Northumbria Research Link

Citation: Bryans, Patricia and Mavin, Sharon (2006) Visual images: a technique to surface conceptions of research and researchers. Qualitative Research in Organizations and Management: An International Journal, 1 (2). pp. 113-128. ISSN 1746-5648

Published by: Emerald

URL: http://dx.doi.org/10.1108/17465640610686370 http://dx.doi.org/10.1108/17465640610686370

This version was downloaded from Northumbria Research Link: http://nrl.northumbria.ac.uk/14572/

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: http://nrl.northumbria.ac.uk/policies.html

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

www.northumbria.ac.uk/nrl



Visual images: a technique to surface conceptions of research and researchers

Oualitative Research in Organizations and Management: An International Journal

The Authors

Patricia Bryans, Newcastle Business School, Northumbria University, Newcastle, UK

Sharon Mavin, Newcastle Business School, Northumbria University, Newcastle, UK

Abstract

Purpose – This article presents pictorial representation as an innovative and challenging technique for exploring how new and experienced researchers see research and researchers. Pictorial representation provides a means of exploring the various factors that may influence, limit or inhibit researchers in their practice.

Design/methodology/approach – Three groups were engaged in creating pictorial representations of either "research" or "researchers". Groups of new doctorate in Business Administration students, second year PhD students and a network of women academic staff from two UK university business schools described their drawings to their group and engaged in general discussion of the issues raised.

Findings – Drawing and discussing pictures allows emotional and unconscious aspects of engaging in research to surface, helping drawers put into words what may be difficult to voice. Such images enrich and enliven the difficult area of research methods teaching and their personal nature helps to "acknowledge the individual in the researcher".

Research limitations/implications – This paper is based on research with a small number of participants. It focuses on the use of the visual image technique, rather than detailed analysis of the images generated.

Practical implications – We offer the technique to teachers of research methods who can use it to make research methods more interesting and relevant to their students.

Originality/value – The paper outlines an innovative approach to teaching research methods which engages students in discussion about the nature of research, the skills and qualities

needed to become effective researchers and assists them to begin the difficult but essential process of reflexivity.	
Article Type:	

Keyword(s):

Research paper

Visual media; Research; Teaching; Research methods.

Journal:

Qualitative Research in Organizations and Management: An International Journal

Volume: 1Number: 2 Year: 2006 pp: 113-128 Copyright © Emerald Group Publishing Limited

ISSN: 1746-5648

Introduction

This article explores the use of pictorial representation as an innovative and challenging technique for exploring how new and experienced researchers interpret research and researchers. Through the creation of pictorial representations we can explore the personal constructs of research and researchers held by researchers themselves, as a means of highlighting and opening up for discussion how individuals approach the research process and their roles as individual researchers. We suggest that pictorial representation provides a means of exploring, in rich detail, the factors (whether personal or contextual, conscious or unconscious) that may influence, limit or inhibit researchers in their practice.

Empirical data gathered from using this technique with three groups of new and experienced researchers is presented. We conclude with some implications and applications of the exercise, in particular its potential use on research methods teaching programmes to engage students in discussion about the nature of research and the skills and qualities needed to become effective researchers. We highlight the potential of this approach for helping to begin the process of reflexivity or the "critical appraisal of one's own research practice" (Symon and Cassell, 2004, p. 5).

Foregrounding the researcher in research

<u>Brew (2001)</u> has investigated the variation in how research is experienced by established researchers, claiming that conceptions of research have rarely been explored and that there is little empirical work on the ways research is experienced by researchers:

Every conversation about research in universities, every research project, and every discussion in research committees rests on the underlying ideas researchers have concerning what research is and what researchers are doing while they are carrying it out. Researchers know what research is. This is almost a truism. Yet while many researchers are able to articulate their own ideas about the nature of research, the absence of any systematic investigation into the ways research is conceptualised means that many commonly held ideas have not been examined empirically (Brew, 2001, p. 271).

<u>James and Vinnicombe (2002)</u> argue that researchers need to be aware of their own values, aims, biases and experiences and explore how these impact on their studies. They identify a need for "acknowledging the individual in the researcher" arguing that the individual behind the role of researcher matters a great deal in a variety of ways that are particularly important in management research. <u>James and Vinnicombe (2002)</u> highlight three aspects of the individual in the role of the researcher:

1. The personal interests and perspectives of the individual researcher which, for example, lead them to choose certain topics over others. "Personal aims are never very far from the shaping of a research topic" (2002, p. 86).

- 2. The individual's personal relationship to the data. They argue that "how data are collected, what counts as data, how the individual interrogates the data and interprets the findings, are all affected by the assumptions made by the researcher" (2002, p. 89).
- 3. The personal characteristics of the researcher which may lead him or her to choose particular strategies and designs. "This challenges the notion that the research question and phenomenon of interest determine these" (2002, 85).

Harding (1987, p. 9) takes this even further and claims:

The beliefs and the behaviours of the researcher are part of the empirical evidence for (or against) the claims advanced in the results of the research... [which] ... must be open to critical scrutiny no less than what is traditionally defined as relevant evidence.

Teaching research methods

At both postgraduate and undergraduate levels the teaching of research methods has become an increasingly important element of degree courses in the social sciences (<u>Hughes and Tight</u>, 1996). Students are increasingly expected to carry out at least a small-scale research project and for many part-time students this is sited in their own organizations. Generally, research methods are taught to assist students with this process. <u>Hughes and Tight (1996)</u> structure their teaching to "follow the research process, and link the general understanding of methodology with the specific research projects being undertaken by the students." In questioning whether research methods can ever be interesting, <u>Benson and Blackman (2003)</u> found student interest was not fully engaged and that there was a poor perceptual link between learning research methods as a subject and actually putting it into practice in their future studies. They claim that research methods has traditionally been seen as an abstract subject and taught as such; they recommend an active, activity-based learning programme to make it interesting and relevant to students.

James and Vinnicombe (2002) note that most writers on research recommend that researchers identify their area of interest and the knowledge gap, work out a researchable question, work out what evidence will answer that question and then design a method to collect that evidence, but point out that from their experience this is not how research is designed in practice. They suggest that the underlying preferences of researchers, which shape research, should be explored and openly acknowledged. Brew (2001, p. 283) points out that our underlying conceptions about the nature of research:

... influence the types of projects researchers feel comfortable in pursuing, the choice of methodology, the questions, ideas and issues pursued, and the ways in which the work is carried out.

Our own reflection on the teaching of research methods is that the focus is often on the mastery of a set of techniques, with little attention paid to the individual researcher. Often the emphasis is on research as a rational, logical process at the expense of consideration of its personal and emotional aspects and complexity.

<u>Burrell and Morgan (1979)</u> claim that, historically, management research has been informed by the positivist paradigm with a focus on adopting methods grounded in the objectivist, scientific view. The prevalence of positivism and quantitative research methods within

management research may leave little space for the development of alternative subjective approaches to research (Waring et al., 2004). Symon and Cassell (2004) refer to their claim (Symon and Cassell, 1999) that both undergraduates and postgraduates are predominantly taught the procedures and concerns only of positivist research and that this may act as a barrier to the use of innovative research practices. Teaching research methods using creative methods may well model to students the possibility of using more creative methods of data gathering in their own research, ultimately leading to richer and deeper understandings of research, management and organizations.

Pictorial representation

The use of visual images in research has been common in a variety of disciplines but, according to Kearney and Hyle (2004), their use in management research and organizations has been limited. Vince and Broussine (1996) used drawings with managers in six public service organisations as the catalyst to enable managers to bring out often paradoxical emotions and to work with these as part of the process of the management of change. Zuboff (1988) asked clerical workers to draw pictures showing how they felt about their jobs before and after the installation of a new computer system. Zuboff (1988) felt that the drawings acted as a catalyst helping the clerical staff to articulate feelings that had been implicit and were hard to define. Meyer (1991) explored the use of visual data in organisational research and argues that drawings are capable of communicating information about multi-dimensional organisational attributes with clarity and precision; that research respondents often possess more complex, subtle and useful cognitive maps of their organisations than they can verbalise; that the integration of visual data with verbal data is a useful form of triangulation; that drawings often prompt active participation in the research enterprise; and that visual data enhances the capacity of research respondents to make sense of things and to attribute meaning to events (Vince and Broussine, 1996, p. 8).

Stiles (1998, p. 191), who used pictorial representation to explore organizational constructs, claims that visual images can be as valuable as words or numbers, may lead to richer understandings and that drawings can capture deep-set, internal visual constructs:

As their users quickly recognized, as well as a mystical quality, pictures often have the ability to communicate rapidly and universally, with or without verbal interaction... Yet the use of image in management research has, until recently, been very limited.

In a similar vein, <u>Korthagen (1993)</u>, in the context of teacher education, argues that reflection and reflective practice are crucial but that we have over-emphasized rational and logical analyses. He argues for the use of techniques such as metaphor, drawing and guided fantasy to promote reflection on non-rational processes. Additionally, <u>Vince and Broussine (1996)</u> argue that methodologically the use of drawings fits into the range of qualitative approaches to human inquiry that have become collectively known as Collaborative Inquiry (<u>Symon and Cassell, 2004</u>); a process conducted with people and not on them. <u>Vince and Broussine</u> (1996, p. 9) separate Collaborative Inquiry from positivistic research by arguing that such research is built on the interconnectedness between researcher and researched, shifting the emphasis away from observation to interaction.

However, <u>Stiles (2004)</u> questions why academics, unlike the overwhelming majority of people, are so reluctant to embrace the pictorial form as a means of understanding their worlds, especially given the power such images convey. Subjectivity in interpretation,

extreme variations in drawing ability, technical publishing difficulties and uncertainties about using the medium are among the reasons he suggests, while claiming that the academic orthodoxy still regards images as a subjective, inferior or even eccentric form of data compared to words and numbers. He claims that recently, however, an embryonic organizational research area using image has begun to emerge, with visual techniques being developed to stimulate creative thinking and problem solving, and explore organizational identity and process frameworks.

Stiles (1998, p. 194) claims that the images produced using this technique of pictorial representation are based on the use of a metaphor and that:

... the emphasis on imaginative knowledge rather than literality is important, because metaphor helps one to break away from seeking the kind of literal truth about something that positivism stresses. Seeing things in new ways can help solve seemingly intractable problems, by challenging traditional ways of confronting issues.

Morgan (1997) argues that the theories we use to guide our actions are based on implicit images and metaphors that lead us to see, manage and understand in distinctive ways. Metaphors imply ways of thinking and seeing the world and they pervade our thoughts, actions, language and understanding (Morgan, 1997). Hughes and Tight (1996) developed sweet metaphors (of doughnuts and Jam Roly Poly) to help their postgraduate students understand the requirements of an academic research project. They claim that interpreting the processes in this metaphorical way helped them explain their meaning and aid student understanding. However, Morgan (1997) cautions us to remember that in highlighting certain interpretations, metaphors background others, so that any way of seeing becomes a way of not seeing. Miles and Huberman (1994) call this process of comparing two things via their similarities and ignoring their differences "partial abstraction". They argue that attaching social phenomena to metaphor allows a researcher to move from facts to processes and these processes are likely to account for the phenomena being studied at the most inferential level. Furthermore, Phillips (1998) claims that metaphors act like programmed instructions to control and limit our behaviour and our capacity to perform well and that revealing metaphors can release people from their limitations. Helping researchers to recognise and become aware of their "programmed instructions" and exposure to other "ways of seeing" were our major aims in the use of this technique.

As a means of exploring the personal constructs of research and researchers held by researchers themselves, we chose pictorial representation as a technique in our research. This technique involved the creation, drawing and subsequent discussion of pictorial representations of research and researchers. Our assumption was that drawing and then discussing pictures would allow emotional and unconscious aspects of engaging in research to surface and would help drawers put into words what has been difficult to voice; such images can enrich and enliven the difficult area of research methods teaching and their personal nature helps to "acknowledge the individual in the researcher" (James and Vinnicombe, 2002).

Research methods

Three groups were engaged by the authors in the task of creating pictorial representations of either "research" or "researchers". The first group consisted of ten mature students (three women and seven men) at the start of their studies for a doctorate in Business Administration

by block-mode study. Five of the participants were academic members of staff and all taught quantitative academic disciplines in a business school. The other five were managers of organizations from four different countries across the world. Most described themselves as new researchers, although they had completed dissertations as part of their Masters programmes. The task was undertaken as part of the Personal and Professional Development module of their taught doctoral programme.

The second group consisted of eight students who were embarking on the second year of their PhD research. Four of the participants were researching in engineering. They were all men and all full-time students, largely in the mid-1920s to early-1930s age group and straight from Masters programmes. Three men were researching in business and management and were mature, foreign students. One mature woman was researching part-time in social sciences. The task was completed as part of a "Reflections on Practice" module, one of a range offered to doctoral students across the university to support their studies.

The third group was a network of women academic staff from business schools in two UK universities. The women met regularly to advance Doctoral study and develop qualitative research methods and projects. The authors of this paper had described their work on images to the network and they then expressed an interest in engaging in the task themselves. The task was completed at a meeting by eight women, six of whom described themselves as new researchers.

All three groups of participants were asked to work alone or with a partner to produce a pictorial representation of either "research" or a "researcher". The instruction was simple – draw research or a researcher. When all the drawings were completed they were displayed and the drawer(s) were asked to describe them. Stiles (1998) sees this generation of drawings and subsequent verbal description of them as a double-check on the respondents' intentions, but the exercise is led by the physical drawing of a picture: "In this way, both pictures and word are used complementarily to explore ideas, but the pictorial form is given greater emphasis in the generation of ideas" Stiles (1998, p. 194). Other group members were invited to comment and describe their pictures in turn before a final group discussion on the nature of the research task and the role of the researcher.

Each group had up to 90 minutes in which to draw, describe and discuss their images, ending with a general discussion on the nature of research and themselves as individual researchers.

The participants' images

In the following section we provide descriptive accounts of the images produced by our participants. It is not our intention here to analyse the images, rather to highlight the value of the technique and the process. The drawers described their images to their wider groups who engaged in discussion with them. In <u>Tables I and II</u> the section headed "key aspects" presents our brief summaries of these descriptions and discussions.

Images of research

The members of the three groups produced a total of 12 images of research, as outlined in Table I.

Research as a journey

The notion that research (particularly for a PhD) is a journey is a common one. It appeared in some form in each of the three groups, for example, as a path through the forest or climbing a mountain (Plate 1).

The journey is a prevalent image in the literature on research and researching, for example:

Reflecting on my place at the outset of this intellectual journey and considering the different places I have visited during this thesis, <u>Bron (2000)</u> notes that there is danger when choosing to move place, as leaving the place you have been assigned may be a crime! <u>Tietze (1998)</u> also likened the developmental and self-exploring aspects of her thesis to a journey and as with every journey the travelling is as important as the arrival (<u>Mavin, 2001, p. 284</u>).

Brew (2001, p. 279) identified four categories to describe the way research was understood by her participants, one of which was research as a journey. In this category:

the content or topic of investigation is less important than the issues or underlying questions posed, or the ways in which they dovetail with the researcher's life or career. The researcher is central to the focus of awareness.

Our participants discussed the issue of the impact of the journey on themselves, commenting on becoming or expecting to become different people by the end, not simply expecting to have different knowledge or skills:

The journey can be long and with many highs and lows. Acknowledging that this is a very personal and emotional experience rather than just a straightforward cognitive task is often a very important step in making the journey an enriching one (<u>James and Vinnicombe</u>, <u>2002</u>, <u>p</u>. 96).

Research as examining/assessing/focusing

Images such as scales, magnifying glass, funnels and filters refer to more traditional views of what research is about, i.e. examining things in detail. In particular, more positivist approaches centre on an external reality which is "out there" to be uncovered and which can be analysed and measured. Participants were able to identify with these drawings and expressed their satisfaction at having the opportunity to look in detail at something that interests them. Interestingly, the picture of scales demonstrated the importance of balance and careful weighing of ideas and evidence in the research process but was described by the drawers as being primarily about the difficulty of keeping a balance between research work and home life.

Organic images

These images emphasized the changing and evolving nature of research and were perhaps more related to a phenomenological paradigm. The weather picture showed sun, clouds, rain and a rainbow. The drawers emphasized the range of weather types to illustrate the range of emotions of the researcher during the research process.

The tree picture showed a tree with its roots in the ground, in leaf and bearing fruit. Air was shown freely circulating round the tree. The drawers emphasized the importance of the right environment to ensure growth and that fruits (knowledge) can be shared with others (Plate 2).

The pregnant woman picture was one of the few feminine images produced. It emphasized the idea of growing and giving birth to a thesis, with the pain and rewards involved.

The "dark side" of research

These images of tunnels and brick walls were the least optimistic and raised the dark and difficult aspects of research. Discussion ranged around the times when progress is blocked or researchers are confused about how to proceed. The dark tunnel with no light at the end represented the drawers' feelings of embarking into the unknown as well having no sense of optimism about eventual outcome. In the brick wall picture the drawer emphasized feeling blocked in their research process.

Images of researchers

The members of the three groups produced a total of nine images of researchers, as outlined in Table II.

Researchers searching

The image of the hunter has parallels with the examining, assessing and focusing images of research described above. As a hunter, the researcher is out following tracks, with the assumption that there is something out there to be caught.

Researchers as isolated

The interesting images of a monk and of silos raised a great deal of discussion about the isolated nature of the researcher role. The monk image evoked discussion of research as a vocation and, interestingly, about the origins of knowledge. Participants discussed the historical religious basis of knowledge, as well as issues of what becomes accepted as knowledge and how (Plate 3).

The silos image evoked discussion on the difficulties of inter-disciplinary research and the frustration new researchers feel in both trying to research across disciplines and in trying to access knowledge from other disciplines (Plate 4).

Researchers launching themselves

These images emphasized the mixture of emotions that researchers experience, especially when first embarking on their research careers. The drawers commented in particular on a mixture of feeling scared and exhilarated, which are neatly summoned by images of bungee jumping, diving and canoeing. Discussions in one of the wider groups led to a shared image of research as white-water rafting with its moments where great skill is necessary to keep control and other times of drifting along (Plate 5).

Researchers hatching out - chicken and egg

This image has some parallels with that of the pregnant women, but whereas the pregnant woman gives birth to her own thesis, the supervisor (chicken) helps the researcher (egg) to become ready to function alone.

Researchers not knowing

The images of the dunce and the head (like the tunnels and brick walls above) include some of the least positive aspects of life as a researcher and the pressures experienced (Plate 6).

Discussion

The individual in research

Engaging in the exercise of drawing their own images facilitated students to be conscious of and explore their own and others' metaphors and images of research and researchers. This opened up tacit assumptions for discussion and re-consideration. Following the presentation of the pictorial representations, discussions were wide-ranging. Views were shared on how it feels to begin research, outlining the mixture of positive and negative thoughts and emotions. We would argue that these discussions are beneficial in themselves, but they are also important in terms of the research process upon which, in particular, the Doctoral students are about to embark. They emphasize that researchers are real people and so are the researched.

Indeed, some potentially difficult areas for discussion may well have been opened up more easily because of the use of pictorial representation. For example, academic members of staff were students on the DBA course. Becoming (part-time) students again may mean they no longer perceive themselves (or are perceived by others) as experts. This could be a major challenge to identity, more readily raised through pictures than words.

Doctoral research training and supervision

As authors we have used the activity outlined in this article as an introduction to research. The activity serves to open wide-ranging discussion on the nature of research and the roles of the researcher, ideas which deserve priority. Symon and Cassell (2004, p. 8), for example, see "acknowledging underlying beliefs about knowledge and research as important aspects of research practice." In the case of the research students, the activity described here was followed by teaching sessions on the knowledge and skills required for effective research, supervision and the role of the supervisor, and reflexivity and reflective practice in research.

Traditionally research has been perceived as an individual, isolated endeavour, with the "ivory tower" images of academic contexts. Students identified experiencing a sense of isolation and discussed the possibility of developing networks to support each other through the research process. The role of the supervisor in supporting and guiding new researchers was a focus of further discussion. A PhD student claimed that creating the pictorial representation had helped him become conscious of his feelings about the difficult relationship he was having with his supervisor.

Research methods can be interesting...

Engaging with this activity could make research methods more interesting (Benson and Blackman, 2003). Our experience of conducting this exercise suggests that starting with them as individual researchers may provide a means of engaging and involving the students differently in research. There was enthusiastic participation in the pictorial representation activity, followed by broad-ranging discussions of feelings, concerns, practices and problems. The exercise served as a trigger to begin the process of learning about research and

developing oneself as a researcher. Oliver (1997) argues that research is more a process than a product. From this perspective, research is an endless activity and systematic enquiry becomes a way of life, encouraging us to become different people. This approach recognises that research is about engaging with a set of relationships as well as data and that teaching research methods should be about more than a mastery of a set of techniques.

Alternatives to positivism and quantitative methods

The process of drawing and discussing images opened up alternatives to positivism and introduced pictorial representation as a method they could use in their own research. The method introduces interpretivist approaches to research which Stiles (2004) claims explore feelings, emotions and values in order to 'understand the subjective experience of individuals' (Burrell and Morgan, 1979, p. 253 cited in Stiles, 2004, p. 128). Vince and Broussine (1996) chose to work with visual images in their research on organizational change specifically because they would give rise to emotional data. They cite Samuels (1993) claim that images span the divide between what appears to be individual, private and subjective and what appears to be collective, social and political. Using images of research and researchers provokes discussion of issues, which may be personal to individual researchers, and yet at the same time be central concerns in the research process. The positivistic notion of a neutral, detached researcher is challenged in this process.

Self-reflexivity

Reflexivity, "the critical appraisal of one's own research practice" (Symon and Cassell, 2004, p. 5), is becoming increasingly recognised as a crucial aspect of research. Indeed, Symon and Cassell (2004, p. 6) argue that "encouraging reflexivity in research practice should be a very important aspect of future research training in general." Techniques such as that described in this paper can help to begin the process of reflexivity at the beginning of the research by requiring student researchers to reflect upon and become critical of their views of what research is and could/should be and what researchers could and should be and do. Brew (2001, p. 282) argues "being clear about one's own way of viewing research provides a basis for making sense of others' conceptions."

Conclusion

In this paper we set out to share our insider accounts of a technique we use with our Doctoral students and research colleagues. By describing the process of the technique, and the resulting images, we have demonstrated that using images can open up individuals to otherwise closed or tacit issues about the research process and about their own personal anxieties and feelings. The nature of the technique opens up possibilities of alternative research approaches to positivism and quantitative methods. In addition, highlighting the individual researcher and his or her role in research opens up discussion of self-reflexivity.

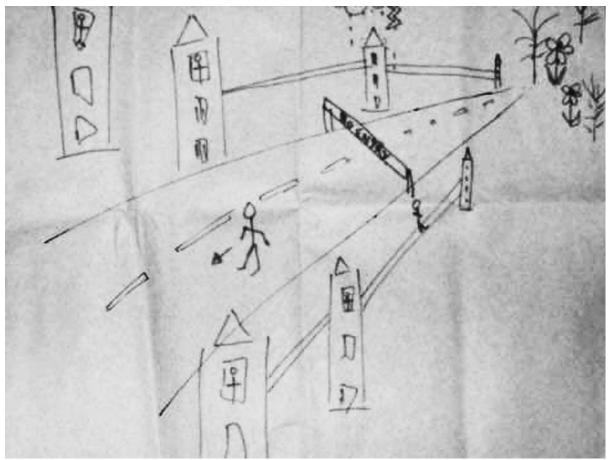


Plate 1Journey

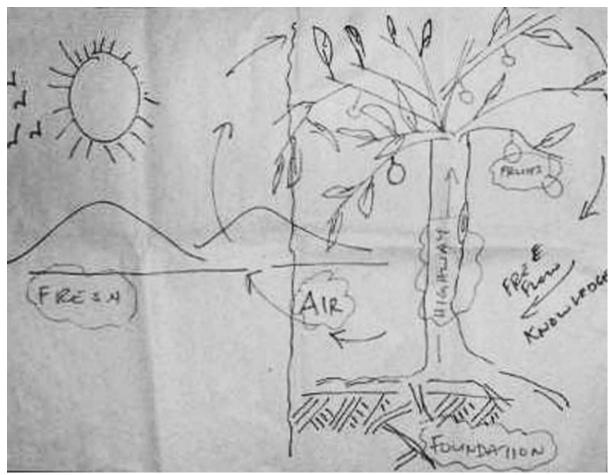


Plate 2Tree

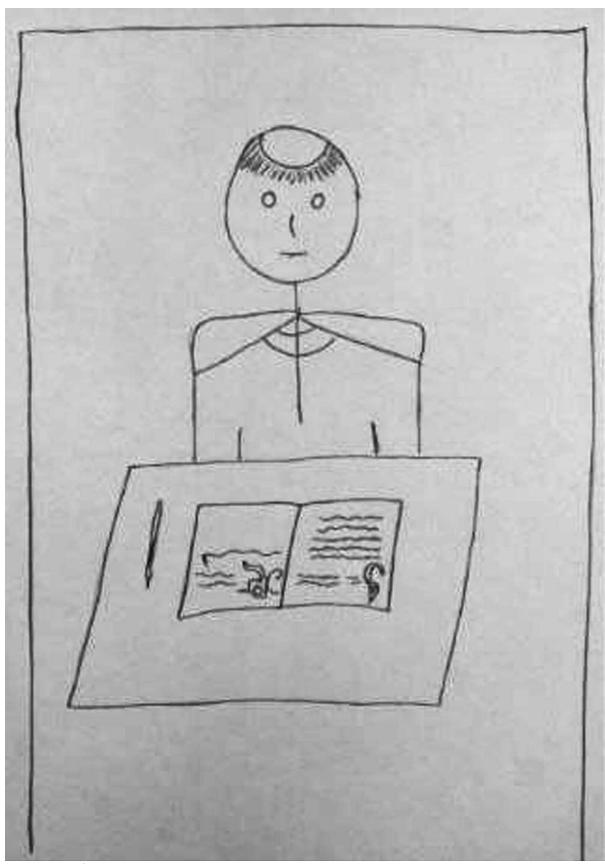


Plate 3Monk

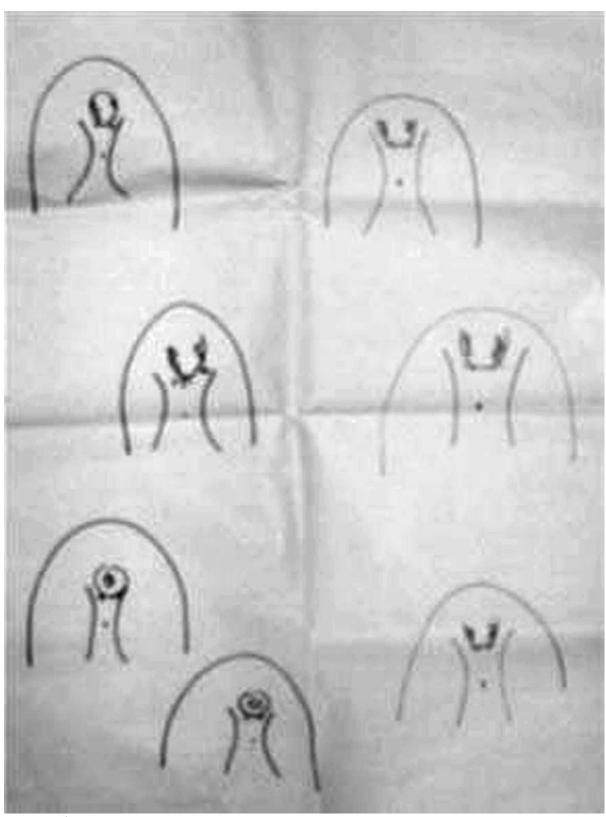


Plate 4Silos

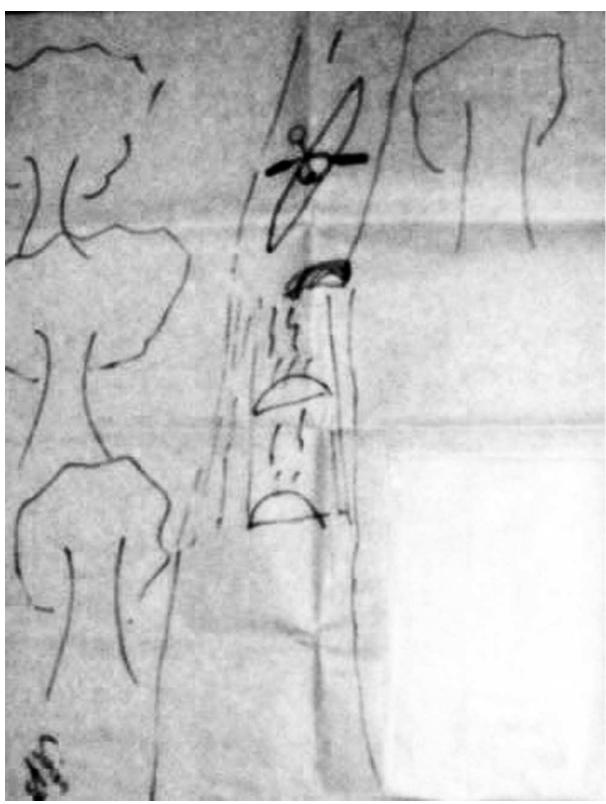


Plate 5Canoeist

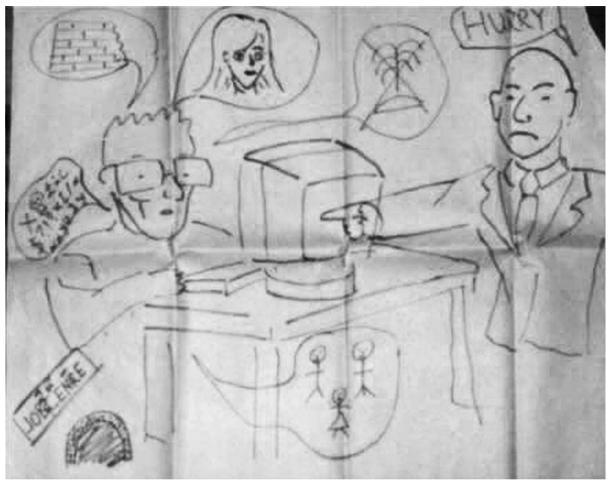


Plate 6Under pressure

Visual image	Key aspects	Drawer
Mountain climbing	Sense of achievement on reaching the top	Group 1 – DBA students
Journey	Road lined by the ivory towers of academia. Importance of the journey, not just the destination	Group 1 – DBA students
Tree	Needs right environment for growth. Fruits (knowledge) can be shared by others	Group 1 – DBA students
Weather	Sun, storm, rainbow – whole range of weather reflects whole range of emotions in the research process	Group 2 – PhD students
Tunnel	Dark tunnel with no light at the end. Embarking into the unknown. No optimism	Group 2 - PhD students
Brick wall	Progress blocked	Group 2 - PhD students
Scales	Balance of work and home lives. Carefully weighing ideas/evidence in research process	Group 2 – PhD students
Pregnant woman	Growing and giving birth to thesis. Pain and reward of research	Group 2 - PhD students
Magnifying glass	Examining ideas. Opportunity to look in detail	
Path through	Journey. Seeing the wood for the trees	Group 3 – Women's research
forest		group
Journey	No end, dead ends, brick walls. Ongoing	Group 3 – Women's research
Funnel	process of becoming a researcher Filtering ideas and channelling self. Starting broad and narrowing down	group Group 3 – Women's research group

Table IImages of research

Visual image	Key aspects	Drawer
Hunter	Searching for tracks. Sometimes researcher is on the right track and will find something, sometimes not	Group 1 – DBA students
Canoeist	Navigating steep and winding river through rocks and rapids. The journey and the skills needed along the way. Some parts are more difficult than others. White-water rafting – scary and exhilarating	Group 1 – DBA students
Monk	The focused nature of the work, the isolation and the satisfaction. Role of monks as creators and recorders of knowledge, as well as to the role of men in particular	Group 1 – DBA students
Diver	About to dive into the deep-end. Rocks and other obstacles below the surface	Group 2 – PhD students
Chicken and Egg	Incubating process (supervisor is the hen). The egg (research student) hatching, learning to fly off and lay own eggs	Group 2 – PhD students
Dunce	Feelings of not knowing enough. Continual feeling of realizing how much they do not know, rather than a growing feeling of expertise. Under pressure, especially from supervisor	Group 2 – PhD students
Head	Head described as full of question marks on the inside and weighed down on the outside by a pile of books	Group 3 – Women's research group
Bungee Jumper	Sense of teetering on the edge, about to launch herself. Feeling mixture of fear and exhilaration	Group 3 – Women's research group
Silos	Frustration that knowledge appeared to remain in separate subject-based silos. Desire to learn from other disciplines and the difficulty of engaging in inter-disciplinary work	Group 3 – Women's research group

Table IIImages of researchers

References

Images of researchers

Table II.

Benson, A., Blackman, D. (2003), "Can research methods ever be interesting?", *Active Learning in Higher Education*, Vol. 4 No.1, pp.39-55.

[Manual request] [Infotrieve]

Brew, A. (2001), "Conceptions of research: a phenomenographic study", *Studies in Higher Education*, Vol. 26 No.3, pp.271-85.

[Manual request] [Infotrieve]

Bron, A. (2000), "Existential, sociological and psychological dimensions in the analysis of immigrants' narratives. The education perspective", paper presented at The Education Perspective, Gender, Learning and Biography, Spring, 16-19 March, Roskilde, .

[Manual request] [Infotrieve]

Burrell, G., Morgan, G. (1979), *Sociological Paradigms and Organisational Analysis*, Heinemann, London, .

[Manual request] [Infotrieve]

Harding, S. (1987), "Is there a feminist method?", in Harding, S. (Eds), *Feminism and Methodology*, Open University Press, Milton Keynes, .

[Manual request] [Infotrieve]

Hughes, C., Tight, M. (1996), "Doughnuts and Jam Roly-Poly: sweet metaphors for organizational researchers", *Journal of Further & Higher Education*, Vol. 20 No.1, pp.51-7.

[Manual request] [Infotrieve]

James, K., Vinnicombe, S. (2002), "Acknowledging the individual in the researcher", in Partington, D. (Eds), *Essential Skills for Management Research*, Sage, London, .

[Manual request] [Infotrieve]

Kearney, K.S., Hyle, A.E. (2004), "Drawing out emotions: the use of participant-produced drawings in qualitative enquiry", *Qualitative Research*, Vol. 4 No.3, pp.361-82.

[Manual request] [Infotrieve]

Korthagen, F.A.J. (1993), "Two modes of reflection", *Teacher & Teacher Education*, Vol. 9 No.3, pp.317-26.

[Manual request] [Infotrieve]

Mavin, S. (2001), "The gender culture kaleidoscope: images of women's identity and place in organisation", University of Northumbria, Newcastle, .

[Manual request] [Infotrieve]

Meyer, A. (1991), "Visual data in organisational research", *Organisation Science*, Vol. 2 No.2, pp.218-36.

[Manual request] [Infotrieve]

Miles, M.B., Huberman, A.M. (1994), Qualitative Data Analysis, Sage, Thousand Oaks, CA,

[Manual request] [Infotrieve]

Morgan, G. (1997), Images of Organization, Sage, London, .

[Manual request] [Infotrieve]

Oliver, P. (1997), *Teach Yourself Research for Business, Marketing and Education*, Hodder and Stroughton, London, .

[Manual request] [Infotrieve]

Phillips, B. (1998), "Energy and performance: the power of metaphor", *Career Development International*, Vol. 3 No.1, pp.18-22.

[Manual request] [Infotrieve]

Samuels, A. (1993), The Political Psyche, Routledge, London, .

[Manual request] [Infotrieve]

Stiles, D. (1998), "Pictorial representation", in Symon, G., Cassell, C. (Eds), *Qualitative Methods and Analysis in Organizational Research*, Sage, London, .

[Manual request] [Infotrieve]

Stiles, D. (2004), "Pictorial representation", in Cassell, C., Symon, G. (Eds), *Essential Guide to Qualitative Methods in Organizational Research*, Sage, London, .

[Manual request] [Infotrieve]

Symon, G., Cassell, C. (1999), "Barriers to innovation in research practice", in Cunha, M., Marques, C. (Eds), *Readings in Organization Science – Organizational Change in a Changing Context*, ISPA, Lisbon, pp.387-98.

[Manual request] [Infotrieve]

Symon, G., Cassell, C. (2004), "Promoting new research practices in organizational research", in Cassell, C., Symon, G. (Eds), *Essential Guide to Qualitative Methods in Organizational Research*, Sage, London, .

[Manual request] [Infotrieve]

Tietze, S. (1998), "The role of language in the process of creating meaning in a professional organisation", Sheffield Hallam University, Sheffield, .

[Manual request] [Infotrieve]

Vince, R., Broussine, M. (1996), "Paradox defense and attachment: accessing and working with emotions and relations underlying organizational change", *Organization Studies*, Vol. 17/1 pp.1-21.

[Manual request] [Infotrieve]

Waring, T., Mavin, S., Bryans, P. (2004), "Towards reflexive practice in management research", paper presented at the Crossing Frontiers in Qualitative and Quantitative Research Methods, Academy of Management Conference, Lyon, March, .

[Manual request] [Infotrieve]

Zuboff, S. (1988), *In the Age of the Smart Machine: The Future of Work and Power*, Heinemann Professional, Oxford, .

[Manual request] [Infotrieve]

About the authors

Patricia Bryans is Principal Lecturer and Programme Director of Postgraduate Corporate Programmes at Newcastle Business School, Northumbria University. She specialises in designing and delivering management development for organizations. She teaches Advanced Personal and Professional Development and Research Methods at Doctoral level. Patricia's research is concerned with informal learning at work and management development, especially women in management. She has published, presented and reviewed for a wide range of international journals and conferences. Patricia Bryans is the corresponding author and can be contacted at: patricia.bryans@unn.ac.uk

Sharon Mavin is Associate Dean – Research and Academic Leader for ORHM, at Newcastle Business School, Northumbria University. Her primary research and consultancy expertise concerns OB and management development, innovation and social architecture, individual and organisational learning and women in management. Recent research concerning senior women has received national attention. Sharon is European Editor of the Learning Organization: An International Journal; an active referee for international journals and conferences and has delivered numerous international conference papers and publications.