

## Is there a frame providing a connecting story?



We are surrounded by frames. When we hear the word 'nature', subconsciously a bundle of different memories, emotions and values are activated. Such associations, often leading to strong narratives under the surface of our awareness, are called 'frames'.

Placing frames in the centre of a Real World Learning experience has two significant purposes:

1. Frames act like a guiding light for teachers and learners, allowing self-directed learning to occur without getting lost.
2. Frames provide a deeper meaning for the learner, revealing single truths as parts of a bigger story.

Imagine you are working in a stream keeping in mind the frame 'Small changes can have a big impact'. Ask your learners to experience this idea; e.g. they might change the water flow by removing a stone. Encourage them to transfer this finding to other areas of their own life and to consider its relevance in terms of care for nature. Although the process of learning is quite open, you know where you are heading for and your learners feel that this outdoor experience might be much more meaningful for their lives than just 'learning something about streams'.

## Frames in Real World Learning

The inclusion of frames in the Real World Learning model is intended to offer a guiding light that shines through the learning experience, connecting all aspects of the hand. In order to develop thinking and practice with frames please treat them with curiosity and enjoy playing with them. Below we offer further guidance on how they work, why they are so important and how they can be applied in Real World Learning.

### What are frames?

The concept of frames is commonly used in the fields of linguistics and psychology (Crompton 2010). It hangs on the understanding that every word or concept is mentally connected to a number of associated words, memories, emotions and – importantly – values. This set of associations is known as a 'frame'. For example: "When we hear the word 'nature' we might think of trees, animals, the outdoors, or of particular memories and emotions. These associations will be evoked even if we are not consciously aware of it" (Blackmore *et al.* 2013:43). "When we encounter new words, we understand them by reference to existing frames, and as we acquire new frames so our understanding moves along. What occurs with words also occurs with sensations and experiences: we understand the world by reference to our existing frames" (Darnton & Kirk 2011:66).

## We are surrounded by frames

“Frames operate at a subconscious level, embedded in metaphor and analogy” (Cachellin & Ruddell 2013:308). They are used everyday to shape our thinking and action through politics and the media. Some frames are universal, others result from our culture, and some of them are imposed upon us by the marketing industry. The degree to which ideas or products are accepted depends on how they are framed (Entman 1993). If an offroad car is promoted through the story that, due to the existence of the car the life of a lost calf could be saved, the strong frame of caring for a helpless creature is used to sell the car – in terms of sustainability in a doubtful and rather un-transparent way.

Of course, frames play a key role in education as well. Experienced teachers will recognise the term ‘frame’ as closely related to more familiar terms like ‘narrative’ or ‘metaphor’. “Narratives are frames that tell a story” (Lakoff 2008:250). In Scotland, many schools are working with the ‘storyline approach’ to provide “a meaningful context for learning [...] in a way that closely mirrors real life” (Creswell 1997:10), and in heritage interpretation the ‘theme’, an approach mainly used in parks, zoos or museums, plays an important role described as providing “a larger truth that lies behind any statement of fact” (Tilden 2007:33).

## How frames work

Why do frames play such an important role in learning? Neuroscience has shown that we tend to think metaphorically (Lakoff & Johnson 1980), and that we learn much more through stories than by facts (Spitzer 2009). We remember frames that condense these stories. In this way it can be said that frames literally structure how we think. They become the defaults with which we understand the world.

This happens because the neurons in our brain build up neural pathways which are essential for our thinking (‘what fires together wires together’). Through repeated exposure to what we hear, read and experience, these pathways (‘wires’) become more used, quicker and finally preferred (Hüther 2006). If we take a bus to a destination for the first time, we have to consider several questions. If we take that same bus every morning, we do not have to think about these questions any longer. And if a new, probably better option becomes available to reach our destination, we might still take the connection we are familiar with. Frames can become dominant in our minds (Darnton & Kirk 2011:66). They are setting the stage, as they are set by the stage.

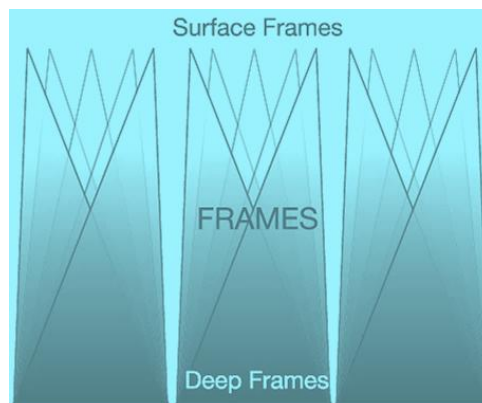
The more frequently any given frame is activated, the more deeply it becomes ingrained. Also the stronger these associations become, the more they reinforce the thinking and behaviours that go with it. It is not easy to establish frames, but as soon as they are established, it is even harder to change them.

Frames can be mental shortcuts for some learners, while for others, if the frames are well developed, they can help to build up new meaning (Cachellin & Ruddell 2013). This last observation is very relevant in terms of the question related to how we shape our common future (Lakoff 2008).

## The deep relationship between frames and values

To help understand the level at which frames are working in our minds researchers have further refined the term, differentiating between ‘surface frames’ and ‘deep frames’.

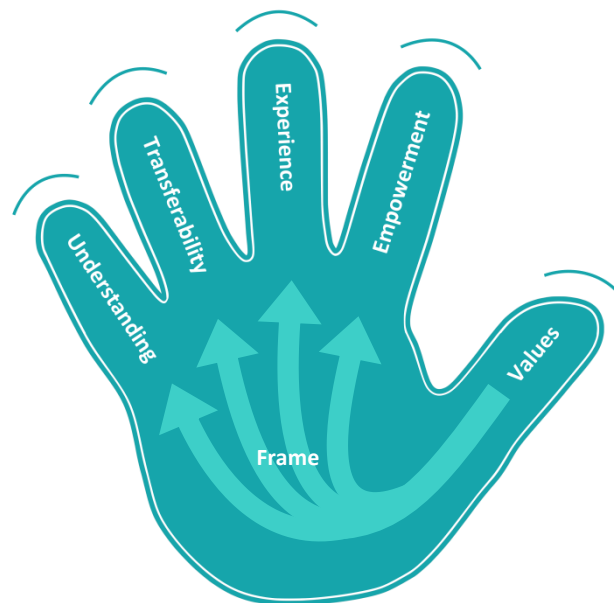
The meaning of words is their frame. Surface frames relate to our everyday language, practices and the wider world. For example a surface frame related to the term ‘debt’ could be: ‘All taking requires giving back’. This statement sounds like a rule. But when it is deeply rooted in (or framed by) the value of ‘respect’ – in terms of sustainability e.g. respect for nature or for future generations – it becomes much more than just a rule. A ‘brainscript’ is started, and it is at this deeper level that the infusion of values and meaning is activated. Deep frames give surface frames a deeper meaning. They are “the cognitive structures held in long-term memory that contain particular values” (Crompton 2010:58).



**Figure 1** Surface frames rooted in deep frames (Darnton & Kirk 2011:78 – extract)

Figure 1 shows how deep frames overlap. This is where they connect the surface frames at a deeper level, the level at which sustainable thinking and action are stirred. This “has an impact on engagement not because it provides people with additional *reasons* for action, but because it *resonates* with them in some way” (Christmas *et al.* 2013). It is here that all elements of the Real World Learning model start to come together.

Backed by self-transcendence values (Schwartz 1992), a surface frame providing a story sets the context for the learning experience. Through transfer to other areas of life the learners’ understanding of the relevance of this frame for their life on Earth is increased. The more learners have the possibility to experience and reveal these relationships on their own, the more they are empowered to shape the future in a more sustainable way.



**Figure 2** Frames are rooted in values and connect understanding, transferability, experience, and empowerment

## What are appropriate frames for Real World Learning?

Outdoor learning for sustainability is a rewarding challenge. On the one hand it requires the simultaneous consideration of ecological, economic and socio-cultural issues, enhancing global justice for now and for future generations. On the other hand it encourages providers to use various methods when supporting independent learning, facilitating participation, and inspiring learners to question their own attitudes. Frames can be an important tool to reach these comprehensive aims. But which frames are best employed to achieve this?

Because “frames are the vehicles for communicating values” (Blackmore *et al.* 2013:41) it is important that we first define the value we wish to promote and then use a frame to activate and reinforce it (Darnton & Kirk 2011).

One important requirement for an appropriate sustainability frame is that it is personally relevant to the learner (Johnson and Eagly 1989) and cannot only be experienced in an outdoor setting but can also be transferred to a situation from the learner’s own world. A frame like ‘Small changes can have a big impact’ for instance can be observed in the natural world – e.g. one frosty night in spring may prevent a crop in autumn – and it can also be transferred to a personal conflict situation where one wrong word resulted in weeks of trouble – or from the loss of one screw an engine is put out of service. The understanding of the relevance of small changes can empower the learner to look out for such situations in his or her natural or social surroundings and to take action.

In wording a frame it is useful to use active instead of passive voice. Furthermore it could be found that frames which support the idea that learners are part of the system are much more helpful than frames that see learners apart from the system. For instance, “words like ‘resources’ and ‘habitat’ connote [i.e. suggest] difference, whereas ‘food’ [...] and ‘home’ connote sameness” (Cachellin & Ruddell 2013:310). “Traditional frames that paint nature as resource and portray humans as separate from ecological systems can never interrupt dominant narratives that lie at the heart of our ecological crisis” (*Id.*:306).

Table 1 shows an example for the frame: ‘All things are connected to each other’ which was used in an outdoor activity about the development of a nature park. The idea was to give three groups of learners the task to develop a small natural area from three different perspectives: as foresters, as birdwatchers, and as investors from the tourist industry. They should mark the spots that are most important for their plans with ropes and flags. In a second step the three groups were invited to present their planning results. Finally they should look at the interconnectedness of different aspects and consider how they could cooperate.

Is there a frame providing a connecting story?	Are scientific concepts of life involved?	Are different areas of learning included?	Do learners get in touch with outdoor settings?	Are learners empowered to shape a sustainable future?	Are self-transcendence values promoted?
<b>Yes.</b> The frame is that all things around us are connected to each other, and if we change something, it might have an impact in an entirely different location.	<b>Yes.</b> The activity is related to networks, where all elements are somehow connected and interact. ‘Landscape planning’ reveals some of these interconnections, especially if there are conflicts of interest.	<b>Yes.</b> Although it depends on the course the discussion takes, at least parallels between networks in nature, the man-made environment and society are obvious.	<b>Yes.</b> They relate to the site by experiencing it with ‘head, heart and hand’, and the outcome is open. However, it makes sense to extend this by relating the findings to the ‘real’ landscape.	<b>Yes.</b> Learners are encouraged to consider things from different perspectives and develop their own ideas towards common solutions. They interact and deal with any conflicts in an open process.	<b>Yes.</b> Learners need to respect nature as well as the interests of others in order to find common solutions through considering different concerns and perspectives.

**Table 1** Answers to the key questions of the hand model according to the frame ‘All things are connected to each other’

Situated in the palm of the hand, frames that promote sustainable thinking allow connections to be made between values and understanding, to transfer the learning experience to different areas of life and to empower learners for sustainability through their experience.

## How to develop frames

Frames that work must generally be

- active, inspiring and resonating
- short, simple and yet accurate
- illustrative and easy to place in the learners’ surroundings
- transferable to different areas of their daily life.

But frames are not just catchy slogans for the learning experience. They should go deeper, down to values for sustainability. When developing a frame it is important to keep in mind what bigger picture or story we wish to trigger and how this will resonate with the learners in their understanding of being a part of the system with which they are dealing. This will be determined by the values it promotes. Examples of this are given in Table 2.

Frame	Sustainability values	Items of self-transcending values	Key concept
All taking requires giving back. (Reciprocation frame)	respect for nature, respect for future generations	universalism: unity with nature, a world at peace, social justice, wisdom, inner harmony, equality; benevolence: meaning in life, responsible, helpful, mature love	Cycles
In diversity is the preservation of life. (Diversity frame)	respect for nature, equal opportunities for all people	universalism: unity with nature, equality, a world of beauty, social justice	Diversity
Living on Earth means achieving balance. (Balance frame)	equal opportunities for all people	universalism: unity with nature, equality, inner harmony, social justice, wisdom; benevolence: mature love, a spiritual life, true friendship	Self-regulation
Survival involves the ability to align with changes. (Alignment frame)	respect for future generations	universalism: unity with nature, wisdom, broadminded; benevolence: forgiving, mature love	Resilience
Life can be enhanced if abilities are exchanged. (Exchange frame)	equal opportunities for all people	universalism: broadminded, equality, inner harmony, wisdom; benevolence: true friendship, mature love	Symbiosis
Small changes can have a big impact. (Butterfly frame)	respect for nature	universalism: wisdom, broadminded; benevolence: responsible	Butterfly effect
The sun powers us all. (Sunpower frame)	respect for nature, equal opportunities for all people	universalism: unity with nature, a world of beauty	Energy flow

**Table 2** Connecting values and understanding by frames

Negative frames, based on syndromes or “environmental degradation patterns” (WBGU 1997:112) are much more motivating if they are transformed into frames for positive change. For instance the Sahel syndrome describes the overuse of marginal land, this could be turned into a sustainability frame by thinking about the possibilities traditional cultivation and modern technology could give to achieve a life of dignity and unity with nature.

Other approaches to be avoided are (according to Blackmore *et al.* 2013):

- appealing to self-interest by highlighting individual benefits
- framing issues in economic terms, e.g. by talking about the monetary value of ecosystems
- appealing to the desire of power and money
- presenting nature as victim and oneself as superhero who can protect it.

Instead:

- Practice respect for nature in itself.
- Talk about the public benefits of nature.
- Connect environmental and social benefits.
- Call for equal opportunities for all and for future generations.

## Frames have an impact...

The discussions around using frames in a sustainability context have until this point been mainly in the realm of human rights (Darnton & Kirk 2011), campaigning (Holmes *et al.* 2011), and biodiversity

(Christmas *et al.* 2013). Although there is some research into the importance of using frames in education for sustainability (Cachellin & Ruddell 2013), this is fairly new. But what there is resonates strongly with the importance given to frames in the hand model.

Findings state: We are surrounded by frames, and “there is no such thing as an ‘unvarnished truth’ or ‘neutral choice’” (Christmas *et al.* 2013:34). “Frames have impact, intended or not. It is incumbent on sustainability educators to select frames intentionally, see that these frames are consistent with ecological realities, and wield framing and metaphor to shape thinking and learning. Appreciating the power of language and metaphor and understanding the nuances of framing are vital to achieving the goals of sustainability education” (Cachellin & Ruddell 2013:313). Not using frames would be to ask learners to look for their individual sustainability values on their own. This would not only be dubious because it would pretend that “this kind of influence is somehow optional” (Christmas *et al.* 2013:34), but it could also cause a “moral overstrain of the individual” resulting in preferences that contradict sustainability (Jung 2007:87).

Knowing about the impact of frames necessitates the need for awareness that frames can be subject to manipulation. Using frames in terms of learning for sustainability means using them responsibly and in a transparent way (Crompton 2010).

## List of references

- Blackmore, E., Underhill, R., McQuilkin, J., Leach, R., and Holmes, T. (2013) *Common Cause for Nature*. Machynlleth: Public Interest Research Centre
- Cachellin, A. and Ruddell, E. (2013) 'Framing for Sustainability: The impact of language choice on educational outcomes'. *Journal of Environmental Studies and Sciences*, 3:306-315
- Christmas, S., Wright, L., Morris, L., Watson, A., and Miskelly, C. (2013) *Engaging People in Biodiversity Issues*. Unpublished Report. London: Defra – Department for Environment, Food and Rural Affairs
- Creswell, J. (1997) *Creating Worlds, Constructing Meaning – The Scottish Storyline Method*. Portsmouth: Heinemann: 10
- Crompton, T. (2010) *Common Cause – The Case for Working with our Cultural Values*. Woking: WWF UK – World Wide Fund for Nature United Kingdom
- Darnton, A. and Kirk, M. (2011) *Finding Frames: New Ways to Engage the UK Public in Global Poverty*. London: Bond for International Development
- Entman, R. M. (1993) 'Framing: Toward Clarification of a Fractured Paradigm'. *Journal of Communication* 43(4): 51-58
- Holmes, T., Blackmore, E., Hawkins, R., and Wakeford, T. (2011) *Common Cause Handbook*. Machynlleth: Public Interest Research Centre
- Hüther, G. (2006) 'Neurobiological approaches to a better understanding of human nature and human values'. *The Journal for Transdisciplinary Research in Southern Africa*, 2 (2): 331–343
- Johnson B. T. and Eagly A. H. (1989) 'Effects of involvement on persuasion: a meta-analysis'. *Psychological Bulletin* 106(2): 290–314
- Jung, N. (2007) 'Ganzheitliche, nachhaltige Umweltbildung – Kritik, Menschenbild, Wege'. In *Jahrbuch für Nachhaltigkeit* (1. Jahrgang). ed. by Hellwig, M. and Hemker, R. Münster: ecotransfer: 80-91
- Lakoff, G. (2008) *The Political Mind*. New York: Penguin
- Lakoff, G. and Johnson, M. (1980) *Metaphors We Live By*. Chicago: The University of Chicago Press
- Schwartz, S. H. (1992) 'Universals in the content and structure of values: theory and empirical tests in 20 countries'. In *Advances in Experimental Social Psychology* (Vol. 25). ed. by Zanna, M. New York: Academic Press: 1-65
- Spitzer, M. (2009) *Learning: The Human Brain and the School of Life*. Amsterdam: Elsevier
- Tilden, F. (2007) *Interpreting Our Heritage*. 4th edn. Chapel Hill: University of North Carolina Press
- WBGU - German Advisory Council on Global Change (1997) *World in Transition - The Research Challenge*. Berlin: Springer