

# Education of the Essentials

## A Lifelong Project

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Feeding us is the ground we stand on, a ground called earth, soil, rocks, nature. And the ground more than feeds us. It also shelters, heals and teaches us being the source of all energy, minerals, materials and medicinal products. The ground taken as the *fons et origo* of all human knowledge, of our culture and traditions, of trade, ecology and science.

We do not have an education of the essentials. Without one, what is it we now call 'education'? This paper, in five modular sections, raises the questions of what education is or ought to be and, consequently, of what these essentials are.

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## SECTION I – Unlocking Education

Lacking an education of the essentials is to miss out badly on the workings of life.

### My Ideal Community

My ideal community is one in which people gather, make decisions and work for the essentials of life. These are food, water and all the other things shown above. Let's call them food and energy for short, or FE.

The history of humankind is also the history of FE with its seeming achievements masking the realities of poverty, injustice and pillaging. One thing is certain, lacking an education of the essentials is to miss out badly on the workings of life.

What we need is an 'apprenticeship' of FE as a means to addressing our pressing problems of food and energy shortages, malnutrition and much else. Most suitably, FE can form the backbone of local, regional and national economies, economies 'built to last' as the saying goes.

Food groups and cooperatives are instances of such economies. For 'Local Action on Food', the action that counts most is: get people on board, grow the stuff locally, refill the food stalls to capacity. In other words, this is a job we have to do ourselves mindful

that generations have been lost to food production.

### A Project for the Locals

This is a project that can create communities where none exists. A project therefore cut out for the local 'locals':

- **WE GROW** our food and we create our community at the same time
- **WE BUILD** our homes and we build our community at the same time
- **WE GENERATE** our energy and we shape our community at the same time

The project is inclusive. We join in and we also learn. Learn, that is, as we

- grow our food
- maintain the fertility of the soil and water
- build our homes
- generate our energy and
- empathise with our seasons

Local economies require local systems of education that give priority to the essentials – food, soil fertility ... Based on essentials, these varied educational systems assume a universal character.

## LEARNING AS PROPOSED IS UNIVERSAL

**Silly question:** Is this learning really important? As we have seen, this ground and dirt, this rare planet and topsoil sustain us. Nature/FE is the potential holder of all forms of learning, literacy and erudition. In particular this potential should be seen in the cycles and connections food generates.

A cycle is what has a beginning (planting, feeding the soil), middle (eating, recipes) and end ('waste' disposal, composting). Not the real end though, and composting says it all. Composting is to return to the soil what came from the soil. To return to the sea what came from the sea. What is being described here is the feedback loop or, simply, the food cycle. Thus learning is learning the workings of a cycle. Should we master the food cycle first, and not any other odd or part-cycle, we would then be in the very fortunate and privileged position to enter all life cycles. Entering a life cycle means establishing positive links with our selves and nature.

To conclude: this learning is singularly important because it's our only claim to being in the world.

### **Food Energy Studies**

Given the importance attributed to FE can there be Knowledge without FE knowledge? Literacy without FE literacy?

The production of food and the generation of energy are highly centralised. To show how bad this is you only have to consider that if you control FE you will inevitably control people as well. A control that, tragically, extends to *all* essentials. Can we turn this

on its head?

Yes we can. Food security and energy security are best served by local forms of production assisted by the relevant formal education. And in case you ask, local is not a fad – it simply means the local 'locals' or indeed the very people in a given area who over a period of time collect and arrange skills, experiences and knowledges to get on with the job in hand.

What's important is to be guided by some general principles. If for instance I say 'All households have the same basic energy requirements' (which is true) this should already put me in the right frame of mind to look around for the right energy mix – solar, wind, tidal, ground heat, hydro, biomass. To single out ground heat, the ground is warmer or cooler than the air above it, thus allowing for heat exchange. It's that simple.

### **Education in the Round**

A great many organisations are involved in either food or energy. More sensible if they got together because really we are talking about the same thing.

The aim is to phase-in FE. It's important to make that vital link between FE and education, between FE and an economy as if people mattered, and between FE and social cohesion.

It would be up to us to make FE the centrepiece of human knowledge and of a joyful and compassionate living.

## SECTION II – Passing the ‘Need’ Test

The extreme atomisation of work creates infinite ‘needs’, externalities and therefore problems.

### Working for the Essentials

The study of and working for the essentials conflate to create a better today. The FE cycles provide the necessary baseline for learning. The opposite is also true, and this second part shows how in the absence of such baseline learning suffers.

No hands-on, no learning. Do we ever partake of the ‘protean inventiveness of the wild’ (Richard Mabey)? Is the living ‘dirt’ our growing medium and our growing in stature? Beware, by not feeding ourselves we lose out critically on learning. By not playing dirt for real we lose out on all scores.

The following word-game is designed to ease us into a playing mood. We need to play for real (no cheats please) and this game shows how and why. Players assemble! Time to play!

### ‘Need’: A Test Case

For this game we have chosen the word ‘need’. In order to play, the least that can be expected from us game-players is to have a working knowledge of what’s meant by need. Need is a weighty word. Has the dust really settled on it? Time to find out!

### Playing the Need Word-Game

How are our willing game-players going to approach this game? Do they have what it takes when wrestling with words? And more importantly, are they winners, losers or quitters?

With need, think of ‘wood’ as in the substance of a tree or trees and if you do that it’s because you already know what you want wood for (pulp, timber, firewood, charcoal, structural material, furniture, tool handles, dyes, shavings). These are the items you need. A second need now arises (for a need ‘begs’ another need all the time): which one, and what do you do? Wood is out there, you are here. You cannot stand still because, I presume, you are running low on ‘wants’.

Unless you spring into action nothing happens. Thus if undertaken, this particular action is your conjoined need to take down and ‘destroy’ (more on ‘destruction’ throughout) the tree. The action itself will trigger a number of concurrent actions in response to other needs (decision-making, task-setting, provision of a variety of tools and equipment, help from co-

workers). This, again, tallies with the fact that needs beg needs.

### So first, if a need, then this would be our primary need to satisfy our needs (plural).

This means that as we determine needs we also work for them. Numbered one to three these needs are:

- (1) the original need-object
- (2) the need-action, and
- (3) the need-products, or the many yields out of the same product.

Thus a need is axiomatically a ‘multiple’ need defined by and stemming from the original need-object. Collectively they can be referred to as multiple needs one to three. Every need, item or object co-exists with its many parts and forms. Every multiple need is a callout for several activities. Any set of activities is carried out by one and many.

The need-products are those you’d planned for. They can best be described as multiple products, yields, outputs or services or, grandly, as performance indicators.

To these need-products then many other needs – stated or unstated, implicit or explicit – can be added for they’ll also have been met. They comprise an ongoing quality and quantity assessment of timber based on end-use, the build up of goodwill, an effective learning curve, a seamless cognitive process of language creation, acquisition, use and retention, joined-up activities, skill sharing, individual and group identity, and thrown in for good measure the real extra bonus, as the proverb says, of you cutting your wood and heating yourself twice!

You muck in and are the better off because of it. A sense of wellbeing develops. Actions fit together. Instructions are carried out. The language covers the span of a day or several days. Each day may well begin with a concise recap of the day before and projects into the day ahead. Each evening tells the story of the day’s narrative. Each narrative is a mosaic of interactions and statements.

What I have described so far can be thought of as no more than something – a duty or obligation – that is expected of you. Thereupon you decide on a course

of action (eg plan an event, weigh up the options, seek agreement, team up, schedule, annotate, review), and you carry it through.

This is akin to a condition of stability (ie communication is stable) whereby a task is set and instructions are given and then implemented as a matter of course. The task called for your direct involvement.

The assumed condition of stability, however, becomes highly unstable if, for instance, the game-players don't play the game for real and don't finish off what they had set out to do. In effect and regrettably, they quit and part company. They back off. Both the game and the job are called off.

### **Doing the Unthinkable**

Lacking stamina is not failing, so full marks for

**ASIDE** – Drawing up a long list of everything (needs are: wood, security, food, happiness, money, time, to care, to engage, to grieve, or having two bikes so, I suppose, 'to each according to their needs') is to miss the point by a long shot because you're simply adding to your single need check-list.

Given that you as a cheat are nowhere near to having rounded off 'need', which is your all-round or multiple need, adding to the ragbag is entirely gratuitous.

Cheats are those who don't do their homework. Cheats are those who cannot or don't mean to finish off a job properly. These are people who obviously act irresponsibly. People, essentially, who can't deliver what they promise.

Where does the rot stop? For one thing, learning is compromised and we stand no chance of playing 'dirt' for real. Needs cannot be met by others for the latter will in all probability do a cheat on you; and if we say they can (a big if), then we wouldn't learn at all. The setting for learning is our direct connection with and exposure to needs.

### **Need vs Need**

Confusingly, and not for the first time, but what we call now needs (how best they could be met or cared for, implying third parties or external agencies) are in fact all the steps we could take to secure that one crucial need – the multiple type – and the relevant yields.

As noted, these yields include replanting if new trees were also intended after thinning or clearing. No replanting will ever take place if you, your team or pals default on the 'other' jobs – it's as though you don't see the need to replant coming up.

trying. Our intrepid game-players however don't want to be seen as having put on a poor show. Toying with the idea, they talk themselves into doing the unthinkable, and decide to 'cheat'. They decide, that is, to take a different course of 'action' by letting a third party in the form of tree loggers in to do the job for them.

In this eventuality and more generally,

- you only get a single finished product, eg sawn timber
- you have not satisfied your overall multiple need
- one 'cared for' need (ie sawn timber) is indicative of many other 'cared for' (read: unmet) needs, and
- really, you didn't do this particular job yourself, did you? Would the need to replant or replenish ever arise? Who's going to do *this*?

Replanting is important and the fact that it doesn't happen (alas there's only one game in town!) causes some fundamental problems. Individuals, retailers, businesses and industries gobble up an enormous amount of resources. They mainly remain oblivious to the need for replanting and, more generally, for 'restoring' the habitat to its former condition for they either cannot fix it (with some of these resources being 'finite') or do a hit-and-run job.

The consequences are known or partly known – work is piecemeal or short-term (it includes all or most human activity) and our knowledge takes us as far as performing one act of vandalism and destruction after another. We're being let loose knowing no redeeming feature. The intensity is harsh.

### **Ignoring Multiple Needs**

The scope for destruction is immense. Take deforestation. "Curbing deforestation" says the Stern Review, "is a highly cost-effective way of reducing greenhouse gas emissions."

Thus further: "Greenhouse gases are, in economic terms, an externality: those who produce greenhouse-gas emissions are bringing about climate change, thereby imposing costs on the world and on future generations, but they do not face the full conse-

quences of their actions themselves.”

Compare those who ‘do not face the full consequences of their actions themselves’ to the condition of stability described earlier of those who having set for themselves a task will also carry it through ‘as a matter of course.’ Compare arms traders to mango growers.

Multiple needs and full consequences are ignored. To reiterate the point, we don’t factor in replanting or restoring mainly because we discount it being a need and specifically a multiple need (number three). This is tantamount to denying that multiple need three exists.

The knock-on effect is there for everyone to see. Deprived of fulfilment, we’re stuck in a rut of gruesome destruction (the part-cycle, the part-knowledge or we bungle the job) giving life no chance to heal or spring back – urban, nuclear and chemical waste, derelict areas, a ubiquitous pollution, severe social exclusion, drylands, disappearing habitats and forests, open-cast mining, pharaonic

projects. (“Dams’ destruction of ecology has been extensive.” Fred Pearce.)

We do the unthinkable. We’re at war with ourselves and the planet. **The extreme atomisation of work creates infinite ‘needs’, externalities and therefore problems.**

### **Fleshing Out Learning**

We are the word-players of the preceding pages and play word-games all the time, for real, and never tire. We play nothing else. We mostly cheat, become a role model for others to do the same and ensure nobody gets disqualified.

(“In the City there used to be such a thing as shame, but that was before it all went worldwide”, Katharine Whitehorn.) Given our penchant for problems we have what we get, with these problems remaining defiant as ever of any attempt to solutions.

Fleshing out learning is to play word-games for real.

## SECTION III – New Literacy (NL)

### Can we have a Food & Energy education, please !!

**A)** Control food and energy and you control people ... all the rest is a footnote. For most this is the road to despair; for the few this is the route to power and oppression. The *status quo* is maintained.

**B)** The most important things in life, food & energy, are not part of our education.

The above A) and B) negate living. For effective change, let us put FE top of our social agenda and make it the baseline for learning. We need a New Literacy.

### Who's New Literacy for ?

- Those lacking literacy. Illiteracy is of three types: conventional (3 Rs), functional as we fall behind in a fast moving world, and specific (FE), all underpinned by a communication illiteracy.
- Policy-makers who should know better. Says the Stern Review: "Climate change [...] is the greatest and widest-ranging *market failure* [emphasis added] ever seen."
- Individuals, groups and organisations seeking an elusive 'change' but pulling in different directions. A

### Diversify Production

We – the 'locals' - need to farm and manage the land. We cannot even feed ourselves, let alone harvest our water, procure our materials, generate our energy, build our home or love nest, build on a knowledge of plants and their properties, old and new, or knit our woollies.

A food education would change that. A local grower can be a master of all trade – a peasant, agronomist, botanist, fisher and diver, geologist, historian, vet, inventor, educator, geographer, weatherman, naturalist, and crop master and picker. By not feeding ourselves we lose out critically on learning.

Diversify & Prosper. Products and services can include grub glorious grub, plants many uses and properties (medicinal, oil, fibre, paints, dyes, resins and chemicals), fuel and biofuel, wood chips, burners, energy mixes (wind, solar, geothermal), techniques to maximise solar gain, micro-climates,

desire to object, oppose and denounce is prevalent. Positions are entrenched.

Illiteracy is failing to communicate, as in A) and B) left. We are divided by words and deeds. Peace, progress, growth, development, sustainability, citizenship, democracy, faith, tolerance, caring ... these are all terms that have long lost their shine. Agreeing to disagree seems to be our most enduring achievement.

Illiteracy is more than an inability to read and write. Many are said to have mastered the art of reading and writing to near perfection so as to, very often, use it to complete destruction or self-destruction.

New Literacy (NL) would help address the problem of impaired communication that prevents us from solving even the smallest of problems, let alone the major ones. NL can be instrumental in achieving the twin goals of effective teaching and effective learning, thus laying the foundations for effective communication.

From NL to resilient and diversified forms of local economies.

Heather is an evergreen plant which has a strong relationship with man.

*Owen Leyshon*

You can do all sorts of things with lavender - it's a very versatile thing.

*Celia Forsberg, WI member*

insulation materials, rammed earth construction, demos and tips, stoneware, and cloth nappies galore!

We're badly missing a 'making' quality in life. Indeed, for each item a maker, an artisan, a chef or willing person teaming up with others to engage in real life's projects. We need a producer economy.

### A Producer Economy

Do we have any 'prior' knowledge of the things we handle, touch and shift at home, in a classroom environment or at work? Do we know where they come from and end up to? Things like food, beverages, paper, utensils, deodorants, medicinal drugs, white and brown goods, paints, power tools, data, images, and lots and lots of widgets and packagings?

The answer must be no, we don't have that knowledge. For every product, there's somebody buying or selling something every day, every millisecond of the

day. And we say we know nothing about this 'something'? No understanding of its nature? And you call this education? And you call this economy, where 'product' is king? And can we ever have any influence over products with no history?

The key dysfunctional element of our market economy is that we all are buyers and sellers of something, and producers of none. A three-legged economy of producer cum buyer and seller cum producer would be the sensible way forward. Learning to produce a product is learning history and its history, and learning the cycle.

New Literacy is to education what FE is to the economy. A learner cum producer economy is best for us.

### **Applying Prior Knowledge to Production**

We can start with who is producing what, where and when.

#### **PRODUCERS:**

- Jane produces apples from her orchard (or the modelled area)
  - Howard catches fish from his stream
- Done. When is this production reaching the market?

Jane knows (thus applying a prior knowledge) there's going to be a glut of apples at picking time, and Howard knows there's going to be an abundance of

fish when the fish are big and fleshy. Surplus and abundance are the produce of the micro-market where products are displayed and traded.

What sources of energy can we harvest for our micro-market?

Wind sweeps the valley at certain times of the year and the sun is stronger at midday and in the summer. We can always count on biomass, tidal, hydro and micro-hydro and geothermal types of energy. There will be localised peaks and troughs of supply and demand but you can even these out over the sampled area.

Energy swaps could be put in place but essentially we know that we can bank on an energy surplus or excess at any given time.

The grid in this simplified area is represented by a cluster of households. It pays to strike the right note straightaway. On the one hand, design, insulation and structural materials, thermal mass, natural light and fabrics, passive and active solar gains, intended use, aspect and ventilation, and safe disposition at the end of the life cycle will ensure optimal energy use of each build.

On the other, each household is, at different times of the day and the year, a user and provider of solar, hydro or biomass energy.

## **A Local Economy Is Possible Riding On The Back Of A New Literacy**

## SECTION IV – The Outdoor Classroom

Any subject taken in depth at once relates to other subjects.

McLuhan

### Time to Connect or The Outdoor Classroom

These last two sections illustrate education in graphic form.

Everything is connected, and has always been. The Outdoor Classroom breaks away with territorial teaching presenting a real opportunity to connect and learn.



*Children's Gardening* is a delightful publication that illustrates learning beautifully. Written by Peter A Please, the publication centres on a Gardening Project shown as a core project whence seven other projects or subjects radiate like spokes of a wheel.

Each subject is a 'branch' of knowledge with many offshoots. Can one be proficient in all branches? Can we afford not to? Can we all be or aspire to be a Leonardo da Vinci?

(ISBN 0 9521074 0 6)

The diagram shows the opportunities to localise education. The publication itself is 'a month by month guide advancing educational gardening

activities in schools.' Starting out with September, it says,

Creating a SENSORY CURRICULUM is the groundwork for healthy, cognitive development. Try these ideas: tearing, breaking, snapping – lettuce, pea pods; peeling – carrots, potatoes; grating – lemon, carrot; cracking – nuts; smelling – everything, especially contrasts, eg roses and rotting cabbage; stirring and pouring – peat, sand and water; sifting – sand and soil; tasting – for contrast, eg lemon and honey, turnip and apple; listening – for different sounds, bird-songs, noises in the open, wind blowing, children laughing; touching – (nearly) everything.

And through to August, thus completing the twelve month cycle, it says, “Ending Hunger Starts at Home. ... It is not just learning about food growing, but also encompasses maths, environmental science, geography, science, organic principles. (Ruth Hirsch)”

This is the education of familiar subjects – maths, geography, science – with grafted into the essential

elements for a new learning and education, namely that of an environmental science and of organic principles, as a precondition for ‘healthy, cognitive development’. Time to connect. Time to complete. Time to encompass. It’s all about life’s cycles: wind, noise, rotting, and the short and long cycles, and touching and feeling and responding.



# SECTION V – Food is ... Bees

MESSAGES OF HOPE

We have just this one word – **CULTURE** – that applies to both the cultivation of the land (agriculture, viticulture) and the cultivation of the mind - how foolish to forsake one for the other.

## Food Is ... Bees

One for sowing. One for harvesting. One for preparing. One for composting. Food is ... an activity for one and many. Language is the profusion of 'is' statements.

Food is  
History is  
Knowledge is  
Culture ...

Food is  
Language is  
Maths is  
Science is  
Art ...

Food is  
Plants is  
Soil is  
Energy ...



Food is  
Geography is  
Rivers is  
Folklore ...

Food is  
Nutrition is  
Health is  
Well-being ...

Food is  
Water is  
Flowers is  
Meadows ...

MESSAGES OF HOPE  
Food is  
Inclusive is  
Convivial is  
Festive ...

MESSAGES OF HOPE

MESSAGES OF HOPE

food is ... the staging of the seasons

MESSAGES OF HOPE