

# Using concept mapping to develop a curriculum for career studies

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My goal in this paper is to offer a simple example of a career studies curriculum developed using the technique of concept mapping. In doing this, my intention is to help others construct their own courses, and so I would like to state quite clearly that what follows is simply an example of what a career studies curriculum might look like, it is not intended as a model or set of instructions. It is desirable, and in my view, essential, that course designers design their own courses and learning outcomes for their own contexts. I will make some preliminary remarks about concept mapping, explain my own career studies concept maps, and then use these to suggest eight workshops for use with participants. These workshop ideas will be relevant to designers of courses in career education, career development, employability, personal development, professional development, enterprise and career management skills.

## Concept mapping in brief

I have been influenced by the work of Amundsen *et al.* (2008) who have used Novak's concept mapping techniques to support the analysis and development of course content by course designers. Concept mapping is valuable in our context as we are still at the early stages of discussing and debating what a career studies curriculum might look like. The concept maps enable us, as course designers, to articulate the kinds of concepts that are relevant to a particular course<sup>1</sup>.

Turning to the practice of concept mapping, Amundsen *et al.* outline the following process to help instructors develop their course concept maps.

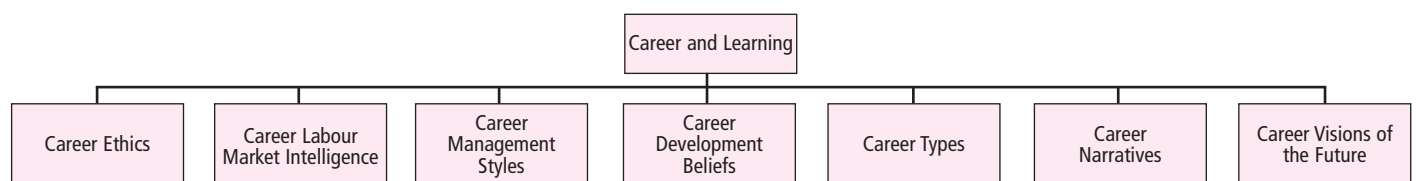
1. Write down everything that comes to mind that you consider important in the course you are designing.
2. Go back and read through what you have written and try to reduce the number of ideas or concepts by circling those you consider most important.
3. Write each of the circled concepts on a Post-it note.
4. Sort the post-it notes into meaningful clusters or groupings.
5. Label each cluster and write the labels on a Post-it note. These labels will probably reflect the key concepts you will use in your map, but this may change.
6. Arrange these labels (key concepts) in a way that is meaningful to you.

Amundsen *et al.* 2008: 652

In respect of (3) and (6) above, I have found it helpful to re-arrange the Post-its several times in order to sift and sort the concepts. Simply using a pen and paper to draft clusters can also work effectively. I then transferred these clusters to a more formal document using the 'Insert' and 'Illustrations' tools in MS Word (there are other bespoke software packages). My career studies concept map is shown in Figure 1, this is a general outline map that could be used to inform career studies teaching at arrange of ability levels, educational and workplace contexts. It contains eight clusters of concepts: Career and Learning; Career Ethics; Career LMI; Career Management Styles; Career Development Beliefs; Career Types; Career Narratives; and Career Visions of the Future. I will now explain the process of mapping these clusters of concepts in more depth.

All of the clusters were derived from my knowledge of the career studies literature, my professional experience of working with students as a career counsellor and lecturer, and my own experience of being a worker and a student. For example, the 'Career Management Styles' cluster was derived from the both the extensive debate in the literature on competing forms of career management, and the different versions I hear students talking about ('sell yourself', 'get the best paid job you can', 'live in the moment', 'do something meaningful', etc.). A further example is provided by the 'Career Narratives' cluster. In

Figure 1. Developing a Curriculum for Career Studies: Outline Key Concept Map



everyday life people produce CVs and application forms and these constitute a form of career narrative, however, we are also surrounded by narratives and stories about career on TV, in the web, in the workplace and in the press. For example, I have found myself writing brief autobiographies for use on my university course web site and as conference speaker notes. So these contrasting genres of career narrative provide a basis for this cluster.

In general, I created the clusters by sorting the literature and my experience into a particular shape. For example, in creating the 'Career and Learning' 'Career Management Styles' and 'Career Types' clusters, I am claiming that the literature on these topics is in some respects distinct both relative to each and with respect to other clusters such as 'Career Development Beliefs' and 'Career LMI'. A selection of the literatures informing those three clusters is summarised in Tables 1, 2 and 3.

**Table 1**

Author(s)	Career and Learning
Jung (1954)	Development of Personality
Argyris and Schon (1974)	Theory in Practice
Willis (1977)	Learning to Labour
Kolb (1984)	Experiential Learning Theory
Simon <i>et al.</i> (1991)	Learning Work
Lave and Wenger (1991)	Situated Learning
Law (1996)	Career Learning
Mitchell and Krumboltz (1996)	Learning Theory of Career Choice and Development
Bowman <i>et al.</i> (2006)	Learning Career
Watts (2006)	Career Development Learning

**Table 2**

Author(s)	Career Management Styles				
DOTS (Law and Watts 1977)	Self awareness	Opportunity awareness	Decision learning	Transition learning	
Career Competencies (DeFillippi and Arthur 1996)	Knowing why	Knowing how	Knowing whom		
Planned Happenstance (Mitchell <i>et al.</i> 1999)	Curiosity	Persistence	Flexibility	Optimism	Risk taking
Career Self-Management Behaviours (King 2004)	Positioning	Influencing	Boundary managing		
Career Competencies for the Modern Career (Kuijpers and Scheerens 2006)	Career reflection	Work exploration	Career control	Self-presentation	
CareerEDGE (Pool and Sewell 2007)	Career development learning	Experience	Degree subject knowledge	Generic skills	Emotional intelligence
SOAR (Kumar 2007)	Self	Opportunity	Aspirations	Results	

**Table 3**

Author(s)	Career Types			
Willis (1977)	Lads	Ear'oles		
Brown and Hesketh (2004)	Players	Purists		
Bimrose <i>et al.</i> (2006)	Evaluative	Aspirational	Strategic	Opportunistic
Tomlinson (2007)	Rebels	Retreatists	Ritualists	Careerists
O'Regan (in press)	Instrumentalists	Hesitators	Introspectives	Learners

This process of separating into clusters naturally involved acts of subjective judgement and discrimination on my part. For example, it seemed to me that career management concepts emphasise a set of aspirational ideas about what people *should* do to manage their careers (prescribed behaviours such as networking and being flexible), whereas career development concepts are analytical ideas about how *it is* that people occupy the careers they do (explained in terms of emphasis on gender, socio-economic class, age, personality, chaos and so on). I believe that there is a case for making these distinctions and that they have value. However, I do not pretend that the curriculum could not be divided up in alternative ways or that a different set of concepts could not be selected from the same or indeed contrasting literatures and experiences.

In terms of explaining the structure of the concept map, 'Career and Learning' appears as a cluster in the first row. This indicates that it is a helpful, although not essential, precursor to the development of second row concepts. I have placed it here because, although the view that career can be learnt is familiar to some, I do not think it is a good idea to assume that all course participants will automatically believe that career can be learnt, and indeed taught, or that they all have the same idea about what career is. For example, in everyday speech career is often interpreted as something that takes place once education is complete. Here, I have been influenced by the work of Tony Watts and others on metacognition (simply put, learning how to learn) and its importance in career development learning, and so this cluster is about *learning how to learn* in the field of career studies (Watts, 2006; Yorke, 2006; Yorke and Knight, 2006). The remaining clusters collectively appear as second row clusters and in no strict order. This indicates that whilst the individual clusters are clearly all connected, they could be mixed and matched as separate topics and indeed added to. The importance of the 'Career Development Beliefs' cluster is highlighted by its central position within the second level row.

### From key concepts to practical teaching

Having summarised how I arrived at the eight clusters, I would now like to take a further step and explain how each of the eight key concept clusters might relate to the design and teaching of a career studies course. In order to

construct any course, some kind of context is required, and so the context I have chosen for this article is a relatively short course or module of career studies for mixed undergraduates pursuing a range of degrees in vocational and non-vocational subjects (for a credit-bearing career studies module, the equivalent of around 15 credits out of 360 in the Framework for Higher Education Qualifications).

I have envisaged each of the eight key concept clusters as relating to a single two or three hour workshop in an eight-long series, I would now like to introduce each of these workshops in turn. I have not produced full workshop plans in the space and time available, but have sketched some basic learning outcomes and initial ideas that may help course designers develop more detailed workshops.

### Career and Learning

This workshop is designed to help each participant develop a view about which aspects of career can be explicitly *learnt* and indeed taught. This is a foundational concept for the career studies course but may be omitted if participants are already familiar with these concepts.

- 1/ Knowledge and understanding: participants will be able to describe at least two approaches to tacit and explicit career-related learning.
- 2/ Evaluation and application: participants will be able to evaluate these concepts and apply this to the study of their own careers and the careers of others.

This topic can be introduced and experiences shared by facilitating blue sky thinking around career-related learning experiences, augmented with images of career obtained from the web and elsewhere. The concepts of tacit and explicit career-related learning can be introduced and developed using slides summarising the work of Argyris and Schon (1974: 6-7), Mitchell and Krumboltz (1996: 244-45) and Hodkinson (2009: 6-8) and relating this to the overall programme of workshops. Whilst I am suggesting that this topic is introduced at the start of the course, it may be that the concepts are not fully developed in the minds of participants until the course is completed or indeed later.

### Career Ethics

This workshop is concerned with helping participants understand and share perspectives on contrasting career ethics. This could naturally encompass a great variety of topics, and, in this example, I have selected the contrasting ethics of 'work as self-fulfilment' versus 'work as a means to an end'.

1/ Knowledge and understanding: participants will be able to describe at least two forms of work ethic.

2/ Evaluation and application: participants will be able to evaluate and apply this in a work context.

The topic can be introduced and informal beliefs elicited with the use of poetry on this theme, for example, Philip Larkin's *Toads* and *Toads Revisited* and Sheenagh Pugh's *The Bereavement of the Lion Keeper* (Larkin 2003; Pugh 2006). Popular music, images and other cultural artefacts are also appropriate. More detailed examples from the social studies field can then be explored through the use of Noon and Blyton's *The Realities of Work* (2006). In terms of application, participants can be invited to interview people about work ethics, and develop their own views about the neatness of the distinction between self-fulfilment and instrumentalism.

### Career Labour Market Intelligence (LMI)

This workshop is designed to help participants recognise and evaluate different forms and sources of LMI. The emphasis is on helping participants develop their own views about the state of the labour market, employer requirements and the quality of LMI sources.

1/ Knowledge and understanding: participants will be able to recognise at least three contrasting sources of career labour market intelligence (LMI).

2/ Evaluation and application: participants will be able to evaluate these sources and apply this to researching own career goals.

In this session participants are asked to focus on at least three contrasting sources of LMI such as a video case study, a quantitative study and occupational career information. To illustrate, icoold (2009), Skillset (2007) and Byron (2009) are examples of such sources for the occupational area of broadcast journalism. With regard to each LMI resource, participants are asked to consider the questions: What have you learnt about this career area? What is missing from each account? How was the LMI produced? Tutors should issue a worksheet in which participants can note their views on the strengths and weaknesses of each LMI source. Participants can subsequently be invited to select and evaluate three LMI sources relevant to their own career interests.

### Career Management Styles

This workshop is based on the contrasting views about career management that exist in both formal (e.g. scholarly books, journal articles) and less formal contexts (e.g. popular literature, newspaper articles, everyday career 'advice'). Examples of the latter could include so-called self-help books such as *I Can Make You Rich* by Paul McKenna and *The Art of Building Windmills* by Peter Hawkins.

1/ Knowledge and understanding: participants will be able to describe in basic form at least two contrasting career management styles.

2/ Analysis and application: participants will be able to analyse the above and develop their own career management style.

The topic can be introduced by asking participants to identify familiar career management styles via a two-minute blue sky thinking session (e.g. 'It's not what you know, but who you know', 'You should earn your age' or 'You should choose the best-paying job'). The tutor will need to select at least two theories of career management in order to develop the session. It is useful to select at least two because this helps to illustrate the fact that there are competing claims about career management, and avoids identifying the tutor too strongly with one particular approach at this point. I find that DOTS (Law and Watts, 1977) and Planned Happenstance (Mitchell *et al.* 1999) provide a good contrast because of the different approaches to structure and open-endedness in each, but there will be other pairings that are appropriate depending on the group (see Table 2). Participants can be asked to consider which career management style feels right for them and to identify the pros and cons of each style. The final step is for each participant to construct a career management style of their own. This can be done in class if there is time, or in participant's own time if not.

### Career Development Beliefs

This workshop is designed to enable participants to link some formal theories of career development with their own informal beliefs and construct alternatives.

1/ Knowledge and understanding: participants will be able to describe in basic form at least four theories of career development.

2/ Analysis and application: participants will be able to analyse the above and outline their own theory of career development.

This topic can be discussed and knowledge shared using a reasonably contrasting selection of career development theories. I have selected the following four theories: inheritance, cycle, fitting and chaos. There are good textbook chapters on inheritance, cycle and fitting in

Inkson (2007). There is a summary of the chaos theory of careers in Pryor *et al.* (2008) and an introductory video (Bright 2009). A career family trees exercise can be used to contextualise this material (see Kerr Inkson's article in this journal edition) and McCash (2009).

### Career Types

This workshop focuses on an area of active research in career studies that does not fit neatly into either theories of career development or career management (although they can be linked). Specifically, this is the sub-field of career typologies; studies in which respondents' orientations to *career* as opposed to specific job fields are analysed.

1/ Knowledge and understanding: participants will be able to describe at least two career typologies.

2/ Analysis and application: participants will be able to use the above to analyse the advantages and disadvantages of different 'types' and apply this to career development and management.

My view is that the tutor will need to select at least two typologies, although it would be possible to use one in a shorter session. It is important, in introducing the topic, that the tutor does not express a strong preference for any one 'type' as this may pre-empt articulation of participants' views. I have selected Bimrose *et al.* (2006) and Tomlinson (2007) for this workshop, although other useful studies are available (see Table 3).

To introduce this topic, ask participants about type terms that are used within their social groups, for example, the terms 'geek', 'jock', 'waster', 'raa' and 'stoner' were recently discussed in a student newspaper article (Scott, 2009). Develop the workshop by introducing the two career typologies and state why these two have been selected. It is important to bring out that none of the studies focus on exactly the same aspect of career. For example, Bimrose *et al.* (2006) researched styles of career decision-making, whereas Tomlinson (2007) looked at student attitudes and orientations to the labour market. It is also important to explain the nature of the research (qualitative, survey group, size of group, methodology, etc.) this again helps to illustrate that we are looking at claims about people and not absolute truths. On an individual basis, ask participants to reflect on each typology and any further participant-generated types. There may be a light bulb moment when participants strongly identify with (or reject) one particular type, equally, participants may wish to articulate critical reflections on the division of types. Then, in larger groups, allocate one or more types to each group and ask them to identify the advantages and disadvantages of each type. Ask groups to feedback, and share some of your own views on this topic. The final step is for participants to construct some related questions and conduct field research. This can be done during the workshop if there is time or in the participants' own time if not, and then debriefed at a subsequent session.

### Career Narratives

This workshop is designed to help participants recognise different versions of career narrative, and develop the ability to evaluate and apply these.

1/ Knowledge and understanding: participants will be able to identify at least three genres of career narrative.

2/ Evaluation and application: participants will be able to compare and contrast these genres, and assess their value in career management.

It is helpful, although not essential, if participants have had already had an opportunity to construct a career narrative such as a CV and a piece of creative writing (for the latter, see Celia Hunt's and Mark Savickas's articles in this issue).

The topic can be developed and experiences articulated through the sharing of three contrasting *genres* of career narrative: role entry genre, role development genre and life writing genre. Practical examples can include: a CV, a creative writing exercise, a web biography, an application form personal statement, a magazine article, an interview, a performance appraisal report and a reference.

Participants should be encouraged to engage in discussion around the typical characteristics of different genres and the similarities and differences between them, such as first person and third person narratives, the degree of personal content, and manifest and tacit meanings. The role of narrative in career *making* as well as job entry is highly relevant. Audio and video narratives can supplement the workshop, further examples can be found in Beyond the PhD (2008) and icould (2009).

### Career Visions of the Future

The rationale for this workshop lies in the existence of competing and contrasting visions of the future, and the implications of this for the careers of today and tomorrow.

1/ Knowledge and understanding: participants will be able to identify contrasting career-relevant visions of the future.

2/ Evaluation and application: participants will be able to evaluate these contrasting visions and plan responses.

Participants should be asked to listen to contemporary and historical visions of the future obtained from popular culture. Currently, I find the following video-based 'visions' suitably contrasting and controversial: GM Futurama (1939); E4AUK2 (2007); Bright (2009) and Reinvention Centre (2008). These can be supplemented with more complex printed material (for example, Brown *et al.* (2001); HM Government (2009); Shepherd and Rowe (2000)). It is important that the use of a particular vision is not presented as an endorsement by the tutor, the emphasis here is on critique. Participants can be issued with a handout containing questions to consider in listening to these visions of the future (e.g. How is the film's point of view constructed? Whose points of view are represented? Whose points of view are not represented? What evidence supports the claims made?).



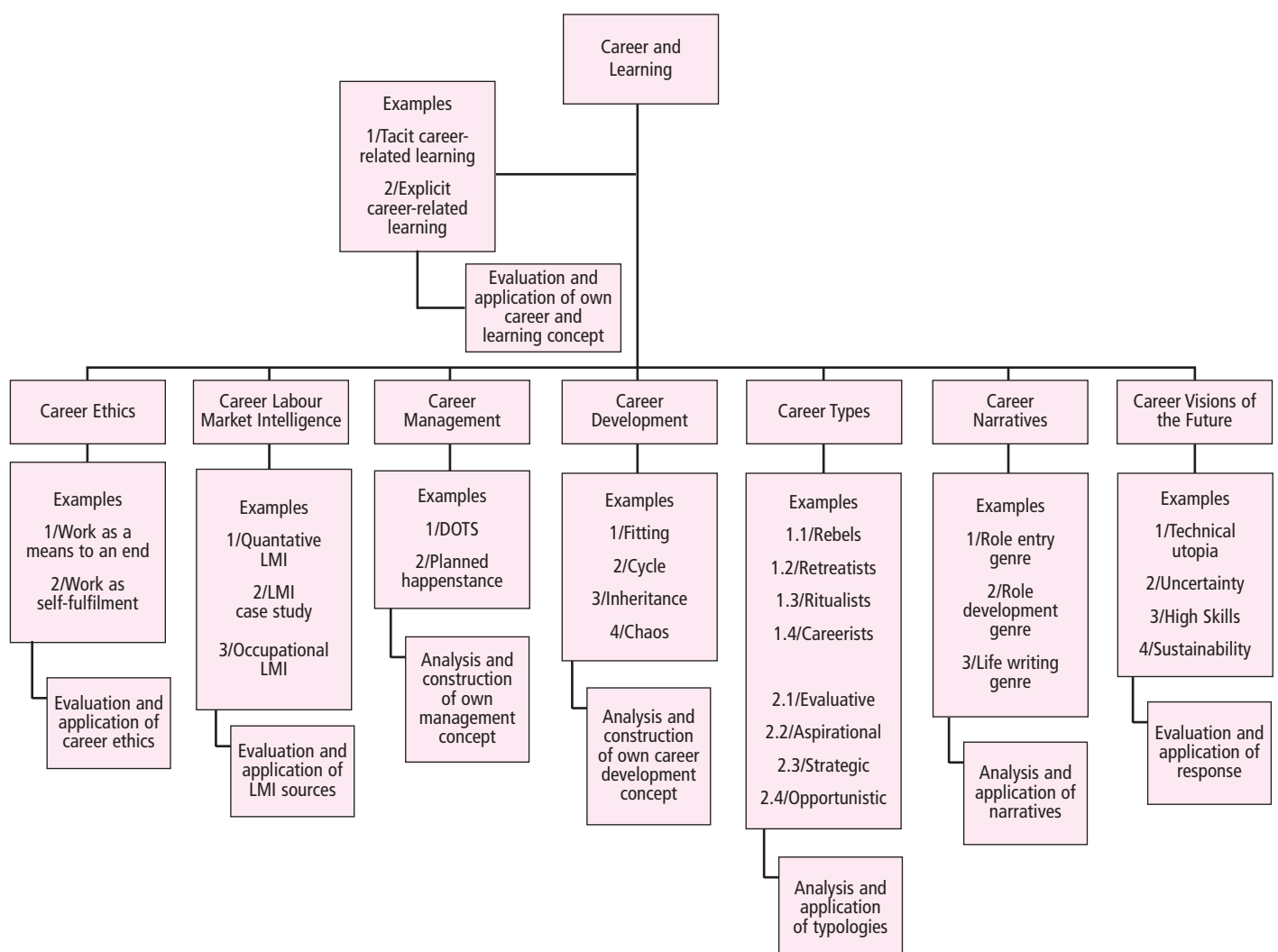
Participants can be asked to collect and share additional examples of career visions of the future, and construct categories of these visions such as: technical utopia; uncertainty; high skills; and sustainability. It is important that participants use their evaluation of these contrasting visions to consider what this means for today's careers. Aspects of this session design are directly derived from a longer exercise entitled *Future Work* in Simon *et al.* (1991: 185-95).

### The workshops: summary

Having explained each workshop in more depth, I would now like to revisit the overall concept map introduced in Figure 1 and populate it with the more detailed workshop concepts discussed above. Figure 2 illustrates such a worked example, it shows third row concepts based on the tutor-led content of each workshop, and fourth level concepts based on participant-led concept construction.

As stated above in relation to the formation of the initial clusters, I have been deliberately *selective* in constructing these workshops. Inevitably, this has meant sifting and sorting the literature into a particular shape, and leaving much out. For example, in the design of the 'Career and Learning' workshop, I chose to focus on the key concepts of *tacit* and *explicit* career-related learning. This made particular use of the work of Argyris and Schon (1974: 6-7), Mitchell and Krumboltz (1996: 244-45) and Hodkinson (2009: 6-8), and paid less attention to the important work of other writers. This also meant being highly selective about which aspects of a writer's work to use. For example, in the above session, I chose to focus on the concepts of theory-in-practice, world view generalisations and dispositions. This inevitably involved neglecting each writer's respective contributions on, for example, double loop learning, associative learning or turning points.

Figure 2. Developing a Curriculum for Career Studies: Key Concept Map with Workshop examples



I have sought, in the limited space afforded by eight workshops, to acknowledge the transdisciplinary nature of career studies. For example, the design of the 'Career Ethics' workshop draws from perspectives in literature and social studies. 'Career Development Beliefs' reflects psychological and sociological views of career development, and 'Career Narratives' acknowledges imaginal and affective forms of learning from creative writing traditions. This transdisciplinary turn in career studies indicates a pressing need for more educational resources in our field.

The design of each workshop recognises that there is a significant and contested literature in career studies, and that many individuals outside the academy also have thoughts and feelings about the topics under consideration. For these reasons, it is vital to enable participants to articulate their ideas and feelings on these subjects both at the start and end of the workshops.

### Closing remarks

In terms of course design, smaller courses could be designed by selecting individual workshops from the eight proposed. Larger courses could be developed by deepening engagement with these concepts, and considerably adding to the conceptual mix. The course is designed for application in both face-to-face teaching and virtual learning environments. The teaching context of this course is higher education-based, however it could easily be adapted to a school, college or workplace setting, for example, I am currently working on the reimagining of workplace career development programmes using this method. There is no reason why it could not be taught outside the formal curriculum or online, indeed some of the video and audio-based workshops would work particularly well in virtual learning environments. The eight clusters identified could also be used to inform career information, advice, guidance and counselling work.

It is important to note that developing a concept map of career studies and developing a series of workshops requires the development of a level of familiarity with the literature on these topics. This has implications for professional development and training. For example, staff will need time to develop and maintain familiarity with the evolving career studies literature, and then reflect on this in terms of re-designing programmes. This could take place via further formal postgraduate study, supported workplace reflection or independent learning.

I have taken a broadly constructivist pedagogical approach in developing the workshops. I mean by this that I place an emphasis on the participants' construction and refinement of concepts, their self-observation and world-view

generalisations, to use Mitchell and Krumboltz's (1996) terms. This perspective places the participant at the centre of the teaching process and emphasises the role of the participant in re-creating and indeed re-developing the key concepts in our field. In this respect, it is worth emphasising that the concept clusters contain concepts both from academic literature and everyday experience, and that the fourth row clusters shown in Figure 2 contain explicitly participant-generated concepts.

In relation to this, I have taken a 'teach not tell' approach to workshop design, this means moving the curriculum from *telling* career to *facilitating* career-related learning. This is a key issue for our field and one that has been identified by another symposium workshop contributor, Laurie Cohen of Loughborough University Business School, as a move away from the language of 'ten top tips' to helping participants analyse, evaluate and apply ideas about career. Aside from what are, in my view, compelling ethical considerations, the advantage of doing so is that 'told' students have only surface ownership of learning, whereas co-participants, in creating and developing knowledge anew, develop greater ownership.

Again, in connection with the above, I have taken a research-informed teaching approach. One of the reasons why I find it unjustifiable to 'tell' career is because there are clearly very research-active areas in career studies and new ideas and approaches are appearing on a regular basis. For example, many contrasting approaches to career management have been argued recently, and at least four new career typologies have been proposed in the past 10 years alone (as can be seen in Tables 2 and 3). The adoption of a research-informed approach to teaching, therefore, respects the literature in our field and those who contribute to it. Further, I would suggest that participants are respected through course designers *not* pretending that there are easy answers or pet solutions to career questions that have interested many scholars and others. I believe that this approach is consistent with the ideal of a research-informed curriculum in higher education.

### Acknowledgments

I would like to acknowledge that, in the construction of the concept map and workshops, I have been influenced and inspired by Catherine Reynold's work on concept mapping at the universities of Sussex and Reading, Angus McKendrick's work on teaching career development theory at Oxford, and Jo Moyles' work on teaching career management styles at York and Oxford Brookes.

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