are also at the core of the Implementation Plan of the UN Decade in Education for Sustainable Development (2005-2014). They are encouraged as a key component of programs across the

²⁰ Non-hierarchical partnerships are providing greater scope for stakeholders to take ownership and commit to institutional change. However, there have been examples of hierarchical relationships where a stakeholder has provided democratic leadership and enabled participating groups with the space to engage and commit to sustainability outcomes e.g. Australian Sustainable Schools Initiatives (AUSSI). See www.deh.gov.au

spectrum, from formal education to community-based projects and also from international networks down to regions within a country. It argues that planners and managers can increase the effectiveness of their programs by including a range of stakeholders in their design and management. Partners should include not only those with a diverse range of interests and perspectives on sustainability, but those from various levels – local to regional to national and international.

Partnerships for change provide both formal and informal opportunities for learning. Learning can take place during a meeting or through structured exchanges which allow reflection, development of understanding and questioning of mental models. Partnerships also strengthen ownership and commitment to sustainability actions.

Participation

Participation aligned with sustainability goes beyond mere consultation processes to involve people in joint analysis, planning and control of local decisions. In its 'truest' form it can be self-initiated and directed with participants having full control of the process, decision and outcomes.

The word 'participation' is very commonly used in learning for sustainability policies and programs. Participation can take many forms that involve stakeholders in varying degrees, ranging from consultation and consensus building to decision-making, risk sharing and partnerships. Some describe these different levels of participation on a continuum ranging from manipulation of passive participation to an increasingly shared process and finally, to full stakeholder engagement in, and ownership of, decisions and outcomes. When used in the learning for sustainability context participation is linked to notions of decision-making for sustainability rather than merely consultation or active engagement.

Participation in and for sustainability is an important way of recognizing the value and relevance of 'local' or 'context-specific' knowledge. If properly undertaken, this knowledge becomes part of the decision-making process and weighed up with knowledge from other sources. Solutions are developed relevant to each community or stakeholder group. Rather than relying on outside specialists or managers, participation can engage more stakeholders in becoming part of the process of self-governance and decision-making. Successful participation for sustainability involves a wide range of stakeholders and provides opportunities to build a shared vision, a greater sense of unified purpose and community identity.

Through participation, people can build skills to take control of both the decision-making process and responsibility for outcomes. This greater control leads to

greater motivation to participate in actions, whether they are community projects, political action, democratic decision-making or community leadership roles.

Genuine participation in the learning experience is essential to build people's abilities and empower learners to take action for change towards sustainability. Through participation learners are at the centre of the active participatory experience with learning, facilitation and decision-making in the hands of the learners themselves. In learning based change approaches, the community leader, mentor or educator is not considered to be the 'expert' but instead is a facilitator dedicated to helping learners to rethink and take decisions and actions aligned with sustainability. This process of participation is more likely to lead to permanent changes as compared to participation in one-off events. Building skills for participation gives people the opportunity to actively participate, build knowledge and develop leadership skills that contribute to action. It challenges the power bases in our society which have led us to unsustainable development.

Documented experiences suggest that networks and partnerships are helping participants to:

- create synergy in their work to maximize opportunities for all involved;
- combine resources, talents and foster long-term relationships to encourage mutual benefit and development;
- reflect on the values and missions and can create a space to create shared visions as well as develop new ideas and strategies;
- motivate action for the future as they provide a forum for mutual support and encouragement; where successes can be celebrated;
- build expertise and capacity which can help to secure financial and technical support from funding sources. As individual partners may be specialized in one area, they might lack the staff or financial ability to commit to long-term change to sustainability. By combining resources and financial assets and pooling technical skills with others they can develop the broad and long-term ideas and strategies for change;
- break hierarchies and challenge traditional power structures; and,
- help to challenge mental models by bringing together individuals and groups with different perspectives and from different levels – when learning together shifts in perspectives and more long-term change is likely (adapted from UNEP DTIE 2005).

In reality, the achievement of successful partnership outcomes – based on common objectives, clearly defined deliverables, where ownership is shared among all partners – has been identified as a major challenge (IISD 2005).

The ten year challenge...

Framed from a social learning perspective, sustainability is seen as an emerging and reflective process which challenges traditional notions of education and sees learning as the cornerstone of social change. Learning based change differs significantly from processes which have been traditionally described as education. With the conceptual pathway to sustainability not clear, the quest for sustainability requires new learning as well as different forms of knowledge to involve people across the social sectors in learning for change. However, setting the pathways for this form of social learning will not be a simple task.

A ten year challenge has begun in 2005 under the banner of the UN Decade in Education for Sustainable Development. The Decade brings with it the momentum required to promote and support learning based approaches across the social sectors.

The Decade, under the leadership of UNESCO, seeks to give an enhanced profile to education and learning in the achieving sustainability and provide opportunities for developing a vision of sustainability (UNESCO 2005). UNESCO defines the vision for the Decade as one where everyone has the opportunity to benefit from quality education and learn for a sustainable future and contribute to social change. The next ten years may provide platform for this new learning to take centre stage as a strategy for achieving social change for sustainability.

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