



## Talking about career

The language used by and with young people to discuss life, learning and work

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## International Centre for Guidance Studies

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## Introduction to the National HE STEM Programme

1. The National HE STEM Programme supports Higher Education Institutions in the exploration of new approaches to recruiting students and delivering programmes of study within the Science, Technology, Engineering and Mathematics (STEM) disciplines. It is supported through a three-year grant from the Higher Education Funding Councils for England and Wales (HEFCE & HEFCW).
2. The Programme's aim is to influence long-term university practices at an individual, departmental and faculty level by engaging staff directly in the development and delivery of activities. Through collaboration and shared working it seeks to embed sustainable approaches that will be a core part of Higher Education STEM sector practice for years to come.
3. The activities of the Programme are focused upon the disciplines of Chemistry, Engineering, Mathematics and Physics which were deemed strategically important and vulnerable by the Higher Education Funding Council for England (HEFCE) in 2004.
4. The National HE STEM Programme is hosted by the University of Birmingham and delivers its activities through a distributed model with a central hub and six regional spokes based at Universities in England and Wales. Alongside the spokes sit four professional bodies also working as partners on the Programme; the Royal Society of Chemistry, Institute of Physics, Institute of Mathematics and its Applications, and the Royal Academy of Engineering.
5. Since its inception in 2009 the Programme has initiated a wide range of activities across England and Wales of varying scales related to its three areas of activity:
  - a. Widening participation within the STEM disciplines at university level, by supporting HEIs to work with those currently within the school and FE sectors;
  - b. Higher education curriculum developments focusing upon course delivery and design and student support, to enhance student knowledge, progression and skills;
  - c. Encouraging those currently within the workforce and society to engage with further study to develop enhanced knowledge and skills.

For more details on the work of the Programme, please visit [www.hestem.ac.uk](http://www.hestem.ac.uk).

The Midlands & East Anglia Spoke has sponsored this strategically important research by the International Centre for Guidance Studies, University of Derby to support one of the Programme's flagship projects to work with national Science & Discovery Centres in the development of 21st century technology to help pupils, teachers, parents and careers advice and guidance professionals make informed subject choice decisions.

Programme Key Aims and Objectives relative to this project:

- a. To develop infrastructures which enable the higher education and employment sectors to offer a collaborative and sustainable supply of life-long learning opportunities to support the future UK workforce from school, during university and within the workplace.
- b. To develop innovative and transferrable models and programmes of activity across the STEM disciplines relating to access, skills development and employer engagement through the integration and strategic development of existing activities, initiatives and resources, that will offer demonstrable long-term benefit.

- c. To develop an efficient, effective and adaptable programme of national activity that responds to emerging sector needs, national and devolved policies and priorities, and offers a high quality experience to all who engage with it.

## **The Project**

- i. The Science & Discovery Centres project entails the creation of a facility where learners, teachers, parents and careers information advice and guidance professionals can explore and begin to understand the 'journey' from school to university and into the workforce.
- ii. Working in partnership with Midlands Science & Discovery Centres to develop and pilot an innovative, flexible, scalable model for transfer into other public venues across England and Wales in a cost effective and sustainable way.
- iii. It should understand and contribute to meeting local and regional needs.
- iv. Collaboration with key stakeholders and providers is essential in order for both content and delivery to reflect consideration of what provision already exists and where this project can address potentials gaps to inform learner decisions about their future pathways.

## **Project Goals**

- Stimulate widening participation by those groups of traditional age who would not naturally consider applying to attend university.
- Provide comprehensive, easy to understand information and experiences for university course applicants by providing Higher and Further Education Institutions requirements detail and pathways to a STEM career by exploring and building on national initiatives to raise the profile of the value of STEM careers work to date.
- Stimulate, inform and excite learners 11-19 years about the benefits that a degree can offer.
- Work collaboratively with key partners.

## Executive Summary

This report describes the findings of research conducted by the International Centre for Guidance Studies (iCeGS) at the University of Derby on behalf of the national HE STEM programme. The research set out to understand how young people conceptualise career vocabulary in order to help those tasked with supporting their career decision making to do so in a way which was both engaging and effective. The research found that there is considerable confusion about a range of career vocabulary both amongst young people themselves and between young people and the adults who seek to influence and inform their careers. This report has also argued that confusion about vocabulary cannot simply be solved by teaching young people the “correct” meaning of different words.

The report explores the relationship between the words that we use to talk about career and the way that we think about career. In particular it examines how the different vocabulary and conceptions of career held by young people and adults complicate the career learning that takes place both in school and outside of school. The report notes that current policy suggests that schools are going to have to take increasing levels of control over careers education and a key element of this is supporting teachers and other adults working with young people to talk more effectively about careers and related issues.

The report argues that it is important that career educators attend to the career literacy levels of learners and pay close attention to the career vocabularies that they utilise. In particular an argument is made that those young people who are considering STEM careers have additional vocabulary and concepts to learn that relate to the disciplines and sectors within which STEM careers are pursued.

The report explores how people talk about career and identifies a range of factors that are likely to influence this. It demonstrates that there is considerable diversity in the ways in which people define and use a word like “career”. It notes that people often use metaphors to describe the concept of career and identifies a wide range of different metaphors that people use. As with the choice of particular vocabulary, the choice of metaphor suggests different ideas about career which educators are likely to want to explore and, at times, challenge.

The research was conducted during autumn 2011 and involved interviews with 82 young people, and nine career helpers from schools and organisations largely based in the Midlands. This is a small scale study and the results are therefore presented to open up debate and thinking in this area and do not constitute an exhaustive exploration of the subject. The main findings of the research are presented under five headings each of which represents a major theme of the research. These are explored in more detail in the main body of the report.

### Talking about career

The language that young people use about career was highly varied, but key themes included the following.

- Most young people between the ages of 11-19 were able to define the term “career” but there were some important differences in the way they understood the term.
- The definitions that were given of career became progressively more sophisticated as young people got older and were increasingly related to their own personal aspirations.
- Young people often reported that the word “career” was a “teacher word” that they only used when they were engaging with adults.
- When talking to each other young people reported avoiding the word “career” and preferring to talk about “the future” or “what you are going to do when you leave school”.

Teachers and advisers talked about career in different ways to young people. However, as with young people there was diversity in how this group discussed the issue.

- Some teachers and advisers used career in a broad way to describe a “route through life” while others used it more narrowly to relate to work and learning or even just to paid work.

- Some teachers and advisers reported trying to differentiate the way in which they talk about career for different groups of learners or age groups.
- Some teachers felt that they lacked expertise in the area of careers and this hampered their ability to have career conversations.

The adults acting as STEM role models that participated in this research defined career as a complex interaction between learning, life and work. However, many also stressed the importance of the work context as the place in which most of career was enacted.

## Defining key career concepts

The report identified ten key career words or concepts that occur frequently in web-based career information and resources.

1. Work
2. Job
3. Skills
4. Training
5. College
6. Sixth form
7. Apprenticeship
8. Qualifications
9. University
10. Industry

The research found that both young people and the adults who work with them were able to define all or nearly all of these terms. However, the definitions that were used varied considerably. Given this it is suggested that discussion of these words and other terms that are identified as important could be a useful way to stimulate career thinking. In many cases there is no “correct” definition, rather the definitions people use convey meaning about the way in which they think about career.

## Talking about STEM occupations

Previous research has identified that young people often find it difficult to build a mental picture of what is involved in STEM careers. Relatively few young people report having any direct experience of scientists and frequently fall back on stereotypical media presentations of what these careers might involve.

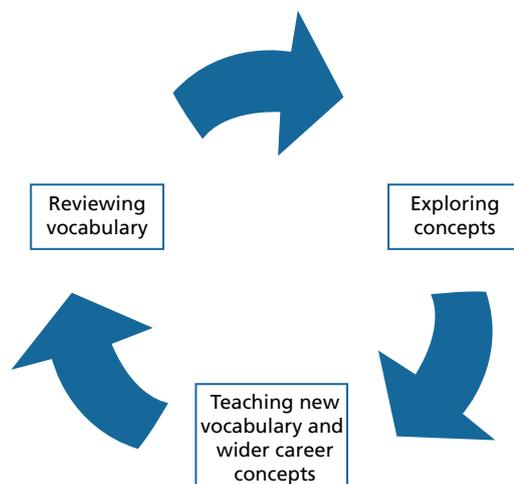
Young people in this study discussed STEM and STEM occupations as follows.

- The types of activities and careers that scientists were involved in were described by using words such as “research”, “inventing”, “evaluation” and “testing”.
- STEM careers were seen as options which were undertaken by “smart people” and some young people employed the imagery of “white coats and glasses” to convey their concept of these careers.
- Careers in technology were described as the development of a variety of tools and gadgets, usually linked to information technologies that they might use.
- Careers in engineering were usually described as involving manual work and were not differentiated by younger age groups from mechanical careers. Older participants articulated a more sophisticated understanding of engineering and were able to differentiate between different types of engineering.
- Participants felt that maths was likely to be useful in a wide range of careers but could only identify a relatively small set of maths-related roles.

## An approach for developing career vocabulary

A useful place to start is by reviewing vocabulary as has been done in this report to see what words and phrases are in common use by all stakeholders in the conversation. This can then move on to exploring concepts and sharing what is meant by the vocabulary that is used and how this forms an (often unconscious) conception of career and related concepts. It is likely that young people and adults have different career concepts, but also that different learners express their career concepts in different ways. The purpose of this activity is again not to identify the right answer, but rather to illustrate that there are differences and open up the possibility of further learning. This exploration of concepts can then lead onto the outlining of new and alternative career concepts and then teaching appropriate vocabulary to support these concepts. The approach is depicted as a cycle as individuals are likely to continue to develop their career concepts and career vocabulary as they move through life. Figure 1 below illustrates the process.

**Figure 1:** An approach for developing career vocabulary



This model is not about teaching learners the correct meaning of career relevant vocabulary. Rather it seeks to understand the conceptual basis of the language that they use and then to suggest broader or alternative conceptualisation of career. In some cases this will include learning about the accepted or formal usage of particular words e.g. "apprenticeship", but in other cases it will be about exploring a range of contested meanings e.g. "career" to illustrate that there are differences and open up the possibility of further learning. The approach is depicted as a cycle as individuals are likely to continue to develop their career concepts and career vocabulary as they move through life.

## Final thoughts

How people think about career is likely to be intensely personal. The language that people use to talk about career will reflect the career concepts that they have built. The job of the careers educator is not to simply "correct" young people's use of language; rather it is help young people to identify their career concepts and to become aware that there are other ways to see the world.

The findings of this research suggest that further exploration around the intersection between career vocabulary and career thinking would be useful. Firstly it would be interesting to explore the career vocabulary and career concepts of greater numbers of young people and adults in further depth. Secondly it would be valuable to deepen understanding of educational practice in this area and to identify further models of innovative practice. Finally it would be valuable to undertake action research to develop new models and approaches for developing educational practice in this area.

## 1 Exploring language

The Sami people who live in the arctic regions of northern Europe are able to finely distinguish between different types of snow and provide a different word for each type (Håkon, 2000). Yet the snow that the Sami experience is no different from that which falls periodically on London, Leicester or Liverpool. What is different is the significance that snow has in the lives of the Sami and therefore their need to distinguish between a greater number of variations in that snow. Different types of snow mean that the Sami are able to undertake different kinds of activities and so naming the types of snow that make hunting impossible or travel difficult is intensely valuable. The names are created not merely to describe the snow, but also to give it meaning in the context of the lives of the Sami. Language both emerges out of the environment within which human beings live their lives and in turn creates that environment making meaning out of the phenomena that surrounds us.

Anyone who has ever tried to learn a language will have noticed that it is not simply a process of substituting one word for another. Each language has been developed to describe its environment and to express the culture within which it is spoken. Whether it is important to distinguish between different types of snow, different types of dog or, importantly for this report, between different types of work depends on how cultures view these concepts and then on how they create language to express them. In English the distinction between engineer and mechanic, or farmer and agricultural labourer, carries considerable meaning about the occupations described and about the relationship between these different roles. Language is important when we talk about work and career and yet the language that is used in careers education and guidance is often treated as if it is unambiguous and understood by all parties.

This report will suggest that this is a dangerous assumption and one which those talking about career should be wary of. Language is important as the medium through which we encounter the world, but it is also the medium through which we learn and modify our understanding of the world. The acquisition of language is therefore not merely about giving a name to things but rather about building conceptual schemas through which the world is understood. As this report will show, young people often use different words to describe things from the professionals that they work with. This is not because they do not know the "right" word but rather it is because they are operating within a different conceptual schema. The aim of this project is therefore not to provide a phrase book for working with young people, but rather to think about the language that we use to talk to young people and to explore how the twin processes of learning how to talk about career and learning how to manage career inter-relate and mutually support each other.

### 1.1 Career literacy and functional literacy

One way to conceive the issues that will be addressed in this report is as the interplay between two types of literacy. On one hand the conventional conception of literacy is viewed as the "ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts." (UNESCO, 2004: 13). To which, in the context of career, we might also seek to add a further ability to understand and communicate orally. UNESCO (2004:13) stresses that these abilities are not merely technical competencies to be mastered, but are rather fundamental requirements for the individual to participate in society: "Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society." This kind of functional literacy therefore underpins the careers of individuals and any attempt to develop individuals needs to acknowledge the context of their literacy both in terms of the way in which it influences their participation in learning and the labour market, but also in the way it shapes their ability to absorb and learn from career development activity itself.

Alongside this strict definition of literacy it is also possible to use the concept of literacy in more metaphorical terms to mean functional competence. So it is possible to talk about computer literacy, information literacy or even career literacy. The concept of "career literacy" is used by some commentators in this area (e.g. Cameron,

2006; Tatham & McIlveen, 2009; Magnusson and Redekopp, 2011) to refer to individuals ability to manage their own careers and to enact their own career development. Many versions of “career literacy” are likely to attend to how individuals find, utilise and communicate career information and even to more developed conceptions of information literacy (Hollister, 2005). However, outside of the context of second language acquisition (e.g. Duff et al., 2000; Huerta-Macías, 2003) relatively little attention has been paid to the way in which these two literacies inter-act and intertwine.

This report does not seek to provide a more general overview of literacy levels within the education and employment systems. Rather it makes the point that those involved in the delivery of careers information and education need to be aware of both general literacy levels amongst the individuals with whom they work and the specific understanding of career vocabulary, language and concepts. Jama & Dugdale (2010) provide a useful overview of the general literacy landscape in the UK and it is useful to draw the following findings from their work as they have particular relevance to this report.

- One in six people in the UK struggle with literacy. This means their literacy is below the level expected of an eleven year old.
- Children and young people not reaching expected literacy levels are more likely to be from disadvantaged backgrounds.
- A 2011 CBI /EDI survey of 566 employers shows 42% are not satisfied with the basic use of English by school and college leavers. To address the weaknesses in basic skills, almost half (44%) of employers have had to invest in remedial training for school and college leavers.
- Poor literacy skills can also be a serious barrier to progressing once in employment. 63% of men and 75% of women with very low literacy skills have never received a promotion.

## 1.2 Careers education and STEM careers

The supply of skills and knowledge in science, technology, engineering and maths (STEM) is frequently seen as being of key importance to the UK economy. Research undertaken for the Science Council (Guest and Dodd, 2011) shows that science has become increasingly important across all sectors of the UK economy and for society as a whole with 5.8 million people now employed in science-based roles. This is projected to increase to 7.1 million people by 2030.

Much of the current policy thinking on this flows from Sir Gareth Roberts’ 2002 report, *Set For Success*. The report concluded that one problem in ensuring adequate supply of STEM skills was the negative image of, and inadequate information about, careers in science and engineering. The report resulted in a renewed effort by schools, and supporting agencies to attract young people to the idea of pursuing a career in a STEM related area. Research suggests that a majority of students are aware of jobs in STEM areas and that the overwhelming majority would like to know more about careers related to the STEM subjects that they are studying (Hutchinson and Bentley, 2011).

Although young people may be enthusiastic to explore careers in STEM, the environment within which careers exploration takes place has become more challenging. Much of the dedicated resource that existed for careers work under the previous government (Aimhigher, Connexions and Education Business Partnerships) has been removed or scaled down (Hooley & Watts, 2011). This means that schools are more likely to have to pick up responsibility for careers work and consequently that many people who are now dealing with young people’s questions about career have not been explicitly trained to do so. It is therefore a useful moment to look at the way in which career is talked about and to reflect on what the features of effective career communication comprise of.

While there are obvious downsides to the loss of professional careers resources in schools, there is also evidence to suggest that young people have always sought career information and advice from subject based teachers (Hutchinson, Stagg & Bentley, 2009; Hutchinson & Bentley, 2011). Furthermore Hutchinson et al. (2011) argue

that it is most effective to talk to young people about their careers within contexts that are meaningful to the young people. So a conversation about STEM careers may be more effective within the context of a chemistry lesson or a visit to a science museum than within a space that is demarcated for discussion of careers. However, in order to make this kind of multi-professional career learning work it is important that a range of professionals are competent and confident enough to engage in discussion about careers and it is hoped that this research can support this aim.

The STEM HE group have commissioned this research as part of a strategy to increase young peoples' understanding of science and technology careers and to encourage them to think about how higher education might enhance and enable these careers. A key aim in fostering broader career thinking is to widen participation in higher education and to improve social mobility. In order to achieve these broader aims it is important to reflect on how young people talk about 'career' and key related concepts such as education, training and work. In particular, in the context of STEM careers, it is important to investigate the language that young people use to discuss these STEM areas. The report therefore seeks to influence the thinking and practice of those developing career information, advice, guidance and support programmes whether formally through established careers education programmes or informally around the STEM curriculum or in other educational contexts.

## 2 Project approach

### 2.1 Project Aims

This project has been designed to investigate the ways in which young people and adults who provide education and career support for them talk about career. The project sought to answer the following questions.

- What vocabulary is used by professionals and role models to discuss 'career' with different ages, stages and abilities of learners?
- How do young people understand the meaning of the career vocabulary that is used by professionals and role models?
- What vocabulary are young people using to discuss career and related issues?
- How can professionals and role models adjust their vocabulary and develop young people's understanding of existing vocabulary to improve engagement with STEM careers?

### 2.2 Methodology

The approach adopted by this project to answer the research questions included a literature review, focus groups with young people and face to face and telephone interviews with teachers, advisers and STEM role models who make regular contributions to schools careers education programmes. Thematic analysis of data was undertaken initially using the research aims as broad themes. Analysis identified a number of sub themes and these have been used to structure this report. A more detailed presentation of the methodological approaches adopted can be found in appendix 1.

Throughout the report we have described young people by both the year groups in which they fall and by key stage. The process of data collection did not require learners to give their biological age but rather the year group in which they received their education. For ease of understanding we have assumed the ages of learners to be banded as follows

- Year 7: 11-12 years of age
- Year 8: 12-13 years of age
- Year 9: 13-14 years of age
- Year 10: 14-15 years of age
- Year 11: 15-16 years of age
- Year 12: 16-17 years of age
- Year 13: 17-18 years of age

Key Stage 3 learners include young people in years 7-9 whilst Key Stage 4 learners are those in years 10 and 11. It is not usual to refer to learners in years 12 and 13 as key stage 5 unless in formal settings. In the context of this post-16 study learners received their education in a school sixth form and have been referred to in this way as sixth formers.

### 3 Talking about career

How we talk about career is likely to be strongly influenced by a range of different factors. Our experience of the worlds of learning and work, our educational level and our exposure to formal careers education are likely to shape the way in which we discuss our careers. Of equal importance is likely to be the context in which the career conversation is taking place. We talk differently to our friends, family, teachers, potential employers and strangers. We also talk differently when we are in the pub, the school, the church or the workplace and when we talk one-to-one, in a group, on the phone or online. This section of the report will examine some of the different ways in which people talk about career and related subjects and explore what some of the implications of this might be.

The concept of a 'career' is very difficult to define and this research does not seek to settle on a prescriptive definition. In part this is due to the very personal nature of an individual's career journey. It is difficult if not impossible to isolate a person's pathway through learning and work from their personal life journey. UNESCO (2002) define the term 'career' as

'the interaction of work roles and other life roles over a person's lifespan including both paid and unpaid work in an individual's life. People create career patterns as they make decisions about education, work, family and other life roles'.

Equally the way in which an individual conceptualizes career will depend on the age, gender, culture, ability or disability amongst other aspects of their life. For some, learners in this study the term "career" was conceptualised as something that was not relevant to them and people like them.

**'Cos you have to have a career to get a job. It's a shorter word, but the same. Career is more posh – I don't like being posh!'**

**Year 9 learner**

This confusion about the term career is not confined to young people. Wilson & Jackson (1999) noted that for many adults

**'the use of the term 'career' was seen as irrelevant by some people, who did not see how it linked to finding a job, or a better job.'**

Watts (1998) notes that the traditional model of career is one which provides a hierarchy for individuals within both a professional and organisational context. This model he notes has provided a structure for society and has helped to provide a basis for people to live their lives. Watts notes however that not only is this system both bureaucratic and meritocratic, it is also a view which is changing fast as new technology and new ways of working are emerging.

There has been relatively little research examining how different kinds of people talk about and conceptualise career. Inkson & Amundson (2002) point out that people frequently try to understand career through using metaphors. Career is a difficult concept because despite its centrality in our lives, it remains as an abstract concept. Metaphors provide one way to make it real and meaningful to the person who is discussing it. Inkson & Amundson identify 10 archetypal metaphors that can be used to discuss career:

1. Career as journey
2. Career as inheritance
3. Career as (good or bad) fit
4. Career as a sequence of seasons
5. Career as growth
6. Career as a creative work
7. Career as a network
8. Career as a resource

9. Career as a story

10. Career as a cultural artefact

Each metaphor names career in a different way, but importantly it also conceptualises it in a different way. This point is made forcibly by Law (2008) who looks at how different metaphors of career (the race vs. the journey) determine how people see their own careers, but also how they relate to others while they are undertaking their careers. If you conceive of career as a race and use the language of getting-ahead, coaching, positioning and being world class a series of conceptual positions flow from this such as speed being important and the notion that other people are the opposition. On the other hand if you use the language of the journey (turning points, horizon, travel and map) a different set of concepts and values are conveyed.

### 3.1 How do young people understand the concept of 'career'?

We can see then that defining the term 'career' is complex however it is important that those tasked with developing services to support career transitions understand how young people themselves use the term.

Whilst the research found that the concept of career was widely understood by young people, it was not a term that young people choose to use for themselves. The term career was often seen as a 'teacher word' or an 'adult word', one which was used by parents. One year 13 learner spoke of his dislike of the term.

**'Career- it's a horrible word. People only use the word when they want you to do something about it. It has negative connotations'.**

**Year 13 learner**

For some the term career elicited a very negative response

**'Teachers use it and we switch off!'**

**Year 13 learner**

Year 13 learners expressed some reservations about using the term amongst themselves in informal conversations preferring to reserve it for formal situations such as personal statements or CV's

One teacher noted that

**'I don't think young people use it, it's used by others but not something that I would associate with young people using'.**

**Teacher (11-16 school)**

Although expressing a dislike of the word learners generally felt that it would be a word they would use in later life. However, when asked how they express the concept of career amongst their peers, the learners tended to use more generalised language, preferring to talk about 'the future' or 'what they will do in the future' or 'what you are going to do when you leave school'. Some saw the term job and career as interchangeable but preferred to use the term job when speaking about the future.

**'It's a job that you might do in the long term'**

**Year 11 learner**

Some learners articulated career in terms of planning and particularly in terms of the need to have a plan for the future. This was evident from quite an early age. A group of year 8 learners noted that

**'How you plan-it matters!'**

**'Need a back up plan. A plan B. More than one option'.**

Most of the young people participating in this research were able to define 'career'. In general older participants used more sophisticated language than younger ones to describe their understanding of the term.

Thus 11 and 12 year old learners (year 7) referred to a career as a job or means of making money.

**'Like a permanent job that you do, jobs where you make money for yourself'**

**Year 7 learner**

By age 13 (year 8) whilst many learners defined career quite narrowly, some learners had begun to express career in more holistic terms, seeing it as a 'way to live your life', 'or 'finding the thing you really want to do in life'. One learner expressed the concept as a mixture of formal and informal learning 'It's not just about education but extra-curricular activities'. For some individuals, the concept of career represented independence, responsibility, and 'how you'll provide for your family'.

For older learners between the ages of 13 and 16 (years 9-11) the concept of career appeared to have shifted to become a more personalised forward looking concept which hinted at the concept of developmental progression. Thus learners aged 15 and 16 referred to career as 'a job that you do for the rest of your life', 'a life long choice', 'the path that you are taking' or 'the next step, the future' or 'like a ladder that you go up- a career ladder'. For some in this group career denoted a positive concept, 'something you're passionate about'.

The language used by 18 year olds (year 13) suggested that they saw their career as related to their concept of self. Thus year 13 learners referred to career as 'not just your job but a wider spectrum' or 'what you want to do rather than what you actually do'. This confirms previous research which has explored young peoples' understanding of occupations. Borgen & Young, (1982) found that how children describe occupations changes over time, with primary school children more likely to describe occupations in terms of what those occupations do, while older children are more likely to focus on what you need to be able to do in order to be admitted to that occupation and what you can achieve within that occupation.

So young people who are trying to understand the concept of career are doing so in increasingly more sophisticated ways. Vocabulary is clearly only part of the issue here – being able to understand concepts and disentangle metaphors is also important.

### **3.2 How do teachers and advisers talk about career**

How teachers and advisers define career for themselves could have the potential to influence learners' conceptualisation of the term particularly if those teaching and supporting learners adopt similar ways of explaining the concept without differentiating their approaches to the age, stage, ability or context of the learners they are supporting. The research revealed that there was no common way of defining the concept of career amongst practitioners. Participants at times admitted to experiencing some difficulty in defining the concept and on occasion explained how their own understanding of the term had changed over time.

**'I used to think about it as jobs and employment but nowadays I think of it in a broader way.**

**Everything that they need to learn to help them to contribute to society in a positive way'**

**Careers Adviser**

Some participants expressed the concept in very broad terms

**'As a route through life really'**

**Teacher (11-16 school)**

Others described career as a complex life long interaction between education experiences and attainment, personal finances and health and wellbeing

**'It's about people knowing what they want to do professionally. A paid job. Something you will enjoy in the long run. Education and training is important part of this. You need to be educated to get what you want to do. It's life long'**

**Teacher (11-19 school)**

A key difference between some of these definitions is how far teachers and advisers see career as being confined to the sphere of paid work and how far it is seen as broader concept. So the careers adviser's definition above is about societal contribution, the teacher in the 11-16 school is also broad, the teacher in the 11-19 school narrows it to comprising paid work and education while a teacher in a 12-19 school below saw his career as being in opposition to his life.

**'A job, satisfaction, challenge. It's your life- a very important part of your life. My career invades part of my life- I wish it wouldn't but it does because it is important!'**

**Teacher (12-19 school)**

These quotes demonstrate that, even amongst professionals, career is a slippery concept. It is unlikely that these issues will be resolved simply by producing more detailed definitions. The question is rather, how can professionals talk to and engage young people in a way that raises these issues about the relative place of paid and unpaid work, social and professional life and work and learning. It is possible to argue that it is the construction of the definition that is more important than the actual definition that is arrived upon.

Teachers and advisers who participated in the study noted that they talk about career in different ways to learners and don't always base their approach on their own understanding or personal philosophy regarding the concept. Some teachers try and differentiate between job and career using learners' own part-time jobs which are often menial and repetitive to distinguish work from careers which they describe as requiring ongoing training and development. The way career is presented is sometimes differentiated by age or stage. For low ability learners for example there is a tendency to focus on work-related issues, relating the concept of career to work or jobs. For high ability learners, teachers tend to focus on academic qualifications and progression routes.

For some teachers the idea of discussing the concept of career is difficult due to a feeling that they lack the expertise. For this group, conversations about career tend to concentrate on academic subjects, and qualifications.

**'I'm very guilty of focussing on qualifications and not career. I don't feel qualified. I don't want to indoctrinate. I really don't engage in career discussions'.**

**Subject specialist teacher (12-19 school)**

The research has revealed that some teachers and staff do take a broader approach to helping learners to conceptualise career.

**'I try to highlight the idea that career is not one thing, It's about choices and influences that happen, not just one part of their life'.**

**Teacher (11-16 school)**

For advisers the concept of career was presented as processes of decision making and planning as part of a life-long journey.

**'I try to make it as simple as possible. A life long journey. Something we all have to do. Put plans in place. It's important to have a plan A and a plan B'**

**Careers adviser**

### **3.3 How do role models talk about career**

Although the numbers of role models involved in the research was small, there appeared to be more consensus amongst this group regarding the concept of career. All saw the concept as lifelong and involving a complex interaction between learning, life and work.

**‘Career is the way you want to further your employment throughout your lifetime. Building upon what you have learned. Taking advantage of opportunities’  
STEM ambassador**

What was notable with this group was the introduction of additional terms to describe career such as those relating to industrial or business concepts.

**‘What sort of subject area or sector I want to work in’.  
STEM role model**

### 3.4 Career conversations in school

Young people receive a range of personal development interventions throughout their time in school. In most instances these are recognisable as discrete lessons with recognisable names such as citizenship, personal social and health education or careers. Through these lessons and learning activities young people described examples of how they had developed career concepts and language to talk about career.

**‘We learn about life, about changes, and what will happen next when you grow up and become an adult, adolescence, sexual stuff, every 4 weeks we change and have a different teacher’.  
Year 9 learner**

The majority of participants felt comfortable to ask teachers to explain terms if they didn’t understand them.

**If we don’t understand then we tell them. Mr ..... will write up the words and then if we don’t understand he’ll explain them. We have to learn them.  
Year 9 learner**

### 3.5 Career conversations in non-school settings

The research addressed the issue of what makes careers information engaging and interesting to young people in informal settings.

- Young people and their teachers were in agreement that young people are engaged: by information that is presented in bright colourful and interactive ways;
- Through the use of technology to explore ideas and concepts;
- by being given information in short sharp bursts;
- Through talking to people about their jobs.
- Through the use of celebrities’ career stories

Young people were both aware of and realistic about celebrities’ careers and whilst they often admired celebrities few of the younger participants expressed a desire to follow in these individuals footsteps. They spoke of other role models such as parents, older siblings, other relatives and teachers and industry role models as people they would most like to be like.

The research suggested that young people are inquisitive from an early age about career progression and seek to understand it through their interactions with many of the adults that surround them. Participants reinforced the message that it is never too early to start talking about career and some teachers argued that talking about career could support young people’s engagement with other areas within the curriculum.

Parents and family members have been found to be one of the most significant influences on young people’s career ideas. Milward et al (2006) found that parental advice was the most sought after and useful sources of support in making choices about jobs and careers. Pollard et al (2003) found that ‘parental influences appear

often to be more important than teachers or other influences'. Meszaros et al. (2005) describe career conversations between mothers and daughters that are informal and which are precipitated by other events in their life and relationship. They found mothers to be supportive and mainly non-directive. However they were also determined to encourage their daughters to exercise greater agency in their careers than they had been able to exercise.

Learners in the study concurred that parents were significant in helping them think and talk about careers although this was not always welcomed. Participants explained that often they became engaged in discussions about careers when their older siblings were making choices and that they became unwitting participants in conversations

**'My brother talks about what he wants to have. Mum says he needs to get a job!'**  
**Year 8 learner**

### **3.6 Summary**

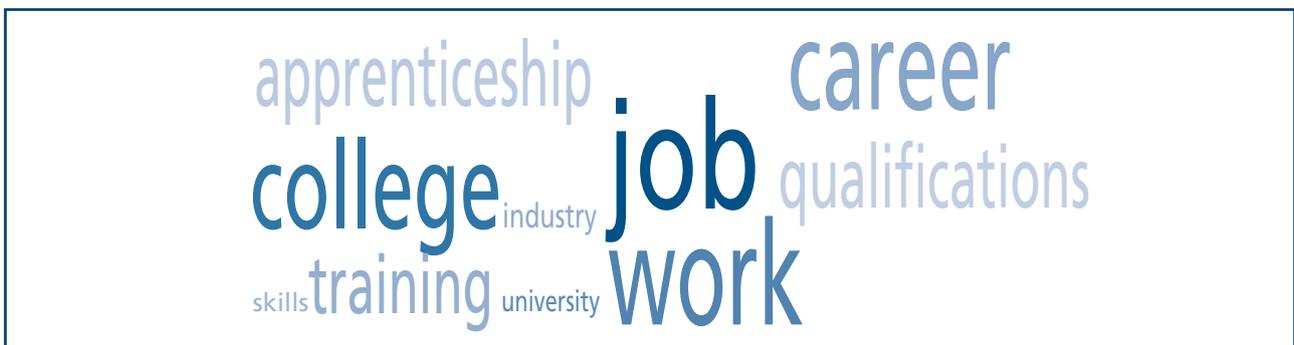
What has emerged from the research is a strong message that individuals conceptualise career in many different ways. There is some evidence that learners' concept of career develops through a number of stages. In earlier years learners see the concept in less personalised ways such as a job or way of earning money. As they increase in age, the concept becomes ever more complex, personalised and influenced by those around them including peers, the media, families, teachers and other adults.

The research has demonstrated that the term career, whilst widely understood by learners of all ages is not a popular term to express issues of progression. Young people see career as a formal concept and one which has negative messages associated with pressure to think, plan and take action. As the adult participants have demonstrated, career is a term that whilst often problematic and complex to define is a concept which individuals personalise and recognise widely. These findings highlight the need for professionals and adults to find ways to engage young people in career thinking with out making assumptions about common understanding about what is meant by the term "career".

## 4 Defining key career concepts

The research examined current online careers resources to determine which words were most commonly used in literature by professionals supporting career decision making. Seven popular websites were selected, reflecting a range of age appropriate materials for a wide range of career planning needs. The 10 most frequently used career related words were identified using the web based application 'Tag Crowd'. The lists were then assimilated into a top 10 most frequently used career-related words across all websites. These words have been presented below as a visual representation known as a tag cloud. The image presents words in increasing sizes relating to the frequency of the words analysed.

**Figure 2:** A Tag cloud representing the ten most frequently used career related words in online career literature



These key concepts were then used to inform the discussion guides that were used with participants. Learners and adults were asked to define these concepts during interviews and focus groups to determine the differences between young people's understanding and use of the terms and that of the adults who are supporting them. Worth noting is that the term 'sixth-form' did not appear in the top ten list however to ensure that young people were assessed equally on their understanding all of the post-16 options the term was included in the research. This section examines the way in which ten of the most regularly used career terms or concepts are understood by learners. It also examines the extent to which each of these terms is used by teaching staff and what point in a learner's education they are introduced.

### 4.1 Work

There was mixed views by teachers and advisers about when the term 'work' was introduced or used in a vocational or career context. In some schools, the term was used regularly across all groups. In other schools it was introduced in key stage 4 particularly in relation to work experience in year 10 (15 years old) or in the context of those learners who are intending to seek paid employment at the end of year 11. Whilst at the time of writing this report, this is still an option for year 11 leavers this will change 2013 to 17 and in 2015 to 18 (Learning and Skills Act 2008). It is possible that the shifting in the participation age may have an impact on the point at which learners are introduced to this concept. This is an implication of the planned statutory changes and one which will need to be carefully considered by those responsible for encouraging career planning and management.

Both teachers and advisers suggested that the majority of young people understand that work could be both a voluntary activity and one which was remunerated. One careers adviser noted that work was a concept that should be differentiated depending on the ability of the learner for example at foundation level television programmes often provide a useful resource for exploring the different roles of workers, whereas for higher ability learners the term could be more personalised and conversations about the potential for well paid work or professional work might be more frequent.

Role models tended to describe work in terms of the activities which were involved in an individual's job. Thus in talking to young people about career issues they would tend to describe the activities which were involved in the day to day management of their work role.

**'I would use it in the context of 'the work in the met office' or a day in the life of me-describing my work.'**

**STEM role model**

Young people frequently found it difficult to differentiate between the terms work, career and job, using the words interchangeably. For learners from all age groups the word 'work' was frequently used in the context of work experience. A number of learners explained

**'Work is the same as a job – you have to work for a living, same as in a job'.**

**Year 7 learner**

**'Work, job and career -all the same thing'**

**Year 9 learner**

The majority of learners associated work with getting money. By age 16 learners were able to express work in terms of part-time work done whilst still at school and spoke of remuneration in terms of hourly, weekly or monthly pay. By age 18 learners were beginning to see work as an expression of something fulfilling, and 'hopefully enjoyable'!

## 4.2 Job

Teachers and advisers use the word job interchangeably with work however one teacher explained that the term job was more related to generating income and rewards. Jobs are often seen as expressing stereotypes thus young people may be more likely to see jobs in terms of those relating to girls or boys. The idea that a young person will move into the adult world and get a job which generates income is an important way of conceptualising the outcome of educational progression. The concept of 'job' was most usually introduced in year 10 when learners are beginning to consider their work experience options and in choosing topics for work-related activities.

Role models tended to define job as a role in which work was conducted, thus job was often associated with 'job title' or 'job purpose'.

**'My job at the met office is to predict the weather and make sure aircraft don't crash!'**

**STEM role model**

Job was also seen variously as what an individual did to gain money or as an incremental part of an individual's career.

For learners there was little consensus in their definitions of the term job. For some the word was linked to chores or tasks: 'Something your mum asks you to do'. For the majority however, the concept of job was described as a life long means of earning money to fund a life style or for supporting a family.

**Job is like a career. You need a job in everyday life to get money for your family and to get a roof over your head. Don't matter what job as long as you get stuff and work for your family.**

**Year 7 learner**

Older learners were able to describe 'job' in terms of a life long activity which had boundaries. At 18 learners expressed job in negative terms'

**'What you spend your life doing- plodding along - 9-5 on average'**

**Year 13 learner**

Young people's definition of job at times reflected the economic crisis and which may have been gained through the media and through discussions at home. One group of year 7 learners talked about job in a way which demonstrated the transient nature of jobs in the current economic climate

**'You have got something that you can stick with for life, an idea for yourself, working the best to keep your job, because lots of jobs they get stopped'.**

**Year 7 learner**

This issue should be of particular concern to educators. Young people have demonstrated that they pick up messages at an early age about the transient nature of some jobs. With some consideration, these messages could be turned into useful learning about the importance of developing employability and career management skills.

### 4.3 Skills

Both advisers and teachers were aware of the importance of discussions about skill development. This usually takes place during discussions about transition to employment from the age of 16.

**'They do this when they are identifying their personal qualities. Who they are, what they are good at, maybe not job related or work related but it could make them more marketable.'**

**Teacher (11-18 school)**

**'I bring this up when I do CV writing. There are so many skills that they have which they don't recognise'.**

**Careers Adviser**

Role models tended to define skills in the context of a job or role. Skills were seen as something which a person could competently do. This group were also clear that skills were not always tied to qualifications. Skills were described as a vocational such as those related to specific jobs and as general skills such as time keeping or logical thinking.

Learners at all levels were able to define the concept of skills however this concept was often linked to sporting prowess or general life skills. Learners frequently described skills as inherent talents and regularly noted that all humans had skills in something albeit not always career related ['drinking tea']. Younger learners were more likely to refer to television programmes such as 'Britain's got Talent' to demonstrate that there were many ways of looking at skill. As learners become older, the concept of skills becomes increasingly linked with progression to work.

**'It's the right skills to do the job you want to do.'**

**Year 8 learner**

By age 16 learners were beginning to link the concept of skills to self-improvement however not all learners agreed with this. By age 18, skills were seen as a portable commodity which were developed throughout life and were able to explain the difference between skills and talents.

**'You can't improve on natural ability'**

**Year 13 learner**

### 4.4 Training

Teachers and advisers refer to the term training when discussing apprenticeships. It is a concept which is introduced to learners aged 15 and 16. Some staff use training as a means of expressing the concept of lifelong learning, describing learning as continuing.

**'It's an ongoing thing. When you are in a job you still have to undergo training. It is an ongoing thing throughout your life'.**

**Teacher (11-19 school)**

Role models tended to define training in the context of a job as a means of enhancing or developing vocational skills

**'This tends to be very specific to the job you are doing'.**

**STEM role model**

For learners, training was a much broader concept, regularly linked to sports such as football and to the Olympics. Some learners conceptualised training as a means to an end, something you did to help you get a job or to improve your skills. Some learners were able to articulate some jobs linked to training programmes such as teacher training or to the general concept of the trades,

**'Building up and learning something before you get the job. Like teacher training. It makes you better'.**

**Year 9 learner**

**'To practice to get better and better, like with a job: practice makes perfect.'**

**Year 9 learners**

Older learners articulated training as a preparation for working life.

**'It's about enhancing your skills and preparing for work'.**

**Year 13 learner**

Of note to this study is that training was always articulated in terms of an individual's development and was never referred to in the context of a learning organisation such as a 'Training Provider' or in terms of the accreditation of training through vocational progression routes or qualifications. This has implications for career educators who are tasked with ensuring that young people understand all of their future options. Having a concept of training through educational options is of paramount importance if young people are able to develop a clear understanding of how their career needs and interests can be best met through different progression routes.

## **4.5 College**

The majority of participating teachers and advisers explained that they introduce the concept of college in Key Stage 4 (15 and 16 years of age) to coincide with discussions about post-16 options. It is explained as a different way of learning and another option available. Some teachers admitted to feeling constrained by the pressures of increasing applications to their own sixth forms and tended to 'under play' the concept of college in favour of the school sixth form. Careers advisers going into schools were more impartial in the way they presented college as an option. There was some concern by some that learners had a narrow view of options at college and that it was important to explain that college offered academic as well as vocational courses.

**'I go out to schools and have to explain what a college is and what you do at college. If they think that all you can do is vocational courses it narrows their choices so it is about raising awareness of the spectrum'.**

**Careers adviser**

One teacher explained that the concept of college was introduced very early in her school and believed that the majority of learners understood the concept of college. In part this was due to some learners in key stage 4 attending college on flexible programmes. To this extent learners probably understand college as a building rather than a place of learning which offers a full spectrum of opportunities.

**'We introduce it in Key Stage 4, and the majority understand. It's introduced quite early on, plus many schools link in with local colleges so some learners are attending at least one day a week already, they understand that it's a building, but whether they understand the full capacity of a college I don't know'.**

**Teacher (11-19 school)**

Role models demonstrated some uncertainty about the term college. This is unsurprising given that the term college is used not only to describe traditional colleges of further education but also used regularly to describe sixth form colleges, colleges within a collegiate university, specialist higher education institutions and in the case of some specialist schools and academies who have the title college. Equally there was some confusion about the age of learners at some colleges.

**'It's post-16 education. But I think some are from 14 upwards?'**

**STEM role model**

All of the learners interviewed during the research were quite clear that college was a place for learning. All participants described college as part of a progression route

**'Like where you've been to primary school, then secondary school and then you have to pay to go to college, you start to move on, you are learning extra, learning to be a good adult.'**

**Year 7 learner**

Learners of all ages expressed college as a place where you undertook more focussed or specialist studies

**'When you finish school you think what you want to be and you focus on this for your study – for example engineering,'**

**Year 9 learner**

For younger learners the idea of colleges of further education were confused with local specialist schools, often called colleges. The following conversation was noted during a focus group with year 7 learners at a school with no sixth form but described as a Specialist College for Performing Arts.

**Learner A: 'I think it like staying at school and college is like going off and doing something else. It's like where you go to get to university.'**

**Learner B: 'I don't think there is one here.'**

**Learner C: 'No I think we have'.**

**Learner D: 'I think its performing arts here?'**

**Learner E: 'No I think you got to go to school like ..... or .....'**

Learners variously described college as a place to study, to train, to learn advanced skills and to do 'A' levels. At no stage were any vocational qualifications named such as BTECH or NVQ. Sixth form learners had a more detailed understanding of 'college'. In this case learners were able to differentiate college in terms of collegiate universities or colleges of higher education naming Imperial College as an example or describing specialist colleges such as Agricultural colleges. This is unsurprising given that these learners had been completing their UCAS applications at the time of the research.

#### **4.6 Sixth form**

Although the term sixth form was not one of the top ten words found in careers information resources, the researchers made a pragmatic decision to include this term in the research in order to present all of the post 16 options for exploration during the project. Where schools have sixth forms, the level of awareness and understanding of sixth form is greater. This is in part due to the high visibility of the students for whom rules about uniform are often relaxed. Teachers told us that learners are exposed to sixth form experiences intensively

at 16 when post 16 options are presented. Taster days and familiarisation activities are often offered as part of careers education around the time of option choices.

**'We introduce it very heavily in year 11. We give them taster days to see if it is something they actually want or whether they want to leave to go to college.'**

**Teacher (11-19 school)**

All of the role models described sixth form in terms of the programmes of study offered, referring to these as academic and listing qualifications such as GCSE's, A levels AS or A2. Sixth form was seen as a place of advanced study and part of a progression pathway leading to university.

For learners, there was no consensus of opinion or definition of sixth form. All learners understood that there was an element of progression involved in sixth form. Learning in sixth form built on that already accomplished in earlier years. Learners of all ages were able to say that sixth form courses included 'A levels' No other qualifications were mentioned. Year 13 learners used the term academic to describe the nature of sixth form courses.

For young learners there was also a level of role modelling. Year 9 learners explained that they 'seemed older' and that they 'looked up to sixth formers'.

Learners in Year 9 expressed some confusion about the voluntary nature of sixth form.

#### **4.7 Apprenticeship**

The term apprenticeship is used by teachers from aged 15 onwards on a regular basis. For the learners the term apprenticeship is not always fully understood and is often related to the BBC television series 'The Apprentice'. Learners of all ages related the term apprenticeship to financial issues however, not always correctly.

Whilst role models were able to articulate apprenticeships as a process involving training to develop and improve skills, there was a variety of views of what an apprenticeship entailed. For one role model, discussions about apprenticeships were rare because this was not a route which was an option for their particular area of work. Some role models referred to apprenticeships as a way of 'earning whilst learning' and as an alternative to university. No STEM role models referred to qualifications gained whilst undertaking an apprenticeship.

Not all 11 and 12 year olds had heard of the term apprenticeship however those that had regularly referred to Lord Sugar and the television series 'The Apprentice' to explain the concept, however the majority at this age believed that an apprenticeship was akin to work experience and that there was no payment involved in an apprenticeship.

**'When you go off and someone offers you work or like an offer to go off and help and get you job experience, but you are not earning any money.'**

**Year 7 learner**

**'Learning to do something and you don't get paid. Following in someone's footsteps.'**

**Year 8 learner**

A number of learners saw an apprenticeship as an alternative to university. Some referred to an apprenticeship as a practical route through learning. By age 16 learners had begun to see an apprenticeship as a means to learn and earn and that there was something to be gained at the end (although no participants referred to or named any qualifications associated with apprenticeships). Sixth form learners, in the process of considering higher education options were clearly more aware of apprenticeships as a viable alternative to university. Year 13 learners referred to apprenticeships as a cheaper alternative to university, possibly a reflection of the advent of increased tuition fees. Older learners reflected comments made by their younger peers when describing apprenticeships as being practical, 'learning by doing' type activities

## 4.8 Qualifications

Qualifications are a regular feature of teacher and adviser discussions. Both teachers and advisers reported that discussions concerning the importance of gaining qualifications started at 11 and continued throughout the learner's time in school. Qualifications are referred to as a means of proving the acquisition of necessary work-related skills to underpin progress onto the next level of education or training.

**'We do this in Key Stage 4 definitely because we explain that all the way through the broadest choices come from best qualifications'**

**Teacher (11-19 school)**

Role models noted that discussions about qualifications were a vital part of their role. Qualifications were defined by this group as a means of demonstrating the skills that had been acquired during education and as a proof of learning. One ambassador noted

**'I would use it regularly It is vital to have qualifications for most careers in science'**

**STEM ambassador**

Learners at all ages associated qualifications with the proof that they had gained a level of competence in a particular activity, skill set or level of learning. From age 11 learners were able to list qualifications at various levels from GCSE to Masters level but at no stage of the research were alternatives to academic qualifications mentioned. Many learners associated qualifications with assessment processes. Some associated qualifications with particular jobs or professions.

**'Where you are good at something and you go through tests and stuff and you need to be qualified to be a teacher'.**

**Year 7 learner**

For some learners, the idea of qualifications was alarming. The sense that the concept of qualifications introduced a level of pressure was obvious the older the learner. Learners from age 14 onwards expressed their concerns

**'GCSE's, A levels,.....You need them for university which is quite daunting. If you don't get the right qualifications you're doomed'.**

**Year 9 STEM club member**

Sixth formers described qualifications as 'a way of classifying skills, or a way of rating an individual however by this age, learners were beginning to question the relevance of qualifications in accrediting wider life skills and competence

**'Not a good representation of what you can do'.**

**Year 13 learner**

## 4.9 University

Teachers in schools introduce the idea of university in a formal way in year 10 particularly in relation to job search activities.

**'I introduce it as early as year 10 when I am looking at job search. We ask learners to think about what routes there are to different jobs. Does it include university?'**

**Teacher (11-19 school)**

The substantive discussion concerning university entry takes place in the sixth form. For some staff and advisers, the inclusion of a reference to higher education in their job title gives the concept of university more profile, however as one adviser explained, using the acronym HE often caused confusion.

**'My job is referred to as careers and HE adviser. I usually have to explain HE! I have to explain the variety of courses'.**

**Careers Adviser**

Role models expressed some confusion when defining the term university. Whilst all were clear that university was a place to continue or extend learning, some confusion arose when using acronyms to describe the level of learning at university. One ambassador noted

**University is an institution where you get higher level qualifications and higher education. I get confused between higher and further.**

**STEM role model**

Learners at all ages conceptualised university as a place to go for advanced learning.

**'University: its like when you go to school you go to college and to university, where you want to learn more advanced stuff. It's about learning you more.'**

**Year 7 learner**

All ages understood that university was a place to go for qualifications but that study was more focussed on a particular subject area.

**'You go there for one thing- you study one thing'.**

**Year 8 learner**

Older learners associated going to university as an optional way to obtain the qualifications for particular professions such as teacher or doctor or to get well paid jobs. By age 18 learners were fully aware of the concept of university although views about going to university were mixed. On the one hand university was seen as a place where you could go to have fun, but more frequently, university was linked with finance related issues and was articulated in terms of concern.

**'It's a scary place- very expensive'.**

**Year 13 learner**

18 year olds were all able to articulate the advantages of university in terms of future income and prospects linking going to university with increased independence, and an improvement in employability.

It is worth noting that little mention of university qualifications other than under-graduate degrees were included at any stage of the research with young people.

#### **4.10 Industry**

Of all of the words or concepts that frequently appear in careers literature and information, the term industry was most commonly misunderstood. Teachers and advisers use the term infrequently in school although it is used to some extent with Key Stage 4 learners. A number of the schools that participated in the study were situated in the West Midlands where the term industry was regularly linked with the industrial revolution and conjured up images of regions' past. This is not a phenomenon linked solely to the West Midlands however and as many learners first hear the word used in history when learning about the industrial past.

Teachers interviewed as part of the research, whilst sure that learners aged 15 and 16 had probably heard the word, were less confident that learners understood the concept.

**'We do use it in key Stage 4, but again, I'm not sure that it's fully understood'.**

**Teacher (11-19 school)**

Some staff noted that the term industry might be used in relation to enterprise or industry days, a term used to

describe suspended timetable days, however there was little confidence by any staff or advisers interviewed that the term was really explained or defined in a way which supported career learning.

Role models once again found the concept difficult to define

**How can I put this... it is making things, it is manufacture.... it is providing tools to do something.**

**STEM role model**

The term industry seems to be redolent of historical images of factories and the industrial revolution, in the same way that it is with some teachers. One ambassador noted

**'I always think of factories when I hear the word and the industrial revolution.'**

**STEM ambassador**

There was some evidence that role models tried to find different ways of explaining the concept of industry however this might be seen to increase the confusion associated with defining the term

**'I might use the word market instead. Although market and industry are not always interchangeable. Market if it's anything to do with money. Industry if its about skills and employment'.**

**STEM role model**

Younger learners were particularly confused by the term industry. When asked to explain their understanding of the word there was a tendency to list names of shops such as Tesco or brands such as JCB.

**'It's like Tesco's which is a supermarket, it sells food, toys, or like TK Maxx, also like JCB is an industry, no its like a big thing like a .....no I don't know!'**

**Year 7 learner**

As learners become older the word company was increasingly used to describe the concept of industry. Learners conceptualised industry on a much larger scale but still tended to refer to brands or companies which they had heard of.

**'It could be vast like eBay'**

**Year 8 learner**

Some learners were associating the term with particular manufactured items

**'It's like washing machines and that'.**

**Year 9 learner**

Some learners at the same age were beginning to use the term to name sectors such as the music industry or fashion industry. As predicted by teachers in the West Midlands schools, older learners associated the term industry with the industrial revolution in the Black Country. This was unsurprising as the schools involved were situated close to the Black Country Industrial Heritage Museum and learners would certainly have been exposed through school and family visits to this well known and popular tourist destination. By age 18 learners were more able to define the concept of industry in a way which distinguished industry into sectors of the economy often associated with the manufacture of products or types of products.

#### **4.11 Summary**

Young people are able to provide a definition of all of the regularly used career related words. Whilst there were no words which proved impossible to explain there were however great variations in the way terms were

defined. What emerges from the research is that commonly used terms are in fact understood differently by all people and that there is no single common definition in the cases of any of the career terms in regular use. This is unsurprising given that vocabulary is developed in the context of a learner's life and experiences and these will differ depending on home environment, the local community and the industrial sectors represented in a geographical location. This is illustrated by the way in which learners in the West Midlands conceptualised the term industry in terms of the industrial heritage of the area.

The study has revealed the confusion felt by many learners around the use of acronyms such as FE and HE. Learners were unable to distinguish between the two levels, and never linked either concept with an institution of learning and there was no mention of qualifications other than those resulting from academic programmes of study. Overall there was some confusion about the orders of qualifications and levels of education and progression routes through educational organisational structures.

Learners from the age of 11 have begun to conceptualise career terms and have been stimulated to do so through popular television programmes such as 'The Apprentice' and 'Britain's Got Talent'. There is however a lapse between the age which learners are beginning to understand career terms and the time in formal education when these terms are used. Most teachers begin to include career terms from year 10 at a time when discussions about post-16 become paramount. However by this stage learners have already begun to develop their own views of these terms which can sometimes be a variance to the ways in which their teachers and advisers use these terms.

## 5 Talking about STEM occupations

Of particular importance to this project is the need to develop an understanding of how young people understand STEM and STEM careers. The Science and Innovation Investment Framework 2004 -2014 (DIUS 2007) set out a long-term strategy to secure and sustain a supply of scientists, engineers, technologists and mathematicians (STEM) to support the science base. As part of the framework, Action programme 8 was focused on careers and had two outcomes.

- For all young people to be made aware of the fulfilling and attractive careers open to them through the continued study of science and mathematics
- To provide the knowledge and skills to enable young people to make informed subject choices to achieve qualifications to keep their options open for further study and careers in STEM.

This study seeks to understand how learners between the ages of 11 and 19 are conceptualising STEM careers in order to support the practical development of information resources.

Young people's ability to understand STEM careers can be limited through their narrow experience of adults employed in STEM occupations. The way learners conceptualise STEM careers may influence their enthusiasm for STEM subjects and the way in which they conceptualise their own futures. In their study of secondary school children, Bevins et al. (2005) note that 'almost half of the students report that they do not know a scientist personally, either as a family member or friend.' A lack of familiarity with scientists may lead to a misunderstanding of the work which scientists do, and the environment in which they work.

Where real life examples are not evident in a young persons' life there is less opportunity for negative or misleading messages about STEM careers to be moderated. Bevins et al. (2005: 13) note that students understand that science is important to the economy but are unsure as to whether to pursue it as a personal career choice. 'The students suggest that science and engineering news items are often presented through negative and narrowly defined images and explanations citing coverage of the cloning and hospital super bugs issues as relevant examples'. The study goes on to note that 'the large majority of students identify with the stereotypical images of science and engineering as being 'white lab coats and test tubes' and 'oily overalls and spanners' respectively. These perceptions are compounded by a lack of knowledge of professions and practice in the respective fields and influenced by media presentations and society in general.'" (Bevins et al., 2005:14)

As previously noted, the UK government has targeted resources at encouraging the take up of STEM subjects and this has led to the use of the acronym STEM in publications and in conversations about careers in STEM areas. Of significance to this report is that in all cases other than a small group of year 9 learners who attended a STEM club, the acronym held little meaning for most of the learners interviewed.

### 5.1 Careers in science

All learners were able to describe the types of activities which scientists were involved in. Terms such as research, inventing, evaluation and testing were the processes most frequently described whilst, medicine, surgery, forensics, microbiology, pharmacy, atomics, sports science, earth science, becoming an astronaut and engineering, drug development and animal testing were all listed as scientific jobs or fields of study.

All learners believed that intelligence was a pre-requisite to becoming a scientist. When asked to describe the type of people who become scientists entrenched stereotypes were evident.

**'Smart people, clever people who are good at maths and science. Who use posh words'.  
Year 8 learner**

Scientists were variously described as smart, clever, people that concentrate' people who have a good memory, people wearing white coats and glasses. Learners of all ages associated scientific careers as needing a degree.

Learners described the places which scientists work as being in; clean places, 'labs', factories, hospitals, police stations [forensics], universities, in schools, NASA, restricted areas, and construction sites.

Role models promoted science as a subject which was the foundation for many careers including those not traditionally associated with science.

## 5.2 Careers in technology

Careers in technology were almost always linked to new technologies such as information and computer technology. Many learners associated technology careers with inventing new solutions to problems, listing examples such as

**'Future technology, flying cars, new things, cars that go underwater, automatic cars, Knight Rider car, cars which are like a person you can talk to, and TVs that fold up, robots to make me a cup of coffee'.**

**Year 9 learner**

Some learners, particularly those aged 11 and 12 described technology in terms of the subjects they study in school for example graphics, cookery, textiles, needlework, resistant materials. The more creative technology careers were regularly associated with the use of computer skills.

Younger learners tended to define technology and jobs related to technology in terms of products or brands. Apple, ipad, and iphone were regularly cited when learners explained their understanding of technology-related industries.

By age 14, learners had begun to associate technology with potential careers and had begun to assimilate these ideas into their own thinking about the future.

**'Technology is an attractive prospect; that your ideas can change the way people think'**

**Year 9 learner**

Learners across all age groups were unanimous in believing that the skills and abilities required to work in technology jobs include creativity, flair, inventiveness, a good imagination, and entrepreneurial skills. Learners found the concept of technology jobs quite difficult to conceptualise. Their ideas of where technology related jobs were located was limited to offices, labs,

## 5.3 Careers in engineering

Learners aged 11-16 all described engineering jobs as practical, involved in mending household items such as cars, computers, boilers, radiators or washing machines.

Despite very entrenched views of the practical and manual activities associated with a narrow range of engineering jobs, younger learners were beginning to demonstrate some evidence that they were battling with stereotypical images of engineering jobs. Participants aged 14 for example debated the relevance of being skilled in mathematics in order to access good jobs in engineering whilst a different group of the same age, debated the changing gender bias in engineering occupations. Despite the regular mention of garages and factories being the most likely workplaces of engineers the idea that engineering was a highly skilled job requiring academic qualifications was also a feature of a small number of learners.

**'They do it in universities and colleges not just about garages'.**

**Year 9 learner**

Interestingly one group of year 9 learners who were all members of a school STEM club had a more developed understanding of engineering and explained that it involved architecture and bridge design.

By age 18, learners were more familiar with engineering as a broader and more academic pursuit. This group of learners were able to distinguish between civil and mechanical engineering and included structural engineers in their list of engineering jobs.

## 5.4 Careers in maths

Maths was seen as an intellectual subject and as an academic discipline. However, learners' understanding of maths related occupations was limited to a narrow range of occupations including maths teacher, banker, accountant, purchasing manager shop keeper, scientist and surveyor. Learners across the full age range understood that maths skills were useful in many jobs and occupations.

**'Everyone needs to be quite good at maths don't they?'**

**Year 7 learner**

Learners described maths related jobs in terms of skills and processes used in such occupations for example using equations, calculators, and problem solving.

People who pursued maths careers were seen as 'brainy', as wearing glasses and as owning jackets with elbow patches.

Of concern to the research is that for some learners, maths was seen as a specialism which limited future options. This in part was due to the sense that there was a lack of creativity involved in mathematics. A group of year 9 learners who attended a STEM club described maths as dealing in 'pointless things'. One year 9 learner noted that

**'Maths boxes you in. There's a right and wrong answer'.**

**Year 9 STEM club member**

## 5.5 Summary

Whilst the acronym STEM holds little meaning for young people they have demonstrated through out the research that they have some understanding of STEM subjects and STEM careers. The way young people conceptualise STEM careers becomes more accurate as they become older and engage with a variety of portrayals of STEM in the media and elsewhere. Previous research (Bevins et al., 2005) has shown that many young people have little contact with scientists and that the use of role models is critical in helping young people to develop a more positive way of understanding STEM careers. Those working to support young people's aspirations in STEM subjects and careers need to be aware that when working with young people it is important to explain the words which they use to describe the more technical aspects of their work and to make language accessible to learners of all ages and stages.

## 6 Having better career conversations

This research set out to understand how young people conceptualise career vocabulary in order to help those tasked with supporting their career development. This report has argued that there is considerable confusion about a range of career vocabulary both amongst young people themselves and between young people and the adults who seek to influence and inform their careers. This report has also argued that confusion about vocabulary cannot simply be solved by teaching young people the “correct” meaning of different words. In fact, as has been shown, it is very difficult to pin down a “correct” meaning for many of these words the meaning of which is often highly contested. The words that people use and the way that they use them underpin the way in which they understand and make meaning. This section of the report will therefore set out an approach to developing career vocabulary that may be useful to adults working with young people.

**Figure 3:** An approach for developing career vocabulary

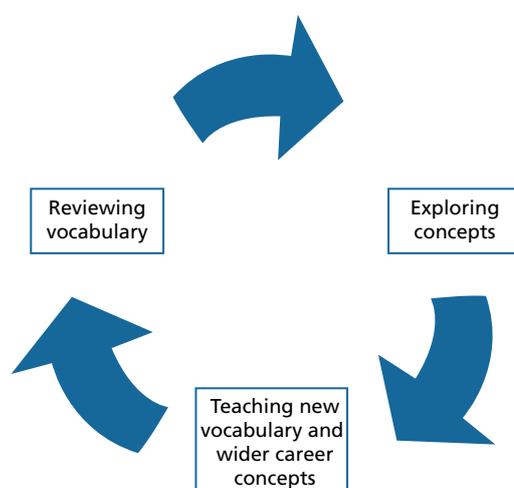


Figure 3 sets out a possible approach for developing career vocabulary. The process is cyclical and developmental and outlines a process for continual improvement. A useful place to start is by reviewing vocabulary as has been done in this report to see what words and phrases are in common use by all stakeholders in the conversation. This can then move on to exploring concepts and sharing what is meant by the vocabulary that is used and how this forms an (often unconscious) conception of career and related concepts. It is likely that young people and adults have different career concepts, but also that different learners express their career concepts in different ways. The purpose of this activity is again not to identify the right answer, but rather to illustrate that there are differences and open up the possibility of further learning. This exploration of concepts can then lead onto the outlining of new and alternative career concepts and then teaching appropriate vocabulary to support these concepts. The approach is depicted as a cycle as individuals are likely to continue to develop their career concepts and career vocabulary as they move through life.

### 6.1 Reviewing vocabulary

Whilst the majority of young people involved in the research confirmed that there were few times when they were presented with career words or concepts which they had not understood, an exploration of how they are conceptualising certain words reveals that their understanding varies considerably. It is important therefore for educators to gain an insight into the ways in which learners understand career words if the interventions that they have are to be most effective. Educators need therefore to develop strategies to help them determine the level of understanding of regularly used career words.

The majority of educators, advisers or ambassadors made no formal assessment of career vocabulary preferring instead a more informal and responsive approach.

**'I might use a word on a power point and explain the context. Now get them to use their own words and write it down. I then check their books to make sure that they have clearly understood what the word means'.**

**Teacher (11-19 school)**

This does not always reveal the extent to which young people are able to translate terms from one instance or context to another.

**'We know about the extent to which learners are understanding concepts through outputs but even then you are not always sure'.**

**Teacher (12-19 school)**

The idea of undertaking formal assessment of career vocabulary was not a popular idea amongst the majority of teachers involved in the research due to the over abundance of formal assessment in the curriculum. There was a general agreement that an informal assessment could prove useful. A number of examples were provided by participants for opportunities for when this might take place such as through work scrutiny, activities during 'off timetable days' or careers or options questionnaires. These examples were given as options which would ensure that learners' knowledge and understanding were tested without causing undue and unnecessary stress. It should be noted however that there are limitations in this approach as previously stated that approaches of this sort do not necessarily assess a learners' ability to apply concepts in different contexts and do not necessarily raise the focus of the words or concepts with the learners themselves. Assessment which raises the profile of words with learners could be beneficial to a learners' wider understanding of career-related issues.

**'I think it would be useful. Often young people have received careers education but they don't always realise what they have had. An assessment would bring this all together in one place.'**

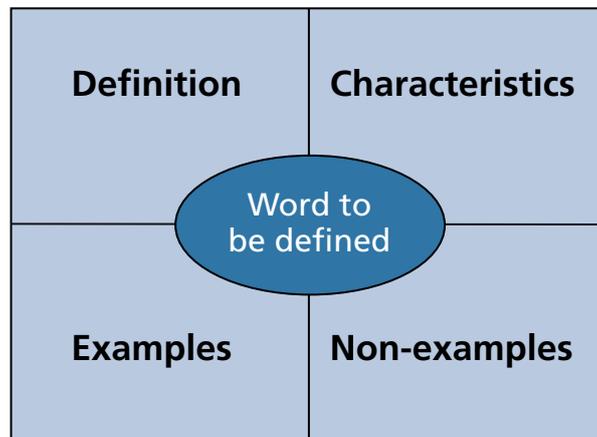
**Teacher (11-16 school)**

## 6.2 Exploring concepts

The research sought examples of good practice in the teaching on new career words and concepts. It should be noted that this was a small study with only 4 case study schools. There was little good practice identified in terms of approaches adopted to help learners develop career words and concepts however this should be not generalised to mean that good practice does not exist. Career educators might wish to consider however what opportunities exist to develop career vocabulary in their organisations and to ensure that approaches are adopted in order to ensure that conversations about career are meaningful and engaging. Developing linguistic strategies which cause learners attention to shift from a simple definition of a word to one which explores their meaning in different contexts during discussions about career can provide an approach which can be used to help young people to become 'career literate'. American educators Jenkins, Bennett & Rexrode (n.d.) have developed a lesson in which they explicitly tackle the issue of career vocabulary, asking students to develop definitions of common words and to explore the relationship using the Frayer model of concept mapping (Frayer, Fredrick & Klausmeier, 1969). Concept mapping provides learners with an approach to organising conceptual information during the process of defining a word. This approach provides learners with a strategy for defining and clarifying the meaning of unknown words and used in a career learning context could be a useful approach to helping improve 'career literacy'.

Figure 4 below gives an example of a Frayer diagram which can be used to help learners to understand and give meaning to words. The Frayer model helps learners develop a better understanding of complex concepts by identifying not just what something is, but what something is not. The centre of the diagram shows the concept being defined, while the quadrants around the concept are used for providing the details. Once completed, the resulting visual helps a learner to connect new ways of understanding a word with pre-existing knowledge and provides a personal resource for revisiting new words.

**Figure 4:** Frayer Diagram



### 6.3 Teaching new vocabulary and wider career concepts

Through discussions undertaken as part of this research young people, and to a lesser extent adults, identified career vocabulary that they found challenging or confusing. These included job titles or occupational areas which they were aware of but were unclear of the meaning of (e.g. archaeologist). The second category of confusing words might be described as terms which are not related to occupations but to the situations and processes through which career is enacted. In this group words and concepts such as 'redundancy' and 'paternity leave' were mentioned as ideas which had recently been encountered but had proved confusing. These terms reiterate the point that the acquisition of career vocabulary is primarily about developing a greater conceptual understanding of career and the world of work.

There were very few examples of educators including the learning of career vocabulary in schemes of work. One participant noted that they had embedded an approach in their own practice which helped young people to develop their career literacy.

**I have just realised that are a few words that you can't take for granted. I pick out words throughout the lesson and explain and get them to learn three new words'.  
Teacher (11-19 school)**

Whilst this example can be seen as good practice, this was not replicated in other parts of the school.

Role models were conscious of their use of language when referring to technical aspects of their jobs. One role model noted that whenever they were talking about their job they linked their work tasks to curriculum subjects in order to help learners to understand how school learning prepared learners for the world of work. Role models noted the need to adopt accessible language when talking to young people about work-related issues however did not elaborate on how they differentiated language to appropriate ages and stages of learners. Role models noted that they had varied experience of training to support their roles. Many noted that the most valuable training had been through observing teachers in the classroom.

## 7 Final thoughts

The interpretation of the concept of career is an intensely personal one, and whilst this research does not advocate the development and use of universal definitions of many career concepts it does conclude that care should be taken by adults when introducing career concepts to learners particularly during the earliest stages of their career exploration and at the point when stereotypical views are often reinforced through family, peers and the media.

The research suggests that young people develop career concepts in a staged way which begins with a detached and impersonal understanding. As learners develop, they become more discerning about the images and views that the world presents and their conceptualisation of many career terms and ideas becomes more personalised.

Professionals who have responsibility for both supporting and influencing young people need to be aware of the complexity of career vocabulary and to approach the issue carefully. However it is important not to see young people as tabula rasa (blank slates) and to recognise that they will have been developing their career concepts and career vocabulary from an early age, often stimulated to do so through popular television programmes and conversations with family members and peers. Young people often find their own language to express themselves and their ideas. This is true regarding career-related concepts. Some young people in this study noted that they do not identify with the formal term 'career' on a personal level but do recognise the concept and understand its use in formal settings. This report does not advocate that professionals stop using formal career words with young people but rather help them through educational intervention to become familiar and comfortable with these terms in a way which encourages and sustains career conversations. It is important however that where attempts are made through less formal settings to engage young people in thinking about career, that care is taken in choosing ways of expressing career concepts in a way which does not alienate young people and cause them to disengage from thinking about career.

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## 9 Appendix 1: Methodology

The project was conducted through a series of separate but inter-related phases.

### Developing a list of the top 10 most frequently used career-related words in online careers resources.

In order to test out young peoples understanding of career words the research team developed a list of the top 10 most frequently used words in popular careers information resources. A number of websites were identified (see table.... below) using Google to search for age appropriate career materials. In addition, recommended links from career sites were also followed. A further tactic was to email practice based colleagues to recommend resources. Websites were taken as a proxy for all careers information resources. This was due to the popularity of internet use amongst young people, the availability of a cost affective approach to analysis and the resource limitations of the project.

A range of pages were selected form each website including ones designed specifically for year 9.11, and 13 learners. A range of topics such as case studies, university, gap year, option choices and general career planning advice were selected for scrutiny to give a balance to the research.

**Table 1:** Websites used to establish the most frequently used career vocabulary in resources for young people

Name of site	Link	Age appropriate
Directgov	<a href="http://www.direct.gov.uk/en/YoungPeople/Workandcareers/index.htm">http://www.direct.gov.uk/en/YoungPeople/Workandcareers/index.htm</a>	Young people of all ages and stages
Future Morph	<a href="http://www.futuremorph.org/">http://www.futuremorph.org/</a>	STEM related- Young people of all ages and stages
Connexions Derbyshire	<a href="http://www.connexions-derbyshire.org/a/wp.asp?pid=1">http://www.connexions-derbyshire.org/a/wp.asp?pid=1</a>	11-19 learners
Prospects	<a href="http://www.prospects.ac.uk/">http://www.prospects.ac.uk/</a>	Undergraduates and post graduates
Icould	<a href="http://icould.com/?gclid=CJDysdOMmKwCFQRTfAodv1PdDw">http://icould.com/?gclid=CJDysdOMmKwCFQRTfAodv1PdDw</a>	11-19 +
Not going to uni	<a href="http://www.notgoingtouni.co.uk/">http://www.notgoingtouni.co.uk/</a>	14-19
National Apprenticeship Service	<a href="http://www.apprenticeships.org.uk/">http://www.apprenticeships.org.uk/</a>	14-25

The top 10 career-related words from each site were identified using Tag Crowd, an internet based application which analyses text and identifies the regularity of the use of vocabulary. The results are presented visually as a 'Tag Cloud'.

The top ten most frequently used words on a selection of pages from each of the 7 selected sites were then analysed using the same approach resulting in a final list of the 10 most commonly used terms. The tagcloud is presented below.

**Figure 3:** Ten most frequently used career related words



**Literature review**

A descriptive literature review was undertaken using search engines and the expertise of the research team. This evolved as an ongoing process in response to emerging issues throughout the project. The social book marking site ‘citeulike’ was used to share resources amongst the research team. A full bibliography is provided with the report.

**Focus groups with young people**

82 young people from years 7 (11 years of age) to Year 13 (18 years of age) participated in focus groups. Participants were drawn from a range of cultural and religious groups and would involve young people of mixed abilities.

Focus groups included an observation of an interactive activity (see appendix 2) which provided an insight into the type of language young people used when talking about career related issues. Further discussion was carried out using pre-determined discussions guides (See appendix 2)

**Table 2:** Sampling frame for the outreach vocabulary project

Cohort	School 1 (12-18)	School 2 (11-16)	School 3 (11-16)	School 4 (11-19)	Total
Y7	0	8	5	8	21
Y8	8	0	0	0	8
Y9	5	5	5	7	22
Y11 (Mixed ability )	5	9	0	0	14
Y11 (Gifted and talented	0	8	0	0	8
Sixth Form	4			5	9
<b>Total</b>	<b>22</b>	<b>30</b>	<b>10</b>	<b>20</b>	<b>82</b>

**Interviews with professionals**

The research involved discussions with a range of professionals including teachers (both career specialists and subject specialists), work-related learning coordinators, careers advisers and role models including research professionals and those employed in STEM occupations (STEM ambassadors) . Participants were interviewed during visits to schools and through telephone interviews where appropriate. In total 9 adults were involved in the research.

### **Analysis and reporting**

Data was collated and analysed thematically using the aims of the research as topics or theme. Sub-themes were identified by further thematic analysis within these broad topic areas. The research report has been structured to address the research aims of the project and includes recommendations for CEIAG and STEM practitioners. The report acknowledges the limitations of the research and suggests further areas for study

## 10 Appendix 2: Research tools

Interactive sessions included in focus group activities with learners as part of the outreach vocabulary project.

The purpose of these sessions is to provide an opportunity for young people to have a career related discussion in order to observe them using career vocabulary.

The activities will be carried out with 4 age groups of learners

### Year 7

#### **Past present and future:**

Learners to sort cards in to jobs from the past present and future. Observe their conversation as they have to reach a consensus.

Followed by focus group discussion using the discussion guide

### Year 9

#### **Past present and future:**

Learners to sort cards in to jobs from the past present and future. Observe their conversation as they have to reach a consensus.

Followed by focus group discussion using the discussion guide

### Year 11

#### **Odd one out:**

Members of the group are asked to reach a consensus on which one of 4 cards (x4) is the odd one out. Each group has some loose association. It is not important which one is the odd card but rather the discussion which takes place during the decision making process.

Followed by focus group discussion using the discussion guide

### Year 13

#### **Thinking about peoples' life journeys:**

Using a line with different ages at year intervals (10, 15, 18, 21, 26, 30, 40, 50, 60, 70,) learners are asked to discuss what events of significance happen in a persons life journey. The researcher will ask a range of checking questions to stimulate discussion such as

- What do you mean by that
- Why was that important
- How did it relate to what has gone before
- How does it relate to what else is happening at this age
- How does it relate to what is going to happen in the future

Followed by focus group discussion using the discussion guide

## **Outreach vocabulary Discussion guide with learners**

The International Centre for Guidance Studies at the University of Derby have been asked to do research about the type of language which young people use when they are thinking and talking about their futures. This research will help the people who make resources make them more interesting and helpful.

This project is going to particularly help those who are trying to inform young people about ideas for the future in science, technology, engineering and maths.

In order to try and understand what language is helpful to use, we are going to ask you to undertake some activities. We will be digitally recording these so that we can take accurate notes. We are also going to ask you some questions to try and understand what language is helpful and what is not helpful when talking about your future direction in life.

At the end of the project we will write a report to help people think about language when designing information resources.

Although we have asked for your name and year group we are only going to use this information to keep track of who we have spoken to . We will not use your name in any report which we produce as a result of this research. You can decide not to be involved in the research at any stage.

### **Do you have any questions?**

### **Please sign the consent form**

## **Thinking about people's life journeys**

Think about a celebrity or famous person.

What do they do?

How did they get to be where they are today?

What key things happened to help them be successful?

## **Understanding career**

What do you understand by the term career?

Is it a word that you would ever use?

Who uses it?

## **Careers lessons**

Do you have careers lessons at school?

What sort of things are covered in these lessons?

Do you ever find there are words which are used in careers lessons that you don't understand?

Give me some examples

Do you feel able to ask your teacher to explain these words to you?

Has this ever happened?

Tell me about what happened

Using information to help you make decisions about the future

Where do you get information from when you are thinking about career decisions?

How do you choose 'good' careers information?

What makes you reject bad careers information?

Do you ever reject careers information because you can't understand the words which are used?

Are there any career words which you find hard to understand?

### **Getting help from teachers and advisers**

Do you ever go to teachers or advisers to talk about your ideas for the future?

Do you find it easy to talk about your ideas?

Do you feel that teachers and advisers understand the type of words you use to describe your ideas?

Have you ever had a time when people have been talking about your ideas with you and you haven't really understood what they were saying?

What did you do about this?

Do you ask them to explain what they meant?

What was the response of teachers and advisers if you asked them to explain what they meant?

### **Getting ideas for the future from people and places around you**

People get ideas about what they might like to do in the future from all sorts of people and places.

How would you describe the type of work a scientist does

Prompts

- What are scientists like?
- What are the places that scientists work like?
- How would you describe the type of work an engineer does?

Prompts

- What are engineers like?
- What are the places that engineers work like?
- How would you describe the type of work that technology people do?

Prompts

- What are technology people like?
- What are the sort of places technology people work in?
- What sort of work do maths people do?

Prompts

- What are maths people like?
- What sort of places do maths people work in?

### **What do the following words mean?**

(Use the cards with these words on to generate discussion)

- Work
- Job
- College
- Training
- Apprenticeship
- Qualifications
- Skills
- Industry
- University
- Sixth form

### **Learning the right language to talk about careers**

We need to help people understand the best way to present information about jobs and careers using language and words which make it easy for young people to understand.

Have you got any tips we can pass on?

**Thank you for taking the time to be involved.**

## **Outreach vocabulary Discussion guide with teachers and advisers**

The International Centre for Guidance Studies at the University of Derby have been asked by the National HE STEM Programme to do research about the type of language which young people use when they are thinking and talking about their futures. The project focuses specifically about the language used to describe STEM (science, technology, engineer, and maths) careers. The results of this research will support the production of interactive careers resources in science museums.

We are going to ask you some questions to try and understand what language is helpful and what is not helpful when talking about young peoples careers. We are also interested in the steps you take to ensure that your language is appropriate during conversations about careers.

At the end of the project we will write a report which will present the research findings. This will be publicly available.

No comments made by you will be directly attributable. All data which you provide will be stored securely on a password protected area of the University of Derby computer system. You have the right to withdraw at any stage of the research without providing a reason.

### **Do you have any questions?**

**Please sign the consent form**

### **Teacher/adviser questions**

Tell me how you got to where you are today?

How do you understand the term "career"?

Do you talk about career differently when you are working with young people?

How so?

How do the young people that you are working with talk about career?

Do you try and teach people new "career vocabulary" when you are talking about career?

How do you introduce new career vocabulary to young people?

When does this happen?

Would it be useful to have some kind of formal assessment for career vocabulary?

Which of the following concepts/terms would you discuss at key stages 3, 4 and 5?

- Work
- Job
- College
- Training
- Apprenticeship
- Qualifications
- Skills
- Industry
- University
- Sixth form

Do you ever find there are words which you use in careers lessons that young people regularly don't or misunderstand?

- Any particular age groups?
- How do you know?
- What is your strategy on these occasions?

What information sources and resources do you use in career learning activities? Do these use the same language as you? As the young people? What are the differences?

We need to help people present information about jobs and careers using language and words which make it easy for young people to understand. Have you got any tips we can pass on?

**Thank you for taking the time to be involved.**

## **Outreach vocabulary Discussion guide with ambassadors and researchers**

The International Centre for Guidance Studies at the University of Derby have been asked by the National HE STEM Programme to do research about the type of language which young people use when they are thinking and talking about their futures. The project focuses specifically about the language used to describe STEM (science, technology, engineer, and maths) careers. The results of this research will support the production of interactive careers resources in science museums.

We are going to ask you some questions to try and understand what language is helpful and what is not helpful when talking about young peoples careers. We are also interested in the steps you take to ensure that your language is appropriate during conversations about careers.

At the end of the project we will write a report which will present the research findings. This will be publicly available.

No comments made by you will be directly attributable. All data which you provide will be stored securely on a password protected area of the University of Derby computer system. You have the right to withdraw at any stage of the research without providing a reason.

### **Do you have any questions?**

**Please sign the consent form**

### **Ambassador and researcher questions**

Tell me a bit about your role as an ambassador?

What do you do when you are not an ambassador?

Tell me how you got to where you are today?

Tell me a bit about your career aspirations?

How do you understand the term "career"?

Do you talk about career differently when you are working with young people?

How so?

How do the young people that you are working with talk about career?

Do you try and teach people new "career vocabulary" when you are talking about career?

Explain what you understand by the following concepts? When and how would you talk about these concepts in your role as an ambassador?

(Use the cards to present the words to the participants)

- Work
- Job
- College
- Training
- Apprenticeship
- Qualifications
- Skills

- Industry
- University
- Sixth form

We need to help people present information about jobs and careers using language and words which make it easy for young people to understand. Have you got any tips we can pass on?

**Thank you for taking the time to be involved.**