CPI 2

processes

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what are we going to do
about careers?

the processes

learning verbs

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**what are we going to do
about careers?**

CPI-2

the processes
learning verbs

CPI-2 is part of a series on new thinking for careers work...

The practical implications of CPI are set out in a parallel series...

PRO: programme-development
ORG: organisation-development
HUM: human-resource-development

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where to find the CPI monographs

CPI-a: **getting to know CPI**
www.hihohiho.com/underpinning/CPIpdfs/cafcpia.pdf

CPI-1: **coverage - opportunity, role and self**
www.hihohiho.com/underpinning/CPIpdfs/cafcpi1.pdf

CPI-2: **the processes - learning verbs**
www.hihohiho.com/underpinning/CPIpdfs/cafcpi2.pdf

CPI-3: **the influences - inner life and other people**
www.hihohiho.com/underpinning/CPIpdfs/cafcpi3.pdf

CPI-z **why we now need a new model**
www.hihohiho.com/underpinning/CPIpdfs/cafcpiz.pdf
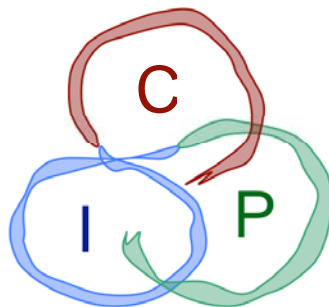
how this will help you

CPI-1 develops ideas for 'P' - processes. This, with the other CPI papers, is written to support careers-work practice: the 'you' in the writing is the careers-work practitioner. And, because they support practice, all of the CPI papers are also useful to people who help practitioners - whether as trainers, consultants or advisers.

The thinking is set out so that it can be particularly relevant to the work of managers, coordinators and heads of departments, in a position to develop careers-work programmes. It will be useful whether that work is done in schools, colleges, Connexions or other careers-work agencies and organisations.

This part of the CPI model will help you to see why helping learners to process learning, rather than just acquire information, is essential. It will also help you to make learning processes a credible and valued part of your work.

It therefore helps you to organise your own thinking, to identify what is useful in your programme, and to recognise opportunities for further development.

This part of the pack helps you to:

- ■ enable enquiry work by learners ;
- ■ develop their thinking skills;
- ■ help them to focus priorities;
- ■ take them to where they can develop bases for sustainable action;
- ■ design step-by-step learning;
- ■ enable learning-to-learn - for life-long use;
- ■ design and improve all or part of your programme;
- ■ develop your own response to these tasks.

series contents

CPI-3: the influences – inner life and other people

CPI-z: why we now need a new model

The 'P' in CPI stands for processes. It is an important idea to set alongside coverage. Coverage speaks of the facts, ideas and experiences that people need to be clear about. These are learning nouns – distributed between 'opportunity', 'role' and 'self'. Process is about how people find these things out, and how they shape that knowledge into a basis for action. It is often expressed in verbs – like 'enquire', 'compare', 'focus' and 'explain'. They are learning verbs (NTCC 21*).

**2/1
learning as due
process**

Every coverage noun takes a process verb. Your learners, for example, 'enquire' into opportunities, and they use much-the-same learning verbs in gathering knowledge concerning roles and self. In each case, the noun and the verb speak of a single event: there is no coverage without process.

But, in every learning event more than one verb comes into play. People 'enquire' into an opportunity, but they also 'compare' it with others, 'locate' it on a mental map, 'focus' on what attracts their attention, and 'explain' what they mean to do about it. That is why each learning verb is always part of an on-going process.

These ideas take us beyond any notion that people learn simply by being exposed to information - as in the formula 'tell them, and then they'll know!'. Learning does not work like that. Learners are fully active in the process.

All this means that there can be a big gap between what we 'tell' them, and what they make of it. What-they-make-of-it is the process. It makes enabling their useful command of the learning verbs a critical part of your work.

To summarise: the P dimension in CPI sets out how, not only information, but also impression and experience are taken on-board by learners. The sequence takes people from what they find, to what they are going to do about it. It links observation to knowledge, knowledge to understanding, and understanding to action.

No process automatically works well; process can lead people up blind alleys. A key question for your work is, then, 'how does anyone know when they have a reliable basis for action?'.

That achievement, in career-learning thinking, is a product of what is called 'due process' (NTCC 18). Due process is a learning sequence, offering a realistic hope that what people make of learning will mean that what they do about it will be fulfilling and sustainable. It is an increasingly pressing need. For, the more layered and dynamic the coverage, the more important the process.

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*   these and other page references are to 'New Thinking for Connexions and Citizenship' (NTCC). You will find, in that companion piece, a short run-down on each of the theories, how they can be fitted together into a single analysis, and how you can find the original sources on which the ideas are based.

The full reference to NTCC is Bill Law: 'New Thinking for Connexions and Citizenship', Derby: The Centre for Guidance Studies, 2001. It is also available as a free pdf from 'the memory' at www.hihohiho.com.

And what people now need to understand about careeer is more-and-more pressurised and volatile. Avoiding blind alleys means being able - in the vernacular - to 'smell a rat', know when things just 'don't stack up', use our 'crap-detector'. In jargon it is all 'due process'.

The reliability of process is, therefore, becoming at least as important as the validity of coverage. Coverage changes, but getting a useful hold on processes will sustain people throughout their lives

Due process is a sequence, and developing any sequence in learning needs the idea of progression - how learning moves on. The idea crops up in two ways in careers work: in assessment it refers to the way in which learners move from one level-of-qualification to the next; but in learning method it refers to the way a successfully-completed learning experience lays the ground for the next. This kind of progression sets out stepping-stones to learning. It is in this second sense that CPI uses the term.

A well-constructed progression for action sets out the stepping-stones so that learners can get from their starting-point to a completion that serves their purposes. Careers work is learning-for-action. It means that the helper must be able to construct a learning sequence by recognising:

- what is basic learning, and what is developed;
- the stages by which the more-basic leads to the more-developed;
- a completion, equipping the learners for their action.

The demands of contemporary living require that learning for all life roles – worker, citizen, consumer and the rest – needs due processing. The more demanding the learning the more necessary process becomes. Career learners need to be able reliably to work with the specific and the general, the concrete and the abstract, the explicit and the implicit, the objective and the subjective. There are few greater demands on any learning than these. They require not just information, nor just skill, nor even some combination of the two; they require due process - in progressive order.

Career-learning theory sets out a learning progression in four stages (NTCC 19 & 29). They pose four questions for your work:

Se.	sensing	have learners gathered a wide-enough range of information and impressions to go on?
Si.	sifting	how much of this have they then assembled into a useful mind-map?
F.	focusing	are they then finding the priorities for probing what is important to them?
U.	understanding	do they then see how these things got to be this way, and what can be done about them?

The completion is to explain past causes of present effects, to the point where that helps a person to anticipate future effects of present causes. Without some such sense of 'how did this happen...?' and 'what would happen if...', it is

doubtful that we can really talk about understanding. As we've seen, and will examine further, there is more to this than what CPI-1 calls 'strong decision-making'; but any kind of decision-making needs some such ability to anticipate the consequences of action.

Progression is best understood by tracing the stepping-stones back, from that point of completion. That tracing shows how each later step depends on the way in which some earlier step has been taken. And so, getting any kind of useful understanding of causes and effects requires first that a learner has focused on an aspect of what is going on, that needs this kind of special attention. But focusing in this way requires that the learner has first sifted a jumble of information and impression into useful order. But, then, sorting things out like this can misrepresent things, if the learner has not yet - in the sensing step - gathered enough to go.

The learning outcome is thinking which can inform action. But that outcome is arrived at step-by-step; and faltering at any step can limit or even distort the thinking - and mislead the learner. It is the idea of learning progression which makes this realisation possible; and which gives us our clue concerning how to help.

The resulting sensing-sifting-focussing-understanding (SeSiFU) processes form a second dimension of career learning. It is different from what CPI-1 calls coverage; the learning verbs are what gets coverage usefully covered. And that is done over time, and by stages.

The figure sets out the two dimensions, illustrating the processes with some possible learning verbs..

figure 2/1: examples of learning verbs in a two-dimensional learning space
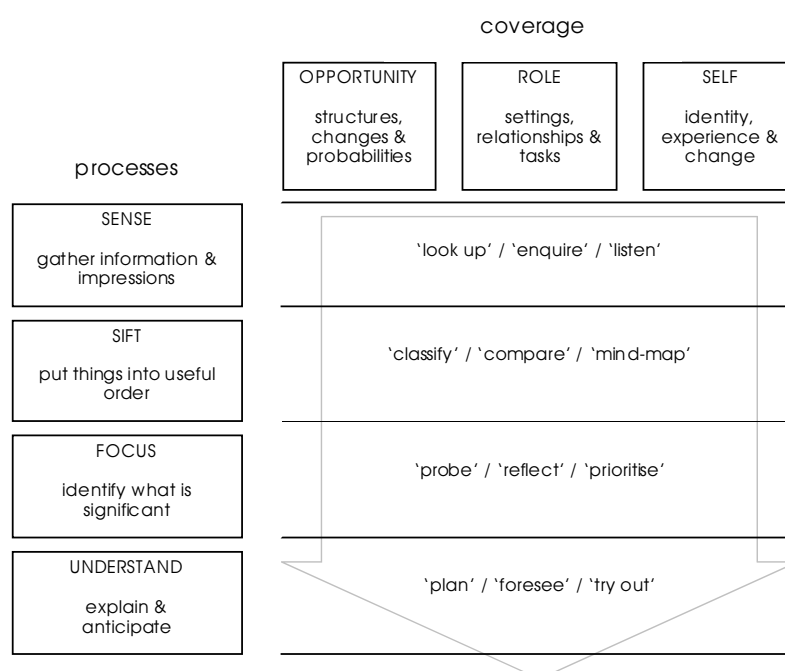
But we mustn't assume that due process is always or wholly rational. CPI-3 argues that, in making career moves, the influences that we respond to are deeply layered. The processes we call upon are correspondingly layered.

- instinct...   as well as...   foresight;
- feeling...   as well as...   logic;
- habit...   as well as...   reason;
- trust...   as well as...   evidence;
- intuition...   as well as...   explanation;
- imagination...   as well as...   perception.

The right-hand list would rate the use of what CPI-1 calls 'strong' decision-making, The left-hand list is something else. But all cause people to move-on in their lives. And the thinking underpinning careers-education-and-guidance has barely touched on the issues raised by the differences. Among the few explicit attempts to do so is pragmatic-rational-choice theory (NTCC 29). But although it is not difficult to acknowledge the other-than-rational, it is harder to find useful accounts of the interaction between what is 'pragmatic' and 'rational'– and how any part of that spectrum helps or hinders sustainable action.

We need to know more about how this range of processes occurs in career planning. And, most importantly, we need to understand how any of it actually helps.

Career-learning theory has - in the past - portrayed the processes as though they are evidence-based and understanding-driven. These are concepts of rationality. But to be fair, career-learning theory speaks of impressions as well as information, and also acknowledges both intuition and trust, in its description of process.

But the concept of due process needs further deepening. It would be an extraordinarily limited account of career development, which left out all reference to instinct, intuition and imagination. Your brain knows more than you know it knows.

A learning sequence, in which each stage leads to the next, is a narrative. It becomes more-so where rational processes are interleaved with other-than-rational ones. The SeSiFU verbs readily link into a narrative sequence.

Sensing is a starting point, it is getting something to go on by gathering information and impressions. But the telling of a story often gets started with an account of a new encounter. And getting-enough-to-go-on should certainly include meeting enough people, and taking due account of what they say and do. Much of this gets started in the toddler years; CPI-3 tells how.

A useful due process requires, not just something, but enough to go on. And what is that? It is enough information, impressions and encounters that the learner can see more than one way of moving forward. Enough-to-go-on means enough to make a change-of-mind possible. Now the story can move.

Gathering information, forming impressions and meeting people are no more than a beginning. Learning now progresses, not by taking in more information, but in other ways.

sifting Shortly after the beginning, things need sorting out; or stuff just piles upon other stuff and things get confusing. Sifting is the process of arranging things in useful order. It is an inner conversation, where we tell ourselves - for example - 'what's happening', 'where', and 'who says and does what about it'. As a species, it seems, that we use stories to make sequences of people doing things, mapped onto locations of where it goes on. 'Who?', 'what?, 'when?" and 'where?' are key questions. They seem natural to us; both soaps and gossip use them.

Maps and stories link and separate things in time and space; they show what is earlier and later, before and after, long-ago and recent, close-up and distant, together and apart. We need to put things into such sequences and locations. It helps to show how the bits-and-pieces of information, impression and encounter relate - and do not relate - to each other. It reduces confusion.

We also make mental maps. Their scope is not about time and space, but about similarity-to-each-other and relatedness-to-me. We all work up ideas about how things are 'like' and 'not like' each other, of how we 'like' and 'don't like' things, and of how things are 'like me' and 'not like me'. These are ways of sifting - sometimes called 'mind-mapping'. All mental maps make useful patterns of what we know. We are a pattern-seeking species.

Sequencing, locating and mental mapping all depend on making like-and-unlike comparisons. This is how the story we tell ourselves begins to unfold: 'this is like that, but it is not like that', 'she is like him, but not like her', 'I like this, more than I'll ever like that'. Story elements, all. And career-related.

Without sifting, sensing gives us a mish-mash of shapeless confusion. And what we find out will will never make any sense. People can feel overwhelmed. You have met learners in that kind of trouble.

An important element in both learning and narrative is not just how things 'objectively' are, but how they appear to the learner. And non-rational processes play a part. We sift, not just on the basis of what we know for sure, but on the basis of what we have always believed, and on the basis of what we now hunch. Some of this is rationality - but some is instinctive impulse, some is acquired habit and some is much-harder-to-explain intuition. A command of due process locates the differences, and - from situation to situation - points to which can be trusted.

focusing Focussing means getting down to the important specifics. There are wide-ranging dynamic elements in sifting; which means that learners start to take possession of their own learning. But learners also need to get a fix on what is 'important to me' - and what is not. That certainly does not mean dismissing intuitions and insisting on rationality; but it does mean helping learners to reflect on what they are doing with what they find. And that is why they need

to get down to specfics. It is the beginning of learners making each their own sense of their own story.

Nobody can grasp in detail all that they hear and see about career. For most of us, that way lies madness. But nobody needs to. And, by telling and re-telling her or his own inner account, each learner seeks out what counts most. This is how we each get each our own focus. And that focus is the basis for further thought: it points to where we need to probe.

Important-to-me might be an aspect of the story which is valued, or familiar, or credible, or promising. It formulates a person's priorities for action. It sets up preferences and focuses attention. It determines what is to be foreground information, and what is to be background noise. A focus is often-enough where something grabs your attention - 'that's for me!': you want to know more. Falling in love is also like that - and runs similar risks. The argument for due process is that - anyway in career planning - it is usually better to take account of the risks, than not to.

Focus will not be the same for everybody. Indeed stories are useful for the way in which they show how different people see things differently, and how they counterpoise one point-of-view with another. This is where the learning become even more fully the learner's own - seen from his or her point of view. Now, he or she is beginning to shape a particular line of action.

Enabling useful focus is critical. Career learning is distorted not only by learners feeling overwhelmed, or being impulsive; they can also get tired, bored, gullible, distracted, and misled. This is the challenge to enabling useful learning: learners need to know whether or not there is anything in the story that is worth paying attention to, and where he or she can place trust. They each need to know for themselves what that focus is - and why.

The focus for trust is as likely to be a person or an impression, as it is to be a piece of 'neutral' iinformation. The big questions here certainly include 'who do I trust?', 'and why?'. These are process-driven questions. And they require that focussing is set in a sequence of other learning verbs.

One of the values of story is how its portrayal of sequence allows us to see one thing leading to another. If we are going to move on in career we need an inner conversation about that. Is is talk of causes and their effects - 'how did that happen?...', 'why did I do that?...', 'why do they?...', 'what do I want to do about it?...', ' what else could I do?...', and 'will it work?...'.

understanding

Looking back, that conversation looks for past causes of present effects. A learning verb here is 'explaining'. We need explanations of how opportunity, role and self got to be the way they are. We all occasionally need to ask ourselves why we do the things we just keep on doing!

But career planning also means looking forward. This means knowing what future possibilities there might be - whether in opportunity, role or self. Which means linking present causes to future effects. A learning verb here is

'anticipating'. This is a fuzzier term than 'predicting'; career learning is largely probabilistic - there are few certainties. But it is forward looking: you may have come across learners who have never considered how their actions have consequences, let alone wondered what the consequences might be, or whether they would be acceptable.

We need to know how things are. But, as a species, we survive by working out what to do about them. And that means probing for an understanding of what can lead where. It is the completion of the SeSiFU progression. Unless education is to resort entirely to the sort of unthinking conditioning once used to train performing seals, human skills are best understood as resting on our ability each to work out 'that is more likely to result if I do this?'.

Probing on the basis of 'F' leads from 'Se-Si' to 'U'. F is what attracts attention. But, if the whole SeSiFU process has been well-enough taken on board, it takes a learner towards useful action. Few credible stories resolve just on the exercise of some skill, we look for the gaining of some insight. So, when our hero makes her final move, it is - often enough - on the basis of information she has known all along, but has only just grasped what it means. SeSIFU explains that grasp.

Other-than-rational processes surely come into play - as they do in all credible stories. And, in career planning, it is impossible to see how these kinds of 'what-if?...' links can be made without some appeal to intuition and imagination - however occasional. Both bounce of what is seen and heard to what is implicit and inferred. Other-than-rational bases for action can - of course - mislead; but the greater the room for a 'good' imagination or intuition, then the greater the range of possible selves in possible futures that a person can conceive.

The due processing of learning verbs can then, bring us to where we see whether what is being considered is instinct or understanding, whether habits-of-mind have entirely taken over, what and whom can be trusted, what constitutes a good intuition, whether we are ever going to get anywhere without a bit of imagination. And, when we're being lucky, it helps us to know that we're being lucky. For, when it comes to chance, recognising luck is at least as important as getting lucky.

The most rigorous of the physical sciences have such issues. We need not be surprised that career planning has them too.

In story telling, boundaries are rarely as sharp as they are in analytical thinking. Things shade into each other, and overlap. And, of course, point-of-view makes a difference to how things are seen.

We learn to live with the ambiguities. We anticipate much of the course of our lives on the basis of hunch; we know that little is certain. Career-learning-theory places less emphasis on the helpers 'expertise' and 'neutrality', and more on enabling learners to work out for themselves what they can trust - and who they can't. Career offers little solidly-fixed information, and few entirely-reliable formulas. But we can all learn to improve our chances of taking sustainable action, of finding fulfilment - and avoiding blind-alleys.

Credible stories, like real life, are interwoven with such complexities and nuances; we tend not to believe them if they aren't. And, when it comes to career stories, and the way opportunities, roles and self change, and what different ways-of-seeing them there can be, all of this makes things a matter for discussion rather than once-and-for all definition. As CPI-1 argues, that discussion may well be conflicted - internally and externally. But there are also varying feelings, social attachments, background history and personal purposes woven into it all. These are examined further in CPI-3.

And so anticipating possible selves in possible futures is as complex and layered as any learning in contemporary life. This is most particularly so for people whose life can only usefully be understood in nuanced and conflicted terms. There are not many people whose career can be understood in any other way.

These ideas, like the ideas in CPI-1, form a model. They are not just an analysis, they suggest practical developments in your work – whether in face-to-face work or in curriculum.

Progression is an idea from curriculum, for usefully sequencing learning. The result is a scheme-of-work, which will respond to the learning needs of learners, in manageable order. The teacher needs to know how she is going to do that - in advance.

Where curriculum has a scheme-of-work, guidance has an agenda. The agenda is often-set in motion by the helpers' question 'how can I help you?'. It cannot be pre-scripted; because it is set, not by what the helper has planned to do, but by how the learner answers.

But processes are integral to both curriculum and face-to-face work. Career-learning processes indicate four directions for useful practice:

1. **listening to process** – suggesting a wider and more reflexive range of helper reponses;
2. **phasing sequences of face-to-face work** – opening up stage-by-stage progression;
3. **creating and refining schemes** – seeing how to move beyond a series of free-standing lessons. to embed and sustain learning;
4. **enabling learning-to-learn** – changing learning culture, to make learning processes as important as learning coverage.

listening to processes

All teachers and advisers must learn to listen. It is how they know where the learners are in their learning, what more they need to learn, and what use they are able to make of what they learn.

The learning verbs offer another dimension to that listening. SeSiFU is a tool for noticing how process unfolds learner thinking - and where it does not. It helps you to notice, therefore, where learners get stuck – unable to move on in the telling of their story. The need for this kind of listening occurs in both curriculum and face-to-face work.

It might mean, for example, asking yourself: (Se) 'has she got enough to go on?'; (Si) '...un-jumbled it all into useful order?'; (F) '...with a fix on what most concerns her?'; (U) '...and aware of how the probabilities stack up?'.

It will frequently mean responding to what learners say, not with more coverage, but with talk of how they know what they think they know - and of how they can check it out. For example: (Se) 'what gave you the idea of doing that?'; (Si) '...what would it look like on a mind-map'; (F) '...where is the make-or-break issue for you?'; (U) '...and how do you know it can work out as you hope?'.

There is no rigid rule here. It is true that sometimes the need is for more information or to meet somebody new. But sometimes what learners need is more time and support in working on what they've already got.

phasing face-to-face work

Good face-to-face work starts where the learner starts. And SeSiFU cannot usefully script that process. However, where it is possible to programme a series of face-to-face sessions (as, for example, small-group work is commonly organised) SeSiFU can be useful. Each session can be designed to lead on to the next. And so, instead of organising one longer session, you can arrange a number of shorter ones - each concentrating on a SeSiFU phase.

It would mean agreeing the process with learners. That conversation might go something like: (Se) 'first-off, we'll be going over what you've found out, and whether you've got enough...'; (Si) '...then we'll see how you're getting it sorted, so that you can see what's what...'; (F) 'that'll help you to move on, to where you can see what you need take into careful account'; '...and then you'll be able to work out what you are going to do about it, and how you can expect it to work for you'.

This is a progressive route, helping learners to see where this help can take them. And you are giving your learner a chance to think and talk about what she or he is learning, between the sessions. It can also mean that you can help the learner to work on the issues that friends-and-family bring up.

creating and refining schemes of work

The practical uses of SeSiFU are inescapable for curriculum. The complexity and dynamism of today's career-world requires carefully-sequenced learning. Significant career learning cannot now be accomplished through the sort of single lessons which have characterised much of careers education; the learning links are too deep, extensive and dynamic. And so, instead of relying on what CPI-1 calls 'hit-and-run' lessons, we must plan more sustained learning sequences. These are schemes-of-work, which identify a starting point for learning, and move - over a series of lessons - by stages, to a recognisable completion.

SeSiFU describes that progression. Where you are developing a scheme from scratch, design questions include: (Se) 'do learners see and hear enough and meet enough people - to know what's going on here?'; (Si) '...have they enough of a chance to share stories, make comparisons and notice differences - so that they can make their own account of what it is?'; (F) '...can they find something

that is important enough that they want to probe it?'; and (U) '...have they enough of a chance to see why things work this way, and - therefore - what they can usefully do about them?'.

But being able to design-from-scratch is a rare luxury. So the design questions need also to be useful 'on-the-hoof' - applying them to existing schemes. That means that you use some part of SeSiFU to identify what needs to be slotted in. The slotting might come before a lesson that is not currently running well, perhaps to help students get more to go on. Or it might be used after a lesson, to help learners work on what they will do about it. A question for adapting existing schemes is; 'where are learners having most difficulty in moving from one step on this learning journey to the next?'. This is how a flakey lesson can be turned into a more sustained and useable scheme of work.

The learning verbs describe processes of learning. They can, therefore, say how your learners go on learning, long after they've left your programme. Coverage changes, but processes endure. Indeed, as a species, the way we learn has big survival value. And not knowing how-to-learn is a high-risk condition.

But, so basic are these processes to human nature, that we do not notice that we are using them. Helping people to learn-to-learn means making these implicit processes explicit. It means attaching clear markers to the learning processes that people engage in their own experience.

Process markers rely on every-day quesions: 'how do I know that?, '...why do I trust her?', '...I say that, but where does it lead me?', '...how can I be sure?'. All such questions are process driven - asking, not what you think you know, but why you think you can be so sure.
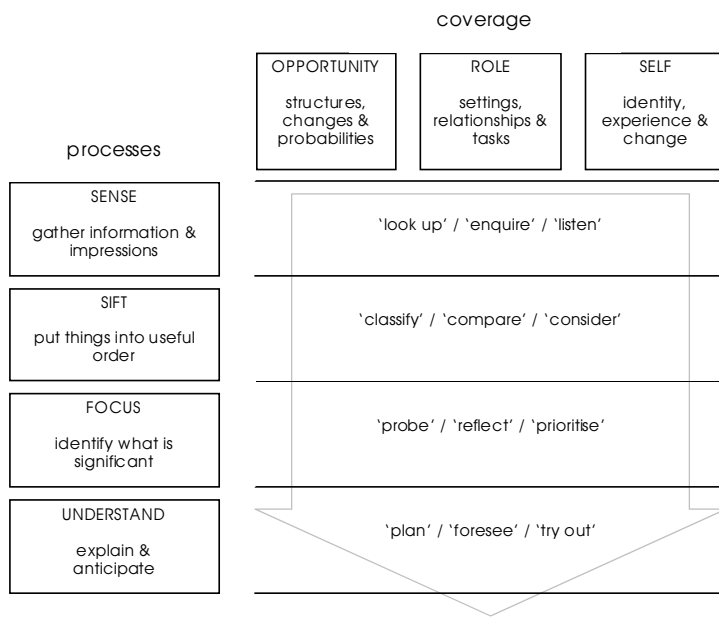
In both face-to-face work and in curriculum, SeSiFU helps you with this aspect of teaching-and learning. It means developing your own repertoire of questions in group and individual work. The repertoire might go something like: (Se) 'what would persuade you to change your mind about this?'; (Si) '...what about stepping back, and take another look at this?'; (F) '...you don't see this in the same way as she does, do you; do you know why?'; (U) '...you seem pretty sure about this; but can you say why you're so certain that it'll work out the way you hope it will?'.

There is a strong drive to make coverage the focus of learning. We think of learning as 'information' to gather, 'places' to map, 'people' to meet. We could think more aboout what needs to go while our learners are 'gathering', 'mapping' and 'meeting'. The more important part of learning is not what you know but how you find it out. A process-led culture of learning is overdue.

Where you are alert and sensitive to SeSiFU issues, learners will pick up on their usefulness, and start to ask their own process-led questions. If you were to notice that; it would be as significant a learning outcome as any.

CPI-2: your further thoughts on processes

coverage

OPPORTUNITY	ROLE	SELF
structures, changes & probabilities	settings, relationships & tasks	identity, experience & change

processes

SENSE
gather information & impressions

SIFT
put things into useful order

FOCUS
identify what is significant

UNDERSTAND
explain & anticipate

'look up' / 'enquire' / 'listen'

'classify' / 'compare' / 'consider'

'probe' / 'reflect' / 'prioritise'

'plan' / 'foresee' / 'try out'

1. **listening to process** – suggesting a wider and more reflexive range of helper reponses;
2. **phasing sequences of face-to-face work** – opening up stage-by-stage progression;
3. **creating and refining schemes** – seeing how to move beyond a series of free-standing lessons. to embed and sustain learning;
4. **enabling learning-to-learn** – changing learning culture, to make learning processes as important as learning coverage.

Use this page to review the ideas set out for the CPI model. You can feedback your thoughts by pasting these questions and writing your answer in your e-mailer.

anything about CPI-2 you'd like clarified?

any ideas here which are new to you?

new or not, are any useful to careers work?

or harmful?

do any suggest new developments in your own work?

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