

UK Trade Unions engagement with climate change and the need for a 'just transition'

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Abstract

This dissertation examines the role that UK trade unions will play in the fight against climate change. The main research question asks, “How are UK trade unions engaging with climate change and the need for a ‘just transition’?”

There is an urgent need to transition to a low carbon economy to mitigate climate change. The necessary changes to industries will impact on workers through the loss of jobs, modifying of existing jobs and the potential for new ‘green’ jobs. Trade unions, as representatives of worker’s interests, have an important role to play.

Trade unions at an international and national level are engaging with climate change and developing policies. An overriding response has become the ‘just transition’ framework. The just transition framework grew out of the need to consider the impact on jobs due to climate change policies. It has since widened out to encompass the socioeconomic transition to a green economy. Literature on the subject is limited, but where it does exist it shows that trade union understanding and use of the just transition framework is diverse and related, in part, to the specifics of the sector.

A major objective of the research was to evaluate awareness and understanding of ‘just transition’ in a UK context. To this end, semi-structured interviews were carried out with four trade union officials from different sectors.

Responses from the interviews showed that there was engagement with ‘just transition’ amongst the trade unions involved. However, the unions had different approaches specific to their sector interests and experiences. There was a desire to create consensus on what ‘just transition’ means for trade unions and a need to engage the wider membership by ‘making it real’.

On the basis of the research, recommendations for further action on ‘just transition’ are presented, these include: provide education and skills training, convene a community of practice and provide visible leadership.

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Table of contents

Abstract	i
Acknowledgements	ii
Table of contents	iii
List of acronyms	vi
List of figures	vii
List of tables	viii
1 Introduction	1
1.1 Background	1
1.2 Research focus	2
1.3 Overall research aim and research objectives	3
1.4 Value of the research	4
1.5 Dissertation structure	4
2 Issues and review of related literature	6
2.1 Introduction	6
2.2 Overarching issues	6
2.3 Green transformation	7
2.4 Transition to a green economy	8
2.5 Trade Unions in society	10
2.6 Engagement with climate change	12
2.7 Environmental justice	14
2.8 Just Transition	15
2.8.1 Background to Just Transition	17
2.9 Trade unions and environmental issues	18
2.10 Chapter summary	22

3	Research Methods	24
3.1	Introduction.....	24
3.2	Research strategy	25
3.3	Data collection.....	25
3.4	Sample selection	26
3.5	Interview strategy	27
3.6	Data Analysis	28
3.7	Research limitations.....	29
3.7.1	Credibility (validity) of research	29
3.7.2	Dependability (reliability) of research.....	30
3.8	Ethical considerations	30
4	Research findings: Description and Analysis.....	31
4.1	Findings from participation in trade union event on ‘just transition’	31
4.2	Findings from analysis of TUC climate change motion	32
4.3	Findings from interviews.....	34
4.3.1	Background to job roles of interview participants	34
4.3.2	Interview findings: Awareness and understanding of ‘just transition’	34
4.3.3	Interview findings: Strategies for action	36
4.3.4	Interview findings: Barriers to action	38
4.3.5	Interview findings: Making Just Transition meaningful	39
4.3.6	Wider issues	39
5	Discussion.....	42
5.1	Summary of findings.....	42
5.2	Awareness and understanding.....	42
5.2.1	Common understanding.....	42
5.2.2	Disagreements.....	43
5.3	Strategies.....	43

5.4	Are unions themselves the barrier?.....	44
5.4.1	Leadership.....	44
5.4.2	Don't understand the language	45
5.4.3	Acting as one voice	45
5.4.4	Wider interests.....	45
5.5	Green jobs?	46
5.6	Making it real	46
5.7	Recommendations for action on 'just transition'	47
6	Conclusions	50
6.1	Introduction	50
6.2	Research objective 1	50
6.3	Research objective 2	51
6.4	Research objective 3	51
6.5	Research objective 4	51
6.6	Reflections on the research	52
	References.....	53
	Appendix A	62
	Appendix B	63
	Appendix C	65
	Appendix D	66
	Appendix E.....	68
	Appendix F.....	69
	Appendix G	70

List of acronyms

CACCTU	Campaign Against Climate Change Trade Union group
CCC	Committee on Climate Change
COP	Conference Of the Parties
GHG	Greenhouse gas
GJA	Greener Jobs Alliance
ILO	International Labour Organization
ITUC	International Trade Union Confederation
LRD	Labour Research Department
NGO	Non-Governmental Organisation
TUC	Trades Union Congress
TUED	Trade Unions for Energy Democracy
TUSDAC	Trade Union Sustainable Development Advisory Committee
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

List of figures

Figure 1 Word frequency tree map	32
Figure 2 Typologies of just transition (adapted from Goods, 2013:16).....	44

List of tables

Table 1 Functions of trade unions (adapted from Ewing 2005:3-5)	10
Table 2 Three forms of environmental justice	14
Table 3 Summary of just transition research	21
Table 4 List of interview participants	34
Table 5 Overview of interview responses	41

1 Introduction

This chapter provides background information on the low carbon transition necessary to address climate change including a need to consider how these transformations will impact on society and how trade unions are responding. The focus of the research is considered and the overall research aim and individual research objectives are established. The chapter concludes by presenting an outline structure of the dissertation.

1.1 Background

Acting on climate change is a global and national priority. The requirements to meet greenhouse gas (GHG) emissions reductions demanded by the 2015 Paris agreement and the UK 2008 climate change act (The UK Government, 2008) will require concerted action from all sections of society. The need for a genuine transformation of economies will require widespread social engagement and political desire to do it. It has been stated (Wallis, 2015: xv) that there is “currently no sense that climate change is high on the political or public ‘to-do’ list.” This ‘governance gap’ also suggests that there is a requirement to expand the “social reality” of climate change to bring it into the mainstream (Corner, 2015:14). Also, the changes that are necessary to transition towards a low carbon green economy (UNEP, 2011) will require public support and greater opportunities for people to participate in decision making around climate change (Whitmarsh and O’Neill, 2011).

The greatest potential for emissions reduction will be in changes to industrial production (Räthzel and Uzzell, 2011), but a recent report for the UK Government by the committee on climate change (CCC, 2018) showed that GHG emissions in the industrial and transport sector rose last year. This suggests there needs to be a renewed focus on a low-carbon transition from the current fossil-fuel and energy intensive economy.

The idea of framing the fight against climate change as a ‘justice’ issue can create a powerful narrative or “myth of climate change” (Hulme, 2009: 353). It can reflect a desire for social and economic rights and appeals to values of fairness and equity. The notion of procedural justice (Hulme, 2009) emphasizes that action and policy decisions made about climate change are fair.

1.2 Research focus

The transition to a low carbon economy will entail a fundamental switch from the existing fossil-fuel based economy towards low carbon systems (Geels, 2014). There will need to be transformations in the energy sector, transport, industry, agriculture and other systems as well as new policies, infrastructures and forms of behaviour (Verbong and Geels, 2010). These changes will have a significant impact on employment. There will be losses of jobs in high carbon emitting industries, a requirement for transformation and 'greening' of current jobs and also opportunities for the creation of new jobs in a low carbon economy (UNEP and ILO, 2008). Claims made by Nelissen (2012: 220) show that, "a low carbon and sustainable economy has enormous potential to create new green jobs".

As the transition involves transformation of jobs and changes to workplaces it is a vital concern of trade unions. International and national trade unions have engaged with this debate (TUC 2008, 2009, 2015; ITUC 2017) and called for a "Just Transition" as a realisation that the change presents opportunities for the creation of new 'greener' jobs and industries, but also that the protection of workers and communities must be a major consideration of any transition policy. The way that policy makers engage with and support the 'Just Transition' framework through social dialogue with trade unions will be crucial in creating a wide social basis for change and a higher level of social acceptance (Nelissen, 2012).

Being able to understand the way that the messages on climate change are 'framed' within trade unions will be an important one. As explored by Corner, Markowitz and Pidgeon (2014), people form specific feelings and beliefs about climate change regarding how it has implications for the values they hold. Workers often see their work as an important part of their life. It can provide a sense of purpose, pride and personal identity and give the worker a "position in society" (Räthzel and Uzzell, 2011:1219). If the perception amongst workers and unions is that policies to combat climate change do not "bode well for jobs" (Goods, 2013:13), then they are likely to reject the need for greater action. A key part of the research will be to determine the understanding, attitudes, and strategies that UK trade unions are adopting on 'just transition'.

Whilst trade unions are not thought of as being active in the environmental arena and often need to be "cajoled and incentivised to participate" with environmental matters (Farnhill, 2016:257) they have an important role to play. The challenge for trade unions is the tension

between their traditional role of protecting the interests of their members, but also to respond to wider social interests, such as acting on climate change (Vachon and Brecher, 2016). This tension is portrayed as the 'jobs-versus-environment' debate (Räthzel and Uzzell, 2011). The way that 'just transition' uses the narrative of justice and fairness and creates a positive message of creating not just green jobs, but decent jobs will be a powerful counter argument. Can the 'just transition' framework help trade unions create a link between climate change and people's lives (Corner, 2015) and to forge alliances with other social movements to act on climate change (Hale, 2010)?

Previous work (Räthzel and Uzzell, 2011; Farnhill, 2016) has established that very little research has been carried out focussing on climate change and the world of work. In a UK context, research carried out for the TUC by the Labour research department (LRD 2009; 2012) involved surveying shop stewards and environmental reps on the actions their unions were taking in the workplace. To date, there is little knowledge beyond anecdotal as to current awareness and understanding of the 'just transition' frame within UK trade unions or the practical strategies that are being enacted.

1.3 Overall research aim and research objectives

The research is a collaborative project as part of the NUS 'dissertations for good' scheme working with the Greener Jobs Alliance (GJA). The GJA are a partnership body of trade unions, student organisations and campaigning groups (GJA 2018). The alliance campaigns around the issues of jobs and skills required to transition to a low-carbon economy. A key part of their work is to develop resources and training to help trade unions in this area.

The research proposal was developed as a result of background reading on the topic and preliminary literature review. The final research objectives were then developed in collaboration with the research partner.

The overall research question is: How are UK trade unions engaging with climate change and the need for a 'just transition'? However, it is felt necessary to first understand the concept of 'just transition' and how it fits in with narratives around the transition to a low-carbon economy and linkages to a green economy and green jobs. The research will assess the notion of 'just transition', how the language is being used, what practical approaches are being used and what barriers exist? The research will use a combination of literature review, analysis of publicly available documents from trade union organizations and

interviews with officers from selected UK trade unions. The *research methods* section contains further details of both the research strategy and the data collection and analysis techniques.

The primary research question is: How are UK trade unions engaging with climate change and the need for a *just transition*?" The objectives of the research are to:

- 1) *Explore and evaluate* the 'just transition' framework and its relationship to other transition narratives such as green economy, low carbon transition and environmental justice.
- 2) *Determine* current engagement with 'just transition' amongst trade unions.
- 3) *Explore* awareness, understanding, views and practices related to climate change and 'just transition' from officers in UK trade unions, including barriers and opportunities for action.
- 4) *Formulate* recommendations for future trade union action on 'just transition'.

1.4 Value of the research

The research will contribute to the development of 'just transition' in a number of ways: Firstly, by providing a review of 'just transition' and how it is being used in other contexts will allow understanding and best practice to be transferred; secondly, the research will help the GJA in their work on 'just transition': to identify awareness and knowledge deficits within UK Trade unions; thirdly by obtaining the views of trade union members a 'richer picture' will emerge and allow a comparison between the theoretical framework and practical use of 'just transition'.

1.5 Dissertation structure

The dissertation is structured in the following way:

Chapter 1: Introduction, provides background information on the transition to a low carbon economy. The focus of the research is discussed and the overall research aim and individual objectives are stated.

Chapter 2: Issues and related literature, explores the concept of the 'just transition' framework further. Previous literature on how trade unions are engaging with just transition is evaluated and areas where more research is needed are presented.

Chapter 3: Research methods, presents the research methods used including sample selection and details of the data analysis.

Chapter 4: Research findings and analysis, presents the findings from the research activities including participation in a trade union event, analysis of documents, and interviews with trade union officers.

Chapter 5: Discussion, links the research findings back to the findings from the literature review and presents recommendations for future action on 'just transition'.

Chapter 6: Conclusions, discusses how the report has met the aims of the research objectives and discusses the research limitations.

The next chapter examines literature relevant to the objectives of this research.

2 Issues and review of related literature

2.1 Introduction

This review of literature chapter considers objectives 1 and 2 of the research:

- 1) *Explore and evaluate* the ‘just transition’ framework and its relationship to other transition narratives such as green economy, low carbon transition and environmental justice.
- 2) *Determine* current engagement with ‘just transition’ amongst trade unions.

Considering the overall research question: How are UK trade unions engaging with climate change and the need for a ‘just transition’? It can be seen that there are various terms within this question that need elaboration.

Although defined in sections, this chapter is not strictly a linear process as there are connections and overlaps between different sections. First, the use of the word transition will be explored in the context of a transition away from a fossil fuel economy to a low carbon economy. This brings in the concept of the green economy and green jobs. Second, trade unions need to be understood in their role as an important actor within society. Third, the phrase: ‘engaging with climate change’ needs definition as the theories surrounding climate change engagement are explored. Fourth, the use of the word ‘just’ suggests that there is an element of fairness or justice to be outlined. This will be investigated through understanding the connections to environmental justice and the concept of climate justice. Fifth, the term ‘just transition’ is evaluated to understand how it has been developed and how it is being used. Sixth, an evaluation is made as to how the ‘just transition’ framework is being used by trade unions in different countries, chiefly Canada and Australia. Lastly, the chapter concludes with a summary and explores where further empirical evidence is needed to address the research objectives.

2.2 Overarching issues

It is no exaggeration to suggest that climate change is the biggest challenge facing society today. The commitments made under the Paris agreement (UNFCCC, 2015) to limit global temperature rise to 1.5 degrees Celsius will require rapid and deep societal changes. These changes will entail changes in patterns of energy use, innovations in low-carbon technology and shifts in the configurations of industries and economies (Foxon, 2011). This in turn

places great demands on political systems to act on the transformations needed. Although discussions around this issue often consider the economic or technical feasibility of such a transition, a critical aspect will be the political barriers to realizing these changes (Patterson et al. 2018) and an awareness of the 'social dimension' (Cook and Smith, 2012).

International trade union organisations have engaged with the debate as they recognise that the move to a low carbon economy will be a difficult task. They demand that, "The transformation has to be an inclusive process; it has to come along with a social pact-a pact for a global and just transition" (ITUC, 2009:10).

2.3 Green transformation

The transformations required to mitigate climate change are unlike any previous transition. To achieve a low carbon transition there will need to be socio-political struggles against the fossil-fuel companies and other actors that are reluctant to change (Schmitz, 2015).

Similarly, Geels (2014:35) states that regime resistance involves the "destabilisation of existing regimes" and a need to focus on the prevention of fossil fuels being burned as much as on 'green' alternatives.

The transition away from a fossil fuel economy needs to happen at pace, but evidence suggests that the pace of change is slow (Figueres et al. 2017). For the UK, fossil-fuels still account for 81.5% of Total Primary Energy Supply (Carbon brief, 2017).

Support for the transition needs to act over multi-levels with the awareness that no single actor in the system can solve it by themselves (Schmitz, 2015). But, throughout government, civil society and business there is resistance to change. It is proposed by Slawinski et al. (2017: 253) that an organisation's reluctance to act on climate change is subject to short-termism and uncertainty avoidance and is influenced by "individual, institutional and organisational interactions."

Considering the seriousness of climate change the issue is also judged to be low on the political agenda (Corner, 2015) and current responses to act on rising carbon emissions are stated as being "piecemeal and insufficient" (Nyberg, Wright and Kirk, 2018:235).

Businesses have significant power over policy due to their role in creating jobs and generating taxes. Although there is a need for greater regulation to be introduced by government there is also a powerful lobbying element from within business to reduce the burden they have to face regarding environmental issues.

The concept of hegemony is introduced by Nyberg, Wright and Kirk (2018) as a way of explaining how a particular regime, such as the fossil-fuel industry, can dominate discussions or practices. Hegemony is described as, “an ideological conception of the world that is taken for granted in creating the future” (ibid: 237). It is constructed amongst diverse groups with different interests through the process of developing relationships and making agreements. Also, because organisations have interests that might often contradict each other the dominant actors are able to exploit these for hegemonic purposes. An example of this for a trade union could be a tacit support for fracking¹ because of the potential for job creation. These issues will be important for later discussions when the role played by trade unions in society will be determined.

Discussions on the transition to a low carbon economy often involve the notion of ‘green economy’ and ‘green’ job creation as particular sustainability narratives. These can act as a justification for specific interventions (Luederitz et al. 2017). The next section briefly considers the concept of the green economy and green jobs.

2.4 Transition to a green economy

The term ‘green economy’ became more widely discussed after the financial crisis of 2007-2008 with the setting up of a ‘green economy initiative’ by the United Nations Environmental Programme (UNEP). This led on to the comprehensive ‘Towards a green economy’ report produced by UNEP (2011).

The whole concept of a transition to a green economy rests on the fact that human actions and the current economic model have had profound effects on the environment. But the term ‘green economy’ is open to debate (Peters and Britez, 2010) as there are multiple interpretations from definitions that focus on technological fixes, such as forms of ‘clean’ renewable energy (Chapple, 2008), to ones that more explicitly address human well-being and social equity (UNCTAD, 2010). There is a strong focus on the creation of ‘green’ jobs (UNEP and ILO, 2008). But, questions are raised on this issue by Cook and Smith (2012) as to how green economy policies balance a market based approach with the need for social and climate justice. The definition of green economy from the green economy coalition (2012) acknowledges the fact of the ecological limits of the planet (Röckstrom et al. 2009) thus placing it into wider sustainability discourses.

¹ Fracking or Hydraulic fracturing is a technique designed to recover gas and oil from shale rock.

Although a strong narrative for trade unions to engage with, the green economy should not be seen as a ‘magic bullet’ for delivering growth and solving multiple global problems (Cook and Smith 2012:6). If we accept that the move away from a fossil-fuel dependent economy is essential, the question asked by Lander (2011) is whether the green economy model is distinctly different to achieve the desired objectives.

The importance of green jobs and the green skills required are prime components of a transition strategy. This is witnessed by the broad engagement with the topic across diverse groups from international organisations (UNEP and ILO, 2008; ILO, 2018), national government (Department for Business, Innovation and skills, 2011), international and national trade unions (ITUC, 2012; Unionlearn, 2012), campaigning groups (CACCTU, 2014) and academia (Jagger, Foxon and Gouldson 2013; Poschen, 2015).

Similar to the ‘green’ economy, ‘green’ jobs are difficult to define. There are ‘shades’ of green jobs identified by Goods (2013) from light-green, mid-green and deep-green: these attempt to categorise jobs that provide employment, but no significant environmental benefit, through to jobs that require societal transformation and address ecological concerns.

Although green jobs remain central to discussions around a ‘just transition’, Uzzell (2010) contends that the term ‘green job’ originates in the environmental movement and not the union movement. Also, green jobs are presented as “misleading”, “alienating” and “not helpful” in research by Goods (2013:22). A green job should be a decent job according to Stroud et al. (2018). Green jobs should provide a living wage, respect the dignity of workers, provide long-term employment and opportunities for advancement, create a safe working environment free of pollution and generate opportunity for the community as well as protect and improve the environment (Farrell, 2012:56).

The narrative of job creation and climate action is used by the campaign against climate change trade union group (CACCTU, 2014). The group advocates for a government led programme of climate jobs rather than relying on market mechanisms. They propose a distinction from ‘green’ jobs to ‘climate jobs’. These are jobs that “lead directly to cuts in emissions of GHG’s and so slow down climate change” (ibid: 4).

The notion of creating new ‘green’ jobs may only entail a small section of jobs compared to the existing jobs within the whole economy. There is also the requirement for the

‘greening’ of all jobs, a concept discussed by the TUC in their greening workplaces campaign (TUC, 2014). This suggests that all workers can have a role to play in changing practices and contributing to emissions reduction. The challenge for unions will be to develop policies that help workers implement changes in the workplace. To this end, workers must have a say in the decisions that transform how jobs are carried out. Developing ‘environmental literacy’ will be important in creating a broad workers movement that understands the need for a transition to a low carbon economy (Unionlearn, 2012).

A recent report by the International Labour Organization (ILO, 2018b) has raised a note of caution about the impact on green job creation from green growth policies. Evidence shows that information about job creation of various policy options is limited. There tends to be a strong focus on energy sector job impacts despite transformations needed in other sectors. There is virtually no evidence on the quality of jobs created, which is an important focus of trade unions. Statistics often provide a broad picture of number of jobs, but don’t assess if the jobs are permanent or temporary.

Protecting jobs and other employment related issues is a key focus of trade unions. It is important for this dissertation to establish the role played by trade unions in society to determine the different forms of action they might take on climate change. The next section briefly highlights the different functions of trade unions.

2.5 Trade Unions in society

Trade unions are “collective organisations with collective practices” (Fairbrother, 2008:218). The functions of trade unions can often be in a state of flux as they are influenced, to some extent, by the dominant political conditions (Ewing, 2005). Despite this process of constant change it is stated that they have five principal functions (Table 1).

Table 1 Functions of trade unions (adapted from Ewing 2005:3-5)

Function	Form it takes	Examples
Service	Provision of services and benefits to members.	Health benefits or provision of legal advice.
Representation	Representing interests of employee in workplace.	Providing representation to individual in grievances or collective bargaining of the workplace as a whole.

Regulatory	Involvement in setting rules beyond their members. Collective bargaining ²	Setting terms of conditions for an industry or sector. Securing regulatory legislation.
Government	Engagement with government. Political representation of working people and restraining power of state.	Development and implementation of government policy.
Public administration	Engagement with government	Implementation of public policy that the union has a hand in shaping, e.g. skills training.

The regulatory function is tentatively proposed by Ewing as the most important function of trade unions. It best highlights the work of trade unions in supporting social justice both within workplaces and the wider economy. But, Ewing identifies that this role, fulfilled by collective bargaining, has been diluted over the years. Because of this restriction, trade unions have had to resort to more political action. This can be either within the regulatory function through political campaigning to achieve legislation or through the government function and forming alliances with political parties.

Unions can adopt different political strategies according to Stevis and Felli (2015). ‘Business unionists’ aim is to get a fair share out of a growing economy without attempting reform, whereas ‘social unionists’ believe they should have a say on the wider political economy as it shapes their benefits and their desire to be engaged citizens. Stevis and Felli go on to mention that union practices can also differ as to whether they are addressing local or sectoral challenges.

The next section explores some of the theory around climate change engagement and how trade unions could operate in this arena.

² “Once a trade union is recognised in a workplace, the negotiations they have with the employer are called collective bargaining; these negotiations will be regarding terms and conditions of employment” (ACAS, n.d.).

2.6 Engagement with climate change

Engagement with climate change comprises three dimensions: knowledge, emotion and behaviour (Whitmarsh, O'Neill and Lorenzoni, 2013). This suggests that where education is being used for engagement it should be, amongst other things, based on an understanding of individual concerns. The previous section showed that trade unions are in a position to represent and act upon their members interests, so an understanding of what these interests are will be important. The tension between 'self-interests' or 'collective-interests' and the urgent need to act on the risks posed to society by climate change will be an important topic for this dissertation. Workers interests are often linked to identities. Fear of losing jobs threatens people's identities. This raises questions as to whether worker's interests can act in opposition to their values and ethics (Uzzell, 2010).

It has been established that the "context within which communication on climate change occurs is important" (Howarth, 2017:296). This suggests that the type of communication and the way these methods are used to engage people will exceed the actual content of the message. This will determine how the communication is accepted, understood and acted upon. Also, messages that aim to provide information on climate change can often be undermined by conflicting political or social communication and influences (Whitmarsh, O'Neill and Lorenzoni, 2013).

Work by Shove (2010) and also Corner, Markowitz and Pidgeon (2014) highlight the importance of going beyond just providing information, but also the need to consider values and attitudes. Also, research by Whitmarsh (2011) has established that scepticism about climate change is often embedded within particular worldviews and values. The requirement to transition to a low-carbon economy will inevitably need a reframing of attitudes and behaviours to enable these transformations to take place.

Howarth (2017), identifies that the history of climate change communication relies on providing facts and figures, but by using a narrative approach it can "help overcome perceived barriers to change" (ibid: 297). Making climate change more tangible to people could help with achieving 'buy-in' for the socio-technical changes that will be needed in the move to a low-carbon economy. Narratives can help in creating a 'story' on climate change and how it might link in with people's lives and experiences. The paper by Howarth is particularly interesting as it focusses on the need to transition to a low carbon economy and what role narratives will play in increasing public engagement with climate change.

Two narratives identified by Howarth (2017) are of particular interest to the concerns of this dissertation: preserving the *status quo*; and quality of life and a safe clean world. The narrative discovered around preserving the *status quo* was an acceptance that there is a general reluctance to change. It is suggested, that there should be an emphasis on the social benefits of transition with a focus on “preserving aspects of people’s lives that they like and are familiar with” (Howarth, 2017:300).

Furthermore, Howarth suggests using the creation of a safe and secure future and the general health benefits for society as a positive message. The framing of transition as about building towards, as opposed to transitioning away from, could be an important one. This suggests that a narrative focussing on creating jobs may help trade unions with their work around climate change. It is important for trade unions to demonstrate that workers short-term and long-term interests are best served through their leadership on climate change.

Members of trade unions were involved in research by Climate Outreach (2014) into climate change engagement. The narrative workshops explored group values and worldviews and how they affect their attitudes and beliefs about climate change. Core values of trade union members were identified as: honesty, respect, fairness, reducing inequality, tolerance and integrity. In identifying barriers to action the group proposed that the “problem seems distant” and there are “too many immediate pressures”. The group also accepted that vested interests (government and industry) are key problems. They had the feeling that people are disengaged from political participation so a message that pits ‘us-against-them’ may not work. But, they also thought the messaging should be more political and there should be a shift away from a focus on individual action to major political action. The trade union members were positive towards the climate outreach proposal of ‘fighting for the things we love’ narrative and expressed a need to relate things back to the concerns of ordinary working people.

This section has briefly considered the role of values and narratives within climate change engagement. Common intrinsic values (Koger and Du Nann Winter, 2011) such as fairness and justice can be powerful motivators to act on climate change. Indeed, Hulme (2009:353) suggests that, “for some, the desire for justice is synonymous with the entire meaning of climate change.” The next section explores some of the different themes and concepts of justice.

2.7 Environmental justice

The concept of justice is inextricably linked to the notion of fairness according to John Rawls (Rawls and Kelly, 2001). Fairness can be broadly described as a demand for impartiality that seeks to take into account the concerns and interests of others as well as to avoid being influenced by our own priorities, vested interests or prejudices (Sen, 2010).

Environmental justice is linked with fairness and the achieving of an equitable distribution or outcome (Newton and Cantarello, 2014:262). It highlights the shifting of perspectives away from the narrow concern of environmentalists with wildlife and the natural world to take into account the concept of *social justice*. The definition of environmental justice is expanded by Blewitt (2008:86) to take account of “meaningful involvement of all people with respect to the development, implementation and enforcement of environmental laws, regulations and policies.” In summary of the above and Farrell (2012:50), Table 2 shows the three distinct forms of environmental justice.

Table 2 Three forms of environmental justice

Environmental justice		
Distributive justice	Procedural justice	Social justice
Understands that there is an unequal distribution of harms and benefits	Ensures that there is fairness in the decision making process and there is power to take part as equal partners	Based on the awareness that “race, class, economic and political factors influence quality of life.”

Focussing on environmental justice, Newton and Cantarello (2014) identify that it can be brought about by *advocacy*: a process aiming to influence public policy or laws and to affect decisions regarding how institutions behave or by *activism*: through direct action. The process of advocacy links in with statements made by Newell (2000:131) that, “The generation of focussed demands can smooth the passage of an issue from the political margins to political centre stage.” And, from a trade union point of view there is the possibility that they can create a sense of expectation amongst their members and the general public about what sort of policy response is desirable. Current activity on climate change has been as a result of environmental advocacy. Successes have been based on campaigning and influencing government rather than building a wider support base (Hale, 2010). The transition to a low carbon economy and the levels of transformation required at

multiple levels is imbued with complexity. These issues affect an array of powerful interests and if government is to act then the creation of a consensus amongst the public will be essential to set this agenda (Newell, 2000).

The second way that groups can react to injustice is through activism: by engaging in some form of direct action. It can be argued that trade unions adopt an approach that combines both activist and advocacy behaviour in bringing about changes to public policy. Fairbrother (2008:217) suggests that “union strategies are shaped by social and economic change, institutional arrangements and the immediate bargaining situation in which they find themselves.” So whilst unions have to contend with their ‘day-to-day’ work they are also having to go in new policy directions or pursue existing goals in different ways.

In achieving more ‘just’ outcomes, say in the move to a green economy, Stevis and Felli (2015) argue that there are two defining approaches. An approach that sought more equity within the parameters of the existing system can be classed as *affirmative*. Whereas an approach that calls for more profound changes to the political economy can be classed as *transformative*. Stevis and Felli state that trade unions differ in their approaches, but the affirmative approach is the most common.

Climate justice discourses have grown out of the concerns of the environmental justice movement and climate change activism. It provides a way to bring justice considerations of climate policies into the environmental justice arena by recognising that the burdens and benefits of GHG emissions reductions are not shared equally. This also recognises that there are vastly different capabilities amongst countries to be able to act on climate change and adaptation to climate change effects will fall most heavily on the world’s poor (Jenkins, 2018). Notions of intergenerational justice are brought into the debate of climate justice as we should consider not only people alive at present, but also future generations (Stenmark, 2002).

2.8 Just Transition

Work by Farrell (2012) links these two sections as it uses environmental justice principles to help in understanding the transition to a low carbon ‘green’ economy. These principles are stated as being important and must have full implementation as a goal to create a ‘just transition’. Farrell goes on to identify a 3 point framework for a ‘just transition’ (Farrell, 2012:51):

- 1) Creating, implementing and enforcing explicitly public policy based on 3 part environmental justice principles.
- 2) Creating mechanisms for meaningful participation at the outset (consideration of those that are most likely to be affected).
- 3) Taking a social justice approach-holistic nature that considers political, economic and social.

The 'just transition' framework can encompass the other forms of justice within the debate and, according to Heffron and McCauley (2018) has the aim to reduce inequality in society. The framework can help link together the big global challenges of climate change, inequality and unemployment. Making a clear link between economic inequalities on the one hand and environmental problems such as climate change may help trade unions bring the fight against climate change into their sphere of operations.

There is a growing interest in 'just transition' and this has seen an intensification of policies and initiatives as the need has become more urgent (Sweeney and Treat, 2018). There are two different understandings of 'just transition' identified by Sweeney and Treat. Firstly, the likely impact of climate and environmental policies on workers or the workforce as a whole is labelled as "worker focussed". Secondly, there is a usage of 'just transition' that describes the much wider socioeconomic transformation to a low-carbon economy.

Trade unions in using 'just transition' must realise that it has a component of what is happening now-in terms of worker focussed transitions, but there also needs to be a wider understanding of the socioeconomic transformations that need to take place. Industrial transformation is undoubtedly a long term endeavour, but as stated by Rosemberg (2015) a 'just transition' is necessary for industrial transformation. The vulnerability of workers, uncertainty of job impacts, job losses, regional decline and decisions made without consultation are just some of the areas identified by Rosemberg as potential barriers to action.

The first section has determined that the just transition framework is closely linked to ideas around justice, both from the worker-focussed perspective and from the wider socioeconomic need to transition to a low carbon economy. The next section takes a look at the history of the 'just transition' framework in the trade union movement.

2.8.1 Background to Just Transition

The 'just transition' framework emerged in the North American Trade Union movement and is often connected to the work of unionist Tony Mazzochi in his attempts to create a 'just transition superfund' to provide for displaced workers (Rosemberg, 2017; Sweeney and Treat, 2018). In 1998, a union activist from Canada, Brian Kohler, used the term to reconcile the twin aims of providing decent jobs and protecting the environment. Today the phrase 'just transition' is a conceptual framework that can be helpful in handling the complexities of the transition to a low carbon society. It has been used by other Non-Governmental Organisations (NGOs) like Friends of the Earth (FOE, 2011), Greenpeace and WWF as they have developed their own definitions and approaches. This willingness to form alliances, and find common ground, has helped to achieve progress.

Rosemberg (2017) identifies that at the international level there are 3 phases. The first phase spans from the first UNFCCC-the Rio Earth Summit- in 1992 to the Conference of the Parties (COP) in 2008. The second phase is between 2008 and 2014 that entailed a growing involvement of trade unions, with several reports on 'just transition' produced by the TUC in this period (TUC, 2008; 2009). The green jobs concept developed by UNEP and ILO at this time was important in helping to bridge the gap between employment and environment and countering the jobs-versus-environment narrative. To this end the issue of employment appeared in COP15 in Copenhagen in 2009. The third phase was born out of a realisation that the "constituency for climate action was not solid enough" (Rosemberg, 2017:6). The high point for the 'just transition' framework came with the inclusion of 'just transition' language in the preamble to the Paris agreement in 2015 as well as guidelines on just transition adopted by the ILO (ILO, 2015). A joint report by Greenpeace and the TUC (TUC, 2015) more explicitly linked 'just transition' to social justice.

A recent report by the International Trade Union Confederation (ITUC, 2017:11) based on work by Rosemberg (2017), attempts to map out the key foundations that will guarantee a just transition:

- Macroeconomic, sectoral and enterprise policies that ensure jobs and decent work
- Rights and occupational health and safety
- Social protection
- Active labour market policies

The report provides case study evidence from different countries for each of the policy areas above, but accepts that there has been no attempt to simultaneously implement all the strategies in a purposeful way. The challenge now for unions is to find ways to move beyond this formal recognition.

A note of caution is raised in a report by Müller (2018) which claims that the ‘just transition’ framework is more aspirational than actual at the moment. It is proposed that this is due to the lack of any clear evidence of sector level ‘just transition’ initiatives that have worked. There are fears that the complexity of transforming whole sectors whilst attempting to replicate decent, productive, jobs that provide the same identity as those lost will prevent real action on climate change mitigation.

The next section, firstly looks at research by Farnhill (2016) that attempts to audit the environmental activism of UK Trade unions without considering any explicit use of the ‘just transition’ framework and then explores, from literature, how ‘just transition’ is being used in various contexts by trade unions. The review attempts to draw out key themes and to highlight commonalities and differences.

2.9 Trade unions and environmental issues

According to research by Farnhill (2016: 259), “environmental activism appears to be a minority pursuit within unions.” Farnhill surveyed 22 UK unions on environmental activity. The research had a quantitative basis and although it identified key areas for environmental activism, such as: adequate resourcing, engagement from senior members of union and positive relationships with external environmental organisations it could only speculate on why activism varied. Speculative suggestions for variations in activism ranged from lack of time resources, lack of supportive legislation or a crowded local agenda. It was also identified that lack of action at the branch/workplace level may be due to employer reluctance or local executives failing to commit, either because of scepticism, unfamiliarity or busy with other agendas. The research suggests that a qualitative approach that attempted to assess why certain approaches are taken might complement the findings.

³ Institutional discussions between trade unions, employers and governments, as well as other community groups (ITUC, 2017:13)

Barriers to the use of 'just transition' language were identified by Räthzel, Uzzell and Elliott (2010). They highlighted that using 'just transition' in discourses can provoke anxieties amongst workers, and subsequent reluctance to change as it envisages that major transformations of industries are required. This links in with evidence in the section on climate change engagement. Fear of change maybe particularly evident when transformations are presented as necessary solely on the basis of emissions reductions rather than a need for wider reform of society.

The challenges and dilemmas for leadership in Canadian labour unions was the subject of study by Lipsig-Mumme, Lafleur and Bickerton (2013) as part of the work in a warming world project. A key question asked was: how can labour broaden its capacity to protect work and workers, but also contribute to slow climate change? The overall statement of the research was that being more vocal and taking a leadership role on climate change would only benefit the labour movement. There were opportunities for unions to create a compelling public voice. On a society level, there was scope for 'social negotiation' between key stakeholders such as unions, state and other civil society groups. The most common response identified on climate change was resolutions at congress-with 'just transition' being the most important.

Barriers to effective action, from within unions, were highlighted in the research. These included: the ability of larger multi-sectoral unions to understand and analyse the many industries in which members work, effective modes of action were needed to "transcend the division, decentralisation and political weakness of the labour movement" (ibid: 11) and there is a gap between policy, declaration of strategy based on policy, and mobilisation of members.

Different 'varieties' of just transition were identified by Stevis and Felli (2015): a shared solution approach built around mutual understanding and shared solutions that linked in with green economy thinking; a differentiated responsibility approach where trade unions would have decisional power and be able to negotiate on workers behalf. In this approach there is a strong focus on defending 'losers' from the transition, wage subsidies for transferred workers and the provision of a social safety net for communities. This discourse is a more 'worker-focussed' approach. It sees workers as victims to be protected or as people to be educated (Räthzel, Uzzell and Elliott 2010). The final approach identified, and one that is least enacted, is a social ecological approach. The authors argue that it involves

radical changes to political economy. Workers will have a decisive role to play and it will require strong pressure from trade unions and allies to achieve. The approach is more confrontational as it accepts that an equitable transition will require a rebalancing of state, capital and labour.

In adopting a similar approach to Stevis and Felli (2015), a useful typology of ‘just transition’ responses by trade unions is proposed by Goods (2013). The categories are identified as: passive transition, a minimalist position and transformative transition. Although these categories are deemed to be useful in broadly categorising union responses, Goods accepts that they are not mutually exclusive positions.

Three of the research papers involved with trade unions in Australia (Goods 2013; Stevis and Felli 2015; Evans and Phelan, 2016) all come to similar conclusions with regards the type of approach that they advocate unions to take. This “social ecological” approach and “transformative transition” require fundamental changes in the structure of political economy and arguably for a more confrontational approach from trade unions. It is not clear whether this is because of the particularities of Australian union relationships with government and business or whether it represents a general fear that trade unions operating in their ‘traditional’ roles won’t be able to achieve a ‘just transition’.

The problems of unions being able to act as ‘one voice’ was a common theme (Snell and Fairbrother, 2011; Glynn, 2013; Stevis and Felli, 2015). Discussions centred around the different union ‘positions’ and specific industry issues that might impact the action taken on ‘just transition’.

The external barriers of unions being reliant on government led initiatives (Evans and Phelan, 2016) and employer action on climate change (Snell and Fairbrother, 2011) were identified as limiting union efficacy in this arena.

Table 3 shows a summary of literature on trade unions and just transition which collects the key themes and the barriers identified.

Table 3 Summary of just transition research

Research paper	Context	Key themes	Identified barriers
Lipsig-Mumme, Lafleur and Bickerton (2013)	Canada	Unions need to take a leadership role on climate change and create a compelling public voice. Action is being carried out, but mostly at policy development level.	Policy action gap. Multi sector unions and sectoral understanding. Organisational structure of unions. Political weakness of unions.
Snell and Fairbrother (2011)	Australia	Unions are bound in capacity and organisation due to specifics of their industry, economy and community. Australian unions are engaging with a wide range of activities regarding climate change. Union policy important, but realities are borne in localities. Developing a transition plan on a regional level. Achieving things on a community level. Reliant on volunteers and government funding.	Inaction of business limits the power of unions to have an influence. Green jobs may not provide sort of jobs members want. Differences between union positions.
Goods (2013)	Australia	Identifies three approaches: Passive transition, minimalist transition, transformative transition. Advocates for transformative transition. Different unions have different understandings of what constitutes just transition.	Disconnect between union policy positions and union official statements in interviews.
Räthzel and Uzzell (2011)	Global	Trade unions typically thought as standing in way of climate change measures. Unions typically concentrate on workers interests in workplace- less on interests as citizens. Green economy is strong argument for Trade unions to combat climate change. Identified four discourses challenging jobs v environment discourse: 1) No conflict-technological fix, 2) social transformation, 3) legitimacy of immediate interests and 4) general interests.	Disconnect between workers and policy. How to implement the perspectives identified into everyday necessity of union policy.
Glynn (2013)		Impact on employment due to Rio+20 climate policies. Trade unions have a vital role in addressing challenges and opportunities for a well-managed just transition. Role of trade unions in ecological modernization. Governments see unions as helping to create consensus for policy across society.	Issue specific mandates-Can unions act as one voice?
Stavis and Felli (2015)	Global	Places just transition in a heuristic framework of environmental justice. Advocates for a “social ecological approach”	Different political strategies of unions. Potential competition amongst unions.
Evans and Phelan (2016)	Australia	Helps to align community and trade union interests. Importance of local skills and knowledge. Advocates for unions to adopt social ecological approach.	Accepts that transition depends on government led policy and initiatives. Policy of unions on environmental matters, put under pressure in ‘real’ situation of job losses.

2.10 Chapter summary

This chapter has highlighted the complexity of the situation in moving to a low carbon economy. The changes in society to mitigate climate change need to be significant and this will, undoubtedly, have an effect on jobs and workers. This leaves a vital role for trade unions. They can act in two roles consecutively: by engaging with government to shape policies and advocate for a 'just transition' and also by engaging with their members to create 'environmental literacy' and a desire for action on climate change. The evidence from literature on climate change engagement has shown the importance of working with values and trade unions can act on their value of solidarity to link action on climate change to the wider notions of justice and fairness.

In addressing objective one of the research, the development of the 'just transition' framework has helped trade unions to counter the jobs-versus-environment narrative that held back action on environmental issues. The chapter has shown the close links that 'just transition' has with the green economy concept and the creation of green jobs. It uses a justice narrative to enable a link between action on climate change and action on inequality and unemployment. The strength of the framework lies in its flexible definition, which has allowed it to be used across diverse groups. But, this is also a weakness as it can allow for narrow definitions that only seek to protect jobs or provide compensation for displaced workers rather than addressing ecological concerns.

Objective two of the research sought to determine current engagement with the 'just transition' framework. If we judge engagement with an issue as knowledge, behaviour and emotion then it is possible to see how well the objective has been met.

Understanding the development of the just transition framework has highlighted the ways that trade unions are engaging with it at policy level and bringing it into their dialogue with governments and international organisations such as the UN. This culminated in the language being included in the Paris agreement preamble. In a UK context, the TUC has been producing literature on the topic since 2008. But, 'just transition' is identified as still being at the 'implementation' stage (Sweeney and Treat, 2018) with most action involving resolutions to congress or through education of members. A review of literature exploring how trade unions are conceptualizing the just transition framework within their union activities has shown a complex situation of strategies and actions. Trade unions are using the 'just transition' framework in their work on climate change, but there appears to be no

common approach. The review has established that previous research had a global context or was focussed on a specific country-with Australia being well represented. Although the literature review has established the behaviour of certain trade unions with regard 'just transition' there was very little research discovered into the just transition framework within a UK context. What has been difficult to ascertain from literature is an understanding of what trade union officials 'feel' about 'just transition'. What do they think about it? Is it a useful concept to engage their members with? This suggests the need for further empirical research in this area.

The next chapter discusses the research methods employed in meeting the defined objectives of the dissertation.

3 Research Methods

3.1 Introduction

This section will provide details on the research strategy adopted to meet the following research objectives. It identifies the means of collecting data for analysis, including sample selection and the analysis approach to be used. In addition, it is important to discuss the potential issues and limitations of the chosen research strategy.

As stated in the introduction chapter, this dissertation has a number of objectives:

- 1) *Explore and evaluate* the ‘just transition’ framework and its relationship to other concepts such as green economy, low carbon transition and environmental justice.
- 2) *Determine* current engagement with ‘just transition’ amongst trade unions.
- 3) *Explore* awareness, understanding, views and practices related to climate change and ‘just transition’ from officers in UK trade unions, including barriers and opportunities for action.
- 4) *Formulate* recommendations for future trade union action on ‘just transition’.

An important contribution of this research work will be related to objective three which offers the opportunity to study the ‘just transition’ framework in practice. Obtaining a variety of views from stakeholders within the trade union movement should contribute to study of the ‘just transition’ framework as a general concept and also provide knowledge of how it is been used within UK trade unions.

Chapter 2 - Issues and review of related literature - identified that ‘just transition’ has growing interest amongst trade unions as a conceptual framework to ensure that the transformations required to move to a low-carbon economy take full account of the effect on jobs, workers and communities. The review highlighted several studies undertaken amongst international trade unions with ‘just transition’ that uncovered how it was being understood and used within their union activities, but identified that there was a need for empirical research within a UK context.

Objectives 1 and 2 were initially addressed in the previous section by a review of literature using a combination of ‘grey’ literature and academic sources. Objective 3 will build on the

insights from the previous chapter through the collection and analysis of empirical data from UK trade unions.

3.2 Research strategy

As the research is concerned with seeking individual perspectives or insights into particular activities rather than statistical interpretations it adopts qualitative study. This reflects the need to describe, interpret and analyse the way that people experience or think about the world (Bazeley, 2013). Also, the qualitative approach “stresses the importance of context, setting and participants’ frames of reference” (Marshall and Rossman, 2016:101). These perspectives fit in with the researcher’s intention of exploring the ways that trade union officials are understanding or using the ‘just transition’ frame within their own context of a specific trade union.

In meeting objective three of the research, a case based approach is proposed as the most appropriate research strategy due to the need to *explore* the point of view of a particular individual, but also using this to create an understanding of the common views of the group that the individual belongs to, that is: UK trade unions. Being able to gather a series of opinions from different individuals will also help in the comprehension of a diversity of views (Bazeley, 2013). The strength of a case based approach is its flexibility as it allows for the use of multiple methods (Denscombe, 2014). The methods used for data collection are discussed in the next section.

3.3 Data collection

In qualitative research there are four primary methods for gathering information: “(1) participating in the setting, (2) observing directly, (3) interviewing in depth, and (4) analysing documents and material culture, with varying emphases” (Marshall and Rossman, 2016:141).

In referring to objective three of the research, several of the above data gathering techniques may be suitable. The research makes use of three of these techniques. First, as part of the project the researcher had the opportunity to attend a conference organised by Trade Unions for Energy Democracy (TUED). Although the focus of the conference was on transformation options for the energy sector it had very close links with ‘just transition’ narratives. Indeed, there was a session with a series of presentations and discussions around the ‘political economy of just transition’. This can be considered

participation/observation and although it was not a major focus for data gathering the researcher made detailed notes which are summarised in the research findings chapter.

The second means of data collection was gathering documents from the TUC with reference to 'just transition'. The main document used is a transcript from the TUC, 2017 congress (TUC, 2017b) regarding a motion on climate change. These documents are often useful in qualitative research to develop an understanding of the organization studied (Marshall and Rossman, 2016). It was chosen because the TUC can be considered the central union representative body and, due to its contemporary nature, the document highlights current discourses on the research topic.

Finally, and the main focus of data collection was through a series of semi-structured interviews as it seeks to understand experiences, opinions and feelings. Also, the researcher is able to glean valuable information from the depth of knowledge of "key informants". (Denscombe, 2014: 201). This will provide the opportunity to discuss the 'just transition' framework in depth with selected trade union officers. The semi-structured interview is chosen as suitable because Marshall and Rossman (2016:150) citing Galleta (2013) state that: "Semi-structured interviewing allows a systematic and iterative gathering of data where questions are arranged in a protocol that evokes rich data, but is also focussed for efficient data analysis". Also, the semi-structured interview approach allows for the core issues to be addressed whilst maintaining a degree of freedom to discuss issues that arise during the interview. The use of the semi-structured interview allows a degree of freedom for the interviews to develop or evolve through the course of the research project (Denscombe, 2014). This gives the researcher the ability to act on data from previous interviews and to adjust questions in subsequent interviews (ibid.).

3.4 Sample selection

The research has a focus on trade union strategies towards climate change, but more specifically how the 'just transition' framework is being reflected on and used within UK trade unions.

A purposive sampling approach was used for the selection of participants. The criterion for selecting interview participants was that they should have some responsibility in their work role for shaping union policy or responses to environmental issues. It was felt important that interview participants needed to have particular knowledge of the research area in

order to act as “key informants” and produce valuable data (Denscombe, 2014:41). The purposive sampling approach also allowed the researcher to select participants from different union sectors to produce a wider cross-section of views.

Their views cannot, necessarily, be seen as representative of the wider trade union movement or even, perhaps, of the majority of members of their own union. However, the interviewees, in common with research by Rätzl and Uzzell (2011:1217), can be regarded as “opinion leaders on issues of climate change” and are in a position to influence policy and convince the wider grassroots membership of their views. Although their views can be judged to be subjective they offer up the scope of possibilities for action and policy development. They can provide an understanding of the different ways that trade unions are developing understanding and strategies around ‘just transition’.

The researcher was able to make contact with several union officials at the TUED conference regarding the topic of this dissertation. This helped in subsequent recruiting of participants for the interviews.

Further recruitment was carried out by researching trade union websites for people who had within their work portfolio a responsibility for ‘environment’ or ‘environmental policy or ‘sustainability’. Often responsibilities around climate change were embedded within health and safety briefs. An approach email explaining the research was sent to potential research participants. This approach resulted in two offers of interviews. Two further offers of interviews were scheduled and then not followed through by the union officials after setting up date and time.

3.5 Interview strategy

An interview schedule (Appendix A) was drawn up with a series of seven questions linked to the research objectives. The majority of questions were open ended to encourage meaningful responses. The interview plan made use of follow-up questions to act as ‘probes’ to elicit further information on a specific topic. It is argued by Marshall and Rossman (2016:150) that the “richness of an interview is heavily dependent on these follow-up questions”. The interviews were digitally recorded. There are two reasons for this approach: to enable the researcher to participate fully in the interview and to ensure that analysis of the data is based on what was actually said (i.e. the transcript of the interview).

The semi-structured interviews were conducted with officials from four UK trade unions. They represented a multi-sector, education, public, and food sector union. The participants were all full-time officials for their unions who had a responsibility, formally or informally, for environmental issues. The interviews were conducted by telephone or Skype in late July and early August 2018 and lasted between 20 and 30 minutes. Practical recommendations for phone interviewing were followed in Burke and Miller (2001). The interviews were recorded with the interviewee's consent and then transcribed. Anonymity was guaranteed which means that the description of specific job position or name of union cannot be described in detail. Each participant was provided with a pseudonym and their union described according to its sector (Table 4, p35).

3.6 Data Analysis

As explained by Bazeley (2013:15), the data analysis stage can follow a defined sequence of "Read and Reflect, Explore and Play, Code and Connect and Review and Refine." It is presented as a linear process, but is often a recursive process where the researcher goes back through different stages as more data is presented and understanding is developed. The analysis was primarily driven by research objective three:

Explore awareness, understanding, views and practices related to climate change and 'just transition' from officers in UK trade unions, including barriers and opportunities for action.

Although it was important to have the research objectives as the primary focus of the data analysis there was openness to themes developing during the analysis. This allowed for a 'richer picture' that could potentially help with addressing objective four: recommendations for future action on 'just transition'.

The first stage of analysis involved reading and reflecting on the interview transcripts and the writing of initial impressions to gain a big picture of the data and the study as a whole. Insight from the literature review fed into this section.

The second stage was the coding process which involved becoming familiar with the detail of the data and the developing categories and themes. Nvivo software was used to aid this process, but with the awareness that it will not do the analysis for you. The initial nodes created are shown in Appendix B.

The third stage involved finding connections across the different interview narratives to find commonalities or differences. The initial nodes were clustered into groups and sub groups using Nvivo modelling. A representation of the initial node clustering process is shown pictorially in Appendix C. The nodes were then categorised into groups and sub-groups. Some nodes were discarded and others merged. The refined codebook is shown in Appendix D.

The fourth stage involved reflection on the findings and to refine the coding by going back to the third stage where necessary.

The data from interviews will be presented in the research findings chapter.

3.7 Research limitations

Although there are reasonable questions to be asked concerning the generalization of the research in terms of how representative the findings are or that they are unique to the particular circumstances of the case in question. It is important to state that they should not be regarded as though they are part of a survey sample (Denscombe, 2014). The usefulness of the findings from the research is to gain understanding of engagement with the 'just transition' framework and what some of the opportunities and barriers are for its use. The transferability relies on the fact that though each case can be considered in some respects unique, it has relevance for other unions in terms of how 'just transition' is understood and conceptualized. The use of multiple cases enables the research to establish: what might be common across cases, to confirm findings from one case with those of another or to determine how differences in context might shape actions (Bazeley, 2013).

3.7.1 Credibility (validity) of research

In qualitative research it is stated that there is no absolute way to prove that you got it right (Denscombe, 2014). All that can be offered are reassurances that the researcher has taken reasonable steps to ensure that the data has been "produced and checked in accord with good practice" (ibid: 297). With regard to this, the interview transcripts can be checked with the interviewee as a means of confirming the findings. And the use of multiple interviews allows the researcher to see how the data fits in with previous knowledge.

3.7.2 Dependability (reliability) of research

In qualitative research, the researcher is closely associated with the research tool: conducting interviews for example. This relates to the question of whether the same data and conclusions could have been achieved by a different researcher. Denscombe (2014) argues that there is probably no absolute way of knowing the answer for certain. Taking this into consideration the researcher has used methods that other researchers can see and evaluate. The specific lines of enquiry that lead to decisions being made are also presented in a transparent way.

There could be a concern in the research that the interviewees might attempt to present their respective unions in a positive light during the interviews rather than being a true presentation of the situation. The researcher has no reason to believe this happened, but attempted to look out for, and note when this was occurring during the coding of interview data.

3.8 Ethical considerations

The research is carried out in reference to Silverman (2013, chapter 10) and the general principles to consider that apply to research ethics: voluntary participation and the right to withdraw; protection of research participants; assessment of potential benefits and risks to participants; obtaining informed consent; not doing any harm.

The principal of informed consent is important and essentially means that participants in the research should clearly understand what they are agreeing to. In this respect, a participant information sheet was produced which followed guidelines in Thomas (2017:47). The participant information sheet is shown in Appendix E. This sheet was provided to all people invited to take part in the research. They were asked to carefully read and take time to decide if they wanted to take part. All respondents subsequently taking part in an interview were asked to complete a consent form (see Appendix F).

The research was approved according to the University's ethics committee. The completed ethics form for the research can be found in Appendix G.

The next chapter presents the research findings. This includes a summary of participation in a trade union event, analysis of a trade union conference motion and presentation of the data from interviews with trade union officials.

4 Research findings: Description and Analysis

This chapter presents the results of the research activities introduced in the Research Methods chapter. The chapter is organised in three sections. The first section is a summary from the researcher's participation in a trade union event on 'just transition'. The second section presents the findings and analysis from a motion on climate change at the 2017 TUC congress. The third and final section presents the analysis and findings from a series of semi-structured interviews with trade union officials. The selected research participants have within their work brief a responsibility for environmental issues.

4.1 Findings from participation in trade union event on 'just transition'

This first section is a summary of the researcher's participation in a TUED event on the 28th-29th June 2018. The attendees were from a variety of UK and international trade unions as well as people from campaigning groups and NGO's. The broad theme of the conference was on reclaiming the UK energy system to public ownership. The particular focus of this research, though, is the 'just transition' narrative and how the language is being used within trade unions. The researcher attended a session entitled: The politics of 'just transition' during the two day event. Views from the speakers, based on the researcher's notes, are presented below. The views presented are from a European trade union member, an officer from a UK multi-sector union, a TUC regional officer and a representative of the Greener Jobs Alliance.

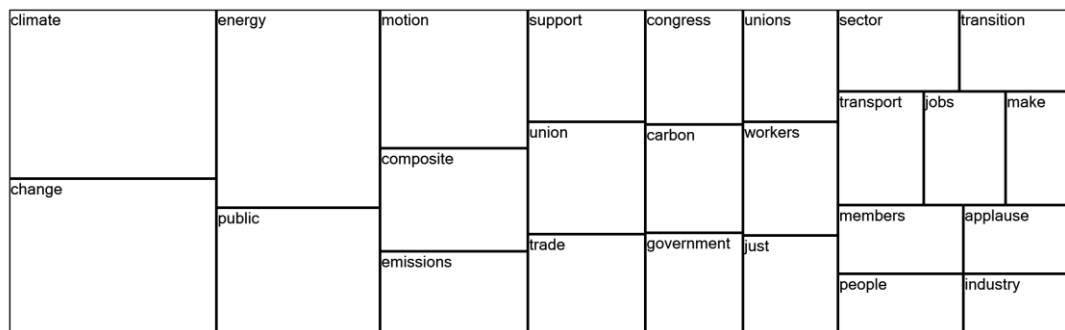
The discourses suggest that 'just transition' is being used within the trade union movement, but perhaps what is not clear is what strategies are being used to progress it. The representative from an international trade union made this clear when he said, "even if there are different views it is easier to agree on the first point of what 'just transition' means if it is broad enough, but much more difficult to agree on the second point of how to achieve it. The common thread between all discourses was for trade unions to take a leadership role on a 'just transition'. The best way to achieve this was a subject of contention. The social dialogue approach that involves consultation with employers and governments has enabled 'just transition' to be included in the Paris agreement. But, the representative from an international trade union accepted that the weakening of trade unions 'power' might make this route ineffective and advocates instead for a broadening out of support, the creation of social alliances, and the mobilisation of social forces. The

speakers from the UK had different opinions seeing the social dialogue approach as being about “more than pieces of paper” as it created more opportunities for discussion. Indeed, the representative from the GJA proposed that ‘just transition’ was always about union rights and union recognition. He wanted unions to deal with climate change by being “leaders not followers”. The TUC motion on climate change in 2017 was presented as an important next step for UK trade union action on ‘just transition’.

4.2 Findings from analysis of TUC climate change motion

As mentioned in the previous section the climate change motion at the TUC congress in 2017(TUC, 2017:8) is highlighted as an important next step for UK trade unions in determining their responses to climate change and ‘just transition’. The transcript of the motion (TUC, 2017b:130-149) was analysed by a word frequency count in Nvivo to determine if there are recurring words used. Figure 1, shows a tree map created in Nvivo that relates the frequency of occurrence with the size of the block. It can be seen that the words most frequently used are climate, change, energy and public. Other common phrases identified are: emissions, carbon, government, workers, just and transition.

Figure 1 Word frequency tree map



The next stage involved further coding of the text using ‘energy’ and ‘public’ to identify the context they were being used. This showed that many of the speeches, from a broad range of union sectors were around the need to reclaim the energy system to the public sector. It was promoted that this should be a key focus of trade unions: “it is clear that we are not able to address the challenges of climate change and energy transition unless energy is under public ownership as part of the public sector function.” Unions were using the discourse of public ownership of energy and linking it in with wider social justice issues: “we published a pamphlet on public ownership of energy resources. We said it would make

sense on climate grounds. We said it would make sense to get control of energy bills and fight fuel poverty.” Discussions were also happening with grassroots members as to the changes that might happen in the energy sector:

“They [union members working in energy] recognise that energy is an essential public service and should not be left to the market. They openly discuss with me and others options to improve public control and ownership of their industry.”

Further analysis was carried out to establish where the phrase ‘just transition’ was being used. Of the eight mentions of ‘just transition’ amongst the different union speeches, four of them had an element of achieving a consensus on the action to be taken. Also, a key word used in the following examples is ‘develop’, suggesting that these strategies are not yet in place: “it creates the conditions for the much-needed discussion within the ranks of the trade union Movement and across unions about how we develop a common strategy on climate change.” Another respondent suggested a need for a wider consensus: “we are trying to engage with every trade union to get on board and develop an industrial strategy and a ‘just transition’.” This view was supported by another union member: “It is important that all sectors and unions look at the impact of climate change on their members’ jobs and develop ‘just transition’ programmes.” These views link in with what was presented in the previous section that achieving a consensus on what strategies to adopt will be the next key stage for trade unions.

The suggestion that trade unions should provide a leadership role on ‘just transition’ was a finding from the previous section. A quote from the motion supports this view, “[...] it means having trade unions in the driving seat to support our members in a ‘just transition’ to highly-skilled, low-carbon jobs.” There is the general awareness amongst trade unions that certain sectors, and consequently unions will be more affected than others. A quote from the motion highlights the importance of unions from these industries being strongly involved: “this is going to be a discussion and agreement with unions in the energy-intensive industry, who have the technical knowhow, who have the union power and, I should say, the political weight and influence to help set out what we mean by a ‘just transition’.

The next section considers the findings from interviews with trade union officials.

4.3 Findings from interviews

This section presents the findings from semi-structured interviews with officers from four different UK trade unions (Table 4). Anonymity was guaranteed so each participant is given a pseudonym. These names are used in the following presentation of the findings and subsequent analysis and discussion.

Table 4 List of interview participants

Pseudonym given to interviewee	Union sector	Approximate number of members represented by union
Alex	Education	100,000
Beth	Public sector	200,000
Catherine	Food	20,000
David	Multi-sector	1,400,000

The presentation of interview findings follows in a structured way as it attempts to address objective three of the research: *Explore* awareness, understanding, views and practices related to climate change and ‘just transition’ from officers in UK trade unions, including barriers and opportunities for action.

The interviews are presented in five distinct themes that have been highlighted following analysis set out in the research methods chapter: Awareness and understanding, Strategies for action, Barriers to action, Making ‘just transition’ meaningful, and Wider issues. The broad themes also have several sub-themes under which the interview findings are presented.

4.3.1 Background to job roles of interview participants

All the participants stated a formal or informal responsibility for environmental issues. Two of the respondents had this as part time role which grew out of their other duties. Catherine had recently taken on an informal responsibility for environmental issues, which was secondary to her full time job role. David was a policy officer for a wide span of industrial sectors.

4.3.2 Interview findings: Awareness and understanding of ‘just transition’

The first question was, “Are you aware of the phrase just transition?” All the participants answered definitively that they were aware of the ‘just transition’ phrase.

The follow up question asked, “How have you heard of it and what does it mean to you?” All the respondents had an understanding of the ‘just transition’ framework. What differed was how developed this was. The larger unions that comprised 3 out of the 4 respondents had policy around ‘just transition’ and it was seen as part of their work around sustainability and climate change. Focussing on his sector, Alex said, “it’s obviously going to be key with just transition that we can get the skills bit right.” He had a positive attitude to just transition and thought that it “might be able to bridge the divides between the various trade unions on climate change.” Similarly, Beth’s understanding came from union work on just transition, but she said that, “It’s been quite an evolving concept in our union and I think the more that we have discussed this and brought it into our own activities [...] and agenda...obviously the meaning to us has been a, sort of, changing one.” Catherine who was from a much smaller union had taken on the responsibilities for environmental issues due to the lack of a formal role within her union and was just starting to use the ‘just transition’ language. In her view it was related specifically to the energy industry and encompassed a degree of social protection for workers: “part of it is ensuring that the people that work in that sector [...] are involved in the transition over. They don’t suffer any detriment and the people, you know the unions, the workers, and everybody is involved in that transition.”

A follow up question was asked about the wider grassroots appeal. This produced a mixed response from 3 of the 4 respondents. Beth said, “It’s hard to know how well understood the term is within the trade union overall, but certainly within our green reps it’s well understood.” Alex stated he was only giving his opinion on ‘just transition’, but thought that, “lots of our activists [...] and members are involved in all sorts of campaigns and activities.” Catherine had an opposing view and said, “Not enough of an understanding.”

4.3.2.1 Disagreements between unions

A theme was identified that suggested there were disagreements on ‘just transition’. Three out of the four respondents mentioned it in the interviews. Beth said, “I think we are all coming from quite different standpoints.” A similar comment was made by Alex in discussing the attempt to find consensus on ‘just transition’, “there are still some pretty big disagreements between unions as you can imagine on some core issues.”

4.3.3 Interview findings: Strategies for action

This section looks at the ways that 'just transition' is being brought into trade union activities. It is organised under three sub-themes: political action, partnerships, and making it real. The question asked to gain responses in this section was: "How is your union using the Just Transition framework?"

4.3.3.1 Political action

The political action sub-theme presents various ways that trade unions are acting to lobby governments or participating in various forms of committees or forums.

Two of the four respondents mentioned that their union had been involved with the Trade Union Sustainable Development Advisory (TUSDAC) committee. Alex explained the benefits of this: "it pretty much brings the most interesting unions into the room which traditionally might have been going on the opposite sides of the debate around climate change." The role of lobbying was identified as important by 3 of the 4 respondents. David explained that this lobbying role involved dealing with the current government: "[...] it's a case of us lobbying and pushing heavily. I mean one of the main things we're pushing for within each workplace is [...] giving rights to reps as environmental reps."

Three out of the four respondents talked about having discussions with the Labour party as they see some of their long term goals aligned with the policy positions of the Labour party. Alex said, "[...] I think the work we're doing with the TUC and also discussions with the Labour Party about the energy policy and so on. I mean that's kind of all about the future clicking into a better place and what would that look like." Catherine didn't express any view on political action by her union apart from involvement with TUED and Greener Jobs Alliance.

4.3.3.2 Partnerships

Partnerships were shown to be active sites of participation for all respondents. This ranged from partnerships with companies, environmental groups and other trade unions. David explains this situation when discussing the move to electric vehicles from petrol and diesel: "we're working with [...] green lobby groups to try and push heavily to help move that transition along much faster than would ordinarily happen."

The partnership role also extends into working with employers as highlighted in this quote from Catherine: "We're looking at expanding our health and safety reps into becoming

health, safety and environmental reps and we've had great buy-in with [an employer] on that nationally. And they're prepared to finance some training for their reps."

Beth was the only person that talked about unions working together to create "cross union campaigns" on issues that might be contentious such as the Heathrow expansion. She explained that this could be a "good route in to get people to see work in that slightly different way."

4.3.3.3 *Making it real*

The 'making it real' subsection is grouped according to union activities that involve discussions with the wider union membership. The importance of getting all members involved was summed up in a quote by Beth:

"I think our challenge as trade unionists is to go in to the shop floor and articulate that in a way which you don't have to say the words 'just transition', but you talk about it in a way which ensures and gives confidence to workers that actually what's coming, the changes that are coming they are part of driving."

All of the respondents highlighted actions that their union was taking to increase member engagement. This ranged from producing newsletters and pamphlets informing membership on climate change and 'just transition' to the provision of education and training. Catherine said, "So we are, kind of, getting that language in. It's something that I've used in the newsletter."

Other responses focussed on training and education through workshops or forums. These forums were often used as opportunities for discussion on what 'just transition' will mean for people's jobs. Beth said, "We have an annual green forum. We had a green forum last November [...] We did some breakout groups thinking about what would a 'million climate jobs' look like for example [...] we're trying to get the members thinking about these issues and what their jobs may be."

Education provision through events or courses was mentioned as important by all respondents. These were already developed: "we run a course through TUC and through the union with regard to training reps up. I mean when the reps go for their training as a health and safety rep we include a module on environment." (David) Or aspirational in terms of Catherine: "And then we're looking at doing a seminar to invite reps along."

4.3.4 Interview findings: Barriers to action

This theme is in response to the question: Are there any barriers/blockers to the union being further involved?

According to respondents, there are a number of different reasons. Although potentially a 'throw-away' remark, David's response was quite revealing, "One of apathy obviously comes in." Other respondents were either specific to their own union, or more commonly expressed an opinion of what might be holding back wider trade union engagement. The barriers expressed were varied including: barriers due to understanding the meaning of just transition, don't like the language, union acceptance of the need to change, not a trade union issue, internal politics, busy with other agendas, provision of skills and government inaction. "I think one of the things that is emerging for me, as one of the biggest barriers is actually recognising that...um...things need to change. [...] Because if you don't even accept that things have to change then why would you accept the concept of just transition" (Beth).

Catherine said, "I think the biggest barrier is people's understanding of what it means, you know, and membership buy-in. [...] And I think that is probably a barrier in every union." A similar view was stated by Alex, "I don't see any way you can have a real progress towards just transition from a climate change perspective unless, at least, the trade union movement has an agreed understanding around it."

The language itself was identified as a barrier by two respondents. Catherine said, "I think it can get quite academic [...] A lot of our members won't understand the language used." Similarly, Beth said, "I know a number of unions are now saying they don't like the language, it means nothing to them."

The above respondents imply that barriers to action are within trade unions themselves, but two other comments suggested that external barriers also exist. Alex had concerns about achieving a 'just transition' without the necessary skills as he said, "Where's the capacity to deliver education and the learning to people?"

Political inaction was seen as a barrier by David, with him expressing the opinion that, "The government sometimes can be very much blinkered in their way of thinking and do not necessarily look outside the box [...] it seems the only people that tend to be listening have a red or green in their governmental perspective if you like."

4.3.5 Interview findings: Making Just Transition meaningful

Responses in this section were gathered from the question: How can the 'just transition' framework be made more meaningful?

In response, David said, "Any angle you could possibly think of is the answer to that one." The other responses in this theme showed a strong engagement with the work that the GJA is doing around air pollution. All respondents had the opinion that a focus on air quality would help engage members with the wider issue of climate change. It was seen as being, "really relevant to our members" and "links everything together beautifully for the trade union movement." Beth was also positive about the campaign: "[...] the air quality stuff I think is really important [...] I think it is a way to try and bring unions into the realisation and conversations that, um, obviously jobs need to change."

4.3.5.1 Skills and Training

Two of the respondents mentioned skills and training as a way of making 'just transition' more meaningful. Alex said, "I think everybody recognises we need to get the skills right. All the big industrial unions involved have their own concerns about apprenticeships: their own concern about skills." A similar statement was made by Beth: "I think skills and training is an obvious one, but again it comes back to knowing what the jobs are that have to be transitioned into before you can start tackling skills and apprenticeships."

Beth described how important the 'one million climate' jobs campaign was for her work with members in creating a "future vision of a different civil service". The campaign helps to articulate, "What a climate service would look like, what our current departments would look like [...] taking some of the principles of 'just transition'."

Although identifying that a focus on skills and training is an important factor, one respondent warned against 'just transition' having a "narrow focus".

4.3.6 Wider issues

This section brings together issues that have not been covered in the previous sections. The respondents spoke about the wider issues facing trade unions and the need to act on climate change. Topics that were common across this theme included: achieving a consensus amongst unions, impact on workers and the wider impacts on their communities. All the respondents were aware of the potential impacts of policies on jobs in the transition to a low carbon economy. There was a common awareness amongst

respondents that jobs in the energy sector are where changes will impact the most. Alex said, “But what the industrial unions are concerned about is signing up to, particularly in energy sector, is signing up to job losses or restructuring of the energy sector without any safeguards in place.” There was an opinion that this has led to a “bit of a kick back from the unions that have organised traditionally within fossil fuel generation or within large centralised models” (Beth).

Some of the views presented in the interviews linked back to earlier findings from the TUED conference with Alex saying, “I think the issues some of the unions have...it's the detail of how we get there-in what way we get there.”

The wider interests of members were considered by Catherine, “There’s a lot of preconceptions that climate change isn’t a trade union issue and we’re trying to get our members to understand that actually anything that affects your family, your community and yourself is a trade union issue.”

Table 5 gives an overview of the responses in each theme.

Table 5 Overview of interview responses

	Understanding of just transition	Strategy for action: political	Strategy for action: partnerships	Strategy for action: Making it real	Barriers to action	Making it meaningful	Wider issues
Alex	Well-developed due to union work. A key focus is around skills and education. Important element of social justice	Work within TUSDAC. Lobbying government and discussions with Labour Party		Regional events and sessions at conferences.	Concern regarding the capacity to deliver education and learning.	Positive about use of air pollution campaign to bring unions together.	Need to find an agreed understanding amongst unions
Beth	A good understanding that comes from work union has been doing. Identified as an evolving concept. Has to be about a transformation of society and economy.	Discussions with Labour Party. Participation with TUED.	Developing cross-union campaigns. Involvement with TUED forums	Green forums. Ongoing work to enter into discussions with membership. Work on one million climate jobs campaign. Pamphlet on just transition.	Acceptance among unions that things need to change. 'Just transition' Language as a barrier.	Air quality and training/skills are both important, but careful not to have a "narrow approach"	'Kick back' from energy unions.
Catherine	No history of work within union. Deeper understanding recently. Defined as being linked to energy sector. Grassroots activist background.	Involvement with TUED forums.	Joint initiatives with employers regarding training of reps	Recently started a newsletter to discuss these ideas.	People's understanding of what it means. Sees language as too academic.	Positive experience of attending air quality seminars. "really relevant to our members"	Fear that companies in her industry will get rid of jobs when faced with targets on carbon reduction.
David	Responsibility within work role.	Lobbying of government on key issues especially rights for 'green' reps. Participation within TUSDAC	Working with NGO's and green lobby groups on issues around air quality	Provision of education through own courses and the TUC.	Apathy?	Multiple approaches.	Represents a lot of industries that will be impacted by transition to low carbon economy.

5 Discussion

Previous work on trade unions engagement with climate change and ‘just transition’ had an international context (Räthzel and Uzzell, 2011) or was focussed on specific countries, like Australia (Goods, 2013; Evans and Phelan, 2016). For this research, the overall question was: How are UK trade unions engaging with climate change and the need for a ‘just transition’? A major driver of the research was to explore views on ‘just transition’ from officers in UK trade unions.

5.1 Summary of findings

The over-riding response to climate change amongst trade unions has become the ‘just transition’ framework. In a UK context, the TUC has been producing material on this topic since 2008, but it is only recently that a motion has been passed at congress. This suggests a renewed impetus from the wider union movement for action on climate change and ‘just transition’.

Amongst the interview responses, knowledge and understanding of ‘just transition’ was good. However, there were concerns raised that for some unions the language “meant nothing to them” or that it was “too academic” for ordinary members. Unions were typically operating in two directions. They were involved in lobbying government and participating in advisory groups. Also, findings from the interviews related to the need to explain what ‘just transition’ means to grassroots members, and what it will mean for their jobs in the future. There was a desire to make ‘just transition’ real, tangible and meaningful.

5.2 Awareness and understanding

5.2.1 Common understanding

The interview findings showed that all respondents had a good understanding of the ‘just transition’ framework. The differences related to how well it was embedded into the union policy framework. There is a difference identified between the four respondents in terms of level of activity which perhaps reflects the different capacity of their respective union.

There is only one ‘small’ union in the sample, so it can’t be claimed that unions with a smaller membership don’t act on ‘just transition’. Rather, as Catherine explained her union doesn’t have dedicated policy officers. This meant that environmental issues came under

the general brief of the assistant general secretary making it, potentially, an undeveloped area.

The second distinction is between unions that represent workers in industries where changes will directly impact jobs and the ones where the changes are not immediately apparent. David, from a large multi-sector union, mentioned in interview that dealing with jobs and environmental issues involved “treading a very fine line.” This could see the union adopt a more passive approach to ‘just transition’ as job protection becomes the primary goal. On this topic, Farnhill (2016) identifies that union environmental activism could be influenced by a complex relationship between sectoral specificities and union size.

The particularities of the unions in question can be connected to the responses of the union members. David, from a multi-sector industrial union had a focus on technological approaches to achieving more ecological outcomes. Alex, from an education union had a focus on education, skills and delivering lifelong learning. Catherine, from a smaller food sector union, had the experience of being a grassroots activist so was concerned with making the message understandable for members. Beth, from a public sector union, situates the interests of her members with the general interests of society by adopting a broad definition of transition and the attitude that “it also has to be about a transformation, about society and the economy.” The findings support those of Räthzel and Uzzell (2011) and suggest that unions can use these different narratives in their work on ‘just transition’.

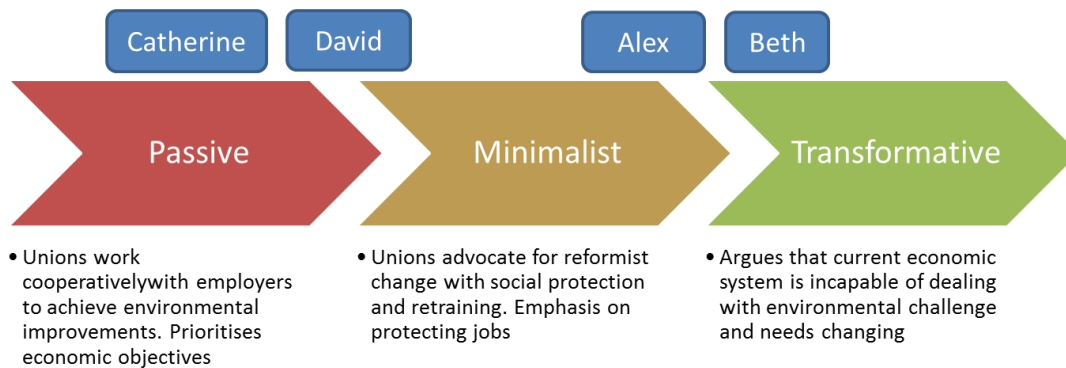
5.2.2 Disagreements

The interview findings revealed that respondents thought there were disagreements between different unions on ‘just transition’. This supports the discourse from the TUC congress climate change motion where there was a general appeal for consensus on the need for a ‘just transition’. Previous literature (Glynn, 2013; Stevis and Felli, 2015) identified that the different political strategies of unions and potential competition of unions could act as barriers to action.

5.3 Strategies

Using evidence from interviews with the selected trade union members and evaluating how they fit in with the typologies of Goods enables them to be, tentatively, located in the model (Figure 2). The typologies of transition identified by Goods (2013:16-17) are: passive

response, minimalist response and transformative response. Although Goods (2013: 18) admits that these responses are not mutually exclusive and not a “perfect representation” they do provide a simple way of categorising union responses to ‘just transition’.



Typologies of ‘Just Transition’ response proposed by Goods (2013)

Figure 2 Typologies of just transition (adapted from Goods, 2013:16)

The minimalist approach to ‘just transition’ identified by Goods (2013) requires institutional cooperation and political intervention at the state, enterprise and global levels to support a move to a ‘green economy’. If there is indeed a limited “engagement with the green agenda within the UK” (Stroud et. al., 2018:96) then it suggests that trade unions will face significant barriers in following this approach to ‘just transition’. Responses from the interviews have highlighted the resistance that unions are encountering when dealing with the current UK government.

5.4 Are unions themselves the barrier?

5.4.1 Leadership

Discourses from the TUED event and TUC climate change motion suggested that there is a need for leadership from trade unions on climate change. Lipsig-Mummé, Lafleur and Bickerton (2013) suggest that unions should be more vocal and create a compelling public voice. Unions should also “embrace, advocate and organise for the more radical social and economic transition” according to Evans and Phelan (2016:337). A key battleground in the fight against climate change is political according to Hale (2010). His paper promotes the idea that there is a role for the third sector to show leadership to create pressure on political leaders from the public as a driver of change. The study by Climate Outreach

(2014) with trade union members suggested that they would like to see greater political action on climate change.

5.4.2 Don't understand the language

There were views expressed in interviews about 'just transition' that, "A lot of our members won't understand the language used" And also, "I know a number of unions are now saying they don't like the language, it means nothing to them." These two responses suggest that there has been a failure to go beyond the 'abstract' meaning and some unions might not see climate change impacting their members.

Attitudes to 'just transition' in the interview sample were very positive. There is the risk that due to the purposive sampling approach, and the voluntary nature, the interview participants already had a favourable attitude to 'just transition' making them explain it in positive terms. But, as mentioned in previous chapters, the views shouldn't be judged as representative of the wider union movement. They instead, offer up examples of current views and attitudes to the 'just transition' framework.

5.4.3 Acting as one voice

The existence of differences between unions was identified in the interview findings. Alex made this clear, "I don't see any way you can have a real progress towards just transition from a climate change perspective unless, at least, the trade union movement has an agreed understanding around it". The literature review highlighted that because of the different practices of trade unions they might be unable to adopt common understanding or strategies on 'just transition' (Snell and Fairbrother, 2011; Glynn, 2013; Stevis and Felli, 2015). Having an agreed understanding on 'just transition' is clearly important for trade unions. But, as identified in an earlier section they are still able to use the particularities of their sector to develop different and convincing narratives for action.

5.4.4 Wider interests

An important finding from Räthzel and Uzzell (2011) was that unions should represent workers as citizens outside their workplaces not just as workers in the workplace. A quote that places the research into that context came from Catherine: "There's a lot of preconceptions that climate change isn't a trade union issue and we're trying to get our members to understand that actually anything that affects your family, your community and yourself is a trade union issue." This suggests that considering the wider interests of

members could be an important step in the reinvention of unions as social movements. In this regard, Fairbrother (2008:213) argues that social movement unionism is “more engaged, embedded in the workplace and equally importantly the community.”

5.5 Green jobs?

The importance of skills and training was mentioned by interview respondents. A focus on jobs in the interview responses was related to the ‘one million climate jobs’ campaign. Beth highlighted this as an important area for engaging membership. But, currently, only four national unions are affiliated to the campaign (CACCTU, 2018).

When ‘green’ jobs were discussed, it was in the context of poor working practices in some of the renewable energy industries. This supports the view from literature that decent jobs not just ‘green’ jobs are a requirement of a ‘just transition’.

Although the creation of green jobs is a key part of green economy thinking there was contention in the literature that it wasn’t necessarily a useful concept for trade unions due to its connection to the environmental movement (Uzzell, 2010). Also, green jobs were considered “alienating” and “not helpful” in research by Goods (2013:15). It would have been valuable for this research to include a question in the interviews on the topic of green jobs. This was, admittedly, a missed opportunity. The supply and demand for green jobs will be vitally important for the transition to a green economy (Stroud et al., 2018).

5.6 Making it real

From the interview responses it can be seen that all of the unions involved in the research were active in member engagement in some shape or form. This entailed knowledge provision through newsletters or pamphlets or at dedicated training events and ‘green’ forums. A report produced by the TUC on green skills (Unionlearn, 2012) suggested a need for “environmental literacy”. This dissertation suggests that “environmental literacy” should work on two levels. First, to help union leadership to explain the need for a ‘just transition’ in a way that is meaningful and relevant to the wider membership. And second, to provide skills and knowledge for the workforce to understand and subsequently support a ‘just transition’. A distinction can be made between training which might be required to perform a specific role and education which would improve the ability to serve the union.

Corner and Clarke (2016:65) talk about the need to “expand and diversify the social reality of climate change.” They suggest that this can be done by using language, values and narratives that people can engage with. For trade unions the ‘just transition’ framework encompasses within it their core values of respect, fairness and reducing inequality (Climate Outreach, 2014). Trade union officials have a need to understand and represent the views and interests of their members. A wider acceptance of the need for a transition will, therefore, require more “participative forms of membership engagement” (Fairbrother, 2008:218).

Interview respondents were very positive about the air pollution seminars. There was common agreement that it was a good way of engaging members across a diversity of sectors. Respondents spoke about attending seminars and running training sessions on this topic. This use of a public health frame for engagement with climate change is highlighted as important by Corner and Clarke (2016:56) as it can “make the issue seem more personally relevant”.

It is important to consider that ‘just transition’ doesn’t become too narrowly focussed. So it will be foremost for trade unions to link these engagement narratives back to the ‘just transition’ framework and their own member’s interests.

5.7 Recommendations for action on ‘just transition’

This section presents suggestions based on findings from the literature review section, the empirical research carried out and subsequent analysis. It uses a framework proposed by Robinson (2015) to evaluate different interventions on systems. The researcher is under no illusions that trade unions are only one of the actors in a complex system. The changes that are required to move to a low carbon economy will require significant action from all sections of society. Individuals or groups acting alone can only do so much without a fair framework implemented by government. The recommendations are thus focussed on three areas that have been shown to be important from the research: Leadership, creating a community of practice and providing education and skills.

The proposed interventions are on various levels from the lower level: providing education and skills. To the middle level: creating a community of practice. And on to the higher level: provide leadership to change the paradigm. The higher level interventions have the potential to create “stronger, broader and more durable improvements” (Robinson, 2015).

Provide education and skills: By giving people a wider range of skills and knowledge it potentially enables them to act differently when faced with the same situation. When enough people act differently systems can change. Trade unions should seek to improve “environmental literacy” at all levels of the organisation, from grassroots to general secretary. The intention is to create a greater understanding of the need for action on climate change. The work by the GJA on air pollution has been shown to have good traction within trade unions for engaging members. This can be used to make climate change impacts and solutions relevant to people’s lives. Although providing education and skills is a system change, it can still be considered a ‘weak’ system intervention as the people are still embedded within the same context. The following intervention can help support the one above.

Create a community of practice: A key finding to come from the research was the need to create a consensus, an agreed understanding and a common direction for action on ‘just transition’. A recommendation is to convene or further support a community of practice. This could be done through the TUC. The key function of this community would be to learn from each other and understand different perspectives. The research has shown good work being done within individual unions which can be communicated to others. The aim is to co-ordinate efforts and work together. Smaller trade unions that might find it difficult to act with limited resources would benefit from the shared experience and resources of the larger group.

Provide leadership to change the paradigm. This is the highest level of intervention and potentially the one that can create the most durable improvements. The research has highlighted that there is a desire and a space for trade unions to take a lead on climate change and to change the paradigm of the current fossil-fuel based economy. The ideas about the way the world works and our assumptions about it constitute society’s paradigm. Robinson (2015) states that, “paradigms are intangibles that are created and reinforced by day-to-day conversations”. The role for trade union leaders will be to create this new paradigm. The ‘just transition’ framework is not an end in itself, but a means to an end. It is there to help trade unions make progress on the transition to a low carbon economy and avoid the jobs-versus-environment narrative. Trade unions must know what their values are on ‘just transition’. They must speak up for them with confidence and purpose. They

should present 'just transition' as about building a better world. And they should enable and support others who share that common goal.

6 Conclusions

6.1 Introduction

The overall aim of the research was to determine “How are UK trade unions engaging with climate change and the need for a just transition?”

The specific research objectives were to:

- 1) *Explore and evaluate* the ‘just transition’ framework and its relationship to other concepts such as green economy, low carbon transition and environmental justice.
- 2) *Determine* current engagement with ‘just transition’ amongst trade unions.
- 3) *Explore* awareness, understanding, views and practices related to climate change and ‘just transition’ from officers in UK trade unions, including barriers and opportunities for action.
- 4) *Formulate* recommendations for future trade union action on ‘just transition’.

This chapter will assess the objectives above, summarize the findings and offer conclusions. Also included is a section that provides a short reflection on the research work carried out.

6.2 Research objective 1

The literature identified that the ‘just transition’ framework grew out of a need to protect workers and communities in threatened industries. It has since broadened out to encompass the strategies required to transition to a low carbon economy. A significant part of the ‘just transition’ narrative is around the creation of ‘green’ jobs. However, there is contention around how useful the term ‘green’ job is for trade unions. The literature has highlighted the close link that ‘just transition’ has with the environmental justice movement as it seeks to take account of those likely to be impacted by carbon reduction policies.

Trade unions, as representatives of workers have an important role in society to give a voice to working people. They can also play a vital role in creating wider public support for carbon reduction policies. Indeed, the ‘just transition’ framework demands that they, and the workers they represent have a role in shaping these policies.

6.3 Research objective 2

The 'just transition' framework has gained traction at international level through the work done by trade unions in getting it included into the preamble of the Paris Climate agreement. It is still seen as being in the implementation phase as trade unions start to use the language in their work on environmental issues. The literature review showed unions taking action in different ways.

Key findings from the literature review revealed that:

- unions don't act as an amorphous block,
- there are difficulties in moving from policies to strategies,
- there is a need for unions to take a leadership role regarding climate change and 'just transition',
- barriers to action may lie within unions themselves.

6.4 Research objective 3

The empirical data showed that 'just transition' was understood amongst the UK trade union officials involved in the research. It was being used in slightly different forms due, in part, to the sectoral differences. Unions were involved in political action through lobbying of the current government and also discussions with other political parties. They were also involved in partnerships with employers and green NGO's. An important part of their activities was to achieve engagement amongst the wider membership. This was being done through pamphlets, training sessions and forums.

A key finding was the need for leadership and to create a common understanding and consensus on the need for a 'just transition'. In common with findings from the literature review, the empirical research also determined that barriers to action on 'just transition' may lie within unions themselves.

6.5 Research objective 4

Recommendations for further action on 'just transition' were presented in the discussions chapter and included: providing education and skills, convening a community of practice and providing leadership on 'just transition'.

6.6 Reflections on the research

The aim of the research was to explore the range of views and the various possibilities for action on climate change and 'just transition' amongst UK trade unions. This chapter has highlighted these views and practices. However, it is important to acknowledge the limitations of this dissertation. The cases are not representative of all UK trade unions. The research does not intend to present them as such. Although the interviews did produce rich data, responses are potentially limited by the small sample size. In this respect, a wider variety of responses may have been obtained from a larger sample. From the researchers point of view it was disappointing not to have more industrial sector unions represented in the research. A lot of effort was put in trying to get officials from these unions involved. It was also a missed opportunity in the research interviews to discuss the concept of 'green' jobs as this was an area where there was a degree of contention in literature.

For future work it would be important to understand the views from the wider membership on climate change, green jobs and 'just transition'. All of the interviewees are full time officials for their unions so they are in some way 'detached' from the everyday realities faced by their members in the workplace or at the 'coalface'. Being able to understand how the wider membership view 'just transition' would be important in developing further strategies for action.

Word count: 17,965

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Appendix A

Interview question schedule

Welcome and thank you for agreeing to take part in this interview.

I have some questions to go through, but the interview does not need to be limited to these questions. You do not have to answer any question that you don't want to and we can stop the interview at any time.

The purpose of the interview is to find out about your Union's awareness and understanding of the 'Just Transition' framework.

Question	Probes	Purpose
1. Firstly, can you just introduce yourself and briefly describe your role within the Union and your responsibilities?		Establishing context
2. Are you aware of the phrase 'Just Transition'?	How have you heard of it? What does it mean to you? Wider grassroots appeal?	Current engagement within unions on just transition?
3. How is your union using the Just Transition framework?	Policy? Grassroots? Successes?	What strategies are currently being employed?
4. What are the opportunities for your union to be involved further with Just Transition?	Skills and knowledge? Funding and resources? Govt. policy?	What are the opportunities to increase union capacity and understanding in this area?
5. Are there any barriers/blockers to the union being further involved?	How could these be removed?	Capacity and understanding
6. How could the Just Transition framework be made more meaningful?	Skills and apprenticeships? Clean air? Energy democracy? Social protection?	Capacity and understanding
7. Is there anything else you would like to add?		

Thank you for your time.

Appendix B

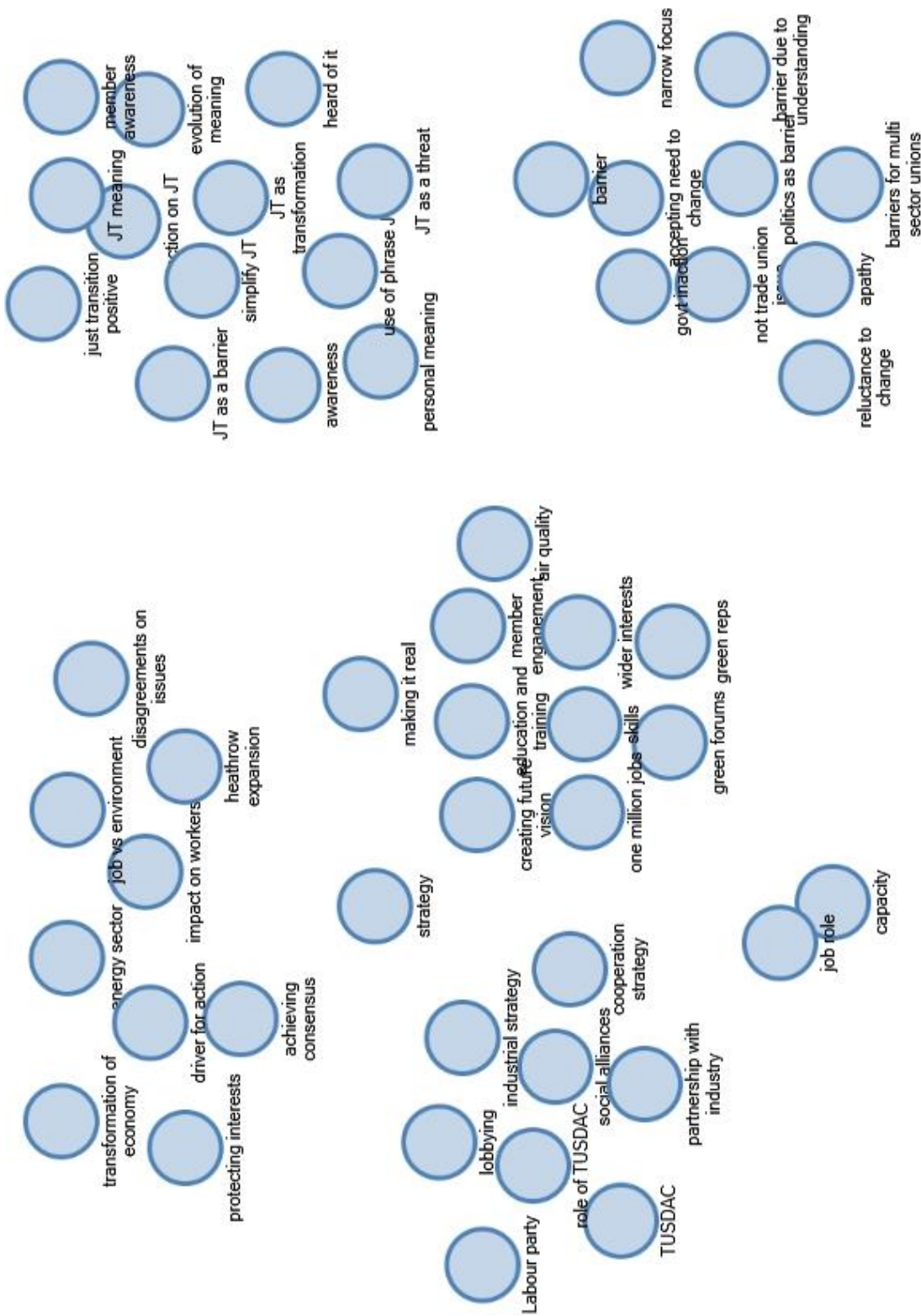
Initial nodes from coding process

Node name	Description
accepting need to change	the change to a low carbon economy
achieving consensus	language around achieving a consensus
action on JT	clear strategies
air quality	mention of air quality
apathy	as a reason for not acting
awareness	have they heard of just transition
barrier	broad brush barriers to action on JT
barrier due to understanding	not knowing what JT means
barriers for multi sector unions	mentions that this is a factor
capacity	how persons job role links in with work they have to do
cooperation strategy	mention of co-operation with outside actors
creating future vision	language around creating vision of a desired future
disagreements on issues	highlights any mention of disagreements
education and training	mention of education or training
energy sector	mentions of energy sector or impacts on
evolution of meaning	how JT might have changed
govt inaction	mention of government inaction
green forums	mention of green forums
green reps	mention of green reps
heard of it	where does awareness come from
heathrow expansion	mention of heathrow expansion
impact on workers	how climate change policy might affect workers
industrial strategy	mention of phrase
job role	to determine if part time or full time role
job vs environment	mention of conflict between jobs and climate action
JT as a barrier	actual language as a barrier to engagement
JT as a threat	any mention of JT being a threat
JT as transformation	JT in the wider socioeconomic context
JT meaning	any description of JT meaning
just transition positive	positive attitudes to JT
Labour party	mentions of Labour party
lobbying	mention of lobbying
making it real	how to make JT have relevance for members
member awareness	any mention of wider membership awareness of JT
member engagement	how membership are engaged on environmental issues
narrow focus	having strategy for action
not trade union issue	use of the phrase
one million jobs	mention of one million jobs campaign
partnership with industry	mention of this

personal meaning	understanding of just transition
politics as barrier	mention of union internal politics as a failure to act
protecting interests	mention of workers interests
reluctance to change	mention of
role of TUSDAC	experiences of working with
simplify JT	any mention of language being difficult to understand
skills	mention of skills
social alliances	expressing a need or an action to work with other groups
strategy	strategies on climate change or JT
transformation of economy	mention of phrase
TUSDAC	mention of
use of phrase JT	mentioned anywhere in text
wider interests	mention of unions role outside workplace

Appendix C

Clustering of nodes



Appendix D

Grouping of nodes

Node Name/ themes and sub themes	Description
barriers	broad brush barriers to action on JT
accepting need to change	the change to a low carbon economy
apathy	as a reason for not acting
barrier due to understanding	not knowing what JT means
barriers for multi sector unions	mentions that this is a factor
govt inaction	mention of government inaction
not trade union issue	use of the phrase
politics as barrier	mention of union internal politics as a failure to act
reluctance to change	mention of
drivers for action	why union involved with just transition
Issues	
achieving consensus	language around achieving a consensus
disagreements on issues	highlights any mention of disagreements
energy sector	mentions of energy sector or impacts on
heathrow expansion	mention of heathrow expansion
impact on workers	how climate change policy might affect workers
job vs environment	mention of conflict between jobs and climate action
protecting interests	mention of workers interests
transformation of economy	mention of phrase
job role	to determine if part time or full time role
capacity	how persons job role links in with work they have to do
Just transition	mentions of just transition
action on JT	clear strategies
attitudes	positive or negative attitudes to JT
JT as a barrier	actual language as a barrier to engagement
JT as a threat	any mention of JT being a threat
JT as transformation	JT in the wider socioeconomic context
just transition positive	positive attitudes to JT
simplify JT	any mention of language being difficult to understand
awareness	have they heard of just transition
evolution of meaning	how JT might have changed
how heard of it	where does awareness come from?
how it is being used	mentioned anywhere in text
JT meaning	any description of JT meaning
strategies	strategies on climate change or JT
cooperation strategy	mention of co-operation with outside actors
making it real	how to make JT have relevance for members
air quality	mention of air quality

creating future vision	language around creating vision of a desired future
education and training	mention of education or training
green forums	mention of green forums
green reps	mention of green reps
member awareness	any mention of wider membership awareness of JT
member engagement	how membership are engaged on environmental issues
narrow focus	having strategy for action
one million jobs	mention of one million jobs campaign
skills	mention of skills
wider interests	mention of unions role outside workplace
political action	including advocacy, lobbying, engagement with government
industrial strategy	mention of phrase
Labour party	mentions of Labour party
lobbying	mention of lobbying
partnership with industry	mention of this
role of TUSDAC	experiences of working with
social alliances	expressing a need or an action to work with other groups
TUSDAC	mention of

Appendix E

Participant Information sheet

27 June 2018



Research participant information sheet

Title of project: How are UK Trade unions engaging with climate change and the need for a 'Just Transition'?

Researcher: Paul Drury

You have been invited to take part in a research study. This information sheet will enable you to understand why the research is being done and what it will involve. Please read the following information and ask if there is anything not clear or if you would like more information. Take time to decide whether you wish to take part. Thank you for reading this.

Background to study

I am a postgraduate student at De Montfort University in Leicester, and as part of my Masters course in Energy and Sustainable Development I am doing a research project on Trade Union response to climate change and the concept of Just Transition. The project is in partnership with the NUS 'dissertations for good' scheme and the Greener Jobs Alliance.

The research will contribute to the work that the Greener Jobs Alliance are doing in promoting the Just Transition concept amongst UK Trade Unions and help to inform the provision of education, training and capacity building within this important area.

What does the study involve?

I would like participants from UK trade unions to take part in a short interview (about 20mins) to understand their views on Just Transition. The interview will be audio recorded and transcribed and be used only for analysis in the research project. Interview data will only be accessible by the researcher and the dissertation supervisor. Responses given in the interview will be kept strictly confidential and names will be anonymised in the final report.

Participation in the research is entirely voluntary. If you decide to take part you will be given this information sheet and be asked to sign a consent form. You have the option to withdraw at any time and without giving a reason.

If you are interested in taking part in this research, or for further information, I can be contacted by email at P17166665@mv365.dmu.ac.uk

If you have any complaints or issues regarding this study, you can contact the dissertation supervisor at the email address detailed at the end of this sheet.

Thank you for taking part in this study.

Contact details of research project team are given below:

Researcher Paul Drury P17166665@mv365.dmu.ac.uk	Academic supervisor (De Montfort University) Dr Andrew Reeves areeves@dmu.ac.uk
Research partner (Greener Jobs Alliance) Graham Petersen gjacom@gmail.com	

Appendix F

Sample consent form



Research consent form

Title of project: How are UK Trade Unions engaging with climate change and the need for a 'Just Transition'?

Name of researcher: Paul Drury

Please tick all boxes if you agree

1. I confirm that I have read and understood the information sheet dated 27 June 2018 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. ☐
3. I agree that non identifiable quotes may be published in articles or used in conference presentations. ☐
4. I agree to the interview being digitally audio recorded. ☐
5. I understand that data collected during the study may be looked at by a supervisor from De Montfort University. I give permission for the supervisor to have access to my data. ☐
6. I agree to take part in this study. ☐

Print name of participant

Date

Signature

Print name of person taking consent

Date

Signature

Appendix G

Ethics committee form

For official use

Tracking No:
Date approved:
Initials:

Application to Gain Ethical Approval for Taught Masters Degree Dissertation

NOTE: If your research involves using human tissue or fluid samples or animals please DO NOT use this form. You should seek guidance from the Chair of the Faculty Research Ethics Committee (FREC) before starting the project.

All taught Masters that include a research project or dissertation require ethical approval. The student should fill in this form and discuss the likely outcome with their project supervisor. There are four possible outcomes:

1. No interaction with human beings is planned and no identifiable data on or from individuals is used.
2. Students interview individuals, carry out surveys, observe, and participate with adults who understand the research and are aware they can withdraw their participation at any time. Supervisors must ensure that the appropriate boxes in section 2 are ticked and that the student knows how to address the ethical concerns.

For projects which fall under outcome 1 or 2, this ethical review form should be signed by the student and the project supervisor. Nothing further is required; the form does not need to go to the Technology FREC.

3. The research is with vulnerable people who may not understand the research and their role (e.g. children, hospital patients, people with mental health issues, subordinates in power relationships, etc.). Also applies to research into illegal activities or research that could produce a risk of injury to anybody. The student / researcher must find ways to address these problems and the supervisor must be confident that they have been addressed satisfactorily.

For projects which fall under outcome 3, this ethical review form should be signed by the student and project supervisor and a copy of the review form sent to the Technology FREC (via amsmith@dmu.ac.uk). Once the Technology FREC accepts the review form, the student and supervisor will be notified and the student may start work on the project.

4. The research is ethically problematic.

For projects which fall under outcome 4, this ethical review form should be signed by the student and project supervisor and a copy of the review form submitted to the Technology FREC for resolution. Once resolved, the student and supervisor will be notified and the student may start work on the project.

All outcomes

Once approved, the form should be submitted by the student to the relevant Blackboard Dissertation shell. A copy of the form and, *where relevant*, the following supporting documents, must be included in the project report (dissertation) as appendices when it is submitted for assessment.

Supporting documents (may apply to outcome 2, 3 or 4):

- Information that will be provided to the study participants
- Participant consent form
- Other documentation as advised by the supervisory team

1. Applicant			
Surname	DRURY	First Name	PAUL
DMU Email Address	P17166665@my365.dmu.ac.uk	Student ID Number	P17166665

Working title of the proposed investigation: *(Abbreviations must not be used)*
How are UK trade unions engaging with climate change and the need for a low carbon transition?

2. Delete 'Yes' or 'No as appropriate in table below. If you answer any of the following questions with 'Yes', then specific ethical issues WILL be raised that MUST be addressed. You will need to explain in detail in section 3 how you will address these ethical issues, and consult your supervisor.

Has your research proposal identified any of the following research activities?

Gathering information from or/and about human beings through: interviewing, surveying, questionnaires, observation of human behaviour	Yes /
Using archived data in which individuals are identifiable	/ No
Researching into illegal activities, or activities at the margins of the law	/ No
Researching into activities that have a risk of personal injury anybody.	/ No
Research that might impact on human behaviour, for example on autonomous vehicles.	/ No
Researching topics that are concerned with the following 'sensitive research' areas: access to web sites normally prohibited on university servers, or extremism and radicalisation, criminal activities, etc.	/ No

For more information about whether your research should be classified as sensitive see:
<http://www.dmu.ac.uk/research/ethics-and-governance/sensitive-research.aspx>.

Are there additional factors that could give rise to ethical concerns e.g. communication difficulties?

None

3. How will the issues you have raised in response to question 2 be addressed?

Provide participants with full details of research objectives
 Make participants aware that participation is voluntary and get consent by providing a consent form
 Make participants aware that they can withdraw at any time
 Any data from interviews will only be used for the purposes of the research dissertation
 Copy of final dissertation will be provided to research partner Greener Jobs Alliance after completion. Participants in research will be made aware of this fact.

Information for interview participation following guidance in KING, N. and HORROCKS, C. (2010) *Interviews in qualitative research*. London: Sage publications Ltd

Note: you should consider the following:


- *Providing Participants with the full details of the objectives of the research*
- *Providing information appropriate for those whose first language is not English*
- *Voluntary participation with informed consent (through the provision of a consent form)*
- *Written description of involvement*
- *Freedom to withdraw*
- *Keeping appropriate records, including secure storage of research materials, such as research data*
- *Signed acknowledgement and understanding by Participants*
- *Relevant codes of conduct / guidelines*


4. To which ethical codes of conduct have you referred?
British Sociological Association: https://www.britsoc.co.uk/media/24310/bsa_statement_of_ethical_practice.pdf

Note: For the Faculty of Technology these codes typically include those published by the BCS, ACM, IEEE or other applicable codes such as the code of the Social Research Association, British Psychological Society (BPS) or specific funding bodies, such as the ESRC or AHRC. Links to some of these codes are available on the Faculty of Technology FHREC website. <http://www.dmu.ac.uk/research/ethics-and-governance/dmu-policies-and-external-requirements-.aspx>

Please note, if the methodology changes in relation to ethical considerations after submission, you can submit a new form, following the same procedure.

AUTHORISATION

Signature of Applicant			
Signed		Date	18/06/18

Approval signature of Supervisor			
Signed		Date	19 th June 2018
Outcome [circle number] (1 <u>2</u> 3 4)			
Name of Supervisor _Dr Andrew Reeves_____			

Where necessary, authorising signature (FREC Chair)			
Signed	_____	Date	_____
Outcome [circle number] (1 2 3 4)			
Name of FHREC chair _____			

Conditions

Where necessary, full approval - authorising signature (FREC Chair)			
Signed	_____	Date	_____

NOTES FOR GUIDANCE:

1. Participants cooperation in a research project is entirely voluntary at all stages. They must not be misled when being asked for co-operation.
2. Participant anonymity must be strictly preserved. If the Participant, on request from the Researcher, has given permission for data to be passed on in a form which allows that Participant to be personally identified:
 - a) the Participant must first have been told to whom the information would be supplied and the purpose for which it will be used
 - b) the Researcher must ensure that the information will not be used for any non-research purpose and that the recipient of the information has agreed to conform to the requirements of any relevant Code of Practice.
3. The Researcher must take all reasonable precautions to ensure that the Participant is in no way directly harmed or adversely affected as a result of their involvement in a research project.
4. The Researcher must take special care when interviewing vulnerable people – for example children or the elderly. The Faculty ethics representative will give advice on gaining consent for studies involving vulnerable people.

5. Participants must be told (normally at the beginning of the interview) if observation techniques and/or recording equipment are used, except where these are used in a public place. If a respondent so wishes, the record or relevant section of it must be destroyed or deleted. Participant anonymity must not be infringed by the use of such methods.
6. Participants must be enabled to check, without difficulty, the identity and bona fides of the Researcher.
7. Researchers should ensure data is held securely, and follow university and legal requirements regarding data protection and data storage.