Rich pictures: a means to explore the 'sustainable mind'?

Diagrams: a means to explore the 'Sustainable Mind'?

Abstract

The European Union Framework Package 7 project POINT (Policy Influence of Indicators) is exploring the use of indicators in several domains (most specifically sustainable development) in order to see how their value and ultimate usefulness can be maximised. One key aspect of POINT is to assess the ways in which groups and communities work to gain greatest use of information. Using an innovative methodology called 'Triple Task', the authors are applying a three cornered approach in order to gain an understanding as to how groups work, how they assesses themselves and how they appear to function from an external perspective.

In this paper, the first stage of Triple Task is described and explored. Task One is effectively a 'soft' means for a group to work together on problem identification and action planning, and the key to this is the device is known as the Rich Picture. Rich Pictures have been used in group work for over thirty years, primarily as a means for the group to express its preliminary vision concerning a matter of common concern, but so far they have not been applied as means to explore the conscious and unconscious workings of a group nor have they been assessed in terms of their content and 'message'.

By understanding the group mind as represented in picture the authors begin to make a deeper understanding of the groups own potential to use and exploit information of all kinds and to move towards a deeper Sustainable Group Mind', and more focused means to problem solve.

Keywords: Rich pictures, group work, sustainable development, stakeholder engagement

1. Introduction

The pages of this journal have been replete with calls for greater public participation in sustainable development projects and research (Morse, 2008; Mannberg and Wihiborg, 2008; Pandey, 2010), and this often takes place in the form of groups working together to present a shared perspective on what needs to be done and how. Our research is about group work, more specifically, about the way groups work and apply diagramming devices. Others have exhaustively trawled the literature on group development (Smith 2001). Rightly, Lewin, with his defining work gave us the term 'group dynamics' (Lewin 1947). The idea that groups had their own formative processes and that these could be understood and managed became something of a cause celeb in the literature. Lewin's thinking around how group minds could be un-frozen, changed and frozen again led to a series of developments from Tuckman's stages model (Tuckman 1965; Tuckman and Jensen 1977) – famous for giving us notions of 'forming', 'storming', 'norming' and 'performing' and which formed the basis of the Linear model of group development (Smith 2001 page 17). The Linear model assumes a 'stages' development approach to groups. Building from this Fisher's notion of 'decision emergence' (Fisher 1970) enriched the group literature and this can then be seen to have further impacts through to more contemporary models such as Morgan et al.'s TEAM model (Morgan, Salas and Glickman 1994) and Gersick's Punctuated Equilibrium' (Gersick 1991):

"The model resulting from this research was based on the observation that teams alternated between periods of stasis and long periods of inertia that were "punctuated by concentrated revolutionary periods of quantum change"

(Smith 2001 page 35)

On the way, in the development of group thinking understanding, there have been noticeable splits in the practitioner base. Bion certainly seems to have been instrumental in the further development of the psychodynamic model (Bion 1961). This in turn has had a rich expression in both the works of the Tavistock and Bayswater Institutes and the wider psychoanalytic tradition. On the other hand, group thinking has also fed into the systems thinking movement as exemplified in the work of Bateson and, more recently Maturana (Bateson 1972; Maturana and Varela 1992; Maturana 1997).

This paper develops it's concept of group work, and the resulting use of diagramming largely from the systems strand of group work, it also pursues the analysis of group constructs, such as Rich Pictures, from a lay presentation of group dynamics.

The centrality of stakeholder participation within sustainable development has a straightforward rationale and is founded upon a number of assumptions. First, that stakeholders have a fundamental right to be included in deliberations that will have an impact upon their lives and second that listening to the voice of stakeholders and including them within a process of change can help make that change 'better', whatever that may mean in the context (Chambers 1992; Chambers 1997). The latter point assumes that if people feel that they are included as partners then they will have a heightened sense of wanting it to work, partly because they helped to envision what change is needed but also because they are involved as 'change agents' rather than having change imposed upon them (See, for example: Cook 1995). In this sense, the change comes from the 'inside out', rather than being imposed from the 'outside in', and participants have a sense of 'ownership'. Change is therefore a deeply held product of the community's self-interest and self-promoting to

that community. This type of change is often regarded as being more viable than an externally mediated and 'owned' process.

But while 'participation' may be desirable there is a significant leap to be made between theory and practice. Just how are people to be included within a participatory process? This may seem like a straightforward question but there are many complex dimensions which are often overlooked (for a range of views on this see: Becker 2004; Mannberg and Wihlborg 2007; Pandey 2009; Too and Earl 2009). For example who are the stakeholders of the process? In any one intended process of change the population which could be impacted upon could number thousands, if not millions, and may stretch well beyond the immediate 'place' where the activities are to be implemented. Within this population there may well be groupings of 'like-minded' individuals who share a common agenda, but it is a mistake to assume homogeneity within groups and there can be much diversity in perspective. Hence while the term 'stakeholder' is an all too convenient label the identification of those to be included is not as straightforward as it may sound.

Once stakeholders have been identified the question becomes how they are to be best represented within the process? There is a need to identify representatives of groups given that it may not be possible to include everyone except in a very limited form (survey for example). But can all groups be included? What about groups that have internal division? Should sub-groups be included as well? Sociologists often refer to the myth of community - that we often assume homogeneity amongst a group of people in order to make the process of participation easier – but such assumptions can be highly misleading. The answers to these questions will be driven by the inevitable constraints on time and resource, but that does not diminish their importance. For any given process of change which involves stakeholders there can be many perspectives depending upon who is – and who isn't – included. This is well known, but there has been no research on how different groups of stakeholder can create the 'many worlds' of sustainable development; some no doubt more sustainable than others but still valid as a sustainable worldview nonetheless.

Finally, how should the participation take place? There are many different ways in which stakeholders can be included within a process, and there are many champions of each of these approaches espousing their relative advantages over competitors. Each approach does indeed have its own set of pros and cons, including resources required, and a review can be bewildering. Which one is 'best', if such an adjective can be employed in any meaningful sense, will depend upon context and the expertise of those attempting to facilitate the participation. Bad decisions over which approach to take, and indeed a poor implementation of what should be a viable approach, can greatly reduce and even eliminate the value of including stakeholders even if steps (1) and (2) have been done well. One popular approach is the 'Soft Systems' methodology of Peter Checkland. Soft Systems shares the same epistemology of almost all participatory approaches. It provides a space for individuals to interact and share insights and a focus towards problem solving. As in many participatory approaches the first step is to tease out a shared understanding of the problem(s) identified by the group as important and thus needing to be addressed by action. The process takes the group through a clearer definition of the problems and an identification of action-points that are targeted at those problems.

The starting point for Soft Systems is the Rich Picture (RP). Each group is provided with a sheet of 'flip chart' paper and a set of coloured felt-tip pens of different colour. What goes into the picture,

the form of diagrams, the linkages and colours are entirely up to the group. The challenge to the group is to represent the 'system' in which they are engaged, including what they may see as problematic. Rich pictures have two basic 'rules' designed to help encourage the sharing of insights.

1. the paper has to be visible to all members of the group at all times so it is clear to all what decisions have been made as to the components and linkages within the system
2. text should be avoided as diagrams are much easier to appreciate visually

The group dynamics is entirely a matter for the group and the assumption is that separate groups can negotiate a shared understanding of the system but that understanding will at least in part be driven by the composition and dynamics of the group. Different starting points of group composition and dynamics will yield 'many worlds' or multiple perspectives. In a room of 4 or 5 groups all given the same system to explore it is likely that perspectives between them may be quite different, and what one group may see as relevant another group may not. An obvious question to ask is what are the main influences that create this diversity? Obvious factors are the time allowed for the groups to do the task and the physical environment within which they work (presence of distractions etc.) However, it is also likely that much will depend on the make-up of the groups. Are there facets of group characteristic and function which pre-dispose them towards specific types of worldview? Perhaps surprisingly given the long history of participatory methods and indeed 'soft systems' there have been few, if any, attempts to explore these factors and how they influence the analysis represented by Rich Pictures. That is the gap in our knowledge which this paper seeks to address. It will do so within the context of Rich Pictures created as a part of a variant of the Soft Systems methodology – Triple Task – developed within an EU Framework 7 funded research project.

The paper will begin by summarising what is known about Rich Pictures as problem solving devices. The literature is not a large one but does need reviewing. This will be followed by a brief outline of the context of Triple Task and what it is attempting to achieve in the POINT project. We will proceed to specifically explore the Rich Pictures that were created in triple Task and draw out insights with regard to the influence of group dynamics.

2. Rich Picture Diagrams – legacy as problem solving devices

Rich Pictures have a long but under-documented heritage, borrowing much from a long-established sense in the human race that a 'picture paints a thousand words'. After all, people have been painting pictures since the very origins of the human race. Early inspiration for Rich Pictures within a participatory context is difficult as they appear to gain their inspiration from a number of sources and almost 'emerge' from the literature (for example see: Checkland 1972; Churchman 1979) but for the purposes of this paper the use of Rich Pictures in all kinds of academic and professional work can be argued to date back to Checkland's original work on Soft Systems in 1975 (Checkland 1975) where he refers to the notion of a rich picture.

> *"The end point of this stage in the analysis should be a picture of the problem situation, one as rich as can be assembled in the time available" (page 281).*

This use of diagrams in Soft Systems obeys rules which have a long and healthy lineage. As Fathulla (2008) observes:

"The way people use diagrams, irrespective of the application has been eloquently described by J D Watson, Nobel Prize winner (1968), who discovered the structure of DNA: ".. drawing and thinking are frequently so simultaneous that the graphic image appears almost an extension of the thinking process."

Using diagrams as a means to aid the thinking process is now a well trodden path with visualisation techniques such as mind maps (Buzan 1992; Marguiles and Maal 2002), road maps (Phaal, Farrukh et al. 2009) and numerous other forms of graphic representation. Indeed given the complexities of sustainable development such devices have a natural and indeed unique appeal in being able to represent such complexity in a concise and yet 'rich' manner. A picture really can paint a thousand words. The advantages of diagrams was also expressed in Checkland's seminal volume in 1981 (Checkland 1981) although, interestingly, the only citation to Rich Pictures in the book is to a glossary definition of it on page 317 – there being no substantive use of the diagrams in the text itself.

Soft Systems has undoubtedly been the main catalyst for Rich Picture use, being included in subsequent works by Checkland himself (Checkland and Scholes 1990; Checkland 1994; Checkland 1997; Checkland 2001; Checkland and Poulter 2006) but maybe the key development for the wider appreciation of Rich Pictures themselves was provided by the Systems Group at the Open University who both explored the use of the diagramming method in courses (See for example: Open University 1987; Open University 1997; Open University 2000; Open University 2004) as well as in a specific course on diagramming (Open University 2000).

Before looking at the discussion around Rich Pictures it is necessary to describe what they are. Lewis has provided an early assessment of the origins and morphology of the Rich Picture idea (Lewis 1992). Lewis also indicates a range of confusions over the development and use of the pictures , mainly in terms of the way in which they are adopted within the rules of Soft Systems use. For the purposes of this paper soft systems is not a specific issue, we are more concerned with the use of Rich Pictures as free standing, problem diagnosing tools. In the 2004 Information Systems Toolkit course, Rich Pictures were described as follows:

"… it is often useful to have the bigger picture and the maze of processes and structures operative in the context gathered together in one format.

In cases like this the Rich Picture is a powerful aid to understanding and, used in a participative manner, it can assist teams to gain a better appreciation of the issues which confront them.

Purpose

Rich pictures were particularly developed as part of Peter Checkland's Soft Systems Methodology for gathering information about a complex situation. The idea of using drawings or pictures to think about issues is common to several problem solving or creative thinking methods (including therapy) because our intuitive consciousness communicates more easily in impressions and symbols than in words. Drawings can both evoke and record insight into a situation, and different visualization techniques such as visual brainstorming, imagery manipulation and creative dreaming have been developed

emphasizing one of these two purposes over the other (Garfield 1976; McKim 1980; Shone 1984; Parker 1990)." (T851 Diagramming).

In a course under production at the Open University at the time of writing (TU811 Thinking Strategically: systems tools for managing change) in Part 4 the authors say of the Rich Picture process:

> *"You will read more about the use of rich pictures (hand-drawn sketches of what each individual perceives to be going on in a situation) in the SSM section which follows this. Drawing rich pictures can return you to the simplicity of a childhood vision where you mirror directly what you observe, and in that process reveal how you feel about it. This seems to bypass the mental filters which tend to frame that vision in terms of the generally accepted story, or to obscure the things it is hard to say without offending. The use of humour and imagery make it possible to say things it is otherwise difficult to raise; they can provide a space within which you have licence to say something that would otherwise be taboo. Describing what you have drawn in your rich picture feels more like bravely admitting how things looks to you, than asserting your view as a perhaps threatening statement about reality. "*

A theme arising from the nature of Rich Pictures is the 'surfacing' and 'exploratory' element. Rich Pictures would appear to be a means to almost 'trick' the individual or the group into an examination of cryptic (hidden meaning), arcane (pertaining it the inward or mystical) or occult (hidden secret) aspects of the individual or the group. In total, the picture is an acroamatic device. In an earlier paper, the authors referred to this function with reference to holistic project understandings:

> *"we can imagine an 'holistic' project as the exact opposite of the conventional and this would certainly constitute the discovery of an alternative and acroamatic story as opposed to the conventional, dominant project narrative*" (Bell and Morse 2007 page 105)

Rich Pictures now have a wide-spread lineage. Taken up by Soft Systems users (As a random sample see: Haynes 1989; Stamper and Kolkman 1990; Ison 1993; Haynes 1995; Atkinson 1997; Callo and Packham 1997; Probert 1998; Bell 2000; Bennets, Wood-Harper et al. 2000; Mingers 2001; Winter and Checkland 2003) it was widely adopted by information systems developers (perhaps most notably demonstrated in: Avison and Fitzgerald 2003). More specifically, Rich Pictures have been discussed, described and reviewed in a variety of fora; from Nursing (Ballard 2007) to ICT (Bronte-Stewart 1999; East and Metcalfe 2002); from care working (Fougner and Habib 2008) to the construction industry (Mazijoglou and Scrivener 1998); from creativity (Proctor 1995) to engineering (Sutrisna and Barrett 2007). The pictures also have been approached constructionally as either free form diagrams or as computer generated output from a software package (see for example the use made of 'Get Rich Quick' in Avison, Golder et al. 1992). Generally Rich Pictures have a conventional representation in participatory group work. Although not labelled as such, they fit into the ethos of participatory work such as that developed by Chambers (Chambers 2002). In his 2002 book he describes participatory diagramming as follows:

> *"Participants draw, elaborate on and analyse their own maps of models. These can represent anything with a spatial dimension – social maps showing people and their types; health maps – people resources and services; mobility maps – where people go for services; vulnerability maps – dangerous places; defectation maps – where people go to go; maps of farms or gardens, trees; maps of buildings ….."* page 136.

Others have used diagrams of various kinds to develop visual maps (Glaser 2006). Indeed, this form of group mapping appears much more consistent with the earlier descriptions of Rich Picture application. The computer 'toolkit' approach comes with its own problems – the danger of the approach being perceived as reductionist given that complexity is portrayed with very technical looking symbols:

> *"Tools may give a hard appearance to soft issues, encouraging excessive formality and structure and therefore be reductionist. This is obviously undesirable, as it leads the user of the tool in directions totally against the ideals of soft systems"* (Avison, Golder et al. 1992 page 407)

To illustrate the form and content of Rich Pictures we show what we would call an 'archetypal-if-poor' rich picture drawn from one of our workshops in the UK (Figure 1). The picture was created by a group of people working in the UK's National Health Service. At this point we make no attempt to interpret the picture's meaning but the relative poverty of the content is evident in:

- A relative simplicity of visual metaphor (much of the picture – 9 incidents in total - is devoted to 'stick' people and sheets of paper)
- Lifeless and detail-shy depiction of important people (5 of the 9 incidents of people employ stick characters of the same size and there is little attempt to differentiate, even in terms of characteristics such as male/female let alone their importance within the system)
- Occasional use of words (including 'staff' and 'patients')
- A lack of a central theme or visual concept to guide the viewer/reader (people who produced the picture are represented in the centre but it is not immediately apparent what the key components and issues are within the system)
- Poverty of colour and line width (4 colours are employed, but note how the colour red is employed towards the left-hand side of the picture, perhaps indicating that the person standing at that place held onto the red pen! Also note the absence of lines connecting the components) .

These observations, whilst remaining true should not detract from the usefulness the authors found in the picture and some of the important outputs which followed from drawing it. Despite the picture offering little in terms of visual content, nevertheless it had a capacity to galvanise the group which drew it and, tellingly, allowed the group to raise issues, via the picture, which they would not discuss or write about – acroamatic: hidden and occult issues. Some good examples include:

- Anxiety over measurement. The presence of a large abacus at the top left indicating the perceived importance of 'counting' (money, indicators of performance etc.) in the system.

- Anxiety over litigation? Patients, even the dead ones, are being portrayed as 'happy'.
- Anxiety over private practice? Concern is shown over senior medics spending time in non-work related activity (symbolised by the golfer)

The 'revelatory' aspect of rich pictures the pictures will be returned to later.

Figure 1 About here

3. Interpreting Rich Pictures

In the previous section we gave some examples of how a rich picture can be dissected. Authors have long been trying to decipher the meaning and interpretation of diagrams of all kinds. Fathulla's paper, referencing a series of other authors, is illustrative of a number of points – although in this case the frame of reference is much wider than Rich Pictures:

> *"Much of the discussion on the nature of diagrams seems to be influenced by the internal versus external debate. Proponents of the external camp see diagrams as a collection of spatial or visual elements independent of humans. Proponents of the internal camp see diagrams as a collection of symbolic elements. There is emerging dissatisfaction with the potential of these ways of understanding diagrams. Horn (2001) claims that our current ways of understanding diagrams is one of "confusion." Norman (2000) finds existing ways of understanding graphical representations to be unsatisfactory. Bishop (1994) adds to this by questioning our existing ways of understanding diagrams arguing that the centuries held assumption that "a drawing-is a drawing-is a drawing" is progressively shown to be invalid. Kulpa (2003) argues that there is need for a serious study to help us better understand diagrams."* (Fathulla 2008 pages 270 - 271).

Fathulla's is concerned with rules for diagramming so as to better develop software for the purpose - as was Avison in the specific context of Rich Pictures - (Avison, Golder et al. 1992) - but Fathulla's understanding that diagrams are laden with spatial and symbolic meaning is key, and the interpretation of this meaning is also vital. This is a point picked up by Clancey (Clancey 2005) – he suggests that at present there is inadequate theory to relate perceptual approaches to learning. This could be paraphrased to: we don't fully understand what we draw or what we see in the drawings of others. Friend has already defined some of the issues to interpretation of diagrams (Friend 1983) – identifying three basic relationships: sequence, comparison / contrast and cause/ effect.

The interpretation of Rich Picture Diagrams, and indeed an understanding as to the factors which help form what appears in such pictures, is very much an inexact science. This is not so in art, of course, as historians have long sought to understand and appreciate the motives and influences which have acted upon artists and which helped frame the work they produced. In the POINT project where analyses of indicator use and influence derived by groups in separate national and sectoral contexts are being compared there is a need to appreciate why differences occur.

As an overview of the function and purpose of Rich Pictures we would make the following observations. The key elements which appear to be relatively active and relatively inactive in the literature are shown in Table 1.

Table 1 About here

In conclusion Rich Pictures appear to offer groups of participants a singular means to set out their group-think and to explore both conscious and acroamatic (sub-conscious?) thoughts. However, in interpretation the pictures have tended to be mined more for their explicit rather than implicit content. The remainder of this paper explores how the pictures can be used as a means to both release the thinking potential of a group and allow external facilitators to interpret this group thinking.

4. The Triple-Task

The research described in this paper took place in 5 participatory workshops, in Malta, Slovakia, Finland, Denmark and the UK during 2009/10. Each workshop took two days with one day set aside for interviews with those that took part. The work was one workpackage of a larger project entitled POINT – Policy Use of Indicators (contract no 217207). The workshops employed a participatory methodology called 'Triple Task' by us and is a hybrid extension of a number of other approaches and builds on the psychodynamic work of Bridger (Bridger 2007). Task 1 of 'Triple Task' is a variant on the IMAGINE participatory methodology described by us in Bell and Morse (2008) and which in turn is a manifestation of the 'Systemic Sustainability Analysis' (SSA) theory also put forward by us in Bell and Morse (Bell and Morse 2003) and an extension of 'Soft Systems' analysis. Just as in 'Soft Systems', Task 1 seeks to encourage participants to arrive at a shared understanding of 'what is' and 'what can be done' in any context. In the project summarized here the aim was to arrive at a shared understanding of the use of indicators in sustainable development and sectors such as agriculture and transport, but the same process could be applied in any context. It involves a 6-step process and a brief summary of the steps is provided as follows:

1. Rich Picture mapping. All participants involved in drawing a RP of their combined experience of the use of indicators to-date
2. Tasks and Issues. Participants draw out major issues or problems with their combined use of indicators. Also things that might be done to improve the situation
3. Systems of Challenges. Participants put together tasks and issues in four or five Systems of Challenges and provide them with catchy titles to indicate their main meaning.
4. Defining transformation. Identifying what is required to address the challenges set out in step 3?
5. Vision of Change. What is the vision of change the group would like to see?
6. Rich Picture Scenarios for the future. Who needs to do what and when in order to achieve the vision of change?

Our focus in this paper is the value and use of the Rich Picture used in stages 1 and 6. In effect, these two pictures represent a 'before' and 'after' scenario. The process begins with an analysis of what is currently in the system and the interactions that take place while in Step 6 the group is asked to visualise what the system would be like once desired changes have been made.

Tasks 2 and 3 of Triple Task are separate assessments of group performance in Task 1. Task 2 is an external analysis of group interactions arrived at by facilitators who are not within groups. It is a reflective review of the manner in which the group(s) work using Action Learning Cycle (including the Being, Engaging, Contextualising and Managing or BECM matrix (as shown in use in: Bell 2008). Task 3 is a self-analysis by individuals within groups of themselves and their group interaction using the Symlog approach. Symlog has a history going back to 1979 when it was first introduced by Bales and Cohen to help understand group behaviour and has since grown to become a popular approach to the analysis of group work and has been applied in a wide variety of contexts. For more details of the theory and application of Symlog please see Park, Nowack, Keyton and Wall, Eisle and Blumberg (Park 1985; Nowack 1987; Keyton and Wall 1989; Eisle 2003; Blumberg 2006).

The result of putting these 3 tasks together is effectively a triangulation including a group process (Task 1) along with an analysis (Tasks 2 and 3) as to why groups may have arrived at the outputs they did. Thus it is possible to derive explanatory factors behind the visions, in this case of indicator use, created by the groups. To date most participatory approaches have only dealt with Task 1 – the arrival at the shared understanding without a formal analysis as to how the groups managed to arrive at that understanding. In our analysis of Rich Pictures we make use of a 'Subjective Assessment of Group Analysis' (SAGA) framework to pick out aspects of the rich pictures and other outputs that suggest 'fracture' and 'incoherence' which may be related to the functioning of the group as observed within Tasks 2 and 3. The SAGA framework is still being refined but an example of four components that could be applied to rich pictures is presented as Table 2 and summarised as follows:

1. Colour: relevance and use of colour in the picture with more use of colour suggesting greater imagination/ engagement / enthusiasm with the topic

2. Kinetic: use of lines, visual metaphors and other forms of connector to align and integrate elements of the picture. It is assumed that greater use of connectors (and their relative thickness/ clarity/ dominance) suggests better connectivity and thinking through relationships

3. Mood: this relates to the coherence of a 'story' in the picture and how it is expressed. Are there clear visual metaphors to draw the story together? Aare the elements of the picture clearly related to each other in a way which suggests 'thinking through' of the problem or are elements simply 'stuck' onto the page with no thought of how they relate in a coherent sense to what is being portrayed?

4. Evidence for information / indicator use incidence: has the group remained focussed on the issue at hand (indicator use) or is there evidence of drift into related/ unrelated domains? Has the group managed to sustain task focus?

As highlighted by the 'S' in SAGA each of these elements is of course highly subjective, and no doubt the reader could conceive of other features of rich pictures to include as well as the relative weighting. Each of the SAGA elements can be scored based upon a set of criteria as set out in Table 2. However, it must be stressed that this is very much work in progress and the four elements comprising the SAGA framework presented here may have to be refined or expanded. The framework in Table 1 should not be seen in any way as being final. Indeed the notion that a pictorial output of a group analysis can be condensed to numerical scores so as to provide the basis for an analytical framework is only one aspect of SAGA. Just as important is its function to help guide what to look for in an appreciation of participatory rich pictures – whether there are scored or not. Rich pictures can contain so much richness, especially when a group explores sustainable development, that there is a real danger of losing sight of specifics within the general. What should be looked for would clearly be a matter of much conjecture, but SAGA encourages us to delve deeply into what a group is saying and why?

Table 2 About here

5. Some early findings

In terms of the application of the SAGA framework set out in Table 2 it seems reasonable to assume that much would depends upon the make-up of the group (e.g. their various expertise and interests) as well as how they work together. Two examples of specific rich pictures from workshops in Malta and Slovakia are provided as Figure 2.

Figure 2 About here

In terms of the SAGA framework, these groups score especially well with indicators 2 to 4 (mood, kinetic, relevance) – in each case the story is clearly linked, coherent and focussed by, in the one case the use of the visual metaphor of the road and in the other the use of the wise monkeys – but not so well with indicator 1 (use of colour) although this wouldn't be immediately apparent to the reader from a black and white image. In our assessment of the Maltese group we said:

"Much bonding and good humour, round table conversation, good body language much standing and laughing. Some separate conversations but not as much as A. All stayed in room. One skilful facilitator – didn't dominate but kept the group coherent. Rich picture – had a lot of internal coherence and had a single narrative. Clearly focussed on indicators and use. Metaphor of a road with potholes and obstacle"

Overall we placed this group as Level 3/4: 'Engaged, creative and capable of developing a strong group narrative regarding indicator use'.

Of the Slovakian Group, we noted:

"All 5 active. All very animated and engaged. Mentioned indicators, both the ones 'people care about', like GDP and those 'hidden' indicators – GPI and ISEW. These were shown at the bottom of the page .. hidden under a dark line. The group were interested in the problems of indicators. Very interesting finding.

The group did engage in thoughtful conversation. Ph. D student again led, forged the group, linked genders and age groups. Listened to others."

Table 3 provides an overview of the pictures we have analysed so far and the SAGA grades which arose in each case. The table shows the pictures in black and white but we are not expecting the reader to assess them in detail, rather we include them here as examples of the variety and range of types of diagram our process has produced. The table also includes our overview observations of the team processes for 14 groups. The average SAGA 'score' for the 14 groups is 3 (where 1 is very poor and 4 is very good). The key message which arises from the exercise is the diversity which resulted between the groups and how groups dynamics (as assessed with Tasks 2 and 3 of Triple Task) did appear to have an influence on the rich pictures that were generated. Disharmony within groups, perhaps as a result of domination by one individual who imposed their view or perhaps because group membership kept changing as individuals left and new ones entered, did result in symptoms that could be identified using the SAGA framework – even one as simple as we have set out here.

Table 3 About here

6. Discussion

Fathulla may have drawn our attention to the internal versus external debate in diagram use, our work has very much focused on the migration from the experience of the external (form, content, elements) to the revelation of the internal (especially symbolic meaning – e.g. the 'cave' shown in the Slovakian picture shown in Figure 2). While there was significant variation in perspective across the 14 groups within the five workshops it is important to not only look for confluence (agreement) with regard to indicator use, although of course that can tell us a great deal about common issues, but also to look for difference in perspective and why it may have occurred (this emphasises the participatory aspect flagged by Chambers). For example, why would groups in Malta identify an issue as important while groups in Finland, Denmark and Slovakia do not? Answering this question can be just as illuminating as looking for overlap, but it is a complex question – far more complex than it may first appear and we are aware that we need to refrain from over-hasty conclusion and summary prior to gathering all the workshop data.

On review of Table 3 a number of preliminary observations can be made, coinciding with the earlier observations set out in Table 1. From review of previous usage of RPs it appeared that depicting motive seemed more important than review of complexity. The assessment made in POINT experience is that in all cases the 14 groups used RP – to varying degrees of success – to review their experience of indicator use. The manner in which this review was undertaken was lumpy, but as the groups as a whole had a SAGA score of exactly 3 – indicating semi-coherent Rich Pictures and an assessment of: 'Occasional reference to indicators in terms of reception, internal use, maybe

external use, probably not decision support', it would seem that the RP can be effectively and efficiently used to review experience.

The second issue focused on in Table 1 is that visual expression is more valued than recognising patterns – the story behind the picture – as Margulies puts it:

> *Visual processes are a powerful way of bringing to the surface that which we know, but we don't realise we know! One a group pattern is mapped, ripples extending from the pattern can encourage a group to explore the desired and unintended consequences."*

Margulies, N and Maal, N. 2002, page 134.

In this case the observation of the pictures developed by the groups is less clear. Some groups, for example, group D, made a virtue of expressing the underlying anxieties and concerns – the hidden and occult types of indicators. Others, for example Group F, might be seen as a group which makes an open virtue of discussing the underlying issues. The very openness of their discourse around the background forces moving the discourse around indicators distracts from the observation that they are engaged in some difficult and inward-looking work. The experience overall is that the group can, if it is so motivated, achieve a surprising amount of clarity around exploration of underlying issues and patterns.

The third issue, using RPs to manifest messages (e.g. well shown in the work of Group B) rather than to reflect on what is meant is again less clear around the 14 groups. Groups which applied the RP as a means to reflect on underlying and difficult issues included A, E, I, K, L and N. The qualities of the pictures varies a great deal but the way in which the groups used the diagramming opportunity to visualise that which was not easy or obvious was very similar.

Finally, the fourth issue referred to in Table 1: a means to explore acroamatic concerns is least clear. Group B clearly knew what it was doing and did a really good, workmanlike RP with lots of coherence and clarity, but the group did not get below the surface of its own objectivity. Group A by comparison, conflicted and cautious, agonising over fractured stories, got closer to underlying and worrying issues. The matter remains unclear from this review of the evidence of the RP alone. The wider Triple Task analysis will provide further insights at a later date. For now it is clear that the RP exercise gives the opportunity to review the acroamatic but the dynamic of the group may hinder the exercise.

A few words should be said about the use of the SAGA framework. As has already been stressed the framework is based upon some highly subjective assessments and is open to varied interpretation as a result. We are aware that these are our assessments employing a framework we have created. Others may disagree with our choice of elements within the framework and our valuation of the elements we have selected when applied to the rich pictures. We have provided a rationale which explains the decisions we made but at the same time we are under no illusion that our arguments would be accepted by all. It is to be hoped that this paper will take the debate forward. Another dilemma is that a RP can be relatively 'basic' in terms of SAGA (as indeed is Figure 1) yet still provide many useful insights for a group. One should take care not to equate an assessment of rich pictures

using SAGA with whether the analysis was useful to those concerned. The use of Rich Pictures in this case can be best summed up by Tufte:

> *"What is sought in designs for the display of information is the clear portrayal of complexity. Not the complication of the simple, rather the task of the designed is to give to visual access to the subtle and the difficult – that is, the revelation of the complex"*

Tufte, E. 1983. Page 191.

In overview, and in overall assessment of the rich pictures, a number of key items arose in our understanding of the group's reactions to the use of indicators – we refer to these items as the five Ds.

Disconnect. We identified issues of connection between indicators and their influence in policy. Includes understanding what is required for indicators to have an influence and what needs to be done and by whom? Many of the groups showed a high focus on being disconnected from the indicator process.

Dominance. This refers to the dominance of more narrow worldviews. For example a dominance of economic indicators making it difficult for other indicators to be heard. This is amplified in the diagram produced in Slovakia and shown in Figure 2. The 'cave' shelters the weaker indicators.

Dissemination. This includes, for example, the need for education and the means by which indicators are dispersed amongst those who mean to use them.

Diambiguation. This covers issues such as data availability and opaqueness of existing indicators making them difficult to appreciate.

Dictum. The rules. In this case the need for a grammar or rules – more generally of how indicators are developed and are expected to be applied, and, more specifically of sustainable development so we all know what it is

Rich Pictures as a device can encompass the richness of all the complex issues such as those represented by the 5Ds within a single sheet of paper and thus provide an ideal form for representing sustainable development. There is much to do, however, to set up SAGA frameworks which encourage us to tease out the nuances from the bigger story otherwise they can becomes lost. This is a challenge that would benefit greatly from further research.

7. Conclusions

Rich Pictures have been around the participatory world – probably as long as hieroglyphs – but have been part of the academic literature since 1972. They are an established part of some participatory methodologies (for example Soft Systems) and are used as part of a rich variety of early-in-the-process means to ice-break, get a group working together and explore problem areas.

Within the Triple Task approach we have applied RPs as a means to allow a group to develop its 'Group Mind', to work consciously and un-consciously on the indicator use issue – and as a means to capture data on the group process. The focus of our workshops was Sustainable Development

(either centrally or via issues of energy, transport and agriculture) and, to this end the term revealing the 'Sustainable Group Mind' might best sum up the impact of the work undertaken in the workshops. Our findings are not yet concluded but we can make some key observations at this stage:

- Rich Pictures have helped groups to gain a co-understanding of their own connection or disconnection with the indicator usage issue. The pictures generally provided a non-judgemental or threatening means to engage in a group conversation about this.
- The Rich Pictures allowed groups to explore the dominance of certain indicators over others
- A major theme arising from the Rich Pictures was the issue of information dissemination and roll-out.

These are all objective, indicator use issues arising from the interpretation of the pictures. At a deeper level, the picture drawing exercise allowed the groups to explore together issues of reflection, review, acroamatic themes and underlying causes. This provided the POINT research with a means to get below the presenting issues to some of the deeper causalities which determine indicator use. Issues of ambiguity in indictor development and a lack of clarity over the rules of indicator measurement, diffusion and interpretation also arose.

At this early stage it is possible to see that Rich Pictures have a wide and potentially un-explored potential within sustainable development in allowing groups to arrive at a communal mind-set on occluded and difficult issues.

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