Towards a framework for cross-boundary collaborative open learning for cross-institutional academic development

Chrissi Nerantzi

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Declaration

I declare that no material contained in the thesis has been used in any other submission for an academic award.

The thesis is the result of Chrissi Nerantzi's own independent work.

Published material associated with the work has been included in Appendix 8.1

Chrissi Nerantzi   Date:

Abstract

This phenomenographic study, explores the collaborative open learning experience of academic staff and open learners in cross-institutional academic development settings, and adds to what is known in these settings. It provides new insights for academic developers and course designers about the benefits of crossing boundaries (i.e. open learning) in an academic development context and proposes an alternative model to traditional academic Continuing Professional Development (CPD). It engages academic staff in experiencing novel approaches to learning and teaching and developing as practitioners through engagement in academic CPD that stretches beyond institutional boundaries, characterised by diversity and based on collaboration and openness. Data collection was conducted using a collective case study approach to gain insights into the collective lived collaborative open learning experience in two authentic cross-institutional academic development settings with collaborative learning features designed in. At least one of the institutions involved in each course was based in the United Kingdom. Twenty two individual phenomenographic interviews were conducted and coded. The findings illustrate that collaborative open learning was experienced as two dynamic immersive and selective patterns. Boundary crossing as captured in the categories of description and their qualitatively different variations, shaped that experience and related to modes of participation; time, place and space; culture and language as well as diverse professional contexts. Facilitator support and the elasticity of the design also positively shaped this experience. The community aspect influenced study participants' experience at individual and course level and illuminated new opportunities for academic development practice based on cross-boundary community-led approaches. The findings synthesised in the phenomenographic outcome space, depicting the logical relationships of the eleven categories of description in this study, organised in structural factors, illustrate how these contributed and shaped the lived experience, together with a critical discussion of these with the literature, aided the creation of the openly licensed cross-boundary collaborative open learning framework for cross-institutional academic development, the final output of this study. A design tool developed from the results is included that aims to inform

academic developers and other course designers who may be considering and planning to model and implement such approaches in their own practice.

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As an open researcher I would also like to acknowledge the following individuals for their help on this journey:

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List of Abbreviations

AISHE	All Ireland Society for Higher Education
ALT	Association of Learning Technology
BIS	Department for Business, Innovation & Skills
BYOD4L	Bring Your Own Devices for Learning, open course
CC	Creative Commons
CETIS	Centre for Educational Technology, Interoperability and Standards
CICED	Central Institutions' Committee for Educational Development
CMALT	Certified Membership of ALT
cMOOC	Connectivist MOOC
COPADOCI	Committee of Principles and Directors of the Scottish Central Institutions
CPD	Continuing Professional Development
CSCL	Computer-Supported Collaborative Learning
FDOL	Flexible, Distance and Online Learning, open course
FE	Further Education
FOS	Flexible, Open and Social Learning, open course
FSQ	Final Survey Question
ECU	Equality Challenge Unit
HE	Higher Education
HEA	Higher Education Academy
HEFCE	Higher Education Funding Council for England
HEFCW	Higher Education Funding Council for Wales
HEI	Higher Education Institution
IBL	Inquiry-Based Learning
ILT	Institute for Learning and Teaching in HE
ISQ	Initial Survey Question
JISC	Joint Information Systems Committee
LFHE	Leadership Foundation for Higher Education
LTSN	Learning and Teaching Support Network
Manchester Met	Manchester Metropolitan University
MIT	Massachusetts Institute of Technology

MOOC	Massive Open Online Course
NMC	New Media Consortium
OCW	Open CourseWare
OEC	Open Educational Community
OECD	Organisation for Economic Co-operation and Development
OEP	Open Educational Practice
OER	Open Educational Resources
PAACE	Pennsylvania Association for Adult Continuing Education
PBL	Problem Based Learning
PgCert	Postgraduate Certificate
RGIT	Robert Gordon Institute of Technology
PhD	Doctor of Philosophy
QAA	Quality Assurance Agency
QEF	Quality Enhancement Framework
RLO	Reusable Learning Object
RQ	Research Question
SEDA	Staff and Educational Development Association
SFC	Scottish Funding Council
SRHE	Society for Research into Higher Education
TEF	Teaching Excellence Framework
TQEF	Teaching Quality Enhancement Fund
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UK PSF	UK Professional Standards Framework
USICA	Universities and Colleges Information Systems Association
xMOOC	MOOC as an extension
VLE	Virtual Learning Environment

Prologue

This section captures my voice and experiences as the researcher, my experiences, motivations and aspirations which led to this study.

My initial roots and where I now belong

My home and family have been spread across Europe and beyond (Greece, East Germany, Poland, Czechoslovakia, Romania and even Russia). It has been that way since my birth and before when my parents were young and fleeing Greece during the Civil War that started after the Second World War ended. They were political immigrants.

I was born in East Germany where I was the only brown-eyed, black-haired girl in the whole school. I was happy there. Then the borders opened and we could move to my parents' homeland, Greece. My parents always wanted to go back but for years they were not allowed to, for political reasons. I was 12 years old when it happened. It took me a while until I could see Greece as my new homeland. In the new country I became the only girl in class with a foreign accent. This wasn't an easy experience and for years I suffered. I felt lonely and did not know where I belonged. After school and twice failing the entry exams to study Medicine, I did all kinds of jobs, including computer programming for the Hellenic Navy. This is the time when I really became determined to go to university. I was almost 24. I studied translation at the Ionian University of Corfu as a mature student. Simultaneously I was teaching German Language and translating literary works for many Greek publishers (for over 10 years). The five years I spent in the Navy soon became a distant memory. I was happy and felt most at home studying languages and cultures. My experiences growing up and living in different countries and cultures, as well as the difficulties I experienced, have helped me develop a respect for all people and have more tolerance and understanding. While I was at university, I met my husband and we decided to move to the United Kingdom (UK) where I now live with my own family, once again a woman, not so young anymore, who speaks several different languages and comes from another culture. I have learnt that our differences enrich us, our lives, personal and professional.

My personal experiences and what I have learnt through them have helped me become a reflective individual. I thrive in diverse social and cultural situations taking responsibility for my actions and shaping them accordingly. When I arrived in the UK, I started teaching languages at college and in the community, then at university. I studied towards a teaching qualification in Further Education (FE) and continued towards further academic qualifications in the area of teacher education (MA in Teaching and Learning in HE, MSc in Blended and Online Education, PgCert in Coaching and Mentoring in HE). I soon found my professional home: Academic development. Since I first started flirting with the idea of helping other teachers to enhance their teaching practices, I have worked in three universities in the UK: the University of Sunderland, the University of Salford and the Manchester Met. But my journey into helping other teachers started within the Adult and Community provision with Gateshead Council in the North-East of England.

Necessity and the drive to succeed in difficult circumstances have made me determined, resourceful and resilient. I have always valued and embraced other views, perspectives and ideas and see them as opportunities for enrichment. Working, learning and developing in cross-disciplinary, cross-cultural networks and diverse communities of trust, transparency and openness is what characterises me as a professional. This is where I belong. Commonalities and interests that connect my inner self with others within and beyond spatial boundaries shape my identity. My mind is open and my practice could not be otherwise. For me sharing and open practice in the context of academic development go hand in hand. If we want to create versatile, meaningful and stimulating learning and teaching experiences we need to bring our world view into classrooms and connect with the world. Sharing my personal world, my past and my present, contextualises my personal and professional motivation for this research.

My professional world

I was a curious practitioner who pushed the boundaries and supported open practices, even before moving to academic development. Early examples include the website www.ilearngreek.co.uk I created in 2004 when I started teaching Greek for the Gateshead College and later the University of

Sunderland until 2010. I authored over 300 interactive Greek language learning activities and made them all freely available for Greek language learners worldwide. In 2005 I volunteered to do the localisation of the free software Sebran into Greek. In 2008, I developed a collaborative wiki around audio feedback for academic staff to share resources with colleagues when I was working as an academic developer at the University of Sunderland using the social media application wetpaint (http://audiofeedback.wetpaint.com). In 2009-2010 while I was a teacher educator for Gateshead Council, I used the then freely available social networking site Ning to offer a teacher training course and connect with students remotely outside the classroom. I used a similar approach to connect language teachers working across Gateshead Council at http://languagesalive.ning.com as I was also, simultaneously, the Languages coordinator. Unfortunately, the above sites are no longer live, nor is there any published work available as I did not write about it. I only have a selection of the activities and resources I created offline and testimonials from students, colleagues and users. I am saddened that this early work has not been captured more fully. Since 2009, however, I have written a blog which initially represented my initial steps into a more scholarly approach to teaching and academic development. I am still blogging and have found it invaluable for developing and testing ideas as well as engaging in conversations about my work with the wider community. During the writing phase of this thesis, my blog became a valuable space to externalise some of my dilemmas as well as visualise my readings and discoveries. The posts linked to this research can be accessed at https://chrissinerantzi.wordpress.com/category/phd-2/. During the phenomenographic analysis I also decided to keep an offline reflective diary that captures my thinking and dilemmas during the analysis process.

As an academic developer, playing with pedagogical ideas and using curiosity to prompt thinking and acting creatively is something I can not stop doing. It is equally important to me to connect with colleagues and students (see Palmer, 2007) and find ways to fire their imagination and curiosity (see James & Brookfield, 2014); to help them see creativity as a necessity to thrive in challenging times (see Jackson, 2006), to 'unzip' their minds and to enable them to believe in what they are capable of. When this happens, learning can

happen. Freire notes that "only an education of question can trigger, motivate, and reinforce curiosity" (Freire, 2007, p.31).

Academic developers often work with people in networks and communities as these are seen as more effective and more democratic strategies (Neame, 2011; Neame, 2013). I see myself as a reflective practitioner, modeller-broker and provocateur (Land, 2004), a change agent whose role is to introduce ideas that challenge and disrupt practices. I share my discoveries around learning and teaching to inspire and, in Neame's words "infect" (Neame, 2013, p.342), as well as influence others.

As an open practitioner, I work with others and myself as a co-learner, collaborator and co-researcher. I feel fortunate to have worked with many passionate colleagues and teams, locally, nationally and internationally. Especially since 2009, my open educational projects (Appendix 1.1) have been developed and implemented in collaboration with others within three Higher Education Institutions (HEIs), the University of Sunderland, the University of Salford, Manchester Met and Newcastle College where I worked briefly as a teacher educator on HE Learning and Teaching programmes.

My personal and professional curiosity led me to carry out this research and I am grateful to Prof. Keith Smyth who has since 2008 supported my pedagogic ideas, encouraged me to embark on this journey, officially in January 2013, and carry out research in the area of open cross-institutional academic development and particularly to study collaborative open learning in these settings. It has been a fascinating journey so far…

CHAPTER 1: INTRODUCTION

This chapter introduces and provides an overview of the work undertaken for this thesis, which is conducted within the area of academic development (Chapter 1.1). It describes the aims and objectives of this phenomenographic study, which seeks to collectively explore the qualitatively different lived collaborative open learning experiences of participants in cross-institutional academic development settings (Chapter 1.2). The chapter also describes the anticipated contribution to knowledge and practice in the field of academic development (Chapter 1.3), and concludes with an outline of the structure of the thesis (Chapter 1.4).

The aim of this study is to explore and develop insight into how collaborative open learning is experienced within specific cross-institutional academic development courses in higher education (HE) in the United Kingdom (UK). Contributions to the existing body of knowledge and practice in this area are made. Based on the findings, a design framework is proposed as an alternative evidence-based approach for academic developers for collaborative open learning in cross-institutional settings, which could transform how academic development is practised today.

In the context of this study, collaborative open learning is defined as learning that happens in groups supported by facilitators using open educational practices (OEP). OEP is defined as courses, a series of learning activities or practices supported by online digital technologies and social media, commonly made available under a creative commons licence. OEP is discussed in Chapter 2.3.1. Cross-institutional academic development, where it is discussed, refers to practitioner-driven collaborations among different HEIs in the UK and elsewhere. In addition, the term 'academic staff', which is used throughout this study, refers to academics and other professionals who teach or support learning in HE.

A glossary of further terms used in this thesis can be found in Appendix 1.2.

1.1 Context

This brief section reports on recent developments in academic development in the UK, digital technologies, social media and open education in HE.

Academic development emerged as a professional area in the 1970s in the UK (Baume & Baume, 2013; Brown, 2013; Elton, 1995; Gibbs 2013; Pickford & Brown, 2013; Parsons, Hill, Holland & Willis 2012; Stefani, 2003) with its main function being the enhancement of teaching and learning. Since then, academic development has continued to grow in terms of staff numbers and importance for HEIs (Gosling, 2007). The repositioning of academic development from the periphery to centre stage in institutions (Boud, 1995; Gosling, 2007) can be linked to the changes which UK HE has undergone since the Robbins Report (1963) and subsequent, successive reviews and policies (BIS, 2011; BIS, 2016; Browne Report, 2010; Dearing Report, 1997; DfES, 2003; James Report, 1972; Leitch Review of Skills, 2006).

Additional government policies have changed the UK HE landscape. This has led to the massification of HE (around 50% of young people now attend university) and the diversification of the student body itself (BIS, 2013b). Although this expansion was initially funded out of central government tax receipts, student fees paid through the student loans company on behalf of students, now make up the bulk of teaching income in England with the other home countries maintaining some element of student fees but with a substantial proportion of central funding. In addition, the quality of teaching has been increasingly linked to the student experience and student learning (BIS, 2016a; BIS 2016b; Gibbs, 2010) and in England, it is proposed that future increases will be linked to performance in the Teaching Excellence Framework (BIS, 2016a).

Through government policies and changes, the role of initial and ongoing academic development as a mechanism for raising teaching standards through the development of academic staff in the area of teaching and supporting students was recognised and has progressively led to the professionalisation of teaching in HE (Ramsden, 2008). Academic development currently plays a strategic role in the development of academic staffs' teaching practices (Stefani, 2003).

Recent developments, especially the Teaching Excellence Framework (TEF), demonstrate a strong commitment by the UK Government in England to further raise the quality of teaching (BIS, 2016a). In Scotland, higher education is devolved. There are no student fees and Enhancement Themes are part of the Scottish Quality Enhancement Framework (QEF) to support the ongoing development of teaching practices across HEIs (QAA Scotland, 2015). The TEF arguably seeks to strengthen the position of UK HE as a world leader through a national scheme that recognises excellence in teaching at an institutional level. This scheme is based on thresholds and promises to bring financial gains to institutions directly linked to student fees in England (BIS, 2016a; BIS, 2016b). Therefore, the TEF has the potential to increase competition among HEIs and puts additional 'top-down' and 'bottom-up' pressure on institutions by the UK government to raise the quality of teaching and achieve teaching excellence in return for higher fees. As HE administration is devolved in Scotland, Wales and Northern Ireland there is no requirement for HEIs there to make any changes to existing fee structures as a result of participating in TEF (BIS, 2016c). As academic development will be involved in the implementation of related strategies and interventions to achieve teaching excellence, it could be seen as a management tool. Unfortunately, research has shown that managerial approaches can be ineffective (Di Napoli, 2014). However, collaborative approaches within academic development have the potential to make a real difference to how academic staff engage in professional development linked to their teaching (Stefani, 2003).

It should be acknowledged that despite academic development's central and strategic role in the enhancement of learning and teaching, it has been criticised for not maximising the potential learning benefits of technology-supported pedagogies (Littlejohn, 2002; Donnelly, 2010). While changes can be observed in academic development in more recent years, where technology has been integrated into academic development programmes, such as Postgraduate Certificates (PgCerts) in Learning and Teaching in Higher Education or Academic Practice, arguably academic development as a whole could break free from conservatism and seize the opportunities technologies present (Beetham, 2015).

While the recent political developments in the UK, especially through the TEF (BIS, 2016a) could be interpreted as a shift towards more competitive and inward looking models for HE, there is a wider call for more outward looking models for UK HE (European Commission, 2013; The HEFCE, 2011). This call includes academic development that harnesses openness and enables institutions to work more closely together (Crawford, 2009). In such instances, the emphasis is placed on the opportunities that shared, collaborative and open initiatives bring to institutions and the sector. It is widely championed that working together creates opportunities for sector-wide sustained growth and innovation (British Council, 2015; Cape Town Open Education Declaration, 2007; European Commission, 2013, 2015; The HEFCE, 2011; The Wales Open Education Declaration of Intent, 2013; The Scottish Open Education Declaration 0.2, 2015). However, while there is often reference to achieving such sharing through formal routes such as consortia, collaborations among practitioners in cross-institutional contexts are still under-explored (Nerantzi, 2011a; Smyth *et al.*, 2013). Practitioner-driven collaborations can now be established more easily and faster with limited resources across and beyond institutions, and such initiatives can be empowering; extending support networks, and leading to wider sharing of good practice around learning and teaching (Rennie & Reynold, 2014; Weller, 2014).

Open cross-institutional collaborations are seen as one of the ways forward for academic development (Pawlyshyn, Braddlee, Casper & Miller, 2013) and the HE sector (HEFCE, 2011). Learning within and outside of formal HE supported by online technologies is becoming increasingly more open and collaborative, and this trend will continue (Redecker, Leis, Leenderste, Punie, Gijsbers, Kirschner, Stoyanov & Hoogveld, 2011). Orr, Rimini & van Damme (2015) suggest new forms of learning that bring learners together in communities utilising open educational resources (OER), learning and teaching materials that are openly licensed and can therefore be re-used (UNESCO, 2012) creating opportunities for learning that is shared more widely and diversified. These emerging changes make it imperative to seek new pedagogical models (Conole, 2013a; Weller 2011) as they will bring new opportunities and challenges for academic development and open up new ground for exploration,

practice and research that could transform academic development and learning and teaching in HE.

The evidence, therefore, points to the present as a pivotal moment for HE to move from a perspective of exclusively harnessing technology enhanced learning to considering approaches based on open education that is built on collaboration. Due to its role in providing development for academic staff linked to teaching and supporting learning, academic development has the potential to play a significant role in these changes and transform individual practices and the ability of universities to harness the potential of OEP. Furthermore, academic development could potentially contribute to the diversification of curricula design and delivery, through creating attractive continuing professional development (CPD) opportunities. These should immerse academic staff in experiencing new learning and teaching approaches as students and widen reach and engagement. They would also connect academic staff and institutions and foster collaboration at practitioner and institutional levels and across the sector and society. Academic development could therefore be at the forefront of such innovative pedagogic developments. Modelling such practices and engaging academic staff as learners has the potential to maximise engagement in the CPD of academic staff, enabling them to experience innovative practices as learners in open and international settings (Smyth et al., 2013). Such experiences will also better prepare academic staff to harness new open and collaborative models of learning and teaching in their own practice (Bates & Sangra, 2011; Donnelly, 2010; Littlejohn, 2002; Oliver & Dempster, 2003).

This emerging area of collaborative open learning within cross-institutional academic development is the focus of this study. This research explores collaborative open learning in academic development settings as it is experienced by academic staff alongside other open learners.

This research is positioned within policy and academic development in HEIs in the UK context for the purpose of this study. The research carried out here is timely, and there are potential benefits for academic developers, other course designers and their institutions.

1.2 Research aim and research questions

The aim of this research is to explore and gain insights into the learner experiences of collaborative open learning in the context of cross-institutional academic development in the UK. The intention is that the findings from this phenomenographic study could inform current understandings and emerging practices around collaborative open learning. The findings may aid academic developers, course designers and institutions in the consideration of open and more collaborative cross-institutional approaches to academic development.

In order to achieve the above, the aim of this research is framed in the following three Research Questions (RQs).

RQ1: How are open cross-institutional academic development courses that have been designed to provide opportunities for collaborative open learning experienced by learners?

RQ2: Which characteristics of open cross-institutional academic development courses influence learners' collaborative open learning experience and how?

Insights derived from RQ1 and RQ2 potentially present an opportunity to synthesise the findings and define possible significant characteristics for a collaborative open learning framework, which could be of value to academic developers and other course designers. This is explored in the third RQ.

RQ3: Drawing upon research findings from RQ1 and RQ2, what could be the key characteristics of a proposed collaborative open learning framework for open cross-institutional academic development courses?

The research addresses the above questions through a design that enables the in-depth study of the lived experience of participants in collaborative open learning in two distinct cross-institutional academic development courses. The research seeks to build an evidence base in this area and inform related future practice (RQ3). A phenomenographic approach is adopted (outlined in Chapter 3) as it enables the study of qualitatively different variations of the lived open learner experience. The findings are discussed together with relevant literature to provide evidence-based responses to the three research questions.

1.3 Contribution to knowledge and practice

The intention was to contribute to knowledge and practice in the following areas:

- New insights into how collaborative open learning is experienced in specific cross-institutional academic development contexts. This contribution is linked to RQ1, and will also inform RQ3.
- Identification of course design characteristics that play a role in collaborative open learning in the context of cross-institutional academic development. This contribution is linked to RQ2, and will also inform RQ3.
- The answers to RQ1 and RQ2 will feed into the development of a collaborative open learning framework and provide recommendations and guidance on how such a framework could be used in cross-institutional academic development provision. This contribution is linked to RQ3.

The experiences of participants in two open cross-institutional academic development courses have been studied using phenomenography and therefore the related contribution to knowledge and practice is closely related to these.

1.4 The structure of the thesis

The thesis consists of eight chapters and an overview of these is presented here.

The researcher outlined and reflected on her personal and professional development journey and explained briefly what provided the motivation for this study in the prologue.

Chapter 1 has provided an overview of this phenomenographic study and has outlined the aims and RQs along with the anticipated contribution to knowledge.

Chapter 2 reviews literature related to the study's focus on cooperative and collaborative learning, design frameworks around technology-supported learning and developments/practices in open education. In addition, literature

about practices in academic development in the UK are explored Gaps and opportunities linked to this study are identified, and these are later revisited and discussed in Chapter 6.

The study methodology, methods and data collection instruments are reported in Chapter 3, which includes a description and rationale for the collective case study strategy, the analysis process and methodological challenges.

Chapter 4 reports on the demographic data and background information about the collective case study.

Chapter 5 presents the phenomenographic interview findings of this study. These include the categories of description with the qualitatively different variations that emerged through an iterative analysis. The outcome space, the final output of the phenomenographic analysis, is presented, and provides one of the foundations for designing the collaborative open learning framework (Chapter 7).

The phenomenographic findings, underpinned and related to relevant literature, are discussed in Chapter 6, which is structured around addressing RQ1 and RQ2.

The proposed design framework for cross-boundary collaborative open learning in cross-institutional academic development is presented in Chapter 7 as a possible answer to RQ3. Guidelines for academic developers and course designers for the use of the framework are also included.

Chapter 8 presents the conclusions and further research recommendations together with possible implications for academic development and stakeholders. The chapter concludes with reflections on this study and opportunities for further research in the area of collaborative open learning in cross-institutional settings.

An epilogue follows in which the researcher reflects on her research journey.

The references and appendices complete this thesis. Dissemination activities linked to this study can be found in Appendix 8.1.

1.5 Chapter summary

This chapter has provided an overview of this study, outlined the aims and research questions and identified the anticipated contribution to knowledge and practice.

The next chapter is an exploration into and review of the literature linked to cooperative, collaborative and open learning, developments linked to technology-supported learning including digital technologies and social media as well as related design frameworks with collaborative learning characteristics.

CHAPTER 2: LITERATURE REVIEW

Chapter 1 provided an introduction to, and overview of, this study together with the rationale, aims and research questions, and the anticipated contribution to knowledge.

This chapter explores the historical and current literature around learning with others, cooperative and collaborative learning (Chapter 2.2), as well as openness in the context of learning and teaching HE (Chapter 2.3). It also considers the role of digital technologies in supporting these forms of learning in the context of HE. Specific conceptual and evidence-based frameworks of collaborative learning supported by technology are reviewed (Chapter 2.4). As this work is situated within academic development, particularly in the UK, the literature around the professional development of HE teachers in the UK is also reviewed (Chapter 2.5).

2.1 Introduction to the chapter

Learning with others in groups, open education in HE, the role of digital technologies to support collaborative learning, and academic development are all different research areas which have been considered together in this study as they link to the research questions (RQ).

RQ1: How are open cross-institutional academic development courses that have been designed to provide opportunities for collaborative open learning experienced by learners?

RQ2: Which characteristics of open cross-institutional academic development courses influence learners' collaborative open learning experience and how?

RQ3: Drawing upon research findings from RQ1 and RQ2, what could be the key characteristics of a proposed collaborative open learning framework for open cross-institutional academic development courses?

The reviewed literature chapter sequencing and how it relates to the three Research Questions above, is presented in Table 2.1.

Table 2.1 Overview of the literature review

Literature sections	RQ1	RQ2	RQ3
2.2 Learning with others in groups generally and in HE			
2.2.1 Supported learning in groups	x	x	
2.2.2 Product vs process		x	
2.2.3 Group size		x	
2.2.4 Relationships		x	
2.3 Openness in HE			
2.3.1 Historical overview	x		
2.3.2 Dimensions and degrees of openness		x	
2.3.3 Challenges	x	x	
2.3.4 Boundary crossing and collaborating	x	x	
2.4 Digital technologies supporting collaborative learning in HE			
2.4.1 From individualistic to collaborative use	x		
2.4.2 Social media	x		x
2.4.3 Design frameworks		x	x
2.4.4 Modes of interaction			x
2.5 Academic development in the UK			
2.5.2 People and practice	x	x	
2.5.3 Digital practices		x	
2.5.4 Cross-institutional and open provision		x	x

The review of the above mentioned key characteristics provides insights into historical and more recent theoretical and evidence-based developments that will be discussed together with the findings of this study in Chapter 6 and 7.

The next section presents a review of the discussion and critique around learning with others in groups generally and in an HE context specifically.

2.2 Learning with others in groups generally and in HE

In this section, theoretical perspectives around learning with others, and in particular cooperative and collaborative learning in groups, are reviewed with a specific focus on HE. Much research in this area has also been carried out in a school context and relevant sources from the sector are reviewed. Similarly, a review of supported learning in groups is presented (Chapter 2.2.1), and a critique is given of the tension between collaborative learning as a product versus collaboration as a process (Chapter 2.2.2). A review about group membership (Chapter 2.2.3), and perspectives on group member relationships (Chapter 2.2.4) are also included.

As noted above, cooperative and collaborative learning are both forms of learning in groups.

In cooperative learning, the literature suggests that group tasks are usually split up and carried out by individuals (Dillenbourg, 1999; Dillenbourg & Schneider, 1995; Slavin, 1980); and personal learning goals drive achievement of the group goal. As a result, the group task in cooperative learning is often seen as a collection of individual contributions and focuses on the achievement of personal goals on tasks in relation to other group members (Deutsch, 1962; Johnson, Johnson & Stanne, 2000). While cooperative learning has been around as long as humans, it can be argued that it has its roots in what Dewey's (1938) describes as experiential learning, a way of learning through actual experience and reflection on what has been experienced. Slavin (1980) refers to studies by Wheeler and Ryan (1973) who describe cooperative learning groups as clearly structured with specific roles assigned to individuals who then work on a shared output. Slavin, however, recognises that "less structured cooperative techniques that involve high student autonomy and participation in decision-making may be more effective than traditional individualistic techniques" and should therefore be considered for group working practices (Slavin, 1980, p.337).

By contrast, collaborative learning is commonly seen as group learning where individuals work together, rather than on discrete individual tasks, towards a shared goal. Dillenbourg (1999, p.1) defines collaborative learning as "a situation in which two or more people learn or attempt to learn something together" to solve problems. This is often associated with an output or product which is the result of an overall collective effort or social construction (Rockwood, 1995). It could be argued, therefore, that collaborative learning has its roots in Vygotsky's (1978) social constructivism in which knowledge is constructed as a social process and through interactions with others.

Recent educational history provides some assistance by revealing insights into how cooperative and collaborative learning spread. In the 1960s there was an emergence of cooperative and collaborative learning which started in the schools sector (Stahl, Koschmann & Suthers, 2006). Until then, social Darwinism and Individualism (Johnson, Johnson & Smith, 2007) dominated with an emphasis on the power of the individual. Competitiveness was seen as vital to survival and the ability to thrive in the world. In a university context, an early

example of cooperative learning was introduced in 1966 and specifically in a teacher training course at the University of Minnesota (Johnson, 1970).

Pedagogical perspectives from earlier decades contributed to these changes and the resulting shift towards collaborative inquiry and are briefly presented here. They include Freire's (2011) problem-posing perspective originally published in 1921, Vygotsky's (1978) social and constructivist theory from 1930 and Dewey's (1938) work around experiential learning. Problem-Based Learning (PBL), a form of Inquiry-Based Learning (IBL) was also developed in HE in the 1960s and was used for Medical Education at McMaster University in Canada (Barrows & Tamblyn, 1980). PBL has features of experiential and constructivist learning, and was a way for students to learn in groups and develop deeper problem-solving skills, thereby engaging in higher order thinking (Torp & Sage, 2002). Since then, PBL has spread to many other disciplines (Hung, 2009; Savery, 2006) and is used in both face-to-face-blended and fully online settings in HE (Appendix 1.2). In PBL, learning activities are highly structured and based on authentic scenarios carried out in small collaborative groups with rotating group roles. Learning is supported by a facilitator using a specific PBL model for group learning (Bitterman & Hatrak, 2009; Hmelo-Silver, Derry; Savin-Baden, 2003). Later, Lave's (1991) work around situated learning, and Lave and Wenger's (1991) work on communities of practice and work influenced by activity-based learning (Papert, 1990), further influenced the developments in the area of cooperative and collaborative learning as they focused on active and social participation and the co-construction of knowledge.

Biggs & Tang (2007) identify the benefits that learning in groups in face-to-face, blended and online settings bring to HE students. They suggest that it enables students to develop as critical and creative thinkers through negotiation, interaction and inquiry that can lead to changes in students' grasp of concepts.

The following section focuses on the review of the literature and research around supported learning in groups as a type of collaborative learning, as it will provide insights for the discussion of the findings.

2.2.1 Supported learning in groups

Supported learning in groups is when students work together in groups and are supported by a facilitator. However, Slavin (2004) sees the facilitator as

interference in group working settings. In Slavin, the emphasis is often placed on the student-to-student interactions, in the context of cooperative and collaborative learning, advocating that there is no need for a facilitator. However, several scholars recognise the importance of student-teacher interactions when students learn in groups and the role they play for student-student interaction, engagement and learning more generally in HE (Astin, 1993; Biggs & Tang, 2007; Harasim, 2012; McKeachie, Pintrich, Yo-Guang & Smith, 1986; Salmon, 2000, 2002, 2013; Weller, 2014).

Jaques and Salmon (2007) identify that the opportunities for and practices of collaborative learning in HE have expanded. Such practices, however, are often associated with the reduction of academic staff support due to large student numbers (Elston, Hartley & Braham, 2011). This difficult reality may be an explanation for what leads academic staff to explore alternative ways to support students learning in groups. Elston *et al's.* (2011) evaluation study is an example of learning in groups. In this study media-rich resources made available on the web and developed to help undergraduate students understand group work before engaging in it were evaluated. Their findings suggest that only 13.5% of the students felt that these resources influenced their engagement in future group work. Based on their findings, the research team proposed that making the resources mobile could make a difference to students and potentially increase engagement with these. The role the tutor plays in collaborative learning is beyond the scope of this study. However, Biggs and Tang (2007) propose that tutor support plays an important role when learning in groups.

In this section the literature around the support for learning in groups more generally has been briefly reviewed. A series of design frameworks that enable learning in groups supported by technology follows in Chapter 2.4.3. This, provides further insight into forms of collaborative learning in HE supported by technology and highlight possible student support structures.

The next section presents a review of the discussion around the product and process dimensions of collaborative group learning and how one or other approaches may influence the individual group member learning experience and the learning experience of the whole group.

2.2.2 Product vs process

In Chapter 2.2, collaborative learning was defined as group learning towards a shared output achieved through social-constructivist processes. In his review of collaborative learning based on a series of workshops with 20 researchers from psychology, education and computer science, Dillenbourg (1999) recognises that collaborative learning means different things to different researchers. It can, for example, be any activity a group of individuals carries out as a specific shared, or joint problem-solving activity involving the group members. Often, however, the output is associated with a specific group product. Notwithstanding this, Roschelle and Teasley (1995) emphasised that in their opinion, collaborative learning is a process of ongoing negotiation and social construction of knowledge through shared group tasks. Stahl, Koschmann and Suthers agreed with this perspective and stress that

> "Collaboration is primarily conceptualized as a process of shared meaning construction. The meaning making is not assumed to be an expression of mental representation of the individual participants, but it is an interactional achievement" (Stahl, Koschmann & Suthers, 2006, p.416).

There is some consensus, therefore, among some scholars that shared meaning making through interaction is considered a valid form of process output in collaborative learning (Dillenbourg, 1999; Kear, 2011).

These views signal a departure from the view of collaboration as the production of a shared output, and refocus attention more on the process of collaboration. According to Dillenbourg (1999, p.5), "learning from collaboration" is learning through which individuals and the group can achieve process goals. He suggests that collaborative learning is a "social contract" (Dillenbourg, 1999, p.5) and a framework within which peers and tutors agree to work and learn together and within which they may or may not have a common goal.

The term 'group' is widely used in the context of collaborative learning, though Jaques and Salmon (2007) make a distinction between 'groups' and 'teams', claiming that those who work towards a shared output (a product) are 'teams', while 'groups' focus more on the process.

It is important to note that while collaborative learning, often in the form of group projects with an expectation to produce a shared product, is becoming increasingly important in HE, there are still challenges associated with this.

Biggs and Tang (2007), for example, state the difficulty students have in focusing on the group task beyond their personal contribution, something that is reminiscent of cooperative learning (Chapter 2.2). Furthermore, the assessment of the group product and the format it takes often creates additional tensions among group members (Moon, 2009) and academic staff, as it adds further complexity and challenges of practical and ethical nature. Challenges which can be overcome by developing alternative strategies such as self- and peer assessment based on trust and openness depending on the purpose of assessment and what is assessed (Jaques & Salmon, 2007).

Distinguishing between cooperative and collaborative learning is not an easy task, as views and opinions on each differ (Dillenbourg 1999; Laurillard, 2012; Resta & Laferriere, 2007). Based on previous work (Dillenbourg, 1999; Nerantzi & Gossman, 2015) and taking the above review into consideration, for the purpose of this thesis, the term 'collaborative learning' is defined as the process of learning in small groups. The focus of collaborative learning is the process itself and therefore the term 'collaboration as learning' (Nerantzi & Gossman, 2015) based on Dillenbourg's idea of "learning from collaboration", (Dillenbourg, 1999, p.5) defined earlier in this section, can be applied. That is the engagement of group members in shared learning tasks to co-construct knowledge and understanding based on an overall group goal which also incorporates individual and contextualised learning, stemming from personal goals and aspirations.

The following section reviews how collaborative learning is influenced by group membership and it explains the characteristics of working in different sized groups.

2.2.3 Group membership

Learning with others in groups begs the question of exactly how many members a group should have and how the groups are formed (Race, 2007). Race (2007) suggests a range of strategies for group formation including friendship, random, criteria-based or performance groups, and suggests that smaller groups foster closer personal relationships and enable a greater degree of participation. Jaques and Salmon (2007) introduce the notion of boundaryless groups in online settings that bring individuals from different places and time zones

together. Jaques and Salmon (2007) however, recognise that larger groups, can be more diverse. These authors do agree that larger groups reduce the opportunities for each individual's participation. The group size therefore depends on what the purpose of group working is and needs to be adjusted accordingly.

In the context of collaborative learning, Dillenbourg (1999) discussed the notion that size, or scale– which could mean anything from pairs or small groups of three to five members, to a whole class, community, or society– has a direct impact on the nature and process of how collaboration is experienced. This is also acknowledged by Jaques and Salmon (2007), who emphasised that the extent of participation in face-to-face and online groups depends not only on group size, but also on the circumstances and individual preferences and strategic aims of the group members. These preferences, as noted by Beetham (2013), could include the fact that more confident and advanced students in HE prefer learning on their own. It is important, therefore, to consider collaborative learning as a choice, and avoid imposing it to all learners. However, the reality often is that individuals are often asked to work in teams and they need to learn to do this effectively (Jaques & Salmon, 2007; Race, 2007).

Having looked at group membership, the next section focuses on reviewing the relationships between group members. These have a particular influence on the form and nature of engagement in collaborative learning and its effectiveness.

2.2.4 Relationships

The role and nature of member relationships, or interdependence, when learning in groups, is reviewed here. Interdependence is discussed in relation to its influence in shaping learning relationships, particularly in the context of cooperative and collaborative learning.

Lewin (1935) defines the group as a dynamic whole where the interdependence among members is a result of shared goals. Deutsch (1949) continues Lewin's work and explores the relationship between individual and collective goals in groups and the tensions among group members in cooperative learning settings. This led Deutsch (1949) to the development of the theory of co-operation and competition (1949) a dichotomy in which two types of interdependence linked to individuals' goals, positive and negative were

recognised and two ways to deal with this, either constructively or destructively. The social interdependence theory has its roots in this work. Johnson (1970) and others (Johnson & Johnson, 1999; Johnson, Johnson & Smith, 2007) continued developing the social interdependence theory further in the area of teacher education. Through this theory, positive, negative and no interdependence in cooperative learning have been defined by Johnson (1970). According to the theory, these facets of interdependence have a psychological impact on the group and its members and lead to specific behaviours:

- *Positive interdependence*: when individuals reach their goal as a result of supportive relationships and assist each other in reaching theirs.
- *Negative interdependence*: when individuals perceive that they can reach their goal as a result of others failing to achieve, and engaging in obstructive behaviour.
- *No interdependence*: when individuals perceive that they can achieve their goal regardless of others achieving theirs which creates a disconnected experience.

Factors that influence the effectiveness of cooperation became an additional focal point of this theory. Johnson, Johnson and Smith noted that

> "The transition from self-interest to mutual interest is perhaps one of the most important aspects of social interdependence theory" (Johnson, Johnson & Smith, 2007, p.17).

This transition can be observed when there is positive interdependence. Johnson *et al.* (2007) indicate that this creates the conditions that foster positive interaction, where individuals develop caring relationships, are emotionally connected, open, and share and support each other. In such groups individuals also trust each other, resolve issues constructively and are committed to the group goal and contribute effectively to achieve it. When learners work in small groups, positive interdependence can be especially effective for learning as suggested by Johnson, Johnson and Smith:

> "Positive interdependence promotes a situation in which students work together in small groups to maximise the learning of all members, sharing their resources, providing mutual support, and celebrating their joint success" (Johnson, Johnson & Smith 2007, p.23).

When group members believe that their relationships are positively interdependent, they will stick together and work with commitment and determination to achieve the group goal (Johnson, Johnson & Smith, 2007). This belief helps the group develop trust in each other, as well as confidence, and in their ability to overcome challenges and achieve together.

Conversely, negative interdependence among group members steers the group away from the collective commitment to achieving group goals and individuals become competitive (Slavin, 1980).

Social interdependence theory is widely used in educational psychology (Johnson & Johnson, 2009) and while it has been developed in the context of cooperative learning, it also has wider applications and is relevant in the context of collaborative learning. Sharples, de Roock, Ferguson, Gaved, Herodotou, Koh, Kukulska-Hulme, Looi, McAndrew, Rienties, Weller and Wong (2016) in their report present ten pedagogies that have the potential to transform learning and teaching in HE. While the above authors acknowledge the importance of social interdependence in cooperative learning, they also suggest that it plays an equally important role in online collaborative learning.

The next section summarises the literature reviewed in respect of learning in groups, and identifies gaps relevant to this study.

2.2.5 Summary

From the literature around learning with others in groups, it becomes evident that there are variations in describing and defining cooperative and collaborative learning. The most striking difference is how collaborative learning is perceived, by some, as a shared product while others see it more as a shared process. The literature also suggests that it is important to consider collaborative learning as a choice rather than to have it imposed as the exclusive learning strategy.

In the context of HE, collaborative learning is a vehicle for creating diverse opportunities for inquiry through shared learning experiences and activities supported by peers and academic staff. However, the challenges of increased student numbers present staffing challenges in supporting collaborative learning. Further research is required to provide insight into the collaborative

learning experience and identify possible approaches so that it can be used within HE as an approach to maximise learning.

The next section presents a review of open learning in HE as academic development operates within this area.

2.3 Openness in HE

At the heart of collaborative learning and inquiry is sharing and openness. It is therefore relevant to review the literature around open education and consider the opportunities this brings for collaborative learning in the context of academic development which is the area of this study.

In this section, open education in HE, its roots, developments (Chapter 2.3.1) together with the dimensions and degrees of openness (Chapter 2.3.2) and challenges in the area of Open Educational Resources (OER) and Open Educational Practices (OEP) are reviewed in the context of HE (Chapter 2.3.3). Boundary crossing, and opportunities for cross-institutional collaboration in a broader sense of openness are also explored (Chapter 2.3.4).

2.3.1 Development of open education

Although open education is now associated with digital technologies, digital content and open licensing (Lane 2009), it has a long history. Plato's Academy in antiquity, Sunday schools and correspondence courses (Casey, 2008), as well as further traditions of public pedagogy and universities, created in the Middle Ages, are all seen by writers in education as an historical form of open education (Peter & Deimann, 2013).

More recently, the open source movement which started in the 1970s, and gained momentum in the late 1990s, as a way to openly develop and share software, has influenced developments in both free and open learning and in open education (Winn, 2015). This movement has created opportunities for collaboration among developers and the creation of support communities over the web (Gonzalez-Barahona, 2000). Warger states that:

> "Open-source can be defined as an approach to software development and intellectual property in which program code is available to all participants and can be modified by any of them. Those modifications are then distributed back

into the community of developers working with the software. In this methodology, licensing serves primarily to disclose the identities of all the participants, documenting the development of the code and the originators of changes, enhancements, and derivative off-shoots." (Warger, 2002, p.18)

This open and collaborative ethos of open source developers is recognised by Tuomi (2006) who sees fundamental similarities between the open source movement and openness more generally, noting that

> "Openness in the social domain is fundamentally motivated by the expected social benefits and by ethical considerations related to human freedoms" (Tuomi, 2006, p.8).

Based on the similarities between the open source movement and open education around collaboration, Peters and Britez (2008) and Wiley and Gurell (2009) consider this as the starting point of open education in the digital world. Weller (2014) suggests that the beginning of open education can also be linked to the founding of the Open University (OU) in the UK in 1969. Lane (2009) makes the same link, suggesting that this event signalled the real beginning of open education, with the removal of entry requirements -though students still paid fees.

Outside the UK, the World Lecture Hall was an initiative by the University of Texas, Austin through which, for the first time, content was made openly available online by an HEI (Baer, 1998). Within the 'Hall' freely available discipline-specific resources on the web were catalogued, shared and re-used. In 2001, the Massachusetts Institute of Technology (MIT) made undergraduate and postgraduate materials freely available as Open CourseWare (OCW), course resources that are made freely available online (MIT, 2001; Siemens, 2006; and Liyanagunawardena, Adams & Williams, 2013). Caswell, Henson, Jensen and Wiley, define OCW as "[...] enablers to achieving the universal right to education" (Caswell *et al.,* (2008, p.1). The MIT initiative received enabling support from the Hewlett Foundation to promote and spread open education initiatives (Weller, 2011). An early example of a similar open education initiative where the focus is more on the learning process instead of the resources itself, comes from the UK from the Open University and OpenLearn, which started in 2006. In this example, resources are organised into courses and activities, which are made available as open and free for anybody to use providing access

to learners who are not registered on a specific Open University course (Bayne & Ross, 2014; Liyanagunawardena, Adams & Williams, 2013).

The interest in making resources for learning available to a wider audience arguably grew out of the work around learning objects, defined as digital shareable resources (Littlejohn, 2003; Wiley, 2001), and the open source movement (Weller, 2014).

In 2002, the term Open Educational Resources (OER) was introduced by UNESCO (2012) and is defined by them as:

> "Teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work." (UNESCO, 2012, p.1)

Prior to this, as noted by Wiley (2006b, p.15), open resources were known as "open content". The term Learning Object or Reusable Learning Object (RLO) was also used before the introduction of OER and was defined as "any entity, digital or non-digital, which can be used, reused or referenced during technology supported learning" (IEEE, 2002, p.45). Wiley's (2014a) suggests the 5Rs of openness in regard to OER are that they can be 'retained', 'reused', 'revised', 'remixed' and 'redistributed'. Wiley (2014b) uses the 5Rs to define open pedagogy as learning and teaching approaches that are made possible thanks to these and based on specific OER permissions. This definition of open pedagogy seems to focus on resources and particularly their degree of re-usability. Further research is required to establish characteristics of open pedagogy, such as specific learning and teaching approaches, curriculum design and assessment, as well as learning relationships, context and cultures that foster effective learning within open settings, online and offline.

OER themselves, can be used as learning, teaching and research materials by academic staff and students (Adams, Liyanagunawardena, Rassool & Williams, 2013; Orr, Rimini & van Damme, 2015). Most OER are produced in developed countries and, beyond the social, cultural and linguistic challenges this reality presents, there are technological challenges which reduce opportunities to adapt and contextualise OER especially in developing countries (OECD, 2007).

In 2002, Creative Commons (CC) licences were introduced by the non-profit American organisation Creative Commons. While cc licences have become the most widely used open licences in education (Pegler, 2013) and foster 'gifting' cultures (Kapitzke, Dezuanni & Iyer, 2011, p.275), there are also concerns associated with cc licences related to attribution authenticity and plagiarism, and implications related to loss of control (Gulley, 2013).

The open textbook is a specific form of OER, created and shared with the wider student population to increase the affordability of textbooks. It has gained popularity mainly in the US since 2010, reducing the cost of study materials for students (Allen, 2010). However, open textbook implementations require extensive funding and may therefore not be an option where there are no funding sources available (Hewlett, 2013). Furthermore, funders increasingly require detailed impact information about how students engage with the textbooks. Prasad, Totaram and Usagawa (2016) state that learning analytics can play a key role in planning, developing and evaluating and spreading the use of open textbooks.

With the spreading of opportunities for informal learning through open education, new forms of recognition emerged. Open badges were first introduced in 2012 by the Mozilla Foundation (The Mozilla Foundation & Peer 2 Peer University, 2012). They are a form of shareable digital acknowledgement with meta-data awarded to individuals or groups for activities related to OER or OEP. Open badges can be awarded for a range of uses by organisations, informal groups and individuals such as momento for participation, as evidence of belonging to a community, as a recognition for contributions, achievement or as gamification tool (Nerantzi, 2016). However, Mewburn, Freund and Rutherford's (2014) findings from an open badges pilot at the National Australian University indicate that some students worry about the credibility of open badges and the danger of gamifying learning, which they do not see as appropriate. Gover & Latif's (2013) research project with students and staff from City University London to explore the use of open badges in combination with formal credits and qualifications, provides some evidence that open badges can be a useful extrinsic learning motivator for students.

Large-scale initiatives such as MOOCs, which utilise OER, have been of interest to researchers, academic staff and the private sector alike. MOOCs originated in Canadian and US-based HEIs and have become a scaled phenomenon. MOOCs started as a grass-roots experimental initiative in 2008 with a vision to spread OEP (Conole, 2013b). According to Downes, MOOCs are "courses [...] in the structure of a network" (Downes, 2013, para.11) that use Open Educational Resources (OER) and where the knowledge created and the course itself are the result of this interaction between participants. The course 'Connectivism and Connective Knowledge' (CCK08) was the first MOOC with a duration of 12 weeks. George Siemens and Stephen Downes were the course leaders, and the course attracted over 2,200 participants, 25 of whom were credit seeking, tuition paying students (Liyanagunawardena, Adams & Williams, 2013; Rodriquez, 2012). Such networks, in MOOCs, present opportunities to make learning available across the global population (Agarwal, 2015; Conole, 2013b; Creelman, 2013; Hayes, 2015). Criticisms of MOOCs include Portmess claims that some of the MOOC platform providers seem to claim "superiority of knowledge and a model of education ready for export without concern for cultural boundary distortions" (Portmess, 2013, p.3). Bates (2012) warns that MOOCs seems to create a two-tier education system that further deepens social differences, while the adjectives 'massive' and 'open' are increasingly challenged, since it is suggested that MOOCs seem to be more about marketing and learning income than learning outcomes (Conole, 2013b).

However, Weller (2014) recognises that MOOCs can be alternative solutions to current institutional offerings and blend with existing academic programmes, therefore bringing together both closed and open approaches. A view supported by Pegler (2013) and Bayne and Ross (2014).

In summary, according to Ehlers (2011a) the first phase of the open educational movement had a focus on OER while the second phase is about OEP. And while larger scale initiatives such as MOOCs are widely practised and discussed, smaller-scale, OEP are emerging. Ehlers (2011a) defines OEP as

> "Practices which support the (re)use and production of high quality OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path. OEP address the whole governance community, policy makers, managers, administrators of organisations, educational professionals and learners." (Ehlers, 2011a, p.5)

OER are often from developed countries (de los Arcos, Farrow, Pitt & Weller, 2015) and further research is required to establish how OER and OEP in the context of HE can become a cross-border and inclusive experience (Nti, 2015). Key open education developments have been captured in the timeline depicted in Figure 2.1.

1960		
1969		OU
1970	Open source movement	
1980		
1982		
1983		
1990		
1993		
1994	RLO	
1995		
2000		
2001	OER	
2002	CC	MIT OCW
2004		
2007	Cape Town OE Declaration	OU OpenLearn
2008		CCK08 cMOOC
2010		Open textbook
2012	UNESCO OER Declaration Mozilla Open badges	
2017		
2020		
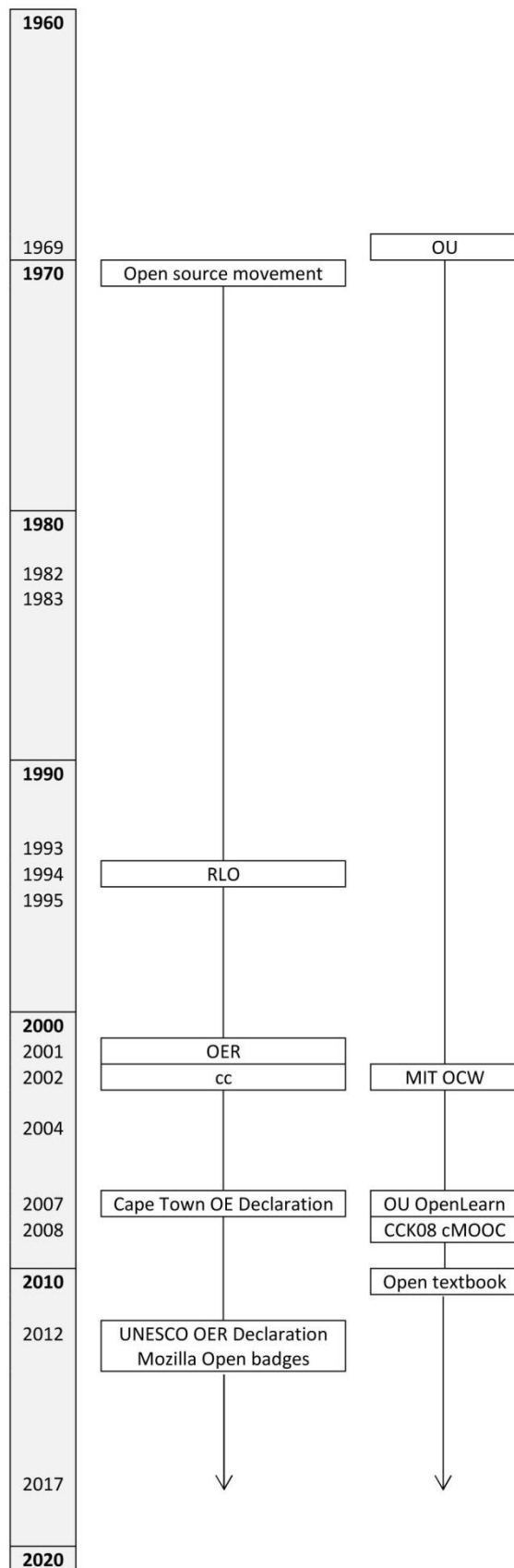
Figure 2.1 Timeline of developments related to open education based on Conole (2012b) and Weller (2016c)

The historical developments provide insight into the roots of open education. Further specific challenges are explored in Chapter 2.3.3. The following section reviews more recent developments in the area of open education and the dimensions and degrees of openness.

2.3.2 Dimensions and degrees of openness

Weller (2016a, online) characterised grass roots OEP as a 'marketplace' of human activity and exchange, through which a plethora of practitioner voices and practices emerge. Examples of such OEP include: the course Digital Storytelling DS106, offered by the University of Mary Washington (Pegler, 2013); Flexible, Distance and Online Learning, offered by the University of Salford, Manchester Met and the Karolinska Institutet (Nerantzi, 2014); and Bring Your Own Device for Learning (BYOD4L) by Manchester Met, Sheffield Hallam University and further institutions in the UK and elsewhere (Nerantzi & Beckingham, 2015b). These OEP are grassroots initiatives, openly-licensed, developed and offered collaboratively through cross-institutional engagement and supported by volunteer facilitators from a range of institutions.

The above grassroots approach has also been acknowledged by Weller (2011) who discusses two distinct categories of OER, the 'little' and 'big' OER:

> "'big' OER are institutionally generated [...]. These are usually of high quality, contain explicit teaching aims, are presented in a uniform style and form part of a time-limited, focused project with portal and associated research and data" (Weller, 2011, p.105).

In contrast,

> "'little' OER are individually produced, low cost resources. They are produced by anyone, not just educators, may not have explicit educational aims, have low production quality and are shared through a range of third party sites and services." (Weller, 2011, p.105).

Weller's later (2014) observations that, in the first decade of the 21st century (Chapter 2.4.2) Web 2.0 (social web) had a significant impact on spreading open education as it enabled participation, co-production and sharing for all who had access to the internet and established that resources would be free and open by default, could also be linked to his definition of 'little' OER. A similar OER categorisation comes from Rennie and Reynold who talk about 'bottom up' practitioner driven OER and 'top down' institutional driven OER (Rennie & Reynold, 2014, p.17). These categories closely resemble Weller's OER

categories with obvious parallels between 'bottom up'/'little' OER, and 'top down'/'big' OER.

The concepts of 'little' and 'big' OER, are brought together in Hodgkinson-Williams' (2014) conceptual framework of the degrees of ease of the adoption of open education for academic staff and students in the developing countries (Figure 2.2). This framework, which is expressed as a continuum has been developed as a tool to be used by open education providers, especially developing countries, to avoid neo-colonisation by developed countries, when they are planning to offer open educational provision.

Degrees of ease in adopting open education
(Hodgkinson-Williams, 2014)
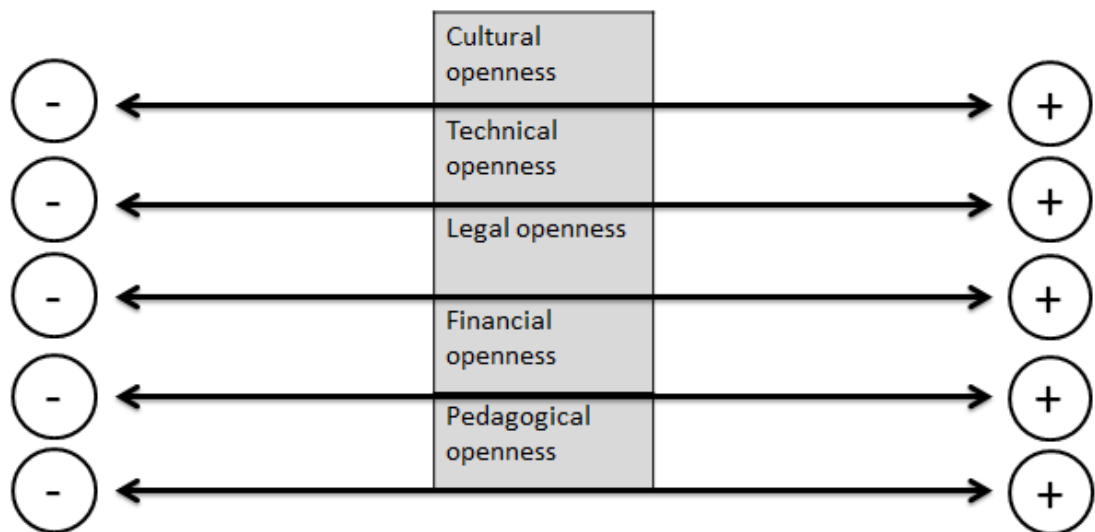
Figure 2.2 Degrees of ease adopting open education (Hodgkinson-Williams, 2014, p. 9-18)

Open course designers should, according to Hodgkinson-Williams (2014) critically consider the cultural, technical, legal, financial and pedagogical dimensions and their degree of openness depending in a particular learning and teaching situation.

Ehlers (2011b) literature review around OEP led him to conceptualise three pedagogical levels of freedom or openness in the context of OEP. These are low degrees of openness where knowledge is transmitted ('know-what'), medium degrees of openness where knowledge is discussed based on pre-defined pedagogical models that have a structure that is followed and the focus is on dialogue and PBL ('know-how') and finally 'high degrees of openness' where approaches used are defined by the learners themselves and therefore engagement appears to be experiential characterised by 'reflection in action' and supported by facilitators that is responsive to learner needs ('know-why').

With this increasing development of open education, Boyle (2008) suggests that a balance is needed between open and established forms of HE. Likewise, Pegler (2013) advocates the implementation of blended models, with open and closed features, that are the result of a critical evaluation linked to a given learning and teaching situation, through which informed choices about openness and closeness are articulated.

Bayne, Knox and Ross (2015), and Weller (2014) also advocate the need for more criticality and critique by HEIs, organisations and academic staff when considering open educational approaches and claim that recognising that a lack of criticality will do more harm than good to open education. To this end, the Hodgkinson-Williams (2014) continuum, along with a report by the European Commission, through which a support framework was released for opening up HE across the European Union (Inamorato dos Santos, Punie, & Castaño-Muñoz, 2016), could help academic staff make more informed and more critical choices about their courses and programmes. The findings of this report are based on the OpenEdu project (2013-2015) where a multimethod approach was followed that linked to four related studies. Data was collected through desk research as well as consultation with 43 open education experts from 19 EU countries. The report emphasises the importance of HEIs across the EU to collaborate, with the key output a support framework for opening up HE. The authors of this report state that the framework is a tool for strategic decision makers as well as practitioners to critically engage with the opportunities open education can bring for students and academic staff. Through this framework, HEIs are invited to consider open education and specific aspects of their provision that could be offered in new ways. The framework has six core

dimensions which represent which aspects of an educational offer can be opened-up according to the authors. These are, 'access', 'content', 'pedagogy', 'recognition', 'collaboration' and 'research', and four transversal dimensions which reflect the how these core dimensions or practices of the framework can be implemented: 'strategy', 'technology', 'quality' and 'leadership' (Figure 2.3).
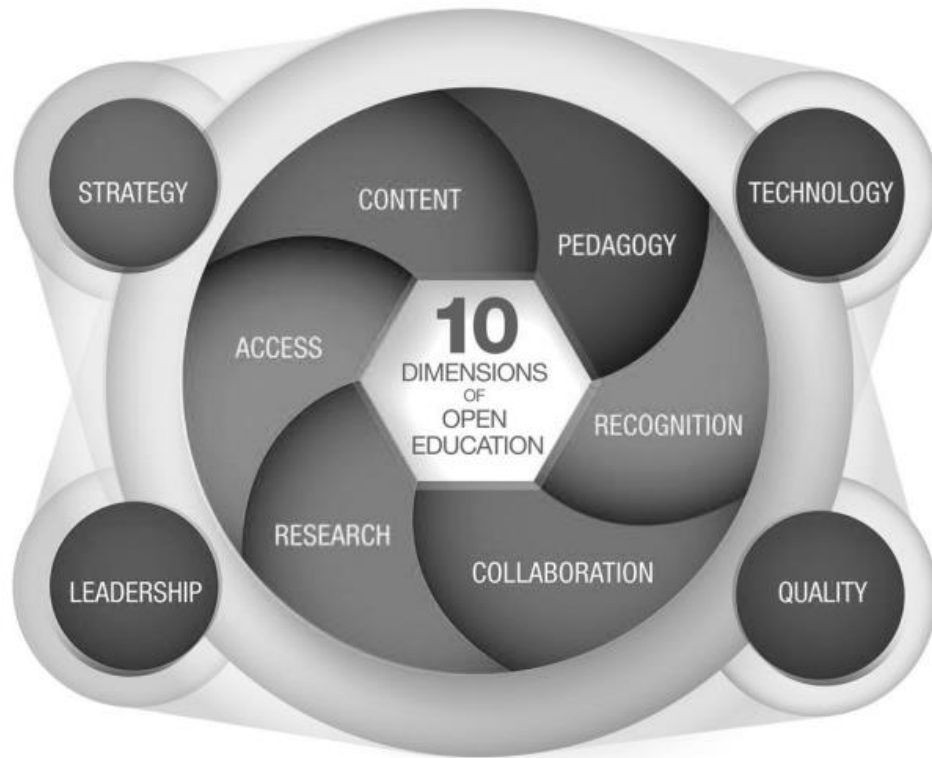
Figure 2.3 The 10 Dimensions of open education framework (Inamorato dos Santos *et al.,* 2016, p.8)

This framework therefore, is a guide that can be used at strategic and practitioner level to discuss, negotiate and agree the implementation of open educational initiatives linked to the dimensions of the framework based on critical engagement. Collaboration in this framework highlights the benefits it brings to individuals and institutions and the opportunities it affords for co-development of educational offerings for academic staff and students.

> "Collaboration in open education is about connecting individuals and institutions by facilitating the exchange of practices and resources with a view to improving education. By collaborating around and through open educational practices, universities can move beyond the typical institutional collaboration patterns and engage individuals and communities to build a bridge between informal, nonformal and formal learning. It is a live and evolving practice which is shaped

by individuals according to context, goals, resources and possibilities, contributing to the lowering of barriers to education. It is therefore a concept that must be as dynamic as its practice." (Inamorato dos Santos *et al.*, 2016, p.26)

Additionally, the framework calls for pedagogic strategies that foster collaboration, diversity and the creation of personal learning paths. However, key characteristics of such pedagogic approaches, particularly any such approaches associated with collaborative open learning, are not included in the framework.

While Inamorato dos Santos *et al.* (2016) make a strong proposition to HEIs to open up and collaborate, another dimension missing from the framework is cost. Though collaboration is generally seen as a key benefit of open education for academic staff and students as it has the potential to bring more diverse view and perspectives together, from an institutional perspective, there is a cost to implementing it (Atkins, Seely Brown & Hammond, 2007). Atkins *et al.* (2007) state that at MIT, for example, the cost of making a course available as Open Courseware is about $25,000. Wiley (2006a) acknowledges that larger open education projects often receive funding and calls for more sustainable models combined with open policy within HEIs to acknowledge the wider benefits of open education as a driver for innovation for institutions and individuals. On the matter of the returns from such investment, Winn (2015) stresses that academic labour and what is produced in the form of commodity has not just monetary value but also "use-value" (Winn, 2015, p.10) and "exchange-value" (Winn, 2015, p.10). Chris Jones highlights that

"Universities are collectively the potential beneficiaries from this [OER] development effort and it might make sense for governments, or universities to organise collectively to reward and incentivize staff to generate and support OER." (Jones, C., 2015, p.16).

The benefits of OER for HEIs are also acknowledged by Orr, Rimini and van Damme (2015). They claim that OER have the potential to reduce the cost of education significantly for HEIs, for example through the re-use of OER and open textbooks, while enhancing quality of resources and practices at the same time.

There are a number of challenges in addition to financing, associated with open education and these are reviewed in the following section as they are relevant

to this literature review and its cross-institutional academic development context.

2.3.3 Challenges

Lane (2009) recognises that while open education has the potential to reach through access to open education, those in need of social inclusion, in reality it is still exclusive and can lead to disempowerment. He calls this problem the "educational digital divide" (Lane, 2009, p.5), which creates excluded communities that cannot be reached because of economic, social and cultural factors resulting in limited or no access to the internet technologies and thus to open education. For example, Atkins *et al.* (2007), in their review of the open education movement, have claimed that the prohibitively high internet costs in many parts of Africa and Asia exclude potential learners from using open education. Daniel and Uvalic-Trumbic (2012) identify a danger that OER are a form of intellectual neo-colonialism, with Hatakka (2009) noting that the majority are created by developed countries. This, he suggests, creates a problematic imbalance between developed and developing countries and their participation in open education. Weller also warns against imposing practices via open education, stating that

> "If OERs are only delivered from large projects out of elite institutions and these are simply accepted wholesale, then academia does not take ownership of any of the issues or opportunities they offer. They remain a practice of others imposed upon the education sector, rather than one owned by it." (Weller, 2014, p.164)

Thus, open education may widen the educational digital divide between those who have access to digital technologies and those who do not, instead of helping to reduce it (Truong, 2015).

This problem is also reflected in the languages most widely used in open education. Ou (2012), claims that English is the virtual *lingua franca* on the Internet and is often the predominant language. This is echoed by Cobo (2013) in his comparative study of four OER platforms in English, Spanish and Portuguese. His findings suggest that, especially in an academic context, English dominates. It needs to be recognised that there are advantages to having a *lingua franca* as this can overcome language barriers through using a common language and be an enabler for communication and collaboration

among individuals from different cultures (Cobo, 2013). It can also help non-native speakers to develop confidence in a new language (Morgan & Carey, 2009). Using a single language can, however, also create cultural barriers (Stacey, 2007). Non-native speakers may also have difficulties in participating fully in open educational offers that are provided in a foreign language (Sharples *et al.*, 2016). Studies linked to linguistic diversity are further explored in Chapter 2.4.5.

The above challenges result in the exclusion or reduced engagement of particular groups and individuals desire and or ability to participate in open education as a result of feeling excluded. An example comes from Bell, Mackness and Funes (2016) who conducted a study linked to the Rhizo14 MOOC, "The community is the curriculum" in which over 500 individuals participated. Their study had a focus on community and was conducted through a thematic analysis of qualitative surveys, observation, learning activities and visualisations of data, the authors discovered that beyond the formation of deep friendships within the Rhizo14 community, some participants felt excluded. The authors state:

> "We can see how tensions and contradictions can remain hidden from view as those who are not 'likeminded' may be silenced by default, if not design." (Bell *et al.*, 2016, p.15)

Their findings illustrate the challenges diversity may bring to individuals and the difficulties they may face when engaging in open practices especially when their views differ from the more dominant voices. The authors highlight the role course design and moderation may play in this process. Weller (2016d) notes that beyond being or feeling excluded, open participation in communities can at times become destructive and dangerous. Establishing norms and support strategies is therefore important (Kraut, Burke, Riedl & Resnick, 2011). McAuley, Stewart, Siemens and Cormier (2010), in their report about MOOCs and the digital economy, acknowledge that little research has been carried out in MOOCs and OEP more generally, particularly in relation to how participation can be part of the course design and scaffold to enable wider and more diverse participation. The support scaffold usually in place in MOOCs and OEP, is minimal as the above example by Bell *et al.* (2016) showed. Particularly, the support by facilitators or the often lack of facilitators in open educational

initiatives for those that would need them impacts participation (Lane, 2009). Conole (2012a) and Pegler (2013) also recognise the under-use of facilitators and the need to integrate them more into OEP. The absence, or at least the limited role, of facilitation in the context of MOOCs has been acknowledged by Yuan and Powell (2013), and Weller recognises that open learning more generally is often "unsupported (or mainly peer supported)" (Weller, 2014, p.177).

Bayne and Ross' (2014) report in their review on MOOCs which originated in the UK provides a literature review and includes five MOOC cases. After noticing the absence of facilitation in these courses, the authors developed a facilitation model (Table 2.2). As MOOCs are regarded as a form of open education this model is included here.

Table 2.2 Bayne and Ross (2014) facilitation model

Facilitation model in MOOCs (Bayne and Ross, 2014)
celebrity – absence
co-learner
automated

The facilitator as co-learner in Bayne and Ross' (2014) facilitation model in the context of MOOCs appears to be a new concept. This also emerged through a study by Nerantzi, Middleton and Beckingham (2014) in the context of OEP. The findings indicate a repositioning of the facilitator from being the expert, or coach to being a co-learner. A phenomenological study with ten participants explores the open facilitator experience for participants on in the open course Bring Your Own Devices for Learning (BYOD4L). The research was conducted using a qualitative survey, revealed, the role of facilitator as co-learner and the benefits this had for both facilitators and learners, their horizontal relationships and their professional development (Nerantzi *et al.*, 2014). Furthermore, this study reported the role the community of distributed facilitators played socially, in supporting each other and the learners. In response to the lack of studies around the facilitator experience in OEP, Yeager and Nerantzi (2015) developed the Open Facilitator project through which reflective stories are collected as open data to be used for further research in this area. So far 19 such stories have been made available.

Despite the above challenges Warger (2002) advocates that the academic community is the ideal environment for open practices as it is rooted in inquiry and experimentation. Barriers, such as traditional university cultures (Bayne & Ross, 2014) and more conservative and closed practices within HE (Bates & Sangra, 2011; Hardy & Jeffries, 2010), need to be overcome for open education to flourish in HE in the future (see also Chapter 2.3.4). The challenges reported in this section indicate that a re-thinking open education more generally as well as considering facilitator support used in the context of open education to increase and diversify learner participation is needed (Bayne & Ross, 2014; Conole, 2013b; Lane, 2009; Milligan, Littlejohn, Margaryan, 2013; MIT News, 2015; Sharples *et al.* 2014). Further research is required to find ways to scaffold support and create open learning opportunities that foster collaboration and participation across cultures and backgrounds to further diversify such provision and maximise the potential learning benefits for students and academic staff.

A further feature of open education is boundary crossing and collaboration among HEIs. These concepts are explored in the following section as they are relevant to this literature review.

2.3.4 Boundary crossing and collaborating

The blurring and crossing of boundaries, including institutional boundaries, is explored in this section in the context of open education. In the literature, as this review shows, the crossing of boundaries may not always be explicitly linked to open education. However, such work related to this study has been included in this review as it provides broader perspectives and nature of opportunities and practices for HEIs to collaborate.

While boundary crossing was introduced originally in an attempt to explain what professionals experience at work that is unfamiliar and individuals feel unqualified to deal with it (Suchman, 1994), Akkerman and Bakker (2011, p.132) state that "all learning involves boundaries" and crossing them. They claim that the increase in specialisation in professions is leading to the increase of boundaries and potential fragmentation. They emphasise that it is therefore important for education to create opportunities for boundary crossing as this will bring continuity and diversity within and beyond an HEI.

Engeström, Engeström and Kärkkäinen (1995) conducted a study during 1993 and 1994 that was part of the "Learning and expertise in teams and networks" project that was seeking to explore boundary crossing. Data was collected from three case studies, schools, banks and factories and medical centres in Finland and the US, in the form of field observations, interviews and recorded interaction. Their findings highlight that boundary crossing is a horizontal working practice that breaks the monopoly of expertise constructed by the expert and therefore enables diverse views to be shared between expert and novice and taken into consideration by them.

Two concepts that relate to cross-boundary practice are 'boundary crossing' (Suchman, 1994) the processes of engaging in such practices and the 'boundary object', the output of boundary crossing (Star, 1989). Akkerman and Bakker (2011) conducted a literature review of 178 publications that had a focus on learning and described boundary crossing. The authors found that boundary crossing is relevant in the context of everyday life, work, education, including HE. The authors explored the opportunities for learning presented when crossing boundaries. They consist of a) identification, gaining insight into diverse practices b) coordination, connecting diverse viewpoints c) reflection, opportunity for better understanding own and others' perspectives and d) transformation, leading to collaboration and change in behaviour or practices. The authors claim that differences among those participating in cross-boundary exchanges and practices become resources for development and should therefore be considered when designing for diverse learning and development experiences.

Open education also beings new opportunities for HE and are discussed below, as highlighted by Pegler in relation to the new "lack of boundaries" (Pegler, 2013, p.147).

Redecker, Leis, Leenderste, Punie, Gijsbers, Kirschner, Stoyanov and Hoogveld (2011) discuss the future of learning in their report as a vision based on current trends and drivers. They describe all learning as open, personalised, collaborative and informalised. Conole (2013a) notes that this informalisation of learning is happening already through the blurring and crossing of boundaries between formal and informal learning. Johnson, Adams Becker, Cummins,

Estrada, Freeman and Hall (2016) see the opportunities this new situation brings for new forms of learning and teaching in HE and call for the unbundling of formal learning in HE. This means learning units could become more flexible and combined dynamically to make up a programme of study that is personalised to the student and maximises on the opportunities informal learning brings. The authors ask HEIs to explore new ways to award qualifications and identify ways to maximise engagement in informal learning.

Wall, in her explorative article, which looks at the University of the Highlands and Islands in Scotland, sees new opportunities in this area that have the potential to reposition HE at the heart of society and calls HEIs:

> "To think beyond institutional boundaries, beyond the architectonics at play in the traditional university and to embrace the idea of the *leaky* institution which meshes with the life of the region" (Wall, 2015, p.6).

Wall (2015) proposes that such an approach can be enabled by networked technologies and social media and linking the digital, distributed and online with the physical, local and offline and creating a university that is embedded into the community. This is an idea based on Leitch's concept of "loosening and overflowing of traditional borders and boundaries" (Leitch, 1986, p.103) published in a report about the College International de Philosophie, in Paris, which advocated beyond cross-disciplinary alliances and posited that new pathways should be explored. These new pathways would break institutional boundaries and barriers and could be enriched through international collaborations and engage the wider public in academic discourse thereby flattening traditional academic hierarchies and opening-up new opportunities for learning and development that have the potential to create more diverse connections between HEIs, individuals and ideas. The College offered a series of seminars in Paris freely and openly available to the public without prerequisites. Furthermore, there are similarities between these ideas and Levin's (2004), who discusses the importance of cross-boundary learning systems. He calls for the democratisation of HE and the rejection of a one-way top down approach to knowledge generation, therefore advocating for the opening-up of HE. While Levin's focus is mainly on research, he recognises the importance of HE working in partnership with the public to co-construct new knowledge based on democratic values that will be of value for society as a

whole. This echoes Nowotny, Scott and Gibbons (2001, p.247) earlier idea of the 'agora', a marketplace where "science meets the public". Hall and Smyth (2016), in their article about the dismantling of the HE curriculum, talk of an unbounded curriculum as a dynamic and collective creation by academic staff, students and the public in contrast with the bounded and prescribed curriculum that creates silo cultures in HE. They call for HE to focus on collaborative practices and become part of the society and therefore more interlinked with the public. An application of this comes from Algers (2016) who conducted a study exploring boundary crossing through 'boundary objects'. This study explored the relationship between HE and society about sharing and connecting of ideas and co-construct knowledge through boundary crossing in the area of animal slaughtering. Her preliminary findings based on two focus groups illustrate associated benefits and challenges to those involved in the activities associated with such practices. These include a potential increase in diverse voices to be heard and taken into consideration in knowledge co-construction therefore increasing trust and reducing potential conflicts among different groups. Algers also found that such cross-boundary collaborations, often small in size, also have the potential to increase conflict, as misinterpretations occur and offers time to work effectively together. While the benefits of boundary crossing in this study are recognised, the findings also highlighted the importance to identify strategies to overcome some of the associated challenges.

An example that demonstrates the need for more collaboration among HEIs in a wider sense of openness comes from Scotland. It is captured in the Green Paper 'Building a Smarter Future':

> "Collaborating across universities to combine expertise and to share resources to support early career researchers – to include leadership and entrepreneurial training – brings with it economies of scale and, arguably, a better experience for students and consistency of training at postgraduate level across Scotland. It also ensures a critical mass of graduate training and research training provision that has the potential to compete with the largest UK universities. [...]The research pools provide a basis for extending good practice in this area." (Scotland. Scottish Government. Higher Education and Learner Support Division, 2010, p.18)

Practices that foster collaboration among HEIs through the Quality Assurance Agency (QAA) established in 1997 and the Scottish Enhancement Framework (QEF) and the Enhancement Themes established in 2003 (The Quality

Assurance Agency Scotland, 2015), as well as between HE and FE institutions (Garrick Report, 1997); with industry (Delivering for Scotland, 2012, 2013, 2014); and with international partners (Helping to Transform Scotland, 2007), have been recognised as vital for HE to thrive in the area of knowledge creation. Scottish universities agreed to adopt a collaborative approach to ICT infrastructure and work towards shared services based on the existing "strong collaborative culture" which will not only benefits individual HEIs but HE in Scotland as a whole (Working Smarter, 2014, p.8).

HEFCE (2011) and the British Council (2015) recognise that HEIs in the UK working together strategically and at practitioner level create opportunities for sector-wide sustained growth and innovation.

An example of practitioners in HEIs working together and designing cross-institutional learning and teaching collaborations among HEIs from different parts of the world is described in the study by Morgan and Carey's (2009). Their empirical study discusses a practitioner level collaboration and implementation of an open course model. This model was used to informally connect students from three undergraduate programmes from Japan, Russia and Canada. This study explored academic literacy and cross-cultural communication and brings together three separate studies using mixed methods approaches that included student and academic staff interviews, observation and reflection as well as course documentation. This open course model enabled students on these programmes to learn together in English using an asynchronous online forum. The findings indicate that the student experience was enriched as a result of this mode of cross-institutional learning, due to the increased diversity, and therefore the authors advocate the wider consideration of such approaches by institutions, especially as they build on existing HEI structures and processes. The authors also found that there were difficulties with the teaching and facilitation approaches that were used as there were cultural differences. This study therefore provides insights into the potential benefits of cross-institutional learning and teaching initiatives for students but also illustrates some of the challenges linked to the student experience and the support strategies.

The Open Society Institute and the Shuttleworth Foundation organised a meeting in Cape Town, South Africa in 2007 to discuss strategies to spread

open education more rapidly. This led to The Cape Town Open Education Declaration (2007) that has been signed by many individuals and organisations from across the world. It illustrates a strong commitment to spreading the open education movement through sharing and closer collaboration among nations. Furthermore, the Wales Open Education Declaration of Intent (Riordan, 2013) and the Scottish Open Education Declaration 0.2 (Campbell, 2015a) provide evidence that HEIs in these countries recognise that OEP create and foster opportunities for sharing and for cross-institutional collaboration. They are committed to such practices.

Rennie and Reynolds (2014) in their article in which they propose two distinct models for sharing OER, the 'open to all' and the 'open to subscribers' models, recognise the value of collaboration among HEIs and advocate the creation of shared educational offerings to save costs, and share expertise and resources. They recognise that shared programmes create conditions for a more decentralised and collaborative development of provision and have the potential to be more inclusive and achieve growth within and beyond participating institutions, the sector and the public more widely. However, studies such as by Morgan and Carey (2009) while suggesting some of the associated benefits already mentioned, they also highlight specific challenges such practices bring for students and academic staff such as existing institutional structures, accreditation processed as well as varying learning and teaching cultures that need to be addressed.

HEFCE (2011) and the European Commission (2013, 2015) also call upon HEIs to open- and join-up provision, to collaborate more and share expertise and resources. It is believed that this will enrich students' and academic staff experiences of learning and teaching and programmes, and create provisions that can be scaled up.

The notion of collaboration, framed as OEP, is also supported by HEFCE (2011) and the European Commission (2013) who both also call upon HEIs to open, join and scale up provision, to share resources and expertise. This is called for so that students and academic staff can collaborate in wider learning and development communities for the benefit of HE and society across the European Union. This is also echoed in a report by the European Commission

(2015) which calls on HEIs to embrace innovative pedagogies and create synergies with other institutions and stakeholders.

Orr, Rimini and van Damme (2015), highlight that OER and OEP, create new opportunities for academic staff to collaborate at practitioner level. They also discuss the notion of learning communities utilising OER and how these are an opportunity for teachers to come together to collaborate and share, therefore creating new ways to engage in CPD around teaching to enhance their practices. According to these authors, these communities can support teachers as learners to develop an understanding around open education and help them make informed changes to their practice. This kind of practitioner level cross-boundary collaborations is something Perryman and Coughlan (2013, 2014) propose in their work in the area of open informal communities. They specifically observe that the divide between academia, the public and subject communities linked to the use, sharing and discussion of OER and OEP is not helpful as this creates silo cultures and hinders the free flow of information and the connecting of ideas and individuals. Their ongoing pilot study linked to the voluntary sector and specifically the child welfare community, emphasises that it is important for HEIs to work with the public in this area to share OER and OEP and co-construct knowledge in joined-up informal communities (Chapter 2.3.2) as it enables the sharing and debating of diverse voices to make collectively new discoveries that will be beneficial not exclusively for academia but also the community. The 'public facing open scholar', a term introduced by Coughlan and Perryman (2012, p.2) and defined as an open scholar who engaged in communities with the public to curate OER for the purposes of this community, plays a key role in this process. Building on the idea of learning within public communities, Sharples *et. al.* (2016) also acknowledge the opportunities learning 'from the crowd' brings to learning and teaching in HE. While they highlight how the sharing of versatile ideas is amplified through such practices, they also acknowledge that "… we are not yet using the wisdom of the crowd to its full potential as a resource in education and for learning" (Sharples *et. al.*, 2016). While the wisdom of the crowd might not be fully used in a learning and teaching context, Inamorato dos Santos *et al.* (2016) reminds of the opportunities collaboration in open education brings for sharing of practices and resources and therefore creating bridges between HE, communities and the

public. Furthermore, Bates (2015) notes that open education removes barriers, while Tuomi (2006) highlights the social benefit it brings. Therefore open education could be considered as a vehicle for cross-institutional and boundary crossing collaborations.

While the above describes open cross-boundary communities that connect academic staff and the public (Perryman & Coughlan, 2013; Perryman & Coughlan, 2014) a different form of boundary crossing happens when exploring the idea of students are partners within HE. Healey, Flint & Harrington (2014, p.16) in their report, in which they reviewed UK-originated and international literature, propose a conceptual model for developing student and staff partnerships in learning and teaching. While the model focuses on student engagement, it is acknowledged by the authors that it may also have wider implications, such as bringing change and transformation to student and staff relationships and how HE operates. The framework outlined within the report consists of four activity areas that can involve students and academic staff working in partnership: 'learning, teaching and assessment', 'subject-based research and inquiry', 'scholarship of learning and teaching', and 'curriculum design and pedagogic consultancy'. Healey *et al.* (2014) acknowledge that the implementation of a partnership model is not an easy process and state that

> "Developing a co-learning, co-inquiring, co-developing, co-designing and co-creating approach challenges traditional power relationships and involves a cultural change in how much of higher education is organised" (Healey et al., 2014, p.21).

The authors state that in such partnerships "reciprocal learning is at the heart of the relationship" and through this 'students as partners' approach, active student involvement in the curriculum and university life is recognised as well as the need to establish "partnership learning communities" (Healey, Flint & Harrington, 2014, p.28). However, turning this idea, of academic staff and students exploring and practising together as equals, into reality, requires cultural change in HE. A horizontal approach to how HE is organised and experienced could contribute to this change but would require academic staff and students to recognise the value of such a partnership model for learning, teaching and development and invest in it.

This section focused on collaborations among HEIs and boundary crossing approaches that connect academic staff and students with each other, communities and the public. While such approaches come with challenges, such as institutional cultures, cross-cultural differences and support difficulties, they have the potential to create new and more diverse opportunities for learning and teaching and are therefore worth exploring. In the next section, the literature focusing on open education is summarised together with the gaps that have been identified in order to set out the need for a study into these issues.

2.3.5 Summary

The open source movement which started in the 1970s and the founding of the Open University in the UK in 1969 are seen by many as the beginning of open education. From 2008, the initial emphasis on resource creation and sharing in the form of OER moved towards OEP and MOOCs. The social web further helped to spread open education and to blur the boundaries between formal and informal learning. However, there are still challenges associated with the lack of support and the unresponsiveness to learners' diverse needs. These challenges also bring significant opportunities for open cross-boundary and cross-institutional learning and teaching that engage academic staff, students and the public, online and offline. However, in order to drive such developments, new support models and frameworks are needed as well as communities for sharing and collaborating. Further research in this area is required to develop new open educational models that take advantage of the opportunities open education brings for learning and teaching in HEIs and academic development. There is a gap in the literature in this area, which needs to be explored and addressed.

The review of the literature on open education has highlighted its historical roots, as well as particular associated challenges and opportunities for HEIs, especially in the area of collaboration among HEIs and attempts to reposition universities in the heart of society. In the next section, research into the role of digital technology and design frameworks in supporting collaborative and open learning initiatives are reviewed.

2.4 Digital technologies supporting collaborative learning in HE

Earlier, in Chapter 2.2 the concept of learning with others in groups, both in general and in the context of HE, was reviewed. In this section, historical literature (Chapter 2.4.1) which captures the shift from individualistic to collaborative use of digital technologies is considered. This is followed by an exploration of digital technologies, social media and mobile technologies that support collaborative learning (Chapter 2.4.2), together with a selection of 20th and 21st century learning design frameworks in a range of settings from blended to fully online and open (Chapter 2.4.3). In addition, modes of interaction in technology-supported environments (Chapter 2.4.4) that provide the pedagogical underpinning for such learning and teaching activities are also briefly reviewed. Finally, the role of culture and language is explored and the part they play in online learning settings (Chapter 2.4.5).

The following section reviews historical developments looking at the shift from the individualistic to a participatory use of digital technologies to support collaborative learning in HE.

2.4.1 From individualistic to collaborative use

The first computer networks were developed in the 1960s (ARPANET), when pedagogies orientated towards active, cooperative and collaborative learning started gaining popularity in the classroom (see Chapter 2.2). When these digital technologies were initially used for learning and teaching, however, the focus was on content delivery (Kear, 2011) during which individual learners used software packages and later online resources. Accessing and using resources to learn reflects the Web 1.0 concept of the technology-user as the consumer of information and represents an individualistic learning experience. There were misconceptions at the time that content could simply be made available through software packages online and courses could be offered without academic staff input and support -thereby reducing the cost of education (Harasim, 2012; Stahl, Koschmann & Suthers, 2006; Wenger, 2014). This epitomised the concept of "computers as masters" (Lave & Wenger, 1991, p.29). However, the Supported Open Learning (SOL) model developed in the 1970s and used at the Open University, was initially based on distributed learning in students locations through learning packages, and did acknowledge

the important role of academic staff support (Swan, 2004). The move away from individualistic learning towards participatory and collaborative learning approaches supported by networked technology began in the mid 1990s (Stahl, Koschmann & Suthers, 2006).

It can be argued that this shift towards more participatory and collaborative learning and teaching approaches was enabled technologically through the web. The web in 1993 brought significant changes to what was possible in the area of learning and teaching for HEIs and led to the development of the Virtual Learning Environment (VLE) in 1995. This in turn created new opportunities for academic self-organisation and administration (Conole, 2013a). It also enabled the development and implementation of participatory learning and teaching strategies supported by digital networked technologies (Conole, 2013a).

The introduction of social media in particular in 2004, such as YouTube, Facebook and Twitter, and the mobile web in 2007, together with smart phones (2007) and smart devices (2009), brought new tools for distributed learning and teaching. Wenger, White and Smith emphasise that "the most interesting thing about the interplay of community and technology is our ability to learn together" (Wenger, White & Smith, 2009, p.3) and it was finally recognised that digital technology creates opportunities for interactions and collaboration that were not previously possible (Dwyer & Suthers, 2005; Stahl, Koschmann & Suthers, 2006).

A timeline has been constructed (Figure 2.4) showing developments in the area of digital networked technologies and open education relevant to this study and which have been reviewed in Chapter 2.3. This figure is based upon Conole's (2012b) e-learning timeline that depicts digital technological developments since the 1980s as well as Weller's (2016b) OER history.
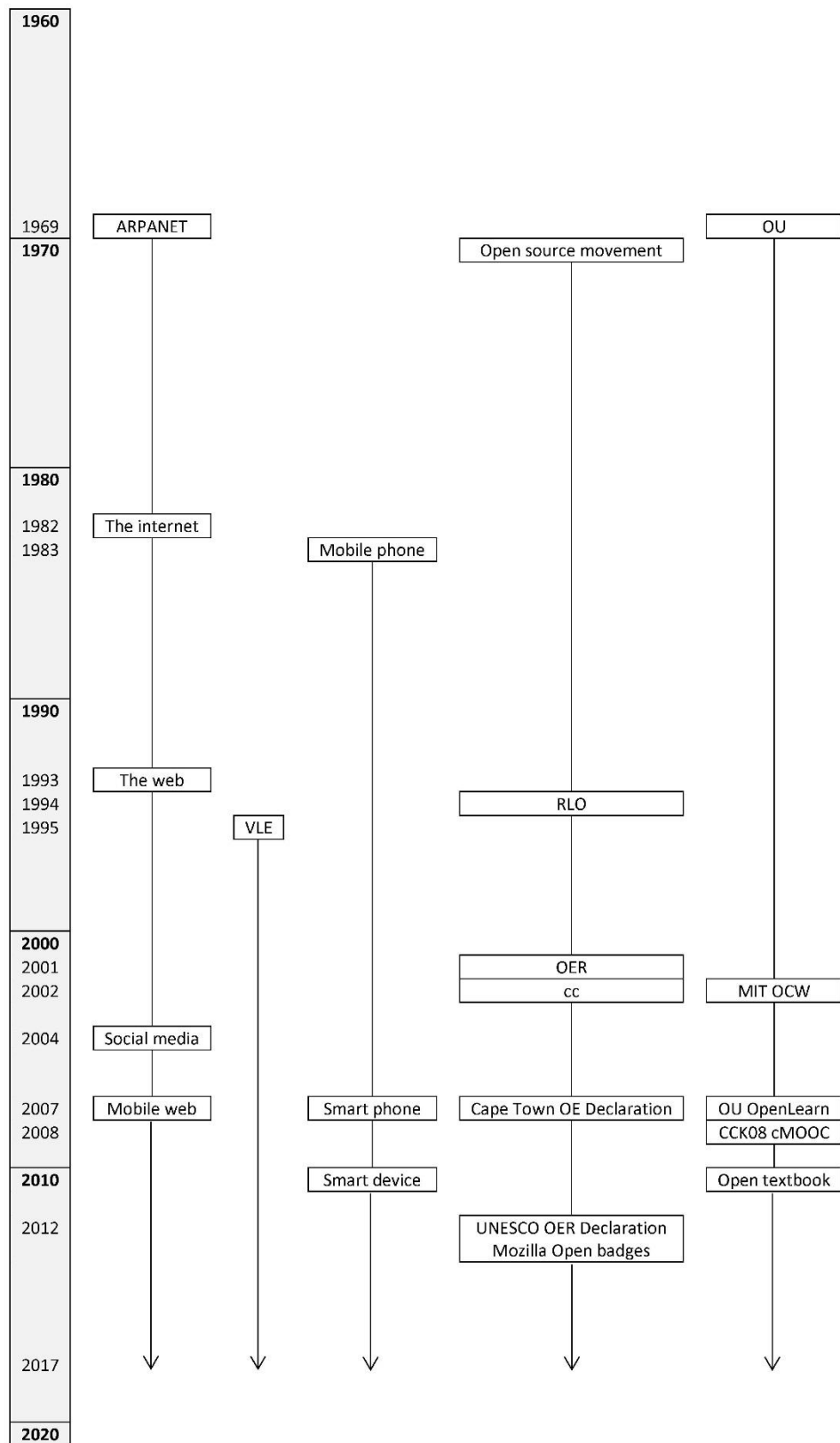
Figure 2.4 Timeline of digital networked technologies and open education based on Conole (2012b) and Weller (2016c).

Developments related to these new social and mobile media and the role they play in learning and teaching in HE, especially in collaborative learning, are reviewed in the following section.

2.4.2 Social media

With the birth of social media in 2004, the possibilities for multi-way participation and sharing in networks and communities by individuals, were amplified. Social media created new opportunities for diverse connections between learners and academic staff, as well as distributed collaborations and communities to come together (Gauntlett, 2011; Megele, 2014; Kallinikos, Lanzara & Nardi, 2010; Nerantzi, Jackson & Beckingham, 2014; Siemens, 2006; UCISA, 2016; Weller, 2011;). Weller (2014) notes that the social web created opportunities for distributed participation and:

> "A context where open and free were seen as the default characteristics of online materials" (Weller, 2014, p.41).

As connectivity increased, digital networked technologies and social media created spaces for dialogue and exchange, which have also increased (Conole & Alevizou, 2010; Harasim 2012; Kear, 2011; Salmon, 2013; Siemens, 2006; Wiley & Hilton, 2009; UCISA, 2016). Wenger, White and Smith discuss online communities coming together using a variety of social media to create community spaces using what they call a "patchwork strategy" (Wenger, White & Smith, 2009, p.127) to 'stitch' (Wenger, White & Smith, 2009, p.127) these spaces together without requiring advanced technical skills (Hall & Wright, 2007; Martin & Siry, 2012). Such *stitching* is extended through mobile social media particularly on smart devices with access to the web.

Poore (2016) defines mobile technologies as enablers of mobile learning and mobile collaboration that can create learning experiences that stretch across places and spaces. This position is also expressed in Traxler's (2007) article in which he explores mobile learning, and identifies that it creates spontaneity, opportunism and portability which make them distinct characteristics of mobile learning.

However, social media for learning and teaching in HE does not work for all. One such case derives from Salmon, Ross, Pechenkina, and Chase (2015) who conducted a study around the use of social media in the DIEM MOOC for

educators from all sectors interested in learning about the CARPE Diem learning design. While the findings suggested that social media enhanced the learning experience overall, there were also negative voices. This MOOC (DIEM) was offered via CourseSite, a Blackboard product, where MOOC participants learned in groups of 30 with a moderator. Social media, particularly Facebook and Twitter, were used by participants to seek help and support, and share resources and experiences. During this study, 29 participants were interviewed and further data were gathered through a survey and observations. The findings indicate that there were sometimes objections by learners to using social media as it was perceived as a time waster, confusing and blurring boundaries between social and professional identities. Kear (2011) reported in her best practice guide on online learning that students often fear that online learning takes the fun out of learning and affects in a negative way their relationship with their peers and tutors. An ongoing longitudinal study by White and Le Cornu (2011) and further researchers around motivation and engagement both online and offline in a personal and institutional context, brings further insights in this area. A mixed methods approach is used and data is collected from student diary entries as well as interviews. Participants in this study are UK and US secondary school students and undergraduates, along with academic staff from the students institutions (Connaway, Lancos & Hood, 2013). Connaway *et al.* (2013) agree that students' behaviours in relation to online platforms, and especially social media, vary, and argue that this variation may depend on the students' motivations. The behaviour can, at times be either dynamic or signal a fixed behaviour. This study of the behaviour of students and academic staff learning online, led the authors to the development of the Visitors and Residents typology. Connaway *et al.* (2013) argue this is a continuum which at one end, depicts those who use an online platform as a tool to achieve individual goals and are, therefore, invisible to others online. At the other end are those who are visible –they see the online platform as a space to which they belong and in which they actively participate. These findings highlight the role choice, motivation and preference play in the use of social media -characteristics which are also relevant in the context of collaborative learning (Beetham, 2013) as mentioned in Chapter 2.2.

In order for academic staff to make informed choices and effective use of social media for collaborative learning, Beetham (2015) claims, that it is important that academic staff recognise the potential value of social media and feel confident and competent in using it. A Universities and Colleges Information Systems Association report (UCISA, 2016) notes that since 2013 academic staff are more open and willing to use social media for learning and teaching and there is recognition that social media can be powerful. These tools create connections between students and others and allow access to resources beyond institutional boundaries. This willingness to use social media for learning also extends to supporting communities (Pegler, 2013; Salmon *et al.*, 2015). Wenger, White and Smith (2009) advocate that support for learning in communities is needed. They suggest roles such as "learning partners" and "learning friendships" as these have the potential to create more caring, humane and communal interactions (Wenger *et al.*, 2009, p.24). Sharples *et al.* (2016) also acknowledge the important role facilitators play in sustaining social media networks and communities especially as anyone at any time can join and leave. This is discussed in more detail in Chapter 2.4.3

With the impact of collaborative learning being recognised for students and academic staff for learning, teaching and development, the following section reviews recent technology-supported design frameworks that have been developed to foster it.

2.4.3 Design frameworks

In the 1990s, the Computer-Supported Collaborative Learning (CSCL) framework was developed as a reaction to the software and resources approach that, as Stahl, Koschmann and Suthers note, "[...] forced students to learn as isolated individuals" (Stahl, Koschmann & Suthers, 2006, p.410). They go on to define CSCL as "an emerging branch of the learning sciences concerned with studying how people can learn together with the help of computers" (Stahl, Koschmann & Suthers, 2006, p.409). The key characteristics of CSCL include:

- Participation in a community of practice
- Individual knowledge construction
- Collaborative knowledge construction

- Tutor support to scaffold engagement

Since the development of CSCL other design frameworks have emerged that provide pedagogic scaffolding for technology-supported learning in various educational settings predominantly in HE, from fully online to blended, mobile and open settings. Table 2.3 below shows a selection of these frameworks, with a more detailed analysis in Appendix 2.1. The frameworks in Table 2.3 were selected by the researcher as they incorporate collaborative learning intentions supported through the use of technology and are therefore relevant to this study. The selection includes conceptual frameworks developed as design thinking tools as well as evidence-based frameworks that are the output of empirical research and have been tested in practice.

Reeves and Reeves (1997) highlighted the value of a framework built around interaction and collaboration as these characteristics will, according to them, maximise the effective use of technologies based on a pedagogic rationale and should therefore be considered when designing such learning experiences. Mayes and de Freitas (2013), and Conole, Galley and Culver (2011) have also reported on the use of models, frameworks and theory that are of particular relevance when researching learning and teaching contexts supported by technology.

The majority of the frameworks reviewed in this section are well-known and widely used, and were selected as they have collaborative design characteristics enabled through technology. Their review has enabled through comparison the study of a wide spectrum of design frameworks over the last 40 years. The frameworks were developed for a variety of educational settings, offline, blended, fully online and open learning as well as formal and informal provision predominantly in HE. Definitions of these terms can be found in the glossary in Appendix 1.2. Both, formal and informal learning have been included in this review.

The review of the selected frameworks includes the following:

- CSCL (Stahl, Koschmann & Suthers, 2006)
- Communities of Practice (Lave & Wenger, 1991),

- Community of Inquiry (Garrisson, Anderson & Archer, 2000),
- the Conversational Framework (Laurillard, 2002),
- the Supported Open Learning Framework (Jones, Aoki, Rusman & Schlusmans, 2009; Stahl, Koschmann & Suthers, 2006; Swan, 2004),
- the 5-stage e-tivities framework (Salmon, 2000; Salmon, 2002; Salmon, 2013),
- the 3E Framework (Smyth *et al.*, 2010),
- Online Collaborative Learning Theory (Harasim, 2012),
- the 7Cs Framework (Conole, 2013a), and
- the 5Cs (Nerantzi & Beckingham, 2015a)

The selection of reviewed design frameworks is depicted in Table 2.3. A more detailed review of these frameworks can be found in Appendix 1.2.

Table 2.3 Selection of design frameworks with collaborative characteristics, similarities and differences

Year first appeared/ was published	Framework	Type of framework	Formal/ informal	Designed for mode of application	Adaptations	Education sector	Open education
1971	OU SOL (Supported Open Learning) model (Bell & Lane, 1998; Jones, K., 2015; Jones et al., 2009; McAndrew & Weller, 2005; Swan, 2004	Conceptual	Formal	Open-entry, distance learning	Blended learning, online learning	HE	
1985	Computer-Supported Collaborative Learning (CSCL) (Stahl, Koschmann & Suthers, 2006)	Conceptual	Formal, informal	Learning supported by technology		Schools, HE	
1991	Community of Practice (Lave and Wenger, 1991)	Evidence-based	Informal	Learning	Online learning, Blended learning		
2000	Community of Inquiry framework (Garrison, Anderson & Archer, 2000; 2010)	Conceptual	Formal	Blended learning	Online learning	HE	
2000	5-stage e-moderating/5-stage e-tivities (Salmon, 2000; Salmon, 2002; Salmon, 2013) e-groups framework (Jaques & Salmon, 2007)	Evidence-based	Formal	Online learning	Blended learning	HE	MOOCs
2002	Conversational Framework (Laurillard, 2002)	Conceptual	Formal	Learning supported by technology		HE	
2010	3E Approach/Framework (Smyth et al., 2010; Smyth et al., 2011)	Evidence-based	Formal	Blended learning	Online learning	FE, HE	
2012	Online Collaborative Learning Theory (Harasim, 2012)	Evidence-based	Formal	Online learning		HE	
2013	7Cs of the Learning Design Framework (Conole, 2013a)	Conceptual	Formal	Blended learning, Online learning		HE	MOOCs
2014	5C Framework (Nerantzi & Beckingham, 2015a)	Conceptual	Formal, informal	Online learning	Learning supported by technology	HE (academic development)	Open courses

The comparison of framework and their review indicates that they all share the following characteristics:

Facilitator support: plays a key role for scaffolding engagement and learning, it leads to student autonomy and empowerment as evident from the review of the design frameworks. In the Community of Inquiry model (Garrisson, Anderson & Archer, 2000) for example, the facilitator's presence plays a key role in enabling learning in blended and online settings. Laurillard (2012) in her framework emphasises the value of collaborative inquiry among students and how this needs to be supported and scaffolded by a facilitator who plays a significant role in creating a sense of belonging and community within a specific learning situation. The offline dimension of facilitator support is also highlighted by Jones *et al.* (2009), Laurillard (2002) and other scholars, who acknowledge the vital role played by it in promoting a learning community.

Community: plays a significant role in learning and creates a sense of connectedness and belonging that can be motivational for learning (Garrisson *et al.*, 2000; Wenger, 1998). In her Online Collaborative Learning Theory (OCL), Harasim (2012) recognises the role of the facilitator in laying the foundations of a community through which peer support will emerge. Community seems to be vital for students' learning and success as it helps overcome loneliness and isolation, by creating opportunities for learning with others (Kear, 2011). Wenger, Trayer and de Laat state that "being more interconnected often increases the sense of community, and a desire to learn about a shared concern often motivates people to seek connections" (Wenger, Trayer & de Laat, 2011, p.12). Social presence is one of the key characteristics in the Community of Inquiry model that fosters belonging through creating a supportive learning community (Garrisson, Anderson & Archer, 2000, 2010). Further dimensions of the community of inquiry are 'teaching presence' and 'cognitive presence'. The former, according to Garrisson *et al.* (2000) is concerned with facilitating and supporting learning, while the latter is enabled through a design that supports learning and leads to critical engagement and meaning making.

Armellini and De Stefani conducted a study in which they applied the Community of Inquiry model in a blended learning context in language teacher

education in Latin America. They propose, based on their findings, an adjustment to the Community of Inquiry model and highlight the significance of social presence relative to teaching presence and cognitive presence. They claim, referring especially to the discourse between tutors and learners, that "social presence [is] a major lever for engagement, sense-making and peer support" (Armellini & De Stefani, 2015, p.1).

Considering a different aspect of the community, Lave and Wenger (1991) define community of practice as social learning that happens when individuals with a common interest come together regularly to share practices and support each other. They distinguish between full and legitimate peripheral participation as two different states of belonging to a community of practice in relation to the depth of engagement. This they link to an indication of the length of their membership to the community implying that that long-term membership makes relationships more stable and deeper. However later, Wenger, White and Smith (2009) extended the definition of legitimate peripheral participation or *'lurking'* in the context of communities of practice. They added that such community members may not be exclusively positioning themselves on the periphery merely because of their newness. They acknowledge that this position may be individual's choice and could provide an indication that they also may belong to another community.

Activities: scaffolding learning can be contextualised and personalised and activities are therefore based on reflection and inquiry, promoting deeper engagement and learning. The importance of such activity-and active inquiry-based approaches has been illustrated in the frameworks of Garrison, Anderson and Archer (2000; 2010), Laurillard (2002), Salmon (2000, 2002, 2013), Smyth (2009), Harasim (2012) Conole (2013a) and Nerantzi and Beckingham (2015a) as they foster engagement and learning.

Choice to learn individually or collaboratively: This is an important framework feature that has the potential to increase or decrease student engagement. It is recognised that learner choice needs to be built into the framework design (Jones *et al.*, 2009; Nerantzi & Beckingham, 2015b; Salmon, 2000, 2002, 2013; Stahl, Koschmann & Suthers, 2006). An interesting recent development based on Salmon's (2000; 2002) e-tivities framework was

appropriation as a collaborative framework for e-groups (Jaques & Salmon, 2007), which creates a special focus on learning collaboratively.

Gordon (2014) notes that new pedagogical models and frameworks are still needed as well as research into the student experience to enable the sector to move forward and respond creatively to the ongoing changes in learning and teaching. The review of a range of design frameworks in this section provides information to be included in this literature review. However, none of these frameworks were developed specifically for collaborative open learning in academic development. On further comparison the key features of the above later frameworks with the earlier developed CSCL framework, it becomes evident that they have common characteristics (Table 2.4).

Table 2.4 Features of design frameworks

CSCL (Stahl, Koschmann & Suthers, 2006)	Further frameworks in Chapter 2.4.3
Participation in a community of practice	Community
Individual knowledge construction	Choice
Collaborative knowledge construction	Activities
Tutor support to scaffold engagement	Facilitator support

When Salmon's model was introduced in 2000, online interactions were limited to text-based asynchronous forums since this was the main technology available. This may have been limiting for establishing social presence and community formation (Kear, 2011), but the need for effective expression by learners or effective social presence could be resolved through appropriate language and the use of emoticons (Swan, 2002). Today, these limitations have ceased to exist as there are a wide range of ways for learners to connect and collaborate with others. This can be done using a range of media, synchronously and asynchronously as discussed in the following section, which looks at literature around modes of interaction in technology-supported environments.

2.4.4 Modes of interaction
Media-rich digital and social media technologies available today to academic staff and students, as well as synchronous and asynchronous connectivity,

create new forms of distributed learning and teaching through interaction, inquiry and collaboration.

Cooney and Stephenson (2001) who reviewed 100 research reports and case studies around online learning and along with Er, Özden and Arifoglu (2009) have written about the value of synchronous and asynchronous forms of interaction in online learning. Asynchronous communication has the characteristics of anywhere, anytime and enables self-pacing by individuals as well as ongoing and in-depth reflection, synchronous communication can be anywhere, but is limited. The use of web conferencing technologies, proprietary as well as social media video calling platforms, can make the communication experience for students and academic staff similar to face-to-face interaction, but it is restricted to real-time as noted by Meloni (2010). The real-time dimension of synchronous communication can therefore be a disadvantage if the availability of individuals is limited or if there are connectivity issues (Kear, 2011). When the technology works, however, it provides multiple ways for academic staff and students to interact, and communicate directly with others in a natural way (Holmes & Gardner, 2006). In addition, according to Kear synchronous communication can "mimic the experience of a face-to-face lesson or tutorial" (Kear, 2011, p.5). Such communication also allows learners to get to know each other better, which seems to influence students' enthusiasm and engagement with online courses. This was noted by Mason (1998) in his review of models for online learning with related examples from the OU in the UK.

Language plays a key role in online collaborative learning and communication, and the next section reviews some of the literature on this topic.

2.4.5 Language and culture

Beetham (2015) in her study highlights the increased opportunities for collaboration and inter-cultural awareness presented by digital, social and networked technologies and the potential to promote deeper understanding among individuals and cultural groups. Research shows that bringing together individuals from different cultural backgrounds is an effective strategy for online collaborative learning (Rovai, 2004). Learning is in this way shown to raise cross-cultural awareness (Curtis & Lawson, 2001), cross-cultural and collaborative competencies (Cifuentes & Murphy, 2000), and to increase

language confidence and competence (Tsai, 2004), especially when there is a sense of belonging among students (Teng, 2005).

In addition, pre-existing social relationships with a diverse peer group may also increase participation in online collaboration as research conducted by Mittelmeier, Rienties, and Whitelock (2016) indicates. In this study, social network analysis theory was used to explore if diversity affects online contributions in cross-cultural collaborative settings. The participants involved were students studying on a blended postgraduate module in Business at a UK university. Fifty eight students from 13 countries participated in this study, and all collaborated synchronously but anonymously in small groups in a computer lab during a session in week 8. Their task was to collectively solve a problem based on a case study they were given using the online chat feature of their VLE. Though the findings suggest that the cultural diversity led to more online collaboration especially for those who were more socially connected, it is unclear what role anonymity played. The study shows that pre-existing social connections influence how learners engage in online collaboration, however, Ou (2012) notes that for online collaboration to be effective it also requires cultural intelligence. Ou's PhD study into cross-cultural online collaboration, used grounded theory. Forty postgraduate students, Twenty three were from the US and 17 from Taiwan, who were predominantly registered on Educational Psychology programmes, participated. The students worked together in small groups on two Problem-Based Learning (PBL) tasks. The findings showed that while the key challenges to fully participate in the collaborative tasks were linked to the use of English, encouragement and support did help overcome these issues. Based on the findings, Ou proposes that creating "collaboration-friendly" (Ou, 2012, p.13) learning situations for individuals from diverse cultures that foster a sense of community or "cyber bonding" (Ou, 2012, p.149) as well as flexibility and facilitator and peer support, can positively contribute to the online cross-cultural collaborative learning experience and build resilience.

English is often used as a *lingua franca* in campus-based, blended and online provision, and while this enables cross-cultural communication, there can also be associated challenges. An example in which language challenges were identified comes from Gunawardena, Nolla, Wilson, Lopez-Islas, Ramirez-Angel and Megchun-Alpizar (2001) where a mixed method research design study was

used. A survey and a focus group were used to collect quantitative and qualitative data in order to explore the perceptions of online cross-cultural study groups during an online English speaking conference organised by a Mexican and an American HEI and conducted over two semesters. The study brought together 100 individuals with a mixture of undergraduate and postgraduate degrees. One of the findings of the study was linked to the use of English and suggested that, for individuals from Mexico, it created a barrier to working in the online groups, and therefore reduced their participation. Furthermore, the majority of participants preferred to communicate asynchronously stating that this gave them more time to respond.

In a multiple case PhD study using ethnography, Liyanagunawardena (2012) focused on English-speaking distance undergraduate degree programmes, in two HEIs in Sri Lanka where English was a foreign language for all students. A questionnaire was completed by 129 participants, 33 individual interviews and two group interviews were used to gather data for this study. The findings suggest that the use of English brought similar language challenges to the previously mentioned study by Gunawardena *et al.,* and also highlighted the divide between students from different socio-economic backgrounds. Students from higher socio-economic backgrounds had better English language skills and therefore were able to participate more.

The next section summarises the above literature around digital technologies and social media in supporting collaborative learning, and identifies any gaps in the literature.

2.4.6 Summary

The role of digital and networked technology, as well as social media and mobile technologies has been reviewed above. This shows that these technologies created new ways to learn with others The design frameworks reviewed provided insight into key factors that enable collaborative learning in technology-rich environments in an HE context, such as facilitator support, community, activities and choice for participants. While none of the frameworks was specifically developed with a focus on collaborative open learning in cross-institutional academic development (which therefore presents a specific gap in the literature), their review is important to include in this literature review as it

provides insights into key aspects of participatory and collaborative learning forms supported by technology in HE more generally. In addition, the frameworks provide an indication of the diverse and cross-cultural learning opportunities generated through a range of ways technology provides for individuals to interact with others.

The next section reviews the overall professional development of HE teachers in relation to academic development in the UK.

2.5 Academic development in the UK

This section focuses on academic development as an area within the HE landscape which has grown out of developments in the 1970s in the UK.

A historical overview has been included in this section (Chapter 2.5.1) and this is followed by a review of the literature around academic developers, the people, and academic development provision, including digital practices (Chapter 2.5.2 and Chapter 2.5.3). The section concludes with an exploration of the contemporary opportunities presented through open and cross-institutional practices supported by digital technologies for academic development (Chapter 2.5.4).

The next section presents a short historical overview of academic development in the UK.

2.5.1 Historical overview

Political decisions and research led to the establishment of academic development as an area of importance for the enhancement of teaching practices and scholarship of teaching.

Academic development in the UK was established in the 1970s (Baume & Baume, 2013; Brown, 2013; Di Napoli, 2014; Elton; 1995; Gibbs 2013; Parsons *et al.* 2012; Pickford & Brown, 2013; Stefani, 2003;) as the result of an initiative of about 30 pioneers, mainly part-time academics, passionate about learning and teaching and, according to Stefani, "prepared to go against the grain and set up informal networks to discuss educational development and to encourage

other enthusiasts to participate" (Stefani, 2003, p.20). These individuals saw an opportunity and a need for the development of a field dedicated to the professional development of academic staff and pedagogical innovation (Stefani, 2003). Many of these academic developers, as Nixon and Brown (2013) note, initially worked on their own and with only limited support.

Gibbs writes, "a sea change took place in the UK educational development scene in the late 1990s when large sums of government money were made available to every university in return for articulating and implementing a "learning and teaching strategy" (Gibbs, 2013, p.8). The changes that happened in academic development were helped by the increasing interest of UK Governments (from the 1960s onwards) in teaching and the professionalisation of teaching in HE. This interest produced a number of reports, including the Robbins Report (1963) with the notion of support for academic staff new to teaching, and the Dearing Report (1997) covering support for permanent academic staff and access to a teaching qualification. Additionally, polytechnics were turned into universities with the Further and Higher Education Act (1992) and increased the number of HEIs in the UK rapidly. Through this act, new funding arrangements were established in England, Wales, Scotland and Northern Ireland that led to a greater degree of variation across the UK in student fees and loans systems. A series of serious investments and initiatives followed, such as the Teaching Quality Enhancement Fund (TQEF) by the Higher Education Funding Council for England (HEFCE), from 1999 to 2005. The Future of Higher Education report (DfES, 2003) and the introduction of standards for teaching in HE also played a key role in academic development in the UK. In addition to the reports, a number of organisations sprang up during this time, for example the Learning and Teaching Support Network (LTSN) was established in 2000 as the professional body for academic staff teaching or supporting learning which had 24 subject centres developing their own specialist support across disciplines. In 2000 also the Institute for Learning and Teaching (ILT) was founded to promote good teaching practice. LTSN and ILT merged in 2004 to become the Higher Education Academy (HEA) and members of ILT became Fellows of the HEA. Furthermore, a total of 74 Centres for Excellence in Teaching and Learning (CETL) within universities were funded for five (5) years, from 2005 to 2010, by the HEFCE to promote and reward

excellent teaching, to raise the quality of teaching, and to disseminate good and innovative practice more widely across the sector.

These initiatives all played a significant role in raising the quality of teaching, and the profile of academic development. The Browne Report (2010) and the recognition of the importance of teaching qualifications for all staff in HE who teach, was also reaffirmed by BIS (2011) as an important factor in raising the quality of teaching, along with important work led by the HEA and the Quality Assurance Agency (QAA) over a number of years. As a result of these developments, Ramsden claims that the UK leads the way with a professionalised model of teaching in HE and is the focus for inspiration globally. In particular, he mentions the UK Professional Standards Framework (UK PSF) introduced in 2006 and reviewed in 2011, which he states is "unique in the world" (Ramsden, 2008, p.5).

These government-led interventions and policies since the Robbins Report (1963) influenced teaching quality and have led to massification and therefore diversification of HE in the UK. While direct public funding has been reduced in more recent years, there has been an increase in demand on academic staff from their institutions, on research outputs and on teaching quality (British Council, 2015; Universities UK, 2013a). Teaching quality has become a priority for institutions and is recognised by the sector as an important aspect of quality in relation to the overall student experience. Government reviews and related research outputs (Gibbs, 2010; Gibbs, 2012; European Commission, 2013, 2015; Higher Education Academy, 2013a; Parsons et al., 2012;) all provide evidence that initial academic development and CPD opportunities for all who teach or support learning in HE is essential to raise teaching quality, standards and practices across the sector. However, BIS (2016a) claims that about 60% of students are dissatisfied with the quality of their courses, and that financial incentives for institutions and a competitive model in the form of a Teaching Excellence Framework (TEF), with competition from new providers, can enhance the quality of teaching and secure England's and the UK's future as a global leader in HE. This vision is directly linked to an increase in student fees based on the quality of teaching in England's HEIs (BIS, 2016a, 2016b). While HE administration is devolved in Scotland, Wales and Northern Ireland, HEIs

there, can also participate in the TEF and are not required to make any future student fee changes (BIS, 2016c). While the above data reported in BIS (2016a) portrays a somewhat disappointing picture of teaching quality in HEIs in the UK, it needs to be acknowledged that the professionalised model of teaching in HE in the UK, is regarded as unique, world leading and aspirational for other nations (European Commission, 2013; Ramsden, 2008).

Institutional responses to Government policies and changes across the UK HE sector brought academic developers together in central academic units (Boud, 1995). As interest in developing teaching in HE grew, so did academic development which, itself, became strategic and evidence-based (Stefani, 2003; Gosling, 2007), and "moved to central stage in institutional priorities" (Boud, 1995, p.203). Similar observations are reported by Baume and Baume (2013) and Bostock and Baume (2016).

Early academic development in the 1970s consisted of workshops and short induction courses around learning and teaching for new academic staff (Beaty, 2006). The first credit bearing course in the form of an advanced diploma in teaching and course development was offered in 1982 at the University of London, with more teaching development programmes offered in the late 1980s (Bostock & Baume, 2016; Higher Education Academy, 2013a). Following this, Postgraduate Certificates (PgCerts) in Learning and Teaching in HE were introduced in HEIs, initially attracting academic staff who were learning and teaching champions. The first PgCert seems according to the Staff and Educational Development Association (SEDA) community, to be that offered from 1988 at Northumbria Polytechnic (later Northumbria University).

To further professionalise academic development, SEDA, a professional body for academic developers in the UK, was established in 1993 (Stefani, 2013) to promote innovation and good practice in HE (Pickford & Brown, 2013; Nixon & Brown, 2013). SEDA introduced the Teaching Accreditation Scheme in 1993 and the Professional Development Framework in 2000 (Bostock & Baume, 2006). Some of the earlier academic development programmes were accredited by the SEDA Accreditation Scheme (Beaty, 2006).

The UK Professional Standards Framework (UK PSF) was introduced in 2006 and reviewed in 2011 (Higher Education Academy, 2011) and had an impact on institutional CPD offers and PgCerts. Early in 2017, the Bell review (2017) on UK HE agencies indicated that the HEA is from September 2017 merging with the Leadership Foundation for Higher Education (LFHE) and the Equality Challenge Unit (ECU) to secure the most effective operation and coordination of these agencies, bringing clarity and cost savings.

The timeline that follows (Figure 2.5) depicts milestones related to academic development in the UK. The timeline has been informed by evidence in the literature and through colleagues' responses from the academic development community via a mailing list request.

1960					
1963	Robbins report				
1970					first L & T induction courses
1980					
1982					Advanced Dip in Teaching & Course Dev
1988					PgCert
1989					Scottish collab. PgCert
1990					
1992	Further & Higher Education Act; Funding councils/arrangements				
1993				SEDA; SEDA Teaching Accreditation Scheme	
1997	Dearing report	QAA			L & T provision for new staff in most HEIs
1999					
2000		ILTHE; LTSN; NTF		SEDA-PDF	
2003	Future of HE	QEF; Scottish Enhancement Themes			
2004		HEA			
2005		74 CETLs			
2006			UK PSF, HEA Fellows		
2007					
2010	Browne report				HEA CPD frameworks; First steps MOOC
2011		UK PSF Review			
2016	TEF				
2017		new agency (HEA, FLHE, ECU)			
2020					

Figure 2.5 Timeline of academic development in the UK

The next section looks in more detail at academic development in the UK, and also reviews academic developers as people, along with their practices.

2.5.2 People and practice

Parsons *et al.* (2012) and Gibbs (2013) claim that there are currently thousands of individuals involved in academic development across HE in the UK and the majority of institutions invest large sums in such provision in order to support academic staff development and transform teaching practices across an HEI (Brown 2013; Gibbs, 2013). This investment takes place because it has been researched and recognised that the development of teachers in HE raises the quality of teaching and creates innovative practitioners (Crawford, 2009; Gibbs, 2010, 2012; Parsons *et al.*, 2012). Academic development has become strategic with a focus on enhancement of and innovation in teaching and transformation at team level, increasingly underpinned by an evidence-based and scholarly approach (Land, 2004; Swennen, Lunenberg & Korthagen, 2008).

Research suggests that academic development has a positive impact on academic staff aided by collaboration and partnerships between academic developers and academic staff and students (Stefani, 2003; Wareing, 2004), as well as through community-based approaches (Bamber, 2009; Neame, 2013; Smyth, 2009). The term 'change agents' is commonly used in the literature (Elton, 1995; Rix & Gold, 2000; Roche, 2003; Smyth, 2003), as well as "modeller-broker" (Land, 2004). Debowski (2014) suggests academic developers as co-learners with academic staff, and outlines, according to him, a more effective strategy where academic developers work with their academic colleagues as equals or partners to enhance practice. What characterises academic developers, according to Neame, is that, they work with people, in communities and networks and their work can have "viral powers" (Neame, 2013, p.332) through which they influence others and resolve negativity. This negativity and lack of engagement in CPD can raise when managerial approaches are used to engage academic staff (Crawford, 2009; Gibbs, 2013). These approaches are often perceived to clash with the notion of academic freedom, academic autonomy and self-regulation (Dill, 2005; Karran, 2009).

Crawford's (2009) doctoral study provides insights into the perceived lack of engagement in CPD by academic staff within an institution, through a multi-case exploration of academic staff behaviours and attitudes towards CPD. Crawford interviewed 36 academic staff from one pre-1992 and one post-1992 HEI. Her findings suggest the negative effects on academic staff of managerial approaches to CPD. These negative effects are also recognised by Di Napoli (2014) in his article which talks about academic development being seen as the "soft arm of management" (Di Napoli, 2014, p. 5). Boud (1995) further discusses the negative effects of standardisation and conformity on creativity and innovation, as well as the need for academic developers to find their own professional voice and to have professional freedom. Stefani (2013) notes that academic staff do not always fully understand the function of academic development and, therefore, often question its existence and feel alienated by academic developers. Such alienation and hostility by academic staff is commonly observed as it is perceived that academic developers are outsiders to disciplinary traditions and cultures (Neame, 2013) and serve different masters to academic staff (Hanson, 2013; Stefani, 2013).

Despite these challenges, academic developers play a vital role in creating opportunities for dialogue with academic staff on a day-to-day basis and are increasingly contributing to strategy and policy based on institutional and sector-wide drivers (Boud, 1995; Stefani, 2003). The use of a variety of strategies, or orientations (Land, 2004), help academic developers connect with individuals and groups who might not be interested in changing their practice. The range of strategies academic development units and academic developers use to connect with individuals and groups to implement and lead change is captured in Popovic and Plank's (2016) models of academic development practice. These models are the 'grassroots', 'faculty-led', 'strategic', 'community-building' and 'research-based' models. These present a toolkit for academic development and are often combined and described briefly below.

The 'grassroots' model is seen as an individual-focused approach, where academic development often operates on an ad-hoc basis. This model often has a low impact on change.

In the 'faculty-led' model, the faculty is in the driving seat of change and academic development plays a supporting role. This is achieved through relationship building between academic staff in the faculties and academic development. While this model benefits the faculties, it may also create silos.

The 'strategic' model positions academic development at the heart of university-wide change, thereby achieving consistency. It can, however, also generate resistance as it can be seen as a top-down approach to change.

The 'community-building' model enables academic staff to come together informally to share ideas and support each other beyond disciplinary or hierarchical boundaries within an HEI. Extending such communities beyond an institution is also possible. Such communities can also become hubs of focused individuals whose priorities are not aligned with the HEI.

The 'research-led' model aims to promote a scholarly approach to teaching supported by academic development. It can lead to evidence-based changes of practice and related pedagogic research output, which however, are often not equally valued when compared with disciplinary research.

These models fit with Gibbs' (2013) earlier notion that the nature of academic development overall varies significantly depending on institutional cultures, priorities, and the maturity of academic development within an institution. Such system maturity carries with it a suggestion of the following shifts: from the classroom to learning spaces, from the individual to the team and leadership, from teaching to learning, from quality assurance to quality enhancement, from tactics to strategy, from fine-tuning to transforming practice, from amateur to professional, from peripheral to central, from unscholarly to scholarly and from content to contextualised (Gibbs, 2013).

The above provide a useful guide to framing academic development and the changes that are happening which are currently shaping CPD provision for academic staff provided by academic development staff and units within an HEI.

Academic staff, themselves, may engage in CPD to fulfil the requirement for a professional body, but it can also be self-driven. CPD therefore includes formal

and informal activities of a re-active (Roscoe, 2002) or a pro-active nature that is intrinsically motivated (Crawford, 2009; King, 2004). Formal CPD in the context of this thesis is defined as organised development opportunities offered by educational providers and professional bodies. This CPD is an opportunity for academic staff to gain recognition for learning gained and demonstrated through certification, for example an accredited programme that leads to a teaching qualification or a professional recognition. By contrast, informal CPD is defined as professional development gained through any activity or experience that is not formally constituted, for example, through participation in a conference or workshop, reading a book or developing a new module or even participating in something outside the HE environment were useful learning and insights are gained, including development that is practice-based. Such learning does not normally lead to formal certification, a qualification or a professional recognition unless it is included as part of a reflective portfolio designed to present claims for learning within a predetermined framework. However, other forms of recognition may be provided, such as a certificate of attendance or an open badge (see also Appendix 1.2).

As part of the formal approach, teaching qualification programmes seek to critically engage academic staff with contemporary learning and teaching theory and innovative practice in HE (Parsons *et al.*, 2012). They enable academic staff to become reflective practitioners through interrogating their own practice and promote learning and development through reflection as a vehicle for ongoing renewal and development (Stefani & Elton, 2002; The Quality Assurance Agency for Higher Education, 2012). Programmes such as a PgCert, and similar ones at graduate level, lead to such recognised teaching qualifications in HE in the UK. Today, completing a PgCert is often a probationary requirement and is mandatory in many institutions (Gosling, 2007; Halstead, 2009; Parsons *et al.*, 2012). The majority of PgCerts are generic, though some are discipline-specific, especially for Health professionals and the Arts (Parson *et al.*, 2012). Since 2006 many programmes are accredited by the HEA (Parsons *et al.*, 2012) and the Nursing and Midwifery Council (NMC), and are aligned to standards for HE teaching professionals (UK Professional Standards Framework, and the Nursing and Midwifery Council standards respectively) (King, 2004). Some institutions offer a Master's qualification in

Teaching and Learning in HE (Wareing, 2004), stand-alone CPD modules and increasingly institutions also offer related Doctoral programmes.

The impact of teacher development programmes, including PgCerts, has been studied in Parsons *et al's.* (2012) review of 312 secondary sources, most of which had an HE focus. The findings of this review suggest the transformative nature of teaching development programmes for academic staff both in the UK and more widely. Especially when such programmes are offered over a longer period of time (one-year or longer), and are multi-disciplinary. Longer programmes, in particular, appear to have the greatest impact as they build community, raise awareness of different learning and teaching approaches in the disciplines, and often lead to changes in practices and perceptions. Parsons *et al.'s* (2012) study suggests that keeping academic staff together for longer, enables trust to be built and a community to form. Shorter and more fragmented programmes are less effective as there is not enough time to build these important professional relationships and develop a community feel that would allow deeper and more immersive engagement and risk-taking (Parsons *et al.*, 2012). A further finding in Parsons *et al.* (2012) was that new academic staff are generally more open to collaborative learning approaches, despite the fact that they are often slower in making changes to their practice than more experienced peers. Parsons *et al. (*2012) also acknowledge that new academic staff need support and value being part of a community of practice as well as working with more experienced peers.

Beyond academic programmes that lead to a recognised teaching qualification, a professional recognition for learning and teaching has also been introduced (Higher Education Academy, 2011). It is a relatively new concept for HE teaching, available since 2006 in the UK. Professional recognition can be gained through direct application to the HEA and, since 2011, also through institutional CPD Frameworks accredited by the HEA and linked to the UK PSF. These frameworks are often part of an academic development provision in an HEI in the UK. In 2013, the HEA introduced the Code of Practice and Remaining in Good Standing, an expectation that Fellows of the HEA will maintain their Fellowship status through engagement in CPD (Higher Education Academy, 2013b). However, Comrie (2007) argues that academic staff who

complete the initial teaching qualification (i.e. PgCert) usually do not continue engaging in CPD. This perceived lack of engagement in ongoing teaching related CPD can, perhaps in part, be explained with the perception of academic staff that what counts as CPD is only formal or organised CPD (Crawford, 2009; King, 2004). This situation indicates that there is a need to broaden the definition of CPD and recognise informal CPD, thereby adopting a more inclusive approach to what it entails- as already advocated by Becher (1996).

Crawford (2009) found in her study that academic staff recognised the value of academic development programmes, such as their own institution's PgCert, though her findings indicated that the rest of the academic development offering, around learning, teaching and the use of technology, had little or no reported impact on attitudes and behaviours. Interviewees in Crawford's study felt that there was a mismatch between their personal CPD priorities and those of the institution. This mismatch, together with the interviewees' need for personalised support and mentoring made them turn to disciplinary CPD networks and communities external to the institution. Through their pro-active engagement in these communities, interviewees reported that they obtained a sense of belonging which helped them pursue interests around learning and teaching. Crawford concluded her work by noting that due to the need for external disciplinary networks, a range of internal and external CPD should be considered in an academic development context.

Locke, Whitchurch, Smith and Mazenod's (2015) research shows that, despite time pressures, academic staff feel it is important to proactively engage in CPD closely aligned to their teaching practice. According to the researchers, academic staff recognise the value of networking with colleagues from other institutions especially, and place much less value on standardised provision and workshops, echoing Crawford's (2009) findings. Similarly King's (2004) survey on CPD involving 192 individuals from Earth Sciences in the UK, indicated that the majority of academic staff are engaged in a wide range of activities to enhance their teaching. The most popular activities were discussions with other academic staff, supporting others in their teaching and networking with academic staff from other HEIs.

Networking approaches that are situated outside a specific HEI and which connect institutions as well as the development of community and cross-disciplinary sharing in PgCerts through sustained study over a longer period of time should be taken into consideration by academic developers when designing new provision to maximise their effectiveness and impact on academic staff (Crawford, 2009; Knight, 2006; Parsons *et al.*, 2012; Stefani, 2003). Additionally, the benefits of engagement in external CPD and particularly networks and communities (Crawford, 2009) to pursue development and teaching priorities need to be acknowledged when designing and offering academic development initiatives.

The following section further reviews academic development in the light of associated digital practices.

2.5.3 Digital practices

Within this section digital practices in HE and academic development are presented. Developments that have been included highlight the need for further integration of digital practices and effective modelling of these within academic development.

Sharpe, Beetham, De Freitas and Conole (2010) note that people are surrounded by, and immersed in, a world of digital media in their everyday lives. At the same time, there is a competency gap in using technologies effectively, particularly for learning and teaching in HE (Beetham & Oliver, 2010; Ciber, 2008; Lane, 2009; Walker, Jameson & Ryan, 2010). This gap and the somewhat anachronistic teaching methods, which have also been observed within academic development, are not unique to HE in the UK as presented in the report by the European Commission (2013). A similar situation is observed across Europe. Academic development has often been criticised for being behind the times and not maximising the opportunities digital technologies present for learning and teaching (Donnelly, 2010; Education Technology Action Group, 2015; Littlejohn, 2002; Mainka, 2007; Oliver & Dempster, 2003). Baume and Baume (2013) explain that the initial reluctance to use digital technologies within academic development might be due to the fact that technology implementations were initially focused on the technology and the systems rather

than learning and teaching in combination with technology. However, after this initial introduction, digital technologies began spreading and a new role of the learning technologist appeared in the 1990s (Conole, 2004), with the Association of Learning Technology (ALT) being founded in 1993, Certified membership of ALT (CMALT) offered since 2004 and the ALT Learning Technology Award of the Year introduced in 2007. Stefani (2003) highlights the importance of a closer alliance between academic developers and learning technologists as it would be beneficial for the implementation of technologies for learning and teaching. The use of digital technologies within academic development started increasing, from 2005 (Brown, 2013; Pickford & Brown, 2013) and the rapid development of social media at that time, as well as the mobile web and MOOCs a few years later (Chapter 2.3 and Chapter 2.4), may have played a role in this change. Beetham (2015) points out that progress has been made in more recent years in academic development regarding the use of digital technologies, and acknowledges that digital technologies have been embedded into academic development programmes in the UK. However, she also points out that special attention needs to be paid to digital practices and staff delivering on such provision in order for digital technologies to be of value. She argues the importance for staff to specialise in this area. Beetham (2015) further advocates for engagement in CPD through institutional, social and personal technologies, and through creating a sense of community which is important for academic staff together with incentives to increase digital engagement. Gunn (2011) highlighted earlier that, communities can be created using collaborative digital approaches in academic development which are decentralised and not top-down mandates.

Collaborative and community-based approaches for learning and teaching have been shown to be beneficial in academic development more generally (Chapter 2.5.2). Digital online communities are becoming increasingly important in the context of academic development as they extend opportunities for such collaborative, more decentralised development, and create links between institutional and sector-wide realities and activities (Bamber, 2009; Cochrane *et al.*, 2014; Crawford, 2009; Gunn, 2011; King, 2004).

However, in order to facilitate such opportunities, modelling the effective use of technologies in academic development can help, and enable academic staff to experience technology-enhanced learning as a student (Beetham, 2015). Such experiences have the potential to better prepare academic staff to harness technologies in their own teaching practices when supporting students, and make more informed choices about their own practice as a result (Bates & Sangra, 2011; Cochrane *et al.*, 2014; Dayananda & Ryder, 2011; Donnelly, 2010; Duncan, 2005; Jung, 2005; Littlejohn, 2002; Oliver & Dempster, 2003; Nerantzi, 2011b; Nerantzi, Wilson, Munro, Lace-Costigan, & Currie, 2014; Smyth, 2009).

Active experimentation, risk taking and the adoption of evidence-based approaches can further contribute to the effectiveness of technology-supported practice within academic development (Gunn, 2011; Pickford & Brown, 2013; Smyth *et al.*, 2016), together with the use of inquiry-based (Johnson *et al.*, 2016) and collaborative learning and teaching approaches (Cochrane *et al.*, 2014; Comrie, 2007; Crawford, 2009; Mainka, 2007). Support for academic staff to engage in CPD is vital (Crawford, 2009, European Commission, 2015; King, 2004) and this should include support for the adaptation of digital practices and recognition of the role academic development plays in this (UCISA, 2012).

New pedagogic approaches supported by technology and online provision for academic development need to be explored further to diversify provision and create distributed academic staff communities that are actively engaed in CPD linked to teaching (Cochrane, Antonczak, Keegan & Narayan 2014; Gunn, 2011; Salmon, 2013; Smyth, 2009; Smyth *et al.* 2013;).

Having looked at the rise of open digital practices in academic development generally, the following section reviews these in the context of cross-institutional academic development.

2.5.4 Cross-institutional and open provision

In this section the relationship between academic development and cross-institutional collaboration based on open education and digital practice is presented to highlight emerging practices and related opportunities.

While academic development provision is normally inward facing, Parsons *et al.* propose "nationally supported programmes" (Parsons *et al.,* 2012, p.6). Gibbs takes this idea further and suggests:

> "A national initiative on cost-effective teaching so that, where reduced resources force changes to teaching practices, it might be possible to maintain, or even improve, student learning" (Gibbs, 2012, p.11).

An early application of this idea was a collaborative teaching course across a number of Polytechnics in Central Scotland (Ellington & Baharuddin, 2000). This idea originated from the Committee of Principles and Directors of the Scottish Central Institutions (COPADOCI) to raise the quality of teaching in institutions across the area through academic development. The Central Institutions' Committee for Educational Development (CICED) was tasked with implementation, and the associated working group was led from academic developers in the Robert Gordon Institute of Technology (RGIT). The programme was validated by RGIT and a pilot of the CICEP PgCert in tertiary-level teaching methods was run within RGIT in 1989. Later in the same year, Northern College, Napier Polytechnic, Queen's College, Dundee Institute of Technology, and afterwards, Glasgow Polytechnic and Scottish Further Education Unit, all joined the initiative and started offering this course locally using the same resources (Ellington & Baharuddin, 2000). An attempt in the early 1990s to offer a joint course for teaching in HE to academic staff in polytechnics and HEIs in the London area did not succeed reported by Bostock and Baume (2016), who claim that this may have been due to a lack of online learning and teaching capacity at the time.

These initiatives provide an indication that cross-institutional academic development courses are considered by institutions to share resources and expertise (Chapter 2.5.1). They are based on the idea that collaboration has the capacity to spread and reduce costs (Weller, 2011). King (2004) and Crawford (2009) in their research on academic CPD came to similar conclusions, as did Oliver's (2004) work around technology-supported learning (Chapter 2.5.2). However, beyond the financial benefits for HEIs, Pawlyshyn, Braddlee, Casper and Miller (2013) highlight that cross-institutional collaboration may also lead to increased engagement by academic staff in CPD and more effective problem

solving, and that such initiatives can, therefore, also be a driver for innovations in teaching.

The above ideas indicate that a move towards more outwards facing, open, connected and collaborative academic development should be considered to enhance the quality of teaching within and beyond institutional boundaries (Crawford, 2009). The latest UK government policies, however, portray the enhancement of teaching and teaching excellence as a highly competitive and top-down process directly linked to financial rewards for institutions through fee increase (BIS, 2016a; 2016b). Collaboration, especially cross-institutional collaboration in the area of academic development that connects internal with external CPD opportunities, can provide an alternative to engaging academic staff in CPD and enhancing teaching as the following two examples indicate. Crawford's (2009) and Beetham's (2015) research shows that engagement in external CPD communities is important for academic staff's professional development as it creates a sense of belonging and enables them to further develop their teaching practice (Chapter 2.5.2 and Chapter 2.5.3).

Since 2010, due, in particular, to the increased interest by academic staff and researchers in open education (Chapter 2.3.2), some academic developers have also started exploring the opportunities open education and cross-institutional collaborations may bring to academic staff (Nerantzi, 2011a; Nerantzi, 2011b; Nerantzi, 2012; Nerantzi, 2014; Smyth *et. al.,* 2013). Despite academic development being criticised for being slow in the adaption of digital technologies (Chapter 2.5.3), it was an academic development unit that offered the first MOOC in the UK in 2011. According to Mackness *et al.* (2013), this was the "First Steps into Learning and Teaching in Higher Education", an HEA-funded academic development project offered by Oxford Brookes University in 2011. It was offered at postgraduate level, and included credit-seeking academic staff learning alongside open learners supported by facilitators.

Furthermore, a series of OER and OEP that fit Weller's (2011) 'little OER' definition, are outputs of academic development activities (Chapter 2.3.2). Two examples of open and cross-institutional academic development initiatives follow.

In her phenomenographic study, Nerantzi (2011b) explored how an open cross-institutional academic development course on assessment and feedback using PBL, which was constructed using social media, was experienced by academic staff. Those staff who joined the course were studying towards PgCerts in their HEIs across the UK. The course was supported by two academic developers from different HEIs. Ten phenomenographic interviews were conducted, eight with academic staff and two with the academic developers, to gain insights into their collective experience. The findings of this study revealed the benefits to participants of cross-institutional collaborative CPD as well as the importance of community and facilitator support in these settings to overcome barriers and maximise the development potential. Smyth *et al's.* (2013) action research is about the development of the open cross-institutional academic development course Global Dimensions in Higher Education. The researchers noted the potential benefits of such provision for academic staff experiencing innovative practices as learners in open and international settings. Immersing academic staff in open and collaborative cross-institutional practices as learners first, has already been recognised as an effective strategy in online and open academic development (Johnson *et al.*, 2016; Nerantzi *et al.*, 2014).

Development of academic staff through such cross-institutional collaborations has the potential to transform individual practices, enabling academic staff to learn and develop together with colleagues from other HEIs (Nerantzi, 2011a; Nerantzi, 2011b; Nerantzi, 2012; Nerantzi, 2014; Smyth *et. al.,* 2013). The focus of this study is exploring how academic staff and open learners in these settings experience collaborative open learning.

The following section provides a summary of the literature reviewed on academic development in the UK and illustrates the need for further exploration and research.

2.5.5 Summary

Academic development in the UK is an emerging discipline that grew out of government changes since the 1970s. It seeks to enhance and transform learning and teaching and drive innovation in this area. Recent UK Government

announcements link the quality of teaching and achieving teaching excellence to a highly competitive model with financial gains for institutions in England.

The literature review shows that collaborative approaches that build communities can be an effective academic development strategy (PgCert) to engage academic staff. However, after gaining their teaching qualification within their institution, academic staff, often engage in CPD via networks and communities that are external to this. There is, therefore, a need for academic development to seize the opportunities presented by open cross-institutional provision by becoming more outwards facing and incorporating such offers enabling ongoing CPD to remain current and innovative.

A summary of the literature reviewed in this chapter can be found in the following section.

2.6 Chapter summary

In this chapter the historical and current literature around collaborative, open and technology-supported learning, together with a range of design frameworks with collaborative learning features for a range of HE settings, was reviewed and presented together with developments in academic development in the UK.

This literature review has highlighted specific needs and opportunities for academic development in the area of open education and particularly through cross-institutional collaboration. This could place academic development at the forefront of HE learning and teaching innovations. These innovations include the development of new design frameworks for learning and teaching that could harness digital networked technologies and open practices, online and offline. Such frameworks can be used to build cross-boundary CPD communities across institutions that foster supported and supportive collaborative open learning (using inquiry-based approaches) and the notion of community. It is envisaged that such academic development provision will allow academic staff to embed OEP within their own practice, in ways that reflect how online technologies and online collaboration are increasingly being used both within

and outside of formal HE. This study will contribute towards gaining insights into how such academic development provision is experienced.

In the next chapter, the study's research methods will be provided followed by a discussion around the ontological and epistemological position of the researcher and the research. The methodology and underpinning rationale for this study will also be discussed. The collective case study approach, the data collection and analysis tools in relation to the study methodology and methods will also be constructed.

CHAPTER 3: METHODOLOGY, METHODS AND DATA

In Chapter 2 relevant literature was considered in relation to collaborative and open learning. Additionally, the role of digital and social media technologies with role design frameworks play in the context of academic development in HE in the UK. This review highlighted specific gaps and opportunities in the area of collaborative open learning for open cross-institutional academic development that could have the potential to transform academic development. The requirement for further research in this area was highlighted.

This chapter starts with a brief introduction to research methods and approaches (Chapter 3.1) and a discussion on the ontological and epistemological position of the researcher and the research (Chapter 3.2) together with the research relevance (Chapter 3.3). This phenomenographic study explores the lived experience of learners in collaborative open learning activities. The methodology applied in this study (Chapter 3.4), the collective case study strategy used (Chapter 3.5), as well as the data collection and analysis methods (Chapter 3.6) are also presented together with the methodological challenges (Chapter 3.7).

The next section provides a brief introduction to research methods and approaches.

3.1 Research methods and approaches

Punch, a western author notes that "in our culture research is the way of answering questions, solving problems and developing knowledge" (Punch, 2014, p.4) and as such research can be defined as an organised and systematic inquiry using information to answer questions to increase understanding (Punch, 2014). Research can be framed in terms of exploring what is happening in the world (naturalistic research) or the testing of a hypothesis through a designed intervention and its evaluation (intervention research). Creswell (2012) for example, outlines an overall research framework, which consists of a) posting a question, b) collecting data and c) presenting the answer. For Creswell, questions may be predefined, based on theory or practice. Questions may also emerge and/or be altered through the research

process (Punch, 2014). This approach for the development of questions is particularly evident in qualitative research, which is naturalistically complex and explorative in nature. Such research is usually focused around complex social phenomena, including behaviours, relationships, beliefs, cultural practices and experiences (Creswell, 2012). Because of the nature of qualitative research and the range of data collection methods used, for example observation, participation, personal reflection, textual analysis, collective narrative as well as interviews and focus groups, the research questions often take the form of 'How?', 'What?' and 'Why?' (Ormston, Spencer, Barnard & Snape, 2014). Such questions are open-ended in order to access rich and descriptive information through which social meaning is constructed, based on individuals' interpretations of phenomena (Hesse-Biber & Leavy, 2011). For this purpose, Creswell (2012) notes, that questions are the articulation of human curiosity and imagination that are the driving force of and for research through which discoveries are made. Depending on the origin and nature of research questions posed theory can be generated, modified, verified, accepted or rejected (Punch, 2014).

Social science, often naturalistic, is exploratory and concerned with people and their behaviour in the world (Punch, 2014). Cousin makes a link between social science research and qualitative methodologies by stating that the principal purpose of qualitative research, is "to get at complex layers of human meaning through interpretive moves" (Cousin, 2009, p.35). This is not an easy task and Law acknowledges "the messiness of our human world and the challenges this presents to social researchers" (Law, 2004, p.11). Educational research within the social sciences in particular, as noted by Creswell (2012), is concerned with evaluating learning and teaching and making enhancements to practice. This study, through providing responses to RQ1, RQ2 and RQ3 aims to provide such enhancement opportunities for future practice. How a specific research paradigm shapes the approaches taken in a study is explored in the following section.

3.2 Research paradigms

The paradigm, within which the research methodology used to explore the world is undertaken, plays a key role in defining appropriate approaches. Punch outlines the notion of paradigm as:

> "What the reality is like (ontology), what the relationship is between the researcher and that reality (epistemology) and what methods can be used for studying the reality (methodology)" (Punch, 2014, p.15).

There are different methodologies that can be used to engage in research, each underpinned by different philosophical and paradigmatic assumptions (Ormston *et al.*, 2014). Theorists have framed paradigms in alternative ways and three examples are included below (Table 3.1)

Table 3.1 Research paradigms

Main research paradigms (Punch, 2014, p.17)	Main paradigms for research (Hesse-Bibler & Levy, 2011, p.16)	Epistemological stance for social research (Crotty, 1998, p.4)
Positivism	Post-positivism	Objectivism
Interpretivism	Interpretive strand	Subjectivism
Constructivism	The critical strand	Constructionism

The table above illustrates the different framing by different authors for research paradigms (Crotty, 1998; Hesse-Biber & Levy, 201; Punch, 2014).
In objectivism (Crotty, 1998), positivism (Punch, 2014), and post-positivism (Hesse-Biber & Leavy, 2011) objective reality and quantitative methods and hypothesis testing go hand in hand. In the context of post-positivism, based on positivism, there is a recognition that absolute objectivity is not achievable.

Constructionism (Crotty, 1998), constructivism (Punch, 2014) and 'the critical strand' Hesse-Biber and Levy (2011) recognise that reality is subjective and constructed within a social context. This broad paradigm is associated with qualitative methods through which inductive theory is generated.

Subjectivism (Crotty, 1998), interpretivism (Punch, 2014) and 'interpretative strand' (Hesse-Biber & Leavy, 2011) recognise that individuals interpret the world based on their subjective experience, their interactions with others and with objects. This strand seeks to understand associated phenomena (phenomenology) and peoples' experiences of them (phenomenography) in

depth. This is the paradigm within this research sits, as it seeks to explore the experiences of people in specific learning settings.

Ormston *et al.* (2014) state that there are many ways to conduct interpretative qualitative research. However, what is important is to be consistent, to remain true to the research paradigm throughout the process in order to achieve congruence between the philosophical viewpoint, the methodology and the methods used (Creswell, 2012). How this congruence is maintained in the context of this research is described in the next section in which this research is positioned within a specific research paradigm.

3.3 Positioning the research

Hesse-Biber and Leavy define ontology as "a philosophical belief system about the nature of social reality – what can be known and how" (Hesse-Biber & Leavy, 2011, p.4). The ontological position defines the paradigm in which the research takes place and helps individuals build theories and models based on their particular view of the world. According to Ormston *et al.* (2014) there are two ontological perspectives, realism and idealism. Idealism accepts that there is no external reality independent from how individuals experience it. In contrast, realism accepts that there is an external reality independent from how individuals experience it. The position for this research is realism, where the world is interpreted by individuals (Ormston *et al.* 2014). This ontological position underpins this research: where social reality is viewed as being co-constructed by individuals, the participants and the researcher, who interact and make meaning in an active way. As such this research approaches the search for truth in people's lived experiences through rigorous interpretation of the data collected (Byrne-Armstrong, Higgs & Horsfall, 2001). In exploring the historically bound, and culturally contextualised, meaning of human interactions it is important to study the actors themselves. The persons who are responsible for their actions, should be a central aspect of research (Cohen, Manion & Morrison, 2000). See collective case study in Chapter 4. The context and nature of interactions in this study are discussed in Chapter 6.

Crotty's framework enables the systematic description of the research process. Epistemology, the first element of Crotty's (1998) Four Elements in the Research Process (Table 3.3.1 below) can be defined as knowing how we know what we know about the world, reality and knowledge (Ormston *et al.*, 2014). According to Crotty (1998) the epistemological stance on knowledge can be objectivist, subjectivist or constructivist in nature but must be congruent with the research approach's ontology (Guba & Lincoln, 1994). See above. This research takes a subjectivist approach and a description for this epistemological approach is provided by Ladson-Billings, who writes that the socio-cultural approach to research calls for "deeply contextualized understandings of social phenomena" (Ladson-Billings, 2003, p.12).

This research therefore seeks to understand the contextualised experiences of participants when studying in an open learning context where reality is individually constructed through interactions with the world (Crotty, 1998; Guba & Lincoln, 1994).

The next element of Crotty's research process, the theoretical perspective, "informs the methodology and thus provides a context for the [research] process" (Crotty, 1998, p.3). In addition to defining appropriate methodology the theoretical perspective also addresses choice of methods as well providing justification for decisions made based on specific assumptions about how knowledge is constructed.

Table 3.2 Crotty's (1998, p.5) Four research design elements for this research

Epistemology	Theoretical perspective	Methodology	Methods
Subjectivism	Phenomenology	Phenomenological research	Interview

The methodology of this study is phenomenological and it adopts an interpretivist phenomenographic subjectivist perspective. Within the phenomenological approach there are two distinct strands discussed below, phenomenology and phenomenography. After these have been outlined, the rationale for the selection of phenomenography for this research will be presented.

As methodologies, phenomenography and phenomenology, have common philosophical roots, both methodologies are concerned with individuals' lived experience of and relations to their worlds using subjective lenses (Richardson, 1999). However, phenomenology explores the lived experience of a phenomenon and focuses on understanding how it is to be in that experience, the essence of it, and in understanding the experience itself (Hesse-Biber & Leavy, 2011). Phenomenography is concerned with gaining insights into the variation of qualitatively different ways a group lives and experiences specific phenomena and how such experiences are perceived, reflected upon and described (Marton, 1981; Marton & Booth, 1997). Webb says "phenomenographers do not claim to study 'what is there' in the world (reality) but they do claim to study 'what is there' in people's conceptions of the world" (Webb, 1996, p.87). These conceptions then are constructed internally by individuals through their interactions with the world and their interpretations of them. According to Marton, phenomenography provides a "second order" (Marton, 1981, p.171) perspective which focuses on descriptions of individuals' experiences, instead of the experiences themselves, which he defines as the "first order" perspective.

The above has implications for the relationship between the researcher and the subject of the research as the focus of this exploration is on the conceptions of how the study participants construct reality (Åkerlind, 2005a; Ashworth & Lucas, 1998; Marton, 1986). Through differences in individuals' constructions of knowledge interpreted by the researcher (Ashworth & Lucas, 1998; Cousin, 2009; Marton, 1981; Svensson, 1997) common themes and patterns emerge (Crotty, 1998). The exploration of conceptions is congruent with the epistemological stance adapted for this research in order to explore the different conceptions and perceptions of collaborative open learning held by academic staff together with further open learners from outside HE and their participation in cross-institutional academic development course.

Phenomenography (Marton 1981, 1994) has been selected as the methodology for this research as it allows for the description of the qualitatively different variations in lived experiences, focuses on the collective and is fully aligned with the researcher's ontological and epistemological perspective. The categories of description will inform the responses to RQ1 and RQ2 together with a

discussion of the literature. Furthermore, the categories of descriptions and the outcome space, the final visual output of a phenomenographic study that shows the relationships among the categories of description, is derived from the categories of description and can then be used to inform the development of a collaborative open learning framework (RQ3). The principal method used for data collection is the individual phenomenographic interview. The methodology and methods will be presented in more detail in the next sections.

A collective case study strategy, discussed in detail in Chapter 3.5 enables the exploration of the variation of experiences in a range of settings congruent with the main goals of phenomenography (Åkerlind, 2005c). In such an approach, two cases or incidences are used to collect data that enables the study of open collaborative learning in two settings. Data in these two cases was collected through individual phenomenographic interviews. The interviews were conducted to describe the variation of the lived experience, through which the categories of description emerged and the outcome space was constructed (Marton, 1981). Complimentary information were collected using survey instruments to construct the collective case study and have been included in this chapter.

Figure 3.1 provides an overview of the research design further described in Chapter 3.4.7. It depicts the two open courses, FDOL132 and #creativeHE, which make up the collective case study. The study participants from the collective case can be seen as well as the methods and data collection strategies used a) to construct the collective case study and b) to carry out the phenomenographic analysis. Furthermore, it shows the position of the researcher and provides a summary of the process followed to define the categories of description, the outcome space and the collaborative open learning framework.
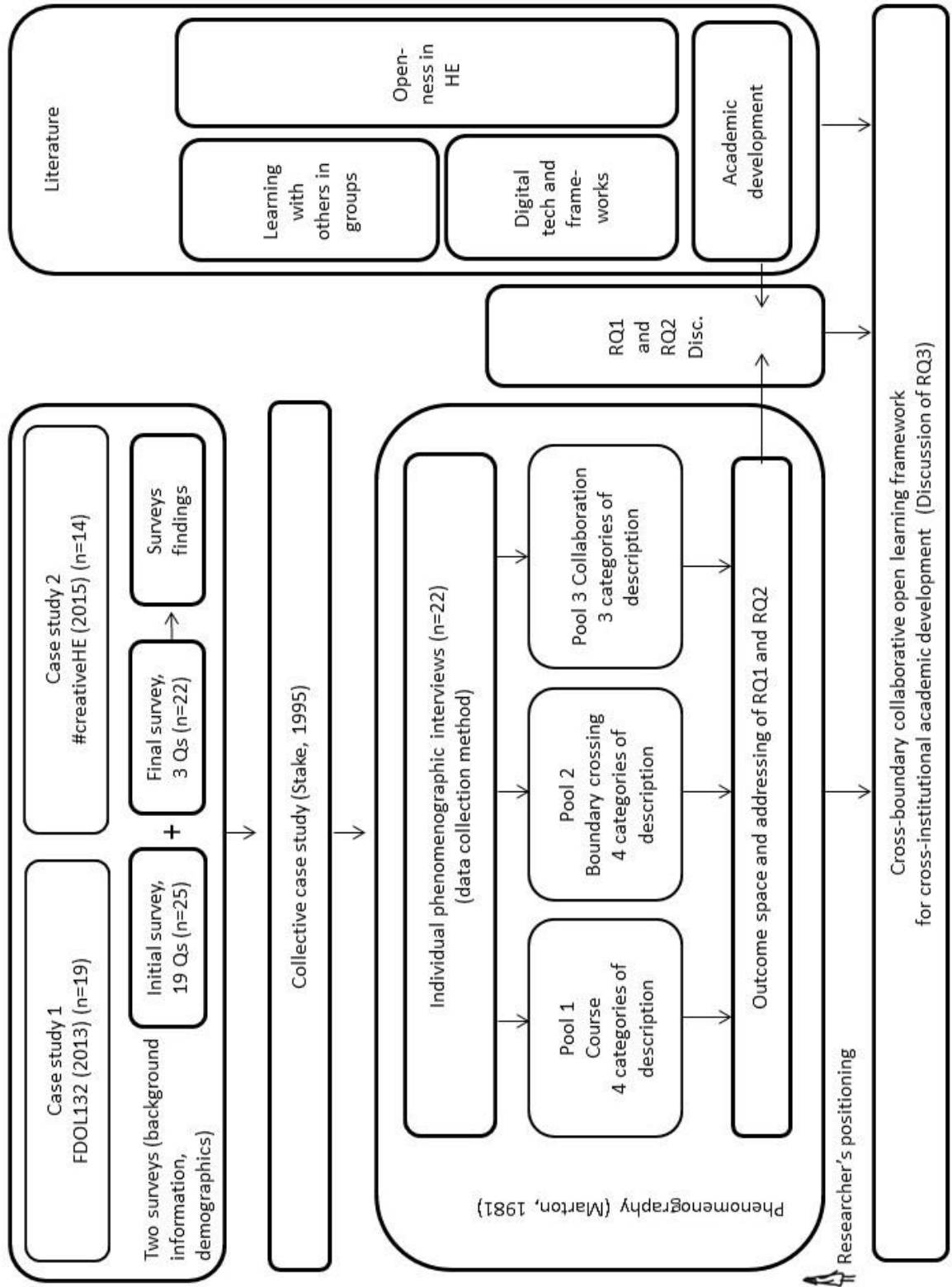
Figure 3.1 Research design

The phenomenographic methodology is presented in the next section.

3.4 Phenomenographic methodology

This section will consider phenomenography in relation to Crotty's (1998) framework and identify why it is an appropriate methodology for this research. It includes an overview of phenomenography, explains the notion of bracketing and describes the key outputs of this methodology, the categories of description and the outcome space. Methodology details regarding phenomenographic studies, such as the individual phenomenographic interview, study participants selection and the phenomenographic analysis approach can also be found in this section together with interview piloting. It concludes with the presentation of the description of the research design for this study.

3.4.1 Phenomenography

Phenomenography is an empirical research methodology (Svensson, 1997; Åkerlind, 2005a) that grew out of pedagogical questions linked to students' understanding (Marton, 1986; Larsson & Holmström, 2007) in order to study lived experiences. The first research project using this emerging methodology was an exploration of HE students' understanding of specific academic articles in the early 1970s (Marton, 1986). The term was coined by Marton in 1979 and appeared for the first time in the literature in 1981. During these early phenomenographic studies, Marton and his colleagues discovered that there were a limited number of ways a given text was understood by students which led to the identification of clearly defined and very specific categories relating to the different ways a text was understood (Marton, 1986, 1975; Säljö, 1976). These findings led Marton and colleagues to hypothesise that

> "If those understandings could be classified into a finite number of categories, then it was reasonable to expect that people in general hold qualitatively different conceptions of all kinds of phenomena." (Marton, 1986, p.37).

Phenomenography has been developed for educational research in HE (Larsson & Holmström, 2007; Marton, 1986, 2006; Tight, 2016) and there are three lines of enquiry in phenomenography (Ashworth & Lucas, 1998; Marton, 1986): The study of the variations of:

- lived learning experiences,

- how learning content or a subject matter is understood and
- the broader lived experiences in the world.

Within this research, it is the study of the qualitatively different variations of lived learning experiences (Marton, 1981), which is relevant and is explored in relation to open collaborative learning supported by technology in the context of academic development.

Phenomenography is the description of the variation of individuals' authentic experiences as they are lived, according to Marton, "in a relatively limited number of qualitatively different ways" (Marton, 1981, p.181). This variation of understanding experiences as a collective is the primary concern of phenomenography (Marton, 1981). Phenomenography is used to describe the world based on the individuals, how it is understood and conceived of collectively by them (Marton, 2006) and was described by them (Ashworth & Lucas, 1998). Åkerlind provides the following description "phenomenographic research aims to explore the range of meanings within a sample group, as a group, not the range of meanings for each individual within the group" (Åkerlind, 2005, p.323). In other words, phenomenography is a study of how things appear to people in different lived realities (Marton, 1986) which are experienced in distinct and finite ways (Ekeblad, 1996; Marton, 1981, 2006; Uljens, 1996).

Through phenomenographic research, patterns are identified (Jones & Asensio, 2002) and categories of descriptions are defined (Marton, 1981) and these categories reveal individuals' conceptions of their lived experiences. The final output of a phenomenographic study is the outcome space. Details regarding the categories of description and the outcome space are presented below.

3.4.1.1 Categories of description

In phenomenography the descriptions of the lived or conceived experience are all accounted for, categorised and form the categories of description. Therefore, the transcript as a whole is analysed.

The categories of description were considered initially as the main research outcomes, which reflect the variation of the experience collectively (Marton, 1986; Larsson & Holmström, 2007). Marton and Booth (1997) note that

experiences as described by study participants, are grouped by the researcher following an iterative process into as few distinct categories of description as possible. These capture the collective experience. Ashworth and Lucas (1998) note that the categories of description should be formed at the final stages of the data analysis. For this Marton provides a useful analogy:

> "Just as the botanist finds and classifies previously undiscovered species of plants, the phenomenographer must discover and classify previously unspecified ways in which people think about certain aspects of reality. Because the different forms of thought are usually described in terms of categories, categories and organized systems of categories are the most important component of phenomenographical research" (Marton, 1986, p.35).

Larsson and Holmström (2007, p.56) claim that a phenomenon is experienced normally in about two to six distinct variations, while according to Tight, (2016) there are usually four or five. Therefore, while the categories of descriptions capture the 'what' was experienced, the variations reveal the 'how' it was experienced (Larsson & Holmström, 2007). According to Marton (1981), the categories of description of a particular study can provide an abstract tool for the analysis in future cases but also for gaining deeper understanding about the concrete case these derived from about the collective experience. As it is not uncommon that categories of descriptions challenge traditional conceptions, Cousin (2009) suggests that it is important for the phenomenographer to apply strategies that secure the representation of all perspectives (see Chapter 3.4.3). In earlier phenomenographic studies the analysis was concluded after the categories of description were defined (Sjöström & Dahlgren, 2002). However, in later studies the structural relationships among categories of description were visualised in an outcome space therefore adding potentially one further step to the analysis process Larsson & Holmström, 2007; Sjöström & Dahlgren, 2002). This is described below.

3.4.1.2 Outcome space

The logical relationships and links among categories of descriptions are synthesised and described visually through the construction of an outcome space (Marton, 1981; Marton & Booth, 1997). Dahlgren (2005, p. 30) characterises the construction of the outcome space as an "intense examination of empirical data", a content specific map and as such it is not predefined but

constructed from the data. This makes the construction of the outcome space fundamentally empirical based on the collective conceptions that emerged through the analysis process. The construction process of the outcome space is iterative, categories of descriptions are arranged and re-arranged until their visual representations show their logical relationships between them (Larsson & Holmström, 2007; Marton, 1981).

The outcome space is considered the final phenomenographic output of a phenomenographic study (Marton & Booth, 1997). Åkerlind (2005a) notes that the outcome space does not have to be a linear construct but can be branched or networked. The phenomenographic analysis process is described in Chapter 3.4.6.

Phenomenography was applied to this research in order to study the variation of participant experiences of collaborative open learning within cross-institutional academic development. The rationale for this is presented in the following section.

3.4.2 The Rationale for using Phenomenography

This research is positioned ontologically and epistemologically within interpretivism (Chapter 3.3) and its aim is to explore and study the variation of the authentic experience of learners collectively in open collaborative cross-institutional courses in an academic development context (RQ1 and RQ2) and create a design framework for practice (RQ3).

The research questions are:

RQ1: How are open cross-institutional academic development courses that have been designed to provide opportunities for collaborative open learning experienced by learners?

RQ2: Which characteristics of open cross-institutional academic development courses influence learners' collaborative open learning experience and how?

> *RQ3: Drawing upon research findings from RQ1 and RQ2, what could be the key characteristics of a proposed collaborative open learning framework for open cross-institutional academic development courses?*

In phenomenography the focus is on describing the experiences of the collective, in this case the course participants in two authentic settings. Phenomenography also has the potential to help educators to enhance practice (Åkerlind, 2005b; Marton, 1981, 2006) and make learning and teaching interventions (Larsson & Holmström, 2007). This potential for enhancement of practice links to the main aim of this research. Furthermore, phenomenography has been developed for pedagogical research in HE (Svensson, 1997, Tight, 2016) and despite being a relatively new methodology is widely used to investigate the student experience (Heikkilä & Lonka, 2006). In more recent years phenomenography has also been used to gain an insight into the experience of academics as teachers and learners (Åkerlind, 2003, 2008) including in online settings (Nerantzi, 2012; Smyth, Mainka & Brown, 2007). Booth (1997) emphasises that results of phenomenographic research are valuable to inform practice in this case in the development of a design framework.

The phenomenographic findings will be discussed with the relevant literature to provide responses to RQ1 and RQ2 which will inform the collaborative open learning framework for cross-institutional academic development courses (RQ3).

3.4.3 Bracketing

In the context of phenomenology, Husserl (1983, p.60) defines the epoche (*εποχή*) or "bracketing" as a "method of parenthesising" (Husserl 1983, p.60) to remove external conceptions that could colour research and lead to mis-representation of the lived experience. While Säljö (1988) reminds researchers of the importance to remain neutral, Husserl also provides a useful guide applied in this study to suspend judgement through showing "respect to everything" (Husserl, 1983, p.142), embrace possibilities, and achieve impartiality.

Marton (1986, p.32) clarifies that "phenomenographers do not make statements about the world as such, but about people's conceptions of the world". The study of 'life worlds' or authentic lived experiences more generally, might cause difficulties to the analysis and interpretation as the researcher themselves is not seen as part of this world (Ashworth & Lucas, 1998, p.416). This is relevant for phenomenography especially as its descriptive, explorative and interpretative nature has raised questions around its validity (Svensson, 1997).

Therefore, Ashworth and Lucas (1998) propose the use of bracketing strategies so that the interpretation of the data is true to the conceptions of the participants in a study and researcher's neutrality can be assured. They emphasise that "the investigator must begin by bracketing or setting aside prior assumptions about the nature of the thing being studied", remain impartial and suspend judgement and "enter[ing] the world of experience of the research participant" (Ashworth & Lucas, 1998, p.420). If the above is not achieved, Ashworth and Lucas (1998) claim that the research process will be distorted with serious consequences for the research findings. Marton states regarding bracketing that:

> "It is the researcher who is supposed to bracket preconceived ideas. Instead of judging to what extent the responses reflect an understanding of the phenomenon in question which is similar to their own, he or she is supposed to focus on similarities and differences between the ways in which the phenomenon appears to the participants." (Marton, 1994, p.428)

Ashworth and Lucas (1998) suggest that researchers' reflection is a valuable measure to achieve bracketing which they recognise as a requirement in phenomenographic research and they therefore also suggest that the literature review should be conducted after the analysis. They say characteristically:

> "It is only through some knowledge of the material that the student can be understood. The key is that knowledge of the subject matter must not be allowed to impair entry into the life world." (Ashworth & Lucas, 1998, p.423).

Later, Ashworth and Lucas (2000) acknowledge that

> "The attempt to bracket will only be partially successful. Some ways of viewing the world are likely to be more difficult to set aside than others." (Ashworth & Lucas, 2000, p. 299)

Adawi, Berglund, Booth and Ingerman (2001) come to similar conclusions and introduce the term *'selective bracketing'* which they define as follows:

> "we mean that the researcher retains an awareness of those aspects of his or her knowledge, which are necessary for understanding above all physics-related utterances of the pool of meaning, in order to let the data speak for itself." (Adawi, Berglund, Booth & Ingerman, 2001, p.7)

While the above suggests that complete bracketing may be an impossibility, measures can be taken to reduce contamination through making the data analysis process more transparent (Sin, 2010). This could be achieved through increasing the researcher's reflexivity (Hammersley & Atkinson, 1983) and capturing reflections as Sin (2010) suggests through reflective diaries so that the researcher becomes aware of how their knowledge and understanding may influence the research and minimise interference through this process. Such a tool, according to Merriam (1995) and Tracey (2010) provides insight into the researcher's thinking and makes the analysis process more transparent, which the researcher of this study supports.

Therefore, within the context of this research, bracketing will be used as far as possible following Husserl's (1983) recommendation of minimising researcher's interference and focus on identifying the qualitatively different variations of the lived experience of the research participants as described by them. Bracketing measures adopted in the context of this study are reported and discussed in Chapter 3.7.3.

3.4.4 Individual phenomenographic Interviews

The main data collection method of phenomenography is the individual interview (Marton, 1986). According to Marton, the phenomenographic interview is the process through which "the experiences and understandings, are jointly constituted by interviewer and interviewee." (Marton, 1994, p.4427). Dortins calls this a "productive interaction" (Dortins, 2002, p.209) between the interviewee and the interviewer. While the interviews are conducted individually, they are studied collectively to explore the qualitative different ways the phenomena have been experienced. The analysis of the interview data leads through an iterative process to form the categories of description and the outcome space, a collective representation of the experiences and their relationships.

The overall individual phenomenographic interview format is a semi-structured interview. This interview format enables deep reflection and is open-ended in

nature (Ashworth & Lucas, 1998; Dortins, 2002; Larsson & Holmström, 2007) and therefore enables exploration. Building and sustaining rapport during the interview and creating a relaxed and open space for exchange and "serious communication" (Dortins, 2002, p.208) is important. This will help the interviewee open up and describe in detail their experience. It is equally important to "edit[ing] oneself out of the interviews" (Dortins, 2002, p.208) when the interviews are transcribed which is part of "bracketing" (Dortins, 2002, p.209) as the interviewer and their experiences does not form part of the data to be analysed.

The semi-structured interview approach, as defined by Fontana & Frey (1994), is a mix of structure and free space with a focus and is compatible with phenomenography as a form of dialogue (Marton, 1994). Such interviews have a loose structure (Jones & Asensio, 2002). While the interviews are semi-structured and the interviewer prepares a question schedule in advance of the interviews, each interview is unique and a different set of questions is used to reflect a particular conversation between the interviewer and the participant (Marton, 1986). This process maximises reflection on the experience by the interviewee and be responsive to what is shared. Larsson and Holmström (2007) note the importance of enabling freedom of speech and expression during the interview, including the sharing of experiences and specific examples. The explorative nature of the interview means that new questions will be formulated and asked by the interviewer, that were not in the original schedule. New questions will be formulated when it is necessary to gain a deeper insight into the specific aspects of the lived experience depending on where the reflections are taking the participant in the study and their relevance to the research (Marton, 1986).

Marton (1982, p.42) notes that questions should be open-ended. This, he claims, gives the interviewee freedom to decide which aspect of the question they wish to speak about. Therefore, the answers reveal the specific experiences and the significance these had for the individual. It is important that the interviewer helps the interviewee to surface genuine reflections, thoughts and conceptions about their authentic experience without influencing what is being said (Dortins, 2002). This analytical approach is also highlighted by Svensson (1997, p.169) who notes the importance of adopting an analytical

approach for the interviewer during the interview that enables exploration of conceptions providing richer data collection during the interview.

Säljö (1988) notes the challenge for phenomenographers to remain neutral and suspend judgment especially when they have knowledge of the particular area. This challenge is also acknowledged by Ashworth and Lucas (1998, p.421) who emphasise the importance of bracketing out (mentioned in Chapter 3.4.3), personal conceptions, assumptions and knowledge of related and existing research findings and literature to avoid comparing and making judgements based on a previously established view. During the interview stage as well as during the data analysis it is important for the interviewer to be as close as possible to the lived experience (Marton, 1986). Questions asked in phenomenographic interviews might, according to Dortins, surprise interviewees and responses reveal the freshness of thought and reflection. Comments such as "Oh, this is a good question" (Dortins, 2002, p.209) suggest this. Therefore, such 'surprise' questions have the potential to generate authentic reflections on experiences.

Marton (1986) notes, that in interviews, when key experiences are discussed, the interviewees might contradict themselves. As the interview progresses and reflection deepens through the sharing and exploration of lived experience. It has been observed by interviewers that the interviewees may correct their own conception of reality during the interview. These are entered to the pool of data and are analysed collectively.

The literature suggests that there is no optimum interview length as this depends on the specific research project (Yeo, *et al.*, 2014). Furthermore, Yeo, Legard, Keegan, Ward, McNaughton Nicholls and Lewis (2014) note, while recognising that there are differences in conducting interviews face-to-face, via the telephone or online, that there is no conclusive evidence to suggest that one medium is more effective than the other. Newer studies suggest (Irvine, 2011; Sin, 2010), that it is important to select the interview medium most appropriate to a particular study. The above have been considered in the context of this study and as the geographical distance between the researcher and the interviewees was significant, the researcher decided to conduct the interviews remotely using online technologies.

3.4.5 Study participant numbers

Sin (2010) states that, the total optimum number of participants in a phenomenographic study depends on the project and what it sets out to explore. Trigwell (2000) and Sandberg (1996) also agree that there is no optimum group number for general phenomenographic studies. However, both recommend between 12 and 20 participants for formal phenomenographic research projects while Tight (2016) notes that 20 or less are commonly used. Larsson and Holmström suggest that:

> "Experiences from a large number of phenomenographic studies have shown that data from 20 participants is usually enough to discover all the different ways of understanding the phenomenon in question." (Larsson & Holmström, 2007, p.56).

They refer to studies by Stålsby-Lundborg, Wahlström and Dall'Alba (1999), Holmström, Halford and Rosenqvist (2003) and Sandberg (1994).

In this study, the researcher decided to conduct out around 20 interviews as this is regarded the optimum sample size according to Larsson & Holmström (2007). Details linked to participants in this study can be found in Chapter 3.6.1 and Table 3.4.

3.4.6 Phenomenographic analysis

Irvin (2005) acknowledges that only limited publications are available about the phenomenographic process and explains this as an informed decision by researchers to avoid standardising it. One of the main characteristics of phenomenography is that the data itself drives the analysis. Svensson notes that phenomenography is about "creating methods adapted to the objects" (Svensson, 1997, p.162) and Marton also recognises the complexity of phenomenographic analysis and states that "phenomenography does not have a 'template' of methodological procedures" instead he suggests the use of guidelines (Marton, 1986, p.42).

Generally, the interview analysis follows this sequence: Interviews are transcribed and become the data to be analysed in phenomenographic research (Larsson & Holmström, 2007). Dortins (2002) notes that it is common that the spoken word during an interview may seem disjointed and less articulate when captured in written language. Therefore, transcribing quickly and sharing the transcript with each study participant plays an important role in

the analysis. The interview transcripts collectively provide the body of data through which the categories of descriptions will emerge. Åkerlind notes:

> "Every transcript, or expression of meaning, is interpreted within the context of the group of transcripts or meanings as a whole, in terms of similarities to and differences from other transcripts or meanings." (Åkerlind, 2005b, p.323)

Merrian (1995) also suggests that after transcription the transcripts are returned to interviewees for checking to ensure that they represent what the respondent intended to say. This is normally done as soon as the transcripts are ready so that the interview is still fresh in study participants minds (Stake, 1995). This was where strategy was applied to this study (Chapter 3.6.4).

Meanings are identified by the researcher following an iterative process and form the "pool of meanings" (Marton, 1986, p.43). These emerge from the data. Each pool of meanings (Irvin, 2005) brings together data in the form of quotations that are linked to specific broad meanings. During this stage the researcher starts searching for links between different experiences and conceptions of phenomena as captured in the transcripts (Åkerlind, 2005). Irvin (2005) notes that it is important to move away from analysing transcripts as a whole and recommends analysis across transcripts to enable multiple meanings, including contrasting ones, from the same transcript, to emerge through the data as data is analysed collectively.

Åkerlind (2005a) stresses the importance for the researcher of being open to possible meanings relevant to the research questions that emerge through frequently reading the transcripts and the selected data set. During the analysis stage, the individual participants become less important as the collective experience is explored. However, each quote has a unique identifier through which its origin is preserved. This illustrates the range of responses from the collective case study.

The interpretation process is iterative and the sorting and resorting of all the data happens many times (Åkerlind, 2005a; Dortins, 2002). Eventually this sorting process leads to the emergence of particular categories (Irvin, 2005). Initially the categories are captured in draft format, each of which consists of variations of conceptions linked to a specific phenomenon and how this has been lived and experienced. Marton (1986), notes about this process, that

grouping and regrouping of data using quotes happens multiple times until the different meanings in the form of categories emerge out of the data and progressively stabilise. From a process of interpretation and analysis, the categories emerge through the data and finally form the categories of description (Marton, 1986, 1994). The similarities and differences of descriptions are reflected through the categories (Svensson, 1997) and distinct features or attributes of each category are identified (Irvin, 2005). Irvin (2005) also notes that features are rarely represented fully in the data but more in fragments and that synthesising these into distinct categories is the goal of phenomenographic analysis (Marton, 1981). See also Chapter 3.4.1.1. Furthermore, in phenomenography, as all data is described in categories of descriptions, there will naturally be, more or less support in the data in terms of number or quality of pieces of data for some categories of description and their variations (Marton, 1981). Following this, the outcome space is constructed presenting a visual representation of the categories of description that emerged through the data and their relationships as described in Chapter 3.4.1.2.

The above process was followed in this study and is described in Chapter 3.6.4.

Guba and Lincoln (1994) and later Zhang and Wildemuth (2009) suggest that trustworthiness is appropriate when judging the quality of qualitative research. The credibility and trustworthiness of phenomenographic analysis is achieved by evidencing the relationship between the empirical data and the defined categories of description (Cousin, 2009; Sjöström & Dahlgren, 2002). Additionally, Tracey (2010) acknowledges that transparency provided around the research method, processes and challenges experienced and the documenting of reflections on these are indeed important to assure quality in qualitative research. Sin (2010) highlights this as important also in the context of phenomenography. Furthermore, the sharing of the results of a phenomenographic study with study participants (Ashworth & Lucas, 1998) and the wider research community is equally important as through this allows scrutiny of interpretations (Booth, 1992; Collier-Reed, Ingerman & Berglund, 2009).

3.4.7 Research design

The aim of this research is to gain a deeper insight into and understanding of the lived experience of the participants, in this case academic staff, engaged in collaborative open learning on cross-institutional academic development courses.

The two instances where data was collected from participant experiences on two open courses, FDOL132 and #creativeHE. These courses of this study were accessible to the researcher and had specific characteristics that made them suitable and interesting to explore in the context of this study and in addressing RQ1, RQ2 (and RQ3). Also see Chapter 3.5.2.

The underpinning methodology of this research is phenomenography as discussed in Chapter 3.4.1 as it enables the study of the limited qualitatively different variations of conceptions of experiences described as a collective. The definitions of the categories of descriptions and the construction of the outcome space (Marton, 1981) based on the full data set from two open courses.

The individual phenomenographic interview was the data collection method. This was essential to study the variations of conceptions of experiences as lived by the study participants. Two survey instruments, provided detailed background material to construct the collective case study as well as provide some perceptions about study participants' motivations, the nature of their participation and the course itself. Figure 3.1 in Chapter 3.3 is a visual representation of the research design. How the categories of description emerged and the outcome space was formed following the phenomenographic analysis process (Chapter 3.4.6) is outlined in Chapter 3.6.4.

3.4.8 Summary

In this section an overview of the research project has been provided together with an underpinning rationale justifying the selection of the specific phenomenographic methodological framework. Specific aspects and characteristics of phenomenography have been discussed in relation to this research along with the research design. This section has contextualised this research project and clarified the methodological strategy used. In the next section the collective case study strategy will be presented.

3.5 Collective case study strategy

Within this section a description and explanation is provided for the use of a collective case study as a research strategy. The approach to the selection of the cases is explained and the two selected case studies are described. The compatibility of this particular strategy and its use alongside phenomenography, is discussed.

3.5.1 Collective case study

Cousin (2009) emphasises that case studies enable the exploration of phenomena where they occur naturally and they are therefore a naturalist form of inquiry, while Punch (2014) highlights the opportunity of case studies to allow the study of in depth complexity in specific natural settings. Stake agrees that the purpose of case study research is to gain a deeper understanding about a specific case or cases and "not to understand other cases" (Stake, 1995, p.4). Something, that echoes more generally the purpose of qualitative research that is to gain a deeper understanding of what Merriam calls "the particular" (Merriam, 1995, p.57). Stake (1995) distinguishes between three different types of case studies. Firstly, the intrinsic case study focuses on a specific case where the researcher's motivation is intrinsically linked to the case and the need to learn something about it. Secondly, the instrumental case study which seeks to provide insight into a broader question, is then explored in the context of a particular case. Thirdly, the collective case study, which consists of a set of instrumental studies based on specific criteria that allow the study of related activities, characteristics and experiences in different natural settings to help articulate a response to a broader set of questions.

Building on previous work (Stake, 1995; Yin, 1994), Stake later defines the multiple case study as a "set or collection of case studies so that they effectively illuminate a common program or phenomenon" (Stake, 2006, p.x). While the focus of the collective case strategy is not wider generalisation, Stake (1995, 2006) claims that the inquiry into experiences in different settings and different cases, assists with the better understanding of complex phenomena in these settings as a collective. Arguably this understanding increases the trustworthiness and credibility of the research outcomes. Trustworthiness and

credibility are equally important in phenomenography (Collier-Reed, Ingerman & Berglund, 2009; Sin, 2010) and in qualitative research more generally (Cousin, 2009).

Crowe, Creswell, Robertson, Huby, Avery and Sheikh (2011) note that collective case studies have been widely used especially in social sciences, which is the area of this research. Punch (2014) recognises the value of case study research as a strategy to understand a case as a whole. He refers to the work of Goode and Hatt who claim that "the case study […] is a way of organising social data so as to preserve the unitary character of the social object studied" (Goode & Hatt, 1952, p.331). Merriam (1998) refers to case study as a procedure of inquiry while Creswell adds that it is a bounded system "separated out for research in terms of time, place, or some physical boundaries" (Creswell, 2012, p.464). The collective case study strategy provides insight into an issue in different cases (Creswell, 2012).

Participants in phenomenographic studies should be diverse (Åkerlind, 2005c; Sin, 2010) as this increases the potential to maximise data variations (Sin, 2010). Therefore the data derived from a collection of cases as this enables to study variations of conceptions linked to an experience in a range of settings (Åkerlind, 2005c). Through the purposeful selection of cases the collective case study enables the study of experiences in different settings and therefore maximises such data variation which is beneficial for phenomenographic studies.

In this research the collective case study approach was chosen as it enabled the study of experiences in two different settings that had specific collaborative learning characteristics (Chapter 3.5.2, Chapter 3.5.3 and Chapter 3.5.4).

The collective case study, as described in Stake (1995) as a strategy in conjunction with the phenomenographic methodology (Marton, 1981) adopted in this study, enabled data collection through, individual phenomenographic interviews in two authentic educational settings and therefore the lived collaborative open learning experience.

The next section explains how the cases for this study were selected and provides a brief description of them.

3.5.2 Selection of case studies

Two educational cases in the form of open courses from the subject area of academic development were chosen in order to study the participants' lived experience associated with open and collaborative open learning in cross-institutional settings.

Creswell (1998) and Yin (1994) emphasise that the selection of cases plays a key role in studying specific phenomena. Furthermore, Stake notes that diversity can be studied if cases are selected carefully (Stake, 2006) which is also important in the context of phenomenography (Åkerlind, 2005c).

Two authentic open courses from the area of academic development with collaborative open learning characteristics were selected as case studies. Both of them were open by design. This meant that any academic or professional who teaches or supports learning in HE from around the world could participate without entry restrictions.

The researcher had access to the two courses selected as these were part of her practice. They provided the opportunity to study collaborative open learning experience of participants in two different settings. The courses selected had certain characteristics (see Table 3.3), aids answering the research questions in two different educational settings, therefore maximising the possibility of studying variations and making this project manageable. The researcher was a facilitator on both courses. This dual role is discussed in Chapter 3.7.3.

It was anticipated that the data from the two cases would provide insights into the lived experience. The two cases are described in the following sections.

3.5.3 The two courses described

The two cases selected, were open courses, organised by UK HE institutions in collaboration with other HE institutions in the UK and from other countries. The cases had specific collaborative open learning characteristics, commonalities and differences that make them relevant for this research and enabled the study of how collaborative open learning was experienced in two different settings.

It needs to be acknowledged that the two particular case studies used were developments the researcher developed or co-developed with others (Chapter 3.7.3). They were selected based on criteria described in Chapter 3.5.1.

3.5.4 Common and distinct course design characteristics

In this section, the course design characteristics of the two selected cases will be presented. The case descriptions derive from institutional course documentation, reflective commentaries linked to the open courses that form the collective case study of this research as well as related research (Nerantzi, 2014, 2015). The collective case was constructed through survey instruments (Chapter 3.6.5). Both cases, as well as the pilot, were open cross-institutional academic development courses with distinct collaborative open learning characteristics. The courses also shared a series of commonalities. They were developed and implemented by the researcher and colleagues from other HEIs made available under a CC licence. Both cases are open courses constructed on freely available social media platforms using Wenger *et al.'s* "patchwork strategy" (Wenger, White & Smith, 2009, p.127). This strategy enabled loose linking of these digital spaces (Chapter 2.4.2). The courses were facilitated across one semester ranging between eight and 12 weeks. Collaborative learning opportunities in the forms of small groups supported by facilitators were integrated into the course design and were optional for course participants based on their choice and preference.

See overview of commonalities and differences of the two open courses which form the collective case study (Table 3.3).

Table 3.3 Case studies overview

Commonalities of cases	Case studies	Case study 1: FDOL132 University of Salford, Karolinska Institutet and Manchester Met	Case study 2: CreativeHE Manchester Met, London Metropolitan University, University of Macedonia, Creative Academic and Lifewide Education networks
• Based on academic development courses linked to existing institutional module at postgraduate level in at least one HEI • Cross-institutional participation of colleagues from at least two HEIs • Collaborative learning as choice • Development using freely available social media platforms • Openly licensed courses using a CC licence • Developed or co-developed by researcher • Facilitated by a small group of distributed facilitators from different institution • English used as lingua franca	**Duration in weeks**	12	8
	Dates	Sep – Dec 2013	Sep – Nov 2015
	Collaborative design characteristics	Optional, in small groups using PBL	Optional, in small groups or pairs using a variety of pedagogical approaches agreed with learners
	Course development	Collaborative: University of Salford and Karolinska Institutet	Manchester Met
	Recognition for open learners	Certificate of participation	Open badges for participation
	Formal study option	At the University of Salford: approved Flexible, Distance and Online learning module at postgraduate level as part of the PgCert in Academic Practice. At Karolinska Institutet: Part of study towards the accredited development courses 2-weeks or 5-weeks.	At Manchester Met: Part of the Creativity for Learning module, option to also use work towards FLEX 15 or FLEX 30 modules. All three are part of the MA in HE. University of Macedonia: part of MA in Lifelong Learning
	Study linked to further local engagement opportunities	n/a	London Metropolitan University: part of Take5 initiative.
	Languages	English and Swedish	English and Greek

The two case studies are described in the following section.

3.5.5 Case study 1: Open course Flexible, Distance and Online Learning (FDOL132)

In this section FDOL132 is described in some detail to provide insight into the course, the resources and digital spaces used to construct this. Furthermore, the specific collaborative open learning characteristics are described together with information about course participation.

3.5.5.1 Course description

The open and openly-licensed FDOL course (http://fdol.wordpress.com/ and Figure 3.2) was developed on the approved 30 credit postgraduate optional FDOL module at the University of Salford (December 2011). The module comprised a part of the Postgraduate Certificate in Academic Practice, a course that was offered to academic staff within the institution, and led to a recognised teaching qualification and Fellowship of the Higher Education Academy.

Figure 3.2 FDOL132 course site

The open course linked to the FDOL module, was the result of a practitioner-led collaboration between academic developers from the Karolinska Institutet

in Sweden and the University of Salford. Manchester Met became an additional collaborator, when the researcher moved institutions.

FDOL132 was offered to academic staff from the University of Salford and the Karolinska Institutet who were studying for different qualifications and with different local assessment strategies and at different academic levels (Table 3.3). The course was designed to assist academic staff in gaining a deeper understanding of learning and teaching in the digital age. The course had optional collaborative open learning characteristics in small groups that were supported by facilitators. This meant that course participants could choose to work autonomously within the groups or join a group through which they would be working closer with other course participants and the facilitator.

The Learning outcomes of the open FDOL132 course were that on successful completion of this course the learners would be able to:

1. reflect on how digital technologies can be used within their teaching context, with the support of contemporary pedagogic theories and research to create inclusive learning experiences and aligning with the UK PSF were relevant,
2. discuss a challenge which influences the use of digital technologies in HE, and
3. evaluate a specific flexible learning activity or intervention in a cross cultural context.

The structure of the course follows. This includes the timeline and the themes explored using an inquiry-based approach over 12 weeks of the course:

- Orientation (2 weeks)
- Digital literacies (1 week)
- Flexible learning in the digital age (2 weeks)
- Collaborative learning and communities (2 weeks)
- Supporting learners (2 weeks)
- Open educational practice (2 weeks)
- Sharing (1 week)

The anticipated weekly time commitment to study on this course was between three and five hours but this depended on the level of the participant's engagement.

FDOL132 was facilitated by a small group of academic developers and academic staff from the participating institutions whose role was to support participants during the course through contributing to the course discussions and supporting the collaborative open learning in groups. A variety of activities were undertaken by the participants including synchronous webinars, small-group hangouts using social media video calling platforms and asynchronous discussions, sharing of ideas, problem-solving and ideas generation as well as experimentation. Activities were inquiry-based and enabled individual and collective participation as well as seeking to promote the development of participants' reflective skills and habits.

A pilot, FDOL131 (13 stands for 2013 and 1 for the first iteration of FDOL in 2013), was organised, ran and was subsequently used to inform the design of FDOL132. The simplified PBL model FISh (Focus-Investigate-Share) (Nerantzi & Uhlin, 2012) was tested in the pilot as well as participant group working structures. These structures included core and peripheral participation modes with facilitator support. The structure of core and peripheral participation in the pilot added a layer of complexity and hindered group work instead of enabling it. It was therefore abandoned for the running of FDOL132 (case study 1). Further details linked to the FDOL131 pilot can be found in Appendix 3.1.

For FDOL132 the numbers in its title refer to 2013 (13) and 2 indicates that this was the second iteration of the open course in 2013.

3.5.5.2 Resources and spaces
OER linked to the course themes were used as course resources and created for the purpose of FDOL132 and made available to all participants without the need for registration or a login process. Course participants were also encouraged to share and curate learning resources with peers.

FDOL132 was developed by the researcher and Lars Uhlin, an academic developer from the Karolinska Institutet using freely available social media as this enabled effective co-development across institutions. The course resources were made available on a Wordpress.com site while the communication and collaboration spaces, including small-group spaces, were created as Google plus communities. Course participants joined the related Google plus communities through self-registration. The spaces were connected using weblinks. Adobe Connect was used for the course webinars and Google hangouts were organised by participants and facilitators.

3.5.5.3 Collaborative open learning characteristics

Course participants had the opportunity to work collaboratively in PBL groups in FDOL132. The groups were formed by facilitators so that the group members were diverse. Participant groups were of up to 9 or 10 people and were facilitated using a PBL approach, the FISh model and rotating PBL roles among group members. Authentic scenarios were used for inquiry and group learning, providing the focal point of collaborative learning. PBL provided a highly structured model for collaborative learning (Chapter 2.2.1).

3.5.5.4 Recognition for course participation

Academic staff from collaborating institutions could participate formally or informally in the course. Summative assessment was carried out by staff from within the participating institutions. At the University of Salford this was undertaken by using a digital portfolio which contained a reflective journal and a critical evaluation of an online learning model or OER. Academic staff from the University of Salford could gain 30 credits at postgraduate level for successful completion of the course. Participants who joined from the Karolinksa Institutet in Sweden had the opportunity to use the course to gain credits for their studies, for an equivalent of two or five week teacher development course depending on their level and depth of engagement. The assessment for colleagues at Karolinska, was a reflective account of their course experience.

Academic staff from both institutions and elsewhere in HE and other sectors were welcome to join the course. However, these participants could not participate in the summative institutional assessment. Open learners joined from different locations in the UK and Sweden, and elsewhere around the

world. All participants who completed FDOL could request a certificate of participation.

3.5.5.5 Course participants in FDOL132

Due to the open nature of FDOL132 (case study 1), the total number of course participants is unknown. There were no entry requirements to participate in the course. However, 107 course participants completed the optional course registration form, 65 from the UK and 20 from Sweden. There were also a smaller number of participants from Canada, Ireland, Argentina, Greenland, Switzerland, New Zealand, Slovenia, Belgium and Norway. In total an additional 22 participants.

Course participants from HEIs worked in different roles, such as lecturers and researchers in different disciplines, academic developers, learning technologists and further professionals from HE, other education sectors and the public sector. Some of the participants from the Karolinska Institutet in Sweden were using the FDOL132 to contribute towards local courses. These were the 2-week and the 5-week courses.

The FDOL132 course language was English, used as lingua franca, and for some participants and facilitators this was a foreign language in which they had varying levels of expertise which could influence their active participation (Chapter 2.4.5).

3.5.6 Case study 2: Creativity for Learning in HE (#creativeHE)

In this section #creativeHE is described in some detail to provide insight into the course, the resources and digital spaces used to construct this. Furthermore, the specific collaborative open learning characteristics are described together with information about course participation.

3.5.6.1 Course description

Creativity for Learning in HE (#creativeHE) is the online, licensed open version of a postgraduate 30 credit module entitled Creativity for Learning and is facilitated over eight weeks. It was developed and validated at Manchester Met in 2014. The module is offered by the Centre for Excellence in Learning and Teaching at MMU as an optional module of the Postgraduate Certificate in Learning and Teaching in HE, the Postgraduate Certificate in HE and the MA in

HE. In September 2015, MMU, London Metropolitan University and the University of Macedonia as well as Lifewide Education and Creative Academic networks, came together and offered #creativeHE. Staff from all participating institutions co-facilitated the course. A group of academic staff from London Metropolitan University, joined the group from MMU and studied together online. The role of the facilitators was to support participants during the course particularly via course discussions although some also supported participants' collaborative open learning in small groups. A group of postgraduate students studying towards a Masters in Lifelong Learning from the University of Macedonia in Greece as well as members of the Lifewide Education and Creative Academic network also participated together with open learners from other institutions.

The main aim of the module is to develop creative confidence and capacity in academic staff to enable them to become more creative practitioners.

The #creativeHE open course learning outcomes were that on successful completion of the open course, students would be able to:

1. reflect on creative teaching for student creativity based on relevant pedagogical theories, as a driver for student engagement and learning in their own professional context.
2. discuss challenges that influence creative learning and teaching in HE and
3. evaluate an innovation in their own practice based on their own creativity involved in the development and implementation process.

The structure of the course follows. This includes the timeline and the themes explored using an inquiry-based approach over 8 weeks of the course:

- Orientation, familiarisation with the course, platforms, peers, facilitators, webinar, portfolios (1 week)
- Creativity in HE (1 week)
- Open week to catch-up (1 week)
- Play and games for learning (1 week)
- Using story (1 week)
- Learning through making (1 week)

- Innovation project (1 week)
- Open week to catch-up, complete (1 week)
- BONUS: Learning ecologies (throughout and after course completion)

The anticipated weekly time commitment to study this course was between three and five hours per week depending on the level of engagement.

The course #creativeHE was facilitated by a small group of volunteer academic developers and academic staff from the participating institutions and partners. A variety of activities were offered including synchronous webinars, small-group hangouts social media video calling as well as asynchronous discussions. Activities were inquiry-based and sought to enable individual and collective participation. The activities intended to foster the sharing of ideas, problem-solving, ideas generation as well as experimentation linked to participants' own practice.

3.5.6.2 Resources and spaces

The open #creativeHE course was developed using freely available social media. The course site was constructed at Peer-to-Peer University while the communication and collaboration spaces were created as Google plus communities. Participation in the Google plus communities required self-registration. Adobe Connect was used for the course webinars and Google hangouts (a synchronous social media video calling platform) were organised by participants. The spaces were connected via weblinks. The Google plus community was used as the main course space bringing all participants together (see Figure 3.3).
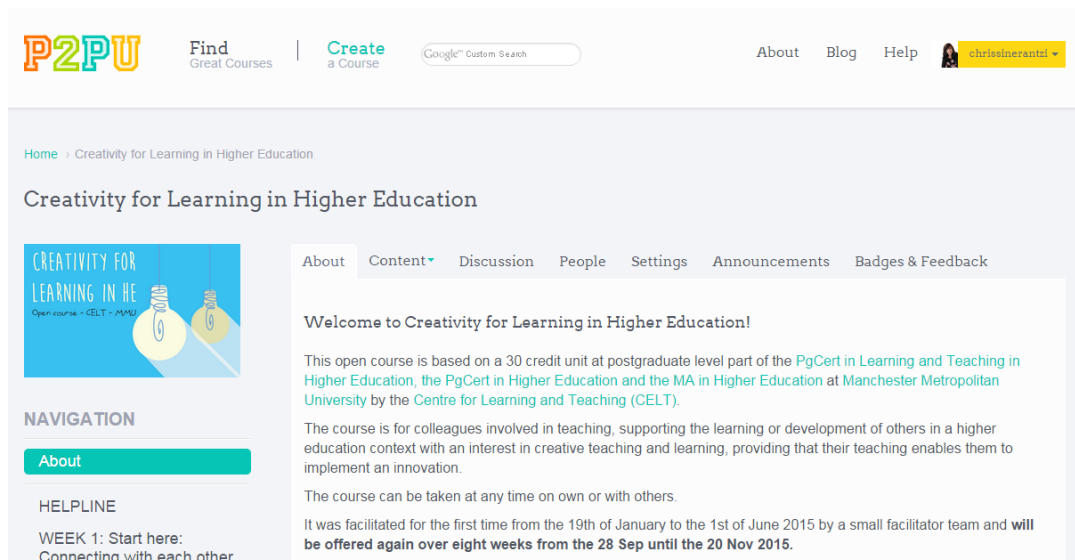
Figure 3.3 #creativeHE course site

3.5.6.3 Collaborative open learning characteristics

Collaborative open learning was presented as optional. Course participants could learn in small groups which were cross-disciplinary and cross-institutional. The groups were formed so that the group members were diverse. This was achieved through encouraging interested course participants to join groups that did not have participants they knew in advance of the course. Small-group learning spaces for up to four participants were set-up by the facilitators using the Google plus community platform. Two groups were formed and while the initially agreed number was four, further participants expressed interest to learn in groups and the facilitators decided to add these to the existing groups, especially as there were some participants in these groups who were less active. The two groups had initially four and five members in week 2 and reached 10 and nine by week 5.

The pedagogical design for group work was flexible. The 5C Framework (Nerantzi & Beckingham, 2015a) was used in combination with the FISh model, (Nerantzi & Uhlin, 2012; Nerantzi, 2014). However, the groups themselves in collaboration with their facilitators decided how best to use their time and how to learn together.

3.5.6.4 Recognition for course participation

Participants joining from MMU who were studying towards credits were linked to the Creativity for Learning module for 15 or 30 academic credits at

postgraduate level. For colleagues participating from London Metropolitan University, #creativeHE was an informal CPD activity linked to a local academic development initiative while postgraduate students who joined from the University of Macedonia used #creativeHE as an informal learning opportunity as part of their Masters studies. All open learners could work towards open badges.

3.5.6.5 Course participants in #creativeHE

There were no entry requirements to join #creativeHE nor were potential course participants required to complete a registration. However, course participants joined the Google plus community, through self-registration. The #creativeHE course language was English, used as lingua franca, and for some participants and facilitators this was a foreign language in which they had varying levels of expertise. This could impact on participants active engagement in the course (Chapter 2.4.5).

The number joining the #creativeHE community site was 64 at the end of week 1 and it continued growing until it peaked at 102 in week five. The following distinct and diverse groups joined the open #creativeHE course:

- Four academic staff at MMU in different roles, disciplines and cultural backgrounds who were studying towards 30 Masters level credits
- Six academic staff at London Metropolitan University from different backgrounds who participated as informal CPD
- Five members of the Creative Academic and Lifewide Education communities
- Seventeen Greek postgraduate students studying towards an MA in Lifelong Learning at the University of Macedonia in Greece
- Hundred open learners from HE and the wider education sector from the UK and further afield.

This case utilised collaborative learning in small cross-institutional, cross-disciplinary and cross-cultural groups that undertook activities that fostered sharing of ideas, peer learning were selected by the members of the groups supported by a facilitator.

3.5.7 Summary

Within this section, the rationale and potential benefits of using a collective case study as a strategy for this phenomenographic study have been presented. The collective case study strategy would enable the study of the lived collaborative open learning experience in diverse authentic settings. These were the open cross-institutional courses FDOL132 and #creativeHE which have distinct collaborative open learning characteristics. An overview of these courses has been included together with course descriptions, learning spaces, collaborative learning, and details regarding course participants.

FDOL132 and #creativeHE are the two courses that make up the collective case study in this research project.

The data collection and analysis methods of this study are presented in the following section.

3.6 Data collection and analysis methods

Within this section, an overview of data collection methods is provided together with details regarding ethical approval. The individual phenomenographic interview as well as the collective case study construction methods are justified and described together with the methods used for analysis. Details of the process and the procedures linked to the data collection are included which play a key role in gaining insights into the collaborative open learning experience of study participants in case 1 and 2 collectively.

3.6.1 Ethical approval

Details of the research project, including the information sheet, the consent form and links to survey instruments were all included in the documentation submitted to Edinburgh Napier University to seek ethical approval for this study. This documentation included the completed Research Integrity Application and was sent via email to the Ethics committee at Edinburgh Napier University on the 12th of July 2013. Ethical approval was secured by this Ethics committee with the identifier ENBS/2013-14/004. All of the ethics application and related documentation are included in Appendix 3.2 and Appendix 3.3.

All course participants in the two courses of this study were informed about the research project at the start of the open course in which they participated. The information sheet was sent, together with the consent form, via email to all course participants. The information sheet informed all potential study participants about the ethical approval that was secured for the project. Potential study participants were re-assured of strict confidentiality, security of data storage and retaining anonymity. The option to withdraw from the research project at any time was also communicated to them. Individuals, who expressed interest in the project and wanted to participate, emailed a completed consent form to the researcher. The consent forms study participants completed were stored on a password protected personal computer. Data was only collected from individuals who provided their informed consent and who agreed that the data to be used for research purposes, i.e. as part of this project and any related publications.

Total numbers of study participants from FDOL132 and #creativeHE are shown in Table 3.4. This also shows the number of participants who participated in the individual phenomenographic interviews and completed the related case study survey instruments to collect background and demographic information.

Table 3.4 Course participants' engagement in this study

Details	Case study 1 FDOL132	Case study 2 #creativeHE	Case study 1 + Case study 2 FDOL132 + #creativeHE
Expression of interest	20	28	48
Completed consent form, participants in study	19	14	33
Completed initial survey	17	8	25
Completed final survey	11	11	22
Participated in interviews	11	11	22

As the surveys to collect background information were completed anonymously from the pool of individuals who have given their consent (33 in total), the 22 does not correspond to the 25 who completed the first survey as there was no way to 'tag' initial and final respondents together. Some participants completed only one of the two surveys.

The data collection methods of this study are presented below.

3.6.2 Overview of data collection methods

The specific data collection methods used in this study were designed to enable the gathering of data for phenomenographic analysis and answer the research questions RQ1 and RQ2. Background information were collected through two survey instruments to construct the collective case study and inform the reader about the study participants.

Academic staff and other open learners participated in the FDOL132 or the #creativeHE course, formally (for credit) or informally (not for credit). All participants from collaborating institutions and elsewhere, were invited to participate in this study. Prior experience in open cross-institutional learning or indeed any other forms of online learning was not required to participate in the courses. However, some basic familiarity of navigating and operating in online environments was assumed.

Data was collected from study participants who provided their consent during the period of the courses and two (2) months after course completion (see Table 3.5).

Table 3.5 Data collection activities

Course	Initial survey	Final survey	Interviews
FDOL132 (offered: September – December 2013)	September to October 2013	December 2013	December 2013 to February 2014
#creativeHE (offered: September to November 2015)	September to October 2015	November to December 2015	November 2015 to January 2016

The phenomenographic data was collected via interviews between December 2013 and February 2014 for FDOL132 and between November 2015 and January 2016 for #creativeHE. Therefore this period provided a prolonged opportunity for the researcher to immerse herself in the data and gain deeper insights (Merriam, 1995).

The data collection methods for this research were the following:

- Individual phenomenographic interview
- Background information of collective case study:
  - Initial survey; prior experience and demographics

        o   Final survey; additional background data

What follows are details about the data collection methods and the analysis process.

3.6.3 Piloting of the data collection

Van Teijlingen and Hundley (2001) recognise that pilot studies play an important part in social science, despite being under-used. They argue that the piloting of data collection is valuable in informing the research design in a study through making adjustments depending on the outcome of the pilot. Piloting of data collection has multiple benefits when carried out as small scale study or trial runs (Polit, Beck and Hungler, 2001). Sampson (2004) specifically notes that these can be unanticipated or incidental, helping the researcher make fundamental changes or suggest that the design is fit for purpose. Piloting is suitable for testing research instruments (Creswell, 2012), research questions and design, including the identification of practical difficulties and providing early warnings of potential challenges in data collection. Therefore, when data collection is piloted it can minimize the potential risk of data integrity (Baker, 1994; Sampson, 2004).

3.6.4 Individual phenomenographic interviews

For this study, 22 individual remote phenomenographic interviews via the internet were conducted with study participants who agreed to participate provided informed consent (see Table 3.4).

The interviews were conducted using Skype, a technology familiar to participants and the researcher. While Skype is often used in personal situations to connect with others, it is also considered by the researcher a valid tool to conduct virtual face-to-face research interviews and provided an accessible option to collect data remotely as well as record audio and video (Bertrand & Bourdeau, 2010). As the technology is familiar, it presents reduced technological barriers for interviewers and interviewees. The Skype interviews were audio recorded digitally using the freely available mp3 Skype Recorder and the audio files were stored on the password protected PC of the researcher.

A semi-structured phenomenographic interview procedure and analysis was followed (Chapter 3.6.4) and the interview questions were formed around the themes of the RQs.

Each interview lasted between 45 minutes and 1 hour and this duration enabled deep reflection and provided enough time to bring the interview to a natural end. Interviews were held after the completion of each open course, FDOL132 and #creativeHE and were recorded and subsequently transcribed verbatim for analysis.

While the interview was interactive and resembled a conversation, the interviewee did most of the talking (Chapter 3.4.4). The interviewees were given as much time needed to respond to the open questions. Bracketing was applied to the interview process to minimise data contamination (Chapter 3.4.3). The bracketing process is described in a reflective diary.

3.6.3.1 Interview questions development

An interview schedule was developed (Appendix 3.4) and interview piloting (Chapter 3.7.1.2) took place to test the approach, the questions and to gauge the potential duration of the interview. The piloting also tested the viability of the technology before the study interviews were organised.

The questions for the individual interviews were developed to collect insights into participants' experiences in this study in relation to RQ1 and RQ2. The questions were open and formulated using everyday language (see Chapter 3.4.4).

3.6.3.2 Interview piloting

According to Punch (2009), interview piloting is a valuable strategy to test the interview design. Piloting interview questions, assists the researcher in identifying potential challenges and helps them make changes to the interview schedule before using these with study participants. Turner (2010) claims that selecting an individual or a group of individuals with similar profiles to those of potential study participants will increase the value of an interview pilot. One interview pilot was conducted (Chapter 3.7.2.2).

3.6.3.3 Interview schedule

In total there were 22 questions in the initial interview schedule. The intention was not to use all them during the interviews but to have a wider selection of questions ready if needed. Open questions were used that encouraged deep and free reflection on the experience and exploration without the study participants being probed or directed to respond in a particular way. The intention was to make the reflection and responses more natural. The question sought to enable the interviewee to express and share more freely what was important to them and which course characteristics impacted mostly on their experience either in a positive or more negative way while also thinking about aspects of their experience which they did not explore before (Yeo *et al.*, 2014). The process followed to construct the questions and conduct the individual phenomenographic interviews has been described in Chapter 3.4.4.

At the start of the interview, interviewees were reminded of details linked to this study, the ethical obligation of the researcher, the process of the interview, the digital recording and what would follow. All interviews were conducted in strict confidentiality and research participants were informed that the draft transcript would be shared with them as soon it was prepared in order to check accuracy.

The interview progressed from more generic to more specific questions linked to RQ1 and RQ2. The interview included the following as reflected in the interview structure:

1. Introduction to the interview
2. Specific experiences on the course
3. Collaboration on the course
4. Overall course experience
5. Additional question
6. Final question

The full interview schedule can be found together with the rationale for this in Appendix 3.4.

3.6.3.4 Phenomenographic data analysis process

The phenomenographic data analysis process listed below followed the phenomenographic guidelines in Chapter 3.4.6 based on Marton (1986, pp.42-43):

1. Working with transcripts
2. Creating the data pool
3. Analysing and interpreting data
4. Forming categories of description
5. Creating the outcome space

Each of these steps and how they were conducted in this research is briefly outlined below.

Working with transcripts

The interviews were transcribed and became the data for the phenomenographic analysis. Participants confirmed the interview transcripts as soon as they were written up. Through email communication, the draft transcript was shared with the participant who was interviewed. Participants were invited to check the draft transcript for accuracy and return to the researcher with any corrections. This was carried out shortly after the interviews were conducted to enable the participant to recall with greater accuracy the interview and what was contributed. This process allowed them and the researcher to make any corrections to the draft transcript and finalise it before starting any analysis. At the end of this stage, participants' names in the transcripts were replaced with pseudonyms and further personal details about other individuals, institutions or places were anonymised.

Creating the data pool

All transcripts were brought together in one space, the data pool, after repeated reading to familiarise with the data. The data pool was created within the qualitative software package NVivo. This software enabled methodical qualitative data coding, analysis and synthesis (Meyer & Avery, 2009).

Similarities and differences in the ways participants' reported their experience of a specific situation were initially recorded in the form of notes. These then formed the basis for interpretation and analysis.

The pools of meanings were formed through an iterative process, through which, data was grouped and regrouped and gradually broad themes relating to RQ1 and RQ2 emerged.

Data analysis and interpretation

The transcript was seen as a holistic document representing the collective experience. It is analysed as such. The analysis was a complex and iterative process through which organisation and re-organisation of data happened multiple times and categories of descriptions emerged.

Forming categories of description

During this stage the categories of descriptions became stable (Chapter 3.4.1.1). This means the researcher is content with their positioning. The categories of description were then finalised and are supported by a set of quotes. These quotes illustrate the qualitatively different ways in which participants experienced collaborative open learning in the two cross-institutional academic development courses of this study.

Creating the outcome space

During the final stage of the phenomenographic analysis, the categories of descriptions were synthesised into the outcome space, a visual representation. The outcome space presents the links, relationships and potential hierarchy among the categories of description (Chapter 3.4.1.2).

The interview excerpts have been used in Chapter 5 where the phenomenographic findings are presented in order to support these and form the basis for the discussion to articulate responses to RQ1, RQ2 and RQ3. Data was verified after transcription by participants in this study. In addition, the categories of description and the outcome space have been shared as draft Chapter 5 with participants for their comments (Merriam, 1995). The responses received from participants relating to this draft chapter evidence that their experience did relate to the phenomenographic analysis. Furthermore, methodological challenges (Chapter 3.7) provide insights into the difficulties experienced and measures taken for rigour.

3.6.5 Background information for the collective case study

Background information of the collective case study was pooled using two surveys. The responses provide information about the participants' background and demographics, their intended and perceived engagement, their motivations and the value they placed on specific course design characteristics. The surveys were administered to study participants at the beginning and at the end of the course.

A web-based Google Drive form was used to create, share and collect the surveys electronically with study participants easily and quickly (Creswell, 2012). Sills and Song (2012) highlight that there is often a low response rate associated with these. The background information collected through the surveys were only used to construct the collective case study and therefore this possibility did not influence the phenomenographic outcome. Care was taken to make the surveys as accessible as possible using a simple and clear structure as well as using everyday English.

The link to the surveys was forwarded to all study participants via email at the beginning and end of the courses. Some reminders about these were sent to study participants encouraging them to complete them. This online method was used as, according to Brace (2008), it enables study participants to be more honest and speeds-up completion time and maintains anonymity. All questions were presented on the same page since both the initial and final surveys were relatively short. This brevity is in line with Dillman (2000) who noted that presenting all questions on the same page leads to higher survey completion rates for short surveys. No 'do not know' option as responses were included as Brace (2008) who notes that individuals often seem to gravitate towards this option response, therefore limiting information. This approach might, however, be limiting to capturing genuine 'do not know' responses.

Study participants were reminded that they were under no obligation to complete any of the surveys and could respond to as many or as few questions as they felt comfortable with. They could also skip any question they preferred not to answer. Participants were also reminded via the information sheet that Carol Yeager, the independent person associated with this study could be contacted at any time if further clarification was needed (see Appendix 3.2).

The surveys were forwarded to all participants of the collective case study who had given their consent to participate via email. The information from both surveys was collected in a spreadsheet and was stored on a password protected computer.

The initial and final surveys are briefly described below.

3.6.5.1 Initial survey

The purpose of the initial survey was to gather key information about participants linked to their demographics, background, experience, aspirations and study habits.

The initial survey consisted of 19 questions (Appendix 3.5) that would help to provide background information about the collective case study. The initial survey was emailed to study participants near the beginning of their course. The average time to complete this survey did not exceed 10 minutes. The survey consisted of questions linked to the following thematic areas and the complete initial survey can be found in Appendix 3.5.

- Education and employment status (Questions 1 to 3)
- Course related questions (Questions 4 to 6)
- Past online learning experience (Questions 7 to 9)
- Past open online learning experience (Questions 10 to 11)
- Experience of participating in a variety of learning and teaching activities and current study habits (Questions 12 to 13)
- Personal information (Questions 14 to 19)

The initial survey was conducted to provide collective case study information. Details about the final survey follow.

3.6.5.2 Final survey

The final survey (Appendix 3.6) was emailed to all study participants who had given their consent to participate. This happened immediately after they completed the open course they had participated in and before the individual phenomenographic interviews were conducted. The purpose of the final survey was to gather further background information about the collective case study.

The final survey consists of three questions in total. Questions were checkboxes. The average time to complete this survey did not exceed two to five minutes. The survey consists of questions linked to the nature of participation (Questions 1 and 2). In the final question (Question 3), participants were asked to indicate if they were willing to be interviewed and if so to provide their contact details. This survey therefore also acted as a strategy to identify participants for the individual phenomenographic interviews.

The summary of the data collection and analysis methods follows.

3.6.6 Summary

In this section, the data collection methods and strategies for analysis were described. These are the individual phenomenographic interviews that form the basis of the phenomenographic analysis of this study. The survey strategy used to collect background information to construct the case study was also presented here.

The challenges of the methodology and the methods are presented in the following section.

3.7 Methodological challenges

In this section methodological challenges linked to this study are considered. This consideration is then followed by a discussion of the piloting stages linked to the interviews and the surveys, and the pilot outcomes that were used to strengthen the research design. The researcher as participant and the challenges associated with this are also considered, together with the strategies used to address these issues within phenomenographic research and ensure trustworthiness and credibility (Sin, 2010).

3.7.1 Piloting of the data collection

Piloting of data collection can inform and strengthen the research design (see Chapter 3.6.3). Survey and interview piloting were conducted for this study. These are described below.

3.7.1.1 Survey piloting

The draft surveys used to collect background information were shared first with the supervisors and included in the ethical approval documentation. Peers external to this study, were invited via social media to participate in piloting the survey. Three individuals participated. Through this process survey instructions and some of the questions were made clearer to minimise potential misunderstandings. Indicative examples of changes made to the initial and final surveys after piloting have been included below.

Question 3 around employment sector in the initial survey initially had a focus around the education sector. It became evident that there could be participants from other sectors, therefore the private, public and voluntary sector were added as possible answer options.

Question 5 in the initial survey was asking about participant's intention about which part of the course they would complete. The original options were linked to course completion. The pilot revealed that it would have been useful to gather more specific information and therefore, the researcher decided to add further options, such as accessing course resources, participating in webinars and discussions to the final survey instrument.

After piloting the final survey Question 2 around how many hours participants engaged in the course on a weekly basis was added.

3.7.1.2 Interview piloting

The interview schedule mentioned in Chapter 3.6.4 was piloted with an FDOL131 participant (also see 3.6.3.2). This gave the researcher the opportunity to identify and review the suitability of the questions, the process and the time allocated but also the technology intended to be used. After interview piloting, the process and questions were evaluated through engaging the interviewee in a reflective conversation about the interview. Outcomes of this evaluation are captured below along with the decision about how to conduct the phenomenographic interviews for this study.

3.7.1.3 Suitability test outcomes from interview piloting

The following observations are based on researcher's reflections on the process and a conversation, which followed the pilot interview.

The scaffold approach to the questions enabled deeper reflection as the interview progressed. The atmosphere was relaxed and the piloting process suggested this. The process was described as 'perfect' by the interviewee who participated in the pilot. Special attention needed to be paid during the interviews to ensuring that a rapport (Cousin, 2009) was established. Showing interest in what the interviewee says made a difference and enabled follow-up questions to be formulated by the interviewer to deepen reflection further. Enough time was given to the interviewee to reflect on their experience and share their response. There was no indication that the interviewer was rushing through questions or that the interviewee was in a hurry to respond and finish the interview. Key questions in the interview schedule provided opportunities to the interviewees to reflect in depth and breadth about their course experience. The openness of the questions seemed to have allowed the interviewee to respond more widely and deeply without being interrupted. However, on a number of occasions this meant that the responses were provided to questions from the schedule without these being asked. When there was a need to gain further insight into a specific response, the interviewer formulated an additional question to achieve this. Interviewees noted that some of the questions were very broad. This observation suggests that the approach worked as intended as the main reason behind this was to enable the interviewee to reflect freely and openly without being directed towards a specific theme. The interviewee could therefore share reflections that were of significance and value to them. To the researcher, it felt that the time allocated, between 45 minutes and an hour was realistic and did not feel too long for the interviewee and that a natural end was reached (Yeo *et al.,* 2014). It provided enough time for the interviewee to respond to questions without rushing. The researcher's intention was to use the webinar platform Adobe Connect to conduct the individual interviews. Unfortunately, during the pilot interview issues with the sound were identified which made it difficult for the researcher to hear the interviewee and for the interviewee to hear the interviewer. After thirty minutes of attempting to resolve this from both ends, the interviewer and the researcher agreed to conduct the pilot interview via Skype. Even if the issue with sound could be resolved for future interviews on the interviewer's equipment, there was no guarantee that similar problems would not occur in future interviews. If difficulties with the

technologies reoccurred in the future, this would add to the time to conduct an interview, which could potentially upset the interviewee and make them less cooperative. After conducting the pilot interview and experiencing challenges with the technology, it was decided to use Skype to conduct the remote interviews.

In conducting these pilots the surveys and the interview process were fine tuned.

3.7.2 The researcher as participant

In qualitative research where data is collected via study participants the relationship between the researcher and the study participants may influence the data (McGinn, 2008). This is especially relevant in this research where the two courses of the collective case study involved the researcher as a course organiser-facilitator. While it is recognised that being an insider in a study might help participants to develop trust and open up during the data collection process, it can also present a challenge to the researcher based on what is shared by the participants due to their relationship with them (McGinn, 2008). However, McGinn (2008) also notes that a closer relationship may have more advantages than drawbacks and generates richer data that are available because of the relationship.

This dual role presented challenges to the researcher. Bracketing measures were taken to suspend judgement and minimise data contamination with insider knowledge (Chapter 3.4.3). The measures in this study are presented in this section.

The researcher kept a reflective diary to capture the analysis process. In this, the researcher reflected on the process of data collection to capture the participants' voices as fully as possible and carefully separate researcher's experience and conceptions. It also includes reflections linked to the phenomenographic analysis process, the construction of the categories of description and the construction of the outcome space. The reflective diary includes an open and critical account of dilemmas, questions, potential bias, problems encountered and decisions made that provide an insight into the researcher's thinking and makes the analysis process more transparent. Others will be able to follow the steps and processes

undertaking and find out how the final categories of description and the outcome space were formed.

A further bracketing strategy applied was checking of transcripts for accuracy by participants after these became available (see Chapter 3.4.6 and Chapter 3.6.4) In addition, participants who were interviewed were also given an opportunity to comment on the categories of description and the outcome space formed to identify if these resonated with some of their experiences.

These bracketing measures were taken by the researcher aiming to provide transparency around the data collection and analysis process.

The summary of the methodological challenges follows.

3.7.3 Summary

Within this section, issues that affect the quality of this research are presented using Guba and Lincoln's (1994) concept of trustworthiness as a key quality indicator. For credibility, which is defined as the appropriate representation of the social world that is studied, the researcher engaged in a series of activities, including prolonged engagement with data collection and analysis, as well as checking of results with study participants (see above and in Chapter 3.7). Information about the analysis and the collective case study is included to enable others to make a judgement about how these findings might apply and be transferred to other settings.

The following concluding section summarises this chapter.

3.8 Chapter summary

Within this chapter the research methodology and methods were explained and positioned within the qualitative inductive phenomenological paradigm. The rationale for selecting phenomenography was explained. FDOL132 and #creativeHE, that make up the collective case study enabled the study of the qualitatively different variations of the lived collaborative open learning experience are studied in these two different cross-institutional academic development settings.

Furthermore, the individual phenomenographic interview was described as well as the data analysis methods to seek insight into the collaborative open learning experience. The iterative phenomenographic process for the construction of categories of description and the outcome space followed. The strategy used to collect background information using survey data has also been described. Finally, methodological challenges that involved data collection and analysis as well as the researcher as participant were described, together with the "bracketing" strategies employed to minimise these.

In the following chapter, the background information on the collective case study is reported.

CHAPTER 4: BACKGROUND INFORMATION FOR THE COLLECTIVE CASE STUDY

In Chapter 3, after a brief introduction to research, this study was positioned, the rationale for selecting phenomenography explained and the data collection and analysis method described. In addition, the two courses of the collective case study, FDOL132 and #creativeHE were also discussed through which the qualitatively different variations of the lived experience of collaborative open learners were studied. Finally, the methods used to collect background information about the collective case study were described.

This chapter presents the background information used in the collective case study, which has been constructed from the survey responses of FDOL132 and #creativeHE participants. An introduction to the surveys is provided (Chapter 4.1 below). This is followed by the presentation of the study participants' backgrounds and relevant demographic data (Chapter 4.2) as well as some information about their motivations (Chapter 4.3) and the nature of their participation (Chapter 4.4).

4.1 Introduction

The responses from the initial and final surveys (Chapter 3.6.5) provide information about the participants in the collective case study, including prior related experience and knowledge. In addition, participants' perceptions about their intended engagement, their motivations and the nature of their participation were captured and are presented here. The majority of the survey questions were closed with limited free-text responses.

The number of participants who responded to the surveys ranged from 22 to 25 and is shown in Table 4.1 below.

Table 4.1 Data collection and participation

Details	Case study 1 FDOL132	Case study 2 #creativeHE	Case study 1 + Case study 2 FDOL132 + #creativeHE
Overall course participants	107	102	209
Expression of interest in study	20	28	48
Completed consent form	19	14	33
Participants completed initial survey	17	8	25
Participants completed final survey	11	11	22
Participants who participated in individual phenomenographic interviews	11	11	22

The acronyms below will be used for the remainder of the thesis when referring to individual survey questions, and will be followed by the question number.

ISQ   Initial Survey Question

FSQ   Final Survey Question

Example: ISQ 1 refers to Initial Survey Question 1

The demographic data and background information collected to construct the collective case study are presented in the following section.

4.2 The participants

Table 4.1 shows that there were 33 participants in total in this study. The demographics and background of the 25 that responded to the initial survey are presented in Table 4.2. From now on study participants will be simply referred to as participants.

The majority of participants were living in the UK 57% (13) and Sweden 26% (6). The majority of participants, 80% (22) worked in HE while the remaining 12% (3) worked in Further Education and the Public Sector. This indicates that the two open courses of this study attracted some participants beyond the HE sector. Participants were highly qualified, with 84% (21) having a postgraduate qualification and 80% (20) were in full-time employment, while the remaining 20% (5) were in part-time or voluntary work. The 76% (19) of participants were informal learners, while 24 % (6) were studying towards an academic qualification at the time. The 76% (19) were between 35 and 54 years of age.

Twenty percent (5) were between 55 and 74. The remaining 4% (1) were between 25 and 34. Sixty four percent (16) of participants were female and 36% (9) were male.

Table 4.2 Participants' demographic data

	Frequency of respondents (n=25)	%
ISQ 15: In which country do you live?		
UK	13	57
Sweden	6	26
Canada	2	9
Norway	1	4
Uganda	1	4
ISQ 18: What is your highest qualification?		
Doctoral qualification	10	40
Masters qualification	11	44
Undergraduate qualification	2	8
Other	2	8
ISQ 2: Please indicate your employment status.		
Full-time	20	80
Part-time	4	16
Voluntary	1	4
ISQ 3: Please indicate your employment sector.		
HE	22	88
Public Sector	2	8
Further Education	1	4
ISQ 1: Please indicate your study status.		
Not involved in formal study	19	76
Studying towards an academic qualification (3 postgraduate, 1 doctoral, 1 post-doctoral student)	6	24
ISQ 16: What is your age range?		
45-54	10	40
35-44	9	36
55-64	4	16
65-74	1	4
25-34	1	4
ISQ 17: What is your biological gender?		
Female	16	64
Male	9	36

The open courses studied by the participants have collaborative characteristics and are designed and offered using social media. Therefore collecting information into prior relevant experience in the area of open and collaborative

learning and the use of social media was useful. From the responses to ISQ 11, participants were categorised as either Group A very experienced/experienced or Group B not very experienced/not experienced. The combined responses of these groups have been included in Table 4.3 and visualised in Figure 4.1 which follows below. This information provides an indication of the broader expertise of participants in areas relevant to this study.

Table 4.3 Prior experiences of participants

ISQ 11: Please indicate the degree of experience you have in the following areas.	Frequency of respondents (n=25) experienced or very experienced (Group A)	%	Frequency of respondents (n=25) not very experienced or not experienced at all (Group B)	%
Use of social media for professional reasons	12	48	13	52
Experience participating in open courses	15	60	10	40
Experience in online collaboration	15	60	10	40
The above categories combined	7	28	6	24

Overall, the responses show that just under one third of participants 28% (7) had prior experience using social media, and had previously engaged in online collaboration and/or open courses, while 24% (6) had very little or no experience in these areas. The responses show that larger numbers of participants had prior experience in at least one of these areas, while the number of inexperienced participants in these areas was generally lower. There was one exception relating to the use of social media which showed that a slight majority had very little or no experience in using social media in a professional context.
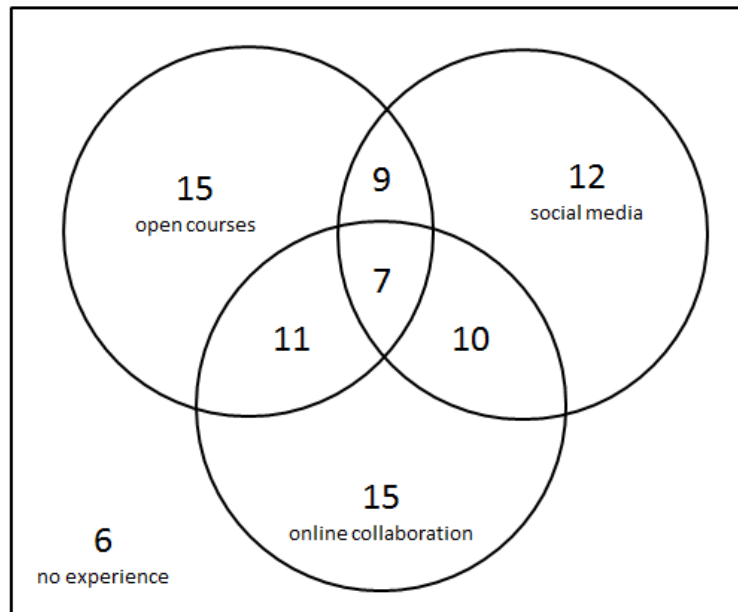
Figure 4.1 Prior experiences of participants in open courses, social media and online collaboration (n=25)

Figure 4.1 illustrates that a relatively small proportion of participants 24% (6) were new to collaborative open online learning practices supported by social media.

The initial survey provided information into the planned extent of participants' intended engagement with the open courses FDOL132 and #creativeHE. ISQ 5 asked: "Which part of the open course do you intend to complete?" Participants could select multiple options and these are summarised in Table 4.4.

Table 4.4 ISQ 5 responses from FDOL132 and #creativeHE

ISQ 5: Which part of the open course do you intend to complete?	Frequency (n=25)	%
the whole course	17	68
access the course resources	9	36
read the regular course updates	9	36
participate in the course webinars	7	28
participate in the discussions	6	24
the collaborative activities	4	16
study a specific unit/specific units, course themes	2	8

The data in Table 4.4 suggest that the majority of participants, 68% (17), in both courses intended to complete the whole course. However, two qualitative comments related to this (see below), provide an indication of a specific

anticipated challenge for some participants. These are related to time and interest and the realisation that the shortage of any of these two factors may reduce course engagement.

> "My intention is to do as much as I can but the reality is this is likely to be less than I intended."

> "I'll dip in and out as I have time/interest."

Generally, responses related to activities that provide opportunities for independent, more flexible engagement, and engagement in the course asynchronously, such as accessing course resources and reading the regular course updates which indicate that there were more individuals who intended to engage with these, particularly 36% (9). However, responses relating to the intention to engage in activities which involve others, such as collaborative learning 16% (4), participation in discussions 28% (7) and course webinars 28% (7), indicate that the intention to participate in synchronous activities were lower.

4.3 Participants' motivations

The responses shown below (Table 4.5) for ISQ 4, indicate participants' reasons behind their engagement with the open courses.

Table 4.5 ISQ 4 responses from FDOL132 and #creativeHE (n=25)

ISQ 4: Please read the following statements and rate them as important dimensions for your study on this course.	Frequency (n=25) in agreement	%
Opportunity to develop professionally in this area	25	100
Experience an open course as a learner	25	100
Topic relevant to current aspect of work or project	24	96
Learn with others collaboratively	24	96
Connect with fellow educators	23	92
Supported by a facilitator	22	88
Participate in webinars and interact with other learners, speakers and facilitators	21	84
Participate as it is free	20	80
Provide feedback on other participants' work	17	68
Get feedback on my work and how I progress	16	64
Receive a certificate of participation	14	56
Consider returning for further studies	7	28
Study towards a qualification	6	24

The responses show that 100% (n=25), or all, of the participants considered as important aspects of the course, both the fact that it offered a CPD opportunity

and also that it enabled them to experience an open course as a learner. Commonly perceived as important was the fact that this open course was a free development opportunity, with 80% (20) of participants indicating this view.

Only 28% (7) of participants appear to attach importance to the potential for the course as a springboard to further studies. However, 56% (14) of participants saw it as important to receive informal recognition for their participation in the course.

Furthermore, for 96% (24) of participants the relevance of the topic was important together with the opportunity to learn collaboratively 96% (24) and the opportunity to connect with other educators 92% (23).

Dimensions linked to interaction were also perceived as important: especially the support from the facilitator 88% (22). Other forms of synchronous interaction and interactions more generally with peers including facilitators were perceived as slightly less important 84% (21). While interaction appears to be important, providing and receiving feedback on work was regarded as less so, with 68% (17) and 64% (16) agreement respectively.

The initial survey provided information into what characteristics participants felt would influence their engagement with the open course and possibly shape their motivation to participate, and to what extent. All participants 100% (25) saw their engagement as an important CPD activity. Overall, they appear to recognise the importance of interaction, learning collaboratively and being supported in this process. Furthermore, they saw the open course more as an informal CPD opportunity for which 56% (14) of participants felt that receiving a certificate of participation would be important to them.

Having considered the participants' motivation for joining the course, the next section looks at the nature of their participation.

4.4 Nature of participation

The perceived study time and participation as a group member or an individual can be tracked through related questions in the final survey. These are presented below.

4.4.1 Study time

The final survey, and particularly FSQ 2, asked participants to consider the time spent studying on a weekly basis for the open course (Table 4.6). Their responses showed that 54% (12) felt that they spent up to three hours per week studying for the course, while the responses of the remaining 46% (10) were split. Fourteen percent noted that they studied between three and five hours per week, another 14% (3) over seven hours per week, while 18% (4) responded that they spent between five and seven hours per week studying for the open course in which they participated.

Table 4.6 FSQ 2: Study time of participants per week, linked to FDOL132 and #creativeHE

FSQ 2: As an overall estimate how many hours per week did you engage in course related activities?	Frequency (n=22)	%
Up to 3 hours	12	54
Between 3-5 hours	3	14
Between 5-7 hours	4	18
Over 7 hours	3	14

Comparing these responses to the anticipated weekly time commitment which was between three and five hours, suggests that 54% (12) of participants' spent less than the designers' anticipated requirement (Chapter 3). However, 46% (10) indicated that they felt they were able to meet or exceed the required time commitment.

4.4.2 Group or individual

The final survey, and particularly FSQ 1 (22) asked participants about their nature of engagement in the course (Table 4.7). Participants' responses to FSQ 1 showed that 77 % (17) learnt within a group, while 3% (3) were autonomous learners.

The qualitative response reported under "other"; "I was participating in one of my master's courses", (Table 4.7) highlights a potentially different way to engage in an open course, as being part of a local group undertaking formal study at a university.

Table 4.7 FSQ 1: Group or individual engagement during the open course FDOL132 and #creativeHE

FSQ 1: How did you engage with the course?	Participants (n=22)	%
as a group member	17	77%
as an autonomous learner	3	13%
I didn't participate	1	5%
other	1	5%

The initial and final survey provided case study background information into the extent, duration and nature of participants' engagement. The responses show that group engagement was at 77% (17).

This chapter is summarised in the following section.

4.5 Chapter summary

In Chapter 4, background information gathered from participants, demographics, information about their motivations, nature of their participation and the course itself using the initial survey and final survey has been presented to construct the collective case study.

The information from the surveys shows that participants were from a range of countries. The majority of them were working in HE and were highly qualified with some experience in participating in open courses and collaborative learning. While some were currently studying towards an academic qualification, the majority were informal learners, with a small number having already used social media for professional development. The majority of participants indicated that they learnt in groups and the majority of participants engaged for under three hours per week in the courses.

The collective case study provides the background and context to the phenomenographic analysis. In the next chapter, the findings from the phenomenographic analysis, arranged in categories of description and the outcome space are presented which provide deep insights into the participants' experience related to collaborative open learning within FDOL132 and #creativeHE, the two courses of this study.

CHAPTER 5: PHENOMENOGRAPHIC FINDINGS

In Chapter 4, background information gathered through the survey data was presented to construct the collective case study. This included demographic data and background information about the participants.

In this chapter, the main findings from the phenomenographic analysis are reported. These are the categories of description and the final product of a phenomenographic analysis (Chapter 5.2, Chapter 5.3 and Chapter 5.4), the outcome space (Chapter 5.5). The discussion of these findings in relation to RQ1, RQ2 and RQ3 follows in Chapter 6 and Chapter 7.

5.1 Analysis overview and findings

Within this study, collaborative open learning is explored in the context of cross-institutional academic development as it has been experienced by participants in two open courses, FDOL132 and #creativeHE. Phenomenography was used to study the qualitatively different ways of experiencing this phenomenon. Data was collected through a series of individual semi-structured interviews to respond to the following research questions:

> RQ1: How are open cross-institutional academic development courses that have been designed to provide opportunities for collaborative open learning experienced by learners?
>
> RQ2: Which characteristics of open cross-institutional academic development courses most strongly influence learners' collaborative open learning experience and how?

RQ3 is addressed in Chapter 7 where the framework is constructed using the outcome space and the relevant literature.

In total 22 participants were interviewed from the collective case study (Chapter 3.6.4 and Table 4.2).

The phenomenographic analysis process is shown in Figure 5.1 and also briefly described below. A detailed account can be found in Chapter 3.6.4.
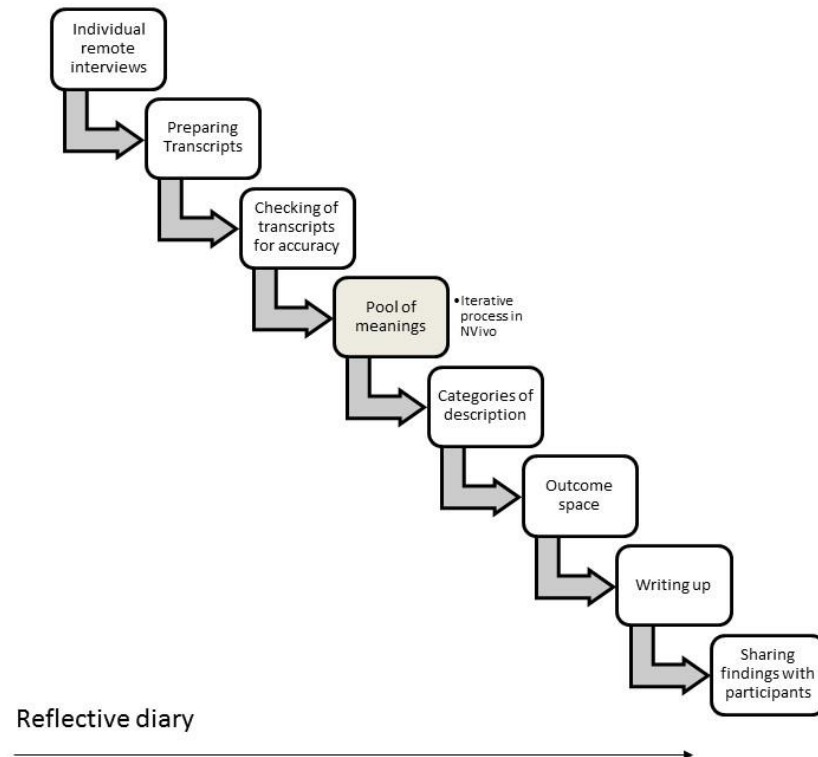
Figure 5.1 The phenomenographic analysis process

In order to be able to address the RQs, the interview questions were structured around specific experiences on the course, collaboration and the overall course experience (Chapter 3.6.4). After the interviews were transcribed and checked for accuracy, the data analysis was conducted. The creation of a Pool of Meanings aided the researcher's understanding of ways in which participants engaged and experienced collaborative open learning in cross-institutional academic development in the open courses as they emerged through the data. The analysis of the interview transcripts and excerpts within the Pool of Meanings aided the identification of similar responses linked to participants' experiences across these two courses. These became, through an iterative and interpretative process (Chapter 3.4.6), the categories of description. Some of the categories emerged directly through the analysis while others are more closely linked to specific interview questions. As phenomenography accepts that there are qualitatively limited ways in which a phenomenon can be experienced (Chapter 3.4.6), only a limited number of variations within the categories of description have been identified. Some of these variations seem

to have an element of sophistication within some of the categories of description.

There are cases where responses from the same participant can be found in more than one variation in the same category. This feature of phenomenography as meaning is explored as fragments and not, attached to a particular person (Chapter 3.4.1). In phenomenography all data is described in categories of description, and there will naturally be more or less support in the data in terms of the number or quality of pieces of data for some categories of description and their variations (Chapter 3.4.6). Such information has been included in the categories of description formed in this study, which are presented below together with related interview extracts.

As a final stage of the phenomenographic analysis, an outcome space was constructed (Figure 3.1). This illustrates how the categories of description relate to each other (Chapter 3.4.1).

During the process of data collection and analysis, the researcher kept a reflective diary to capture the process in detail and use this as a bracketing strategy. Furthermore, a draft of this chapter was shared with all 22 participants who were interviewed to identify if their experience related to the findings. Fifteen participants, or 68% (eight from FDOL132, 53%, and seven from #creativeHE, 47%), responded to suggest that it did.

The outcome space, which is included under Chapter 5.5, provides one of the foundations for designing the collaborative open learning framework together with the discussion of the relevant literature (Figure 3.1).

The phenomenographic analysis is based on 22 semi-structured interviews. The related findings are arranged in the Pool of Meanings, which includes the following three Pools and 11 categories in total. Each category of description has a unique code so that it can be identified within the outcome space (Table 5.1).

Table 5.1 Pool of Meanings and categories of description

Pool of Meanings	Categories of description	Variations	Codes used in the outcome space
5.2 Pool 1 (Course)	Open learning as course organisation	Causing initial disorientation Aiding participation	C1.1
	Open learning as an activity-based experience	Limiting engagement Fostering engagement	C1.2
	Open learning as a facilitated experience	Lacking direction and instruction Directive and controlling Facilitative and supportive	C1.3
	Open learning as designed for collaboration	Constraining Enabling Empowering	C1.4
5.3 Pool 2 (Boundary crossing)	Cross-boundary learning through modes of participation	As a valued informal learning experience As a valued mixed mode learning experience As a valued opportunity for recognition	C2.1
	Cross-boundary learning through time, places and space	As a disconnected experience As a continuum	C2.2
	Cross-boundary learning through culture and language	As a barrier As an enrichment	C2.3
	Cross-boundary learning through diverse professional contexts	As initial discomfort As a catalyst	C2.4
5.4 Pool 3 (Collaboration)	Collaboration as engagement in learning	Selective Immersive	C3.1
	Collaboration as a means to shared product creation	Product-process tension Fulfilling	C3.2
	Collaboration as relationship building	Questioning the behaviour of others Valuing the presence of others	C3.3

The three pools, along with the categories of description within them and their qualitatively different variations, are presented in the following sections together with information about how the categories of description emerged through the data.

Pool 1, which follows, shows, how specific course design characteristics in this study were experienced.

5.2 Pool 1: Course

Pool 1 consists of categories of description that relate to the different ways in which the course as organised learning was experienced, as described and shared by participants from the collective case study.

This Pool of Meaning binds together participants' reflections on course characteristics, which influenced their experience. These areas include the course structure and tools used, facilitation, course organisation and the learning design including the optional collaborative learning opportunities.

This first Pool of Meanings contains four categories of description formed from the phenomenographic data and each category highlights a distinct way of experiencing open learning that has a focus on design-characteristics.

- Open learning as course organisation
- Open learning as a facilitated experience
- Open learning as an activity-based experience
- Open learning as a collaborative design

The categories of description in pool 1 are reported below. The first category is 'open learning as course organisation'.

5.2.1 Category of description: open learning as course organisation (C1.1)

In this category of description, the focus is on 'open learning as course organisation' in the context of the collective case study was experienced and described by participants. This category emerged through interview questions which were broadly linked to the course design. Fragments of this category were initially scattered across other categories, but were subsequently brought together to present course organisation more holistically. Structure, appearance and organisation together with the digital tools and spaces used in these courses all seem to have influenced the participants' experiences.

Participants experienced 'open learning as course organisation' in the following two distinct ways, which form the variations within this category of description:

- Causing initial disorientation
- Aiding participation

In particular, the evidence linked to scheduling and the initial challenges experienced by participants are well supported in the data.

Causing initial disorientation

Many participants experienced that 'open learning as course organisation' caused initial disorientation, citing the newness of course characteristics, including digital tools and spaces. They also listed learning and teaching approaches used, such as PBL and learning in open settings, as initially challenging as these made them feel overwhelmed and disorientated. This is described in detail by participant F11, for example.

> "A lot of tools were new to me. That was the first time I used the Adobe Connect. It was the first time for me being part of a webinar and it was the first time I tried to use Google hangouts, the setting up the blog, and with all the tools that the Google plus community we used and Diigo the social bookmarking tool were- everything was new to me, pretty much. Although I wrote this in my first blog post, that I thought I was pretty tech-savvy, it occurred to me that I was not as much as I thought I was. Yeah so that was the feeling of confused. Plus I never experienced PBL, so the FISh model was not so clear to me actually. I didn't really know what I should do in a PBL group, really. And, well yeah that was my first open course as well, which is completely different experience than the other distance course or, face-to-face course. There were so many new impressions that was contributing to the confusedness or overwhelmedness." Participant F11

Similar feelings are expressed by participant F7 that provide insights into the usefulness of being a learner and experiencing such confusion:

> "I hadn't ever used Scoop.it or Twitter, I hate Twitter. I really hate it. The blogs, I hate them, even though I do advise teachers to use blogs with their students. So, you know, I just was very confused and couple of times actually, secretly, I, behind the facilitator's back, I contacted my fellow colleagues to ask "what are we doing today or this week because I have no clue what we have to do". So it was interesting actually to see myself being so confused, and so, you know, overwhelmed, with all this technology that I am supposed to know about." Participant F7

Participant F1 recognised that these challenges progressively faded as familiarity with the courses increased and confidence was established:

> "It was a bit like a big wave, a kind of digital wave that I had to come to terms with. So many people and so many, keeping up with people's contributions. Keeping up with messages. Keeping up with tasks. Keeping up with activities. And kind of riding the wave I suppose you can, and then gradually surfing it I suppose." Participant F1

This is echoed in similar experiences of other participants such as the one below from participant C1.

"My first week was a little bit difficult. Even though I had an experience of Moodle, because the whole interface reminded me something of the Moodle environment, it was a little bit strange, because, maybe I was anxious, I don't know, perhaps, for the fact that, not only the students but also the professors were engaged in this course. And I was trying to get familiarized with the community and the purpose of this subject. And I find it a little bit strange, the fact that we went to p2pU, the platform, to get the outline and the syllabus of the course, and then we were, we had to move to Google plus and share our thoughts. And of course, by making our portfolios, and sharing our thoughts, adding our thoughts there. The whole triangulation, maybe of these tools, and it was the first time that I used Google plus and Padlet as a form of e-portfolio. But then I get used to it, and it was pretty much easy. I knew how to access the syllabus. I knew what kind of activities, or the outline of the week, for example, that in the first section there was a preparation stage, then I had to read some reading-, some suggested readings. There were some further readings, and then I had to see a video or produce a digital artefact according to the topic of this, of the week's subject." Participant C1

Aiding participation

Participants also experienced 'open learning as course organisation' that aided participation, highlighting how the course organisation and scaffold helped them get an overview, navigate and participate. Participants especially valued being able to see the whole course, and felt that the short guidelines linked to activities, and the scheduling of tasks such as synchronous activities, made a real difference to their ability to plan and participate in them. This was useful because they were busy professionals who were keen to make effective use of their limited available time. The following examples are indicative of this view:

"The set up in general, the entire- I mean having a central course blog and the course home page. I think that was very good. With an overview of the weeks and what to do I thought that was very well done with very short and to the point description of the activities we were supposed to do. I think that was very helpful for me engaging in the course and knowing what to do." Participant F11

"The whole community was well organised. I think that there were bright colours. That was very nice because it was it showed a very tidy job. It had the Café that you could communicate and feel relaxed. Everyone said his opinion, and we had a great interaction. Many people expressed themselves through it, and that was the really interesting part." C9

The two qualitatively different variations of the category of description 'open learning as course organisation' show that participants experienced it as 'causing initial disorientation' and 'aiding participation'.

The next category of description 'open learning as a facilitated experience' is presented in the following section.

5.2.2 Category of description: open learning as a facilitated experience (C1.2)

In this category of description, the focus is on how 'open learning as a facilitated experience' was described by participants. This category emerged early on through the data analysis, though there was no question on facilitation included in the interview schedule design. Facilitation in the collective case study was a designed-in feature, supporting learners throughout the courses within the community spaces as well as in collaborative open learning activities in groups. Facilitators' presence and engagement patterns were experienced by participants in three distinct ways. These form the variations of this category of description:

- Lacking direction and instruction
- Directive and controlling
- Facilitative and supportive

The type of facilitation that was perceived by participants as more valuable for learning across the collective case study was generally well supported in the data, while there was less support in the data concerning what did not work so well.

Lacking direction and instruction

Participants experienced 'open learning as a facilitated experience' that lacked direction and instruction, describing how they would prefer facilitators to provide more support and guidance, and would appreciate a more directive approach. The extract below from a response by Participant F7 captures this preference and highlights some degree of "impatience" or "urgency". There will be different factors that influence this. The way learning happens in open online settings and the fact it may take longer than expected to get a reply (since the majority of communication is asynchronous), is echoed by Participant F7, who notes that "the facilitator asked a question, for example, then nothing was happening." Participants were looking to the facilitator for a strategy:

> "Sometimes I felt very disorientated. And I need structure and guidance. I mean in some cases they do call it 'spoon-feeding' but I don't like too many questions. Sometimes I prefer somebody to give me the answer. Rather than ask me with another question. Because this can go on forever and ever. So sometimes if I ask a question I prefer to hear the answer rather than hearing the facilitator

asking me another question. Sometimes, yeah, I felt that I wasn't getting the answers. If nobody was saying anything then we have two questions instead of one, my question and the facilitator's question, for example, then nothing was happening. So that wasn't good." Participant F7

Another example comes from Participant F6, which refers to how facilitation was experienced that was lacking direction during a particular part of the course:

> "I thought there would be at least a few groups presenting their findings but then it was just me, [group member 1] and [group member 2] who made a presentation and then I felt there was no real structure, in the briefing or like sharing knowledge, it was too free, or perhaps too broad, maybe a few questions in advance, would have been better, we are going to discuss this or this maybe." Participant F6

Directive and controlling

Participants experienced 'open learning as a facilitated experience' that was directive and controlling, claiming that the facilitation was overpowering, and that they would appreciate more freedom. Participant C11 advocates a self-organised and self-directed way of organising such courses. Their words show a higher degree of confidence and experience in such settings, and come with the recognition of what some learners can achieve with limited or no support, while also recognising that learning is messy:

> "There's an attempt to control things, to keep things under control and I understand there has to be some sort of outcomes. I mean I'm not running it so it's easy for me to say well you know just let people run all over the place and do whatever they want and you know, that sounds like a day care centre where my kids used to go, it's just constant random activity and that was fine until you are out of your diapers and then you start getting it together and, but I don't know how to do that, the idea of structuring creativity." Participant C11

The following example from Participant C3 demonstrates that while the facilitation generally worked for them, at times, it felt directive and controlling and they would have preferred a facilitation approach that would make more use of peer-to-peer support:

> "I think the facilitator kind of gave a bit more guidance. They were fabulous, you know in terms of they were really with you on the journey and they really kind of, brings everything to life and I could just listen to the facilitator for hours and it was really, really good. I think definitely having that facilitator of that group certainly helps and it might have been nice as well to see if maybe people in the group could have taken a bit more control of the kind of, the aspect of maybe controlling a Google hangout or something, that kind of thing. Well I was just thinking that it's such a lot of work isn't it for the facilitator as well, you know that sometimes it might be good to kind of, not force the issue but kind of put it into

the hands of the students to say, right well okay then you brought some great ideas here, you can carry on and have a look by yourselves and then we will reconvene kind of thing to discuss it, you know I just wonder if that might be a way forward." Participant C3

Facilitative and supportive

Participants also experienced 'open learning as a facilitated experience' as facilitative and supportive, revealing that they experienced facilitators who were supportive without being authoritative. Facilitators did not portray themselves as experts, on the contrary, they were learners too and offered support where needed while also helping others to grow and discover things for themselves. Participant F8 captures this facilitation experience, noting that the facilitator was

> "gently guiding us to the task in hand if we'd really got confused. It just it felt very good to have somebody very human helping us along the way, rather than somebody trying to impose upon us how we should do things. It felt like he wasn't, you know, assuming any kind of authority. They were supporting us."

Participants learning in groups and within the community described how helpful this facilitative approach was for their learning. Participant C4 captures the balance of facilitation and autonomy that was helpful for learning in groups.

> "There was a tendency for the facilitator to facilitate but you know I don't think we ever felt brow beaten by his, it felt very democratic, there were occasions when their connection would drop and so we would carry on between us but there was that, oh we need our facilitator back really, you've got that focus, that you know you've lost your chair person, so although we still managed okay I think it was very helpful that we had, it was clear that his facilitation skills, he was very good, in making sure that everybody felt they had been heard. […] I think what was obvious is that we were sort of deferring to the facilitator to do that management on our behalf but on those occasions when he wasn't, you know on that break, one of us would step in and sort of, you know take that lead until he reconnected." Participant C4

A further example comes from participant F11 in which it is acknowledged that the facilitation approach used especially often in the form of feedback was welcome by the participant and played a role in their course experience:

> "How the facilitators approached us as learners was a very good feeling. Like, very encouraging. Very positive attitudes and- yeah. And then with the learning experience, of what I learned and the experience I made, that has helped me with, with my work I had to do, so I had some hands on knowledge and some experiences which I could use for my professional contracts it was very helpful. I remember how prompt, the facilitators were on giving feedback on the blog. I was very amazed at how that contributed to the course, I guess, but also what they wrote and how they commented, how you're supposed to do it. With encouraging and asking questions." Participant F11

The three qualitatively different variations of the category of description 'open learning as a facilitated experience' show that participants experienced it as 'lacking direction and instruction', ' 'directive and controlling' and 'facilitative and supportive'.

The next category of description 'open learning as an activity-based experience' is presented in the following section.

5.2.3 Category of description: open learning as an activity-based experience (C1.3)

In this category of description the focus is on the activities designed to engage learners, and the role such activities play in supporting open learning through which interaction and sharing can be fostered. This category emerged through interview questions that were broadly linked to the course. It was a category that emerged over time and was defined fairly late during the analysis.

Learners had the choice of selecting from a range of diverse activities in a variety of formats, including text and audio-visual. Within this specific category of description, examples are given that illustrate how learning using these activities was experienced in two distinct variations:

- Limiting engagement
- Fostering engagement

How activities fostered learning opportunities and the desire for these to be carried out by participants with others is supported well in the data.

Limiting engagement

Participants experienced 'open learning as an activity-based experience' that limited their engagement, describing how specific activities were restricting for them, and the challenges they faced relating to these. More 'hands-on' and interactive approaches were highlighted as beneficial. Participant F4, who was working towards credits within their institution, felt that the assessment (which was based on reflection) got in the way of experimentation which they saw as vital for learning. They note:

> "I think reflections are, of course, important, but in the course, I think that, the reflections got a priority which was too high. I think for an e-learning course, it

was very important for me to really use and learn digital tools to communicate with others rather than introverted reflections, I did not learn a lot. So I was very sceptical. You do not learn to play the piano by reflecting on the piano, you have to play the piano, yes? And you don't learn e-learning technologies by reflecting about learning technologies, you have to use e-learning technologies. […] The whole assessment was based on the reflections which were required to get a certificate. So that resulted that most of the students who [in this particular institution] only wanted to get a certificate, they were not motivated to contribute, to collaborate, or to experiment to use technologies, new technologies. They focused on reflections, did not experiment. Did not collaborate. There were no discussions. So for me this was completely unsuccessful." Participant F4

Other participants described a preference for interacting with peers while carrying out some of the more challenging activities. If this was not possible they felt that this was limiting their engagement. The example below with reading activities, from participant C2 indicates this.

"Something to promote dialogue about some of the readings would be useful. as there a task specifically related where we were supposed to discuss. I know we were asked a sort of general sort of like, do the readings, discuss it in the Google community. I don't remember there being anything specific and I just didn't feel that I got enough of that discussion on some of those readings and I got the impression that a lot of people had the same problem I did. They had trouble finding time to read those and it was so easy to do some of the other activities that were doing rather than reading." Participant C2

Fostering engagement

Participants experienced 'open learning as an activity-based experience' that fostered engagement, seeming to enjoy the variety of activities provided and feeling that these aided their engagement in learning within the course. One of the participants, disclosed that they were dyslexic and reported that the range of activities fostered engagement:

"I find really useful the links with articles and things like that. And also the videos, because the questions it was really trigger your thinking. The videos, the links that the facilitator posted in the community with speech, with speeches about the subject. It was really helpful because it was easier for me to listen to someone about the subject than read it. I think I have a little bit problem with reading, [interviewee and interviewer find word from another language] yeah dyslexia. So I can, I confuse the letters, and I must read it and read it again because and it's a difficult process for me." Participant C10

Other non-English native speakers described how the media-rich activities in particular, enabled them to engage more effectively than other text-based ones. Synchronous and asynchronous activities were described as valuable, with a

focus on the opportunities for interaction with others (peers as well as specialists, or "big sharks" according to participant F4).

> "All asynchronous discussions and synchronous discussions and webinars were very interesting for me, and the personal contact and the virtual learning space was, very interesting for me, and then to get contact with new digital tools and experimenting, trying out educational tools and really get a better knowledge how to use these tools. That was also very important for me how to get, high quality literature concerning the topics which were discussed in the group. I think it was fantastic for me to really get in contact with the 'big sharks' in pedagogy, and with leading opinion leaders in this field and, to get not only to hear what they are thinking about but to know their opinions, I was quite interested what, what kind of guys they are and what kind of people are those? How do they think? How do they put an argument together? And so the webinars were very interesting." Participant F4

The two qualitatively different variations of the category of description 'open learning as activity-based experience' show that it was experienced as 'limiting engagement' and 'fostering engagement'.

The next category of description 'open learning as design for collaboration' is presented in the following section.

5.2.4 Category of description: open learning as designed for collaboration (C1.4)

In this category of description the focus is on how open learning was designed to foster collaborative learning was experienced and described by participants. This category emerged early indirectly through the data analysis as there were no direct questions in the interview schedule asking about the design, but more about the collaborative open learning experience. Collaborative learning in small groups of up to 10 members, supported by facilitators, was a feature to which learners could opt-in at the beginning of each course in the collective case study (Chapter 3.5.5.3 and (Chapter 3.5.6.3). Specific learning and teaching approaches were used to facilitate collaborative open learning in small groups. These approaches included PBL in FDOL132, while within #creativeHE facilitators could decide with learners which approach they wished to use. This led to approaches that were alternatively either negotiated by facilitators and participants, or decided by the facilitators themselves. Participants experienced 'open learning as a collaborative design' in three distinct qualitatively different variations:

- Constraining

- Enabling
- Empowering

All variations of this category of description were well supported in the data. In particular how PBL as experienced in FDOL132 as a constraining experience is well supported in the data. There is however, less support on how this design was empowering for participants.

Constraining

Some participants experienced 'open learning as a collaborative design' as constraining, describing the collaborative design as something that added complexity to their experience and which hindered fuller engagement. The particular example included below from participant F11, highlights some of the challenges experienced using PBL due to the newness of the participant to the approach, the perceived complexity of the approach and the time constraints. It is also recognised that the online dimension and the fact that the group members did not know each other, contributed a feeling of constraint.

> "The PBL part didn't work so well for me. With a group. That didn't really fit my schedule, I think it was a little bit constrained for me. To schedule a time for meeting and finding a time, and plus the confusedness, little bit, about, well how does PBL really work? I guess that would have been different if I had PBL experiences in another course, maybe, a face-to-face course. So I think it didn't work so well. I didn't know those people, and that it was hard to establish with an online setting, Yeah. So, and it also felt the others in that group that no one was hundred percent sure either what to do in a PBL settings." Participant F11

A further example comes from participant F1 who had prior experience in using PBL. This also indicates the constraints this design had on their learning:

> "I had previous experiences with educational zealots, for want of a better word. In terms of action learning sets, or PBL and, and the pure kind of form of it. I don't necessarily always find that PBL is a liberating process. I think there's quite a contradiction in PBL actually, in terms of that kind of liberal social constructivist ethos. But at the same time, it, it can be quite rigid, and, and, and I I'm not, I'm not convinced that using one particular educational approach is necessarily always the best thing. Particularly if you're trying to bring people together. OK, structuring is important and putting people in groups but like kind of feed them through a certain educational approach, I'm not always convinced by that. […] Within any learning context you have to find a way that the learners want to learn, rather than imposing some kind of rigid model on them, which is which obviously needs to be negotiated, in some way. I mean it's interesting with PBL because of the situated learning argument for it, that's saying "well, look, you know, you're going to be doing this in the real world so you need to be learning this way" Learning online using PBL, you know. But, for me I like a bit more freedom in terms of the educational approach." F1

Enabling

Participants experienced 'open learning as a collaborative design' as enabling, describing how the collaborative design was a valuable pedagogical tool for fostering engagement in collaborative learning activities. While course guidelines were followed, some group members experienced difficulties engaging in the collaborative activities. This was a prime concern for some group members. The example included below from participant F7 and their emphasis on making the collaborative task (in this case using PBL) "authentic" through constructing their own learning scenarios based on their own experiences, shows how this acted as an enabler.

> "When we looked initially at the scenarios given or we were thinking which scenarios to adopt throughout the course, I thought "OK. Let's go with that", one scenario but it was given by the facilitator. But then the group had a hangout. And they decided to use our experience as a scenario. And this is why I think it worked better for me. Instead of working on a scenario that I had no clue about that was very authentic. That was me. I think that all four of us who were more active in the group, I think at the end we really enjoyed that. And I think that the other thing that happens in every group as you know, some people are better in some things. So [group member's name] for example, was very good in articulating things in a very academic way. Then, other people probably, were, they were very good in writing stuff. I was just good putting things together and creating. So all of us were having something to contribute. And the final output worked very well." Participant F7

The following example from participant F5 demonstrates how the particular PBL model used, enabled them to engage in the PBL process:

> "I love the COOL FISh illustration, I think that's great. But then I know that I'm a very visual person. My background's graphic design, I like visual metaphor. So I really buy into that. You don't need to be persuaded to buy into that, you know. But it did get me thinking about things in a slightly different way. And it's something that I tried as well, you know, using the visual metaphor idea that you were using." Participant F5

Empowering

Participants experienced 'open learning as a collaborative design' as empowering, describing it as something that provided them with a loose framework and a freedom to explore something they, as a group, felt was important and useful for their development. This led them to design their own learning activities. They describe it as a liberating process and as a democratic and dynamic negotiation through which they show that they owned the process of learning in collaboration with others. Participant C4 describes the course as

"outline themes" and a "spine" which were subsequently used as broader areas or triggers leading to explorations and activities of a varied nature and defined by the group.

> "What had happened is whether it was by accident or design that we arrived with a sort of set of fellow travellers if you like in that space, I suppose the course had provided us with an outlined theme and then we kept building on it, so it, although every now and again we would break down and go off on our little sort of side line about other stuff that was happening in our life or whatever, we would always come back to that spine of whatever that chosen theme was, you know it felt like we were building but although we were building and moving forward it was always renegotiable and we were negotiating with each other about what we might do in the intervening week, so that we could then build on that conversation in the following week." Participant C4

The following example from participant C1 demonstrates how empowering it was to negotiate and agree with other group members defining their own activities and working on these together:

> "The group we formed, I think was really interesting and engaging at the same time. We tried to, we maintained the main idea of the course, creativity of course. But through discussing and exchanging ideas, and our thoughts, in the hangouts meetings we found it that there are specific dimensions of creativity that we wanted to explore. For example, we agreed all to engage in the project which investigated the role of emotions throughout the community, in the general community. Another one was based in the interactions that were curated through the community." Participant C1

The three qualitatively different variations of the category of description 'open learning as designed for collaboration' show that participants experienced it as 'constraining', 'enabling' and 'empowering'.

The next section is a summary of the categories of description included in pool 1.

5.2.5 Summary of pool 1

Four categories of description and their variations are included in Pool 1. These are 'open learning as course organisation', 'open learning as an activity-based experience', 'open learning as a facilitated experience' and 'open learning as designed for collaboration'. These categories and their qualitatively different variations evidence that the course design characteristics, of organisation, activities, facilitation and collaborative open learning design, influenced the way participants experienced the course they participated within the collective case study. The categories illustrate that participants found the flexibility helpful and

appreciated the support from peers and facilitators to overcome any difficulties they experienced.

Pool 2, which follows, shows how the crossing of boundaries was experienced in the context of collaboration.

5.3 Pool 2: Boundary crossing

Pool 2 consists of categories of description relating to cross-boundary experiences as described by the participants. In the context of this study, boundary crossing is defined as bringing together an unconventional mix of individuals, from different cultures, professional statuses, disciplines and practices and sectors, and which therefore has a human dimension. Furthermore, crossing boundaries also relates to experiences associated with physical and virtual locations (place and space), as well as across time and time zones.

Four categories of description emerged from the transcripts that illustrate distinct ways participants experienced cross-boundary learning as follows:

- Cross-boundary learning through modes of participation
- Cross-boundary learning through time, places and space
- Cross-boundary learning through culture and language
- Cross-boundary learning through diverse professional contexts

The categories of description included in pool 2 are reported below. The first category of description in this pool 'cross-boundary learning through modes of participation' is presented in the next section.

5.3.1 Category of description: cross-boundary learning through modes of participation (C2.1)

In this category of description the focus is on 'cross-boundary learning through modes of participation'. In particular, the mixing of formal and informal provision in the collective case study is described as experienced by participants.

This category emerged directly through the phenomenographic data analysis, as there was no related question included in the interviews. It was formed early on in the process, though the title changed over time.

Participants experienced 'cross-boundary learning through modes of participation' in three distinct qualitative variations:

- As a valued mixed mode learning experience
- As a valued informal learning experience
- As a valued opportunity for recognition

Formal and informal learning together with related perceived motivations is well supported in the data, while evidence linked to recognition is less supported.

As a valued mixed mode learning experience

Participants experienced 'cross-boundary learning through modes of participation' as a valuable mixed mode learning experience, describing the benefits from mixing informal and formal learners. While a distinction was made between these, there was no discrimination. Formal and informal learners learnt together, no distinction was made and all participants received the same level of support. On the contrary, participants felt that everybody had something valuable to contribute: a unique perspective. There was a concern described by informal learners about those who were working towards a qualification. Participant F10 says "we didn't want to mess up their experience, and destroy their credit taking." While being concerned about their experience participants also seem to perceive that learners who were studying towards a qualification were more motivated, as indicated by participant F8, who notes that "some people are more motivated by getting the accreditation." The three extracts below illustrate how the mixing of modes of learning was experienced adding value:

> "Some people will do these things for credits, some people will be doing it for fun. And other people are just doing it because they want the experience and they want to learn about that subject area. And I think sometimes the mix can help. Because everybody has something to add to the experience. Those of us like me who are doing it, who're doing it to learn about the things, and not doing it for credit, hopefully didn't damage anybody who was doing it for credit, by not, perhaps, you know, reading as much as we should've done at the time, or we should've perhaps read a bit more we didn't want to mess up their experience, and destroy their credit taking. But I don't think it affected anybody in the group.

We just got on with it. We were here to do this task and we were gonna focus, investigate and share to the best of our ability as a group." Participant F10

"I seem to remember that at least a couple of them were doing it for some kind of accreditation and that seemed to motivate them. I don't think everybody was, but I think at least two or three of them were, had some kind of local accreditation for the course. I did worry that – whether they would think the rest of us were letting them down, you know, if we weren't, you know, contributing quite as fully. But the fact that some people were there for their own professional development, or for fun, and some people were there as part of a course, that's absolutely fine. I think it's good. [...]The different points of view I don't think- the kind of end goal necessarily affects people's involvement oh no, no that's not true. It probably does, some people are more motivated by getting the accreditation. But it doesn't change their participation you know, as you go along, I think." Participant F8

"I think that's good really, that some people did as part of their formal CPD and others didn't. I don't see that there's an issue with that at all really. I can see how it's probably complicated to organise and complicated to pick but I think that again this comes back to the diversity element of it again, I don't see there being a problem because people are doing the courses for their own motivation anyway and just because maybe they'll get something different out of it, I don't really see a problem with that personally." Participant C3

Participant F5 describes how this mixing of participants a) those formal and b) informal, as an organised cross-institutional collaboration, co-facilitated by a group of distributed facilitators from participating institutions, provides a potentially attractive model for spreading OEP. They argue that it allows modelling and advocating for democratic approaches based on collaboration instead of competition internally or externally.

"The course has been a crucial eye-opener for me, in relation to my experience with FDOL, and it relates to the way in which, it's being run across multiple institutions. Because, for me, there's a big risk with open learning, that if it comes badged by a single institution, that educational developers, academic developers are automatically inclined to be resistant to advocating that for colleagues in their own institution. For fear of it actually, either undermining or, worse still making them redundant. And that's not to say that those courses wouldn't be excellent for those colleagues in that institution. So, the differences with this course is that there's been an attempt to diffuse that problem, by having it facilitated by colleagues in more than one institution, and then when you look at the PBL facilitators furthermore, even more institutions again, so leaving it open for the instruction of the course, the delivery of it to be facilitated by multiple institutions effectively. And I think that erodes that problem of feeling as though it belongs to another competitor. And that we would be offering it. So there's something really nice about that. But it's more than open learning, it's about open practice as well. It's about making sure that the model of the course can accommodate, and invites facilitation from others in other institutions." Participant F5

As a valued informal learning experience

Participants experienced 'cross-boundary learning through modes of participation' as a valued informal learning experience, describing how they valued this opportunity driven by their own personal or professional motivations, curiosity and interest for self-development. It enhanced a specific aspect of their practice. Participant C6's response captures this well, and their response is characteristic of other similar experiences described. In addition, participant C6 highlights an altruistic motivation to support others in their learning.

> "I wasn't looking for a qualification. I was more interested in, well, from a personal point of view, discovering what, how these things work and keeping abreast of new developments. Because although I'm retired, I think it's important that I keep on learning, I am a lifelong learner. So it was important from that point of view. There was another, more practical aspect. I felt I should know what was going on. So there was a personal desire to learn. That sort of professional or semi-professional. But at the same time maybe a third one as well, in that I've had a lot of experience –by the time you reach my age you've had a lot of experience both professionally and personally, and I thought maybe I could contribute and give a little help to others." Participant C6

The following example from participant C4 illustrates a genuine desire to engage in the course for learning, which they state that it is not linked to a desire to use as evidence for engagement in CPD or career progression and therefore their informal engagement is valued for their own learning and therefore it provides a degree of perceived freedom:

> "I recognised that for many of those participants I got the impression that they were driven by, ah there is a badge at the end of it, there's an award or whatever and I think and you would get this situation on a Friday or whatever where suddenly there's a whole load of, oh I've done this, I've done that exercise, I was doing what was necessary okay, in fact again we had a discussion about this business of there were a significant number of participants who were following the recipe okay and it felt like. Now I've never been a recipe follower, to me sometimes the recipe gets in the way, so as long as you understand what the recipe is there for. So I'm not driven by the badge other than perhaps a sort of academic interest in, oh I wonder how that works and how do I put that on my blog or something, you know it's not going to make any difference to my career or anything like that." Participant C4

As a valued opportunity for recognition

Participants experienced 'cross-boundary learning through modes of participation' 'as a valued opportunity for recognition', those who were informal learners describing how they could see the potential for receiving recognition for their work completed in the course. Participant F3 talks about "CPD points" while participant C3 mentions "open badges" as an example of a way to evidence engagement in the course together with their portfolio of work.

Participant C7 identifies an opportunity to use the work completed for the course to gain professional recognition.

> "I mean if there will be a continuation or an extended FDOL for example with CPD points, I will definitely do it. It didn't affect me because I wanted to learn how a live PBL works and I got that. But if I can get something out of it, it will be a bonus. […] All of us at least the group, the members of the group that I know of we did it because we want to improve professionally." Participant F7

> "I like the badges, I like that aspect of it. […]I've done the course so I think it would be quite good to have some kind of evidence. It would be good as well to link it because you can have these [badges], you know and the artefacts that people are doing, that would be really good evidence portfolio wise, which would be interesting and obviously when I'm trying to incorporate it in the future it would be useful to be able to demonstrate to other people that's where I was thinking going with that, if I do manage to get around to it. But I didn't do it just for the badges you see, that's the point." Participant C3

> "What I enjoyed about the course the most was to be honest the stuff that I learnt and putting that into practice and learning about new theories and new way and also the reflectiveness because I'm doing my chartership at the moment as a chartered librarian and a big part of that is reflective writing. So that was really good because I was reading a lot of stuff on how to be a reflective teacher and I could use that in my chartership write ups as well, so that was really handy." Participant C7

The three qualitatively different variations of the category of description 'cross-boundary learning through modes of participation' show that participants experienced it as 'a valued informal learning experience', 'a valued mixed mode learning experience and 'a valued opportunity for recognition'.

The next category of description, 'cross-boundary learning through time, places and space' is presented in the following section.

5.3.2 Category of description: cross-boundary learning through time, places and space (C2.2)

In this category, the focus is on how 'cross-boundary learning through time, place and space' was experienced by the participants. This category emerged through the re-organisation of other categories directly through the data analysis as there was no related question included in the interview schedule. There were, however, a number of more generic questions around the experience which might have triggered related reflections. Interestingly, there was a reported value in local collaborations, mobile learning, and the idea of the course as a community. Participants experienced 'cross-boundary learning

through time, places and space' in the following two distinct qualitative variations:

- As a disconnected experience
- As a continuum

Cross-boundary learning as a continuum was well supported in the data, while the disconnected experience was less supported.

As a disconnected experience

Participants experienced 'cross-boundary learning through time, places and space' as a disconnected experience, describing how they felt disconnected from others due to time constraints or difficulties experienced, such as time zones. Participant C11, for example, recognises the challenge of staying connected with others located in a different time-zone. The extract below indicates a realisation of their own responsibility and investment in connecting with others and making it work for them. The disconnected experience made some participants feel lonely and more isolated.

> "I never really got connected to the group, part of the group. I think it was just always connected to individuals and I didn't get a chance, maybe it wasn't long enough but I didn't get a chance when I was like talking to members and I wasn't talking to everybody, so if I made a reply, there were very few replies that I made that like went out to more than one person, like I only mentioned one person in the reply and I don't know why it didn't, it just never congealed, the group never congealed. […] There were hangouts but I'm really bad at hangouts. I always get the times wrong or I'm in the wrong part of the world, so I'm always on the other side of the planet for a lot of these things. […] I really think that the hangouts are valuable because you get the isolation from being online, particularly if you are the only, seemingly only one on the whole continent, this particular continent, which doesn't happen very often, there is usually quite a lot people spread across North America. I just sort of, I missed the first couple and I just didn't do anything else about it." Participant C11

Working within groups with members being in very different time-zones and the potential disconnectedness this would create was also recognised by participants who did not experience such challenges:

> "The time difference for Sweden was not significant enough for it to be a huge challenge, but potentially, you know, if you were working with a more distributed set of, locations, they would be more challenging to get the, those value experiences out of the conversations." Participant F5

A further example from participant C5 shows that the experienced disconnectedness was a decision the participant had made due to other priorities:

> "I know they have all these hangouts in the group and so on, but again the time that they had them, I was always at work and I, you know I couldn't do that. […] I think hangouts, I think from seeing let's say afterwards there were like 4, 5 people making it out of 10, 15. Because again, some of them they wanted to do it at 2 o'clock in the afternoon UK time which for us is 3 but still it's, I'm busy, I cannot do things, you know, besides that." Participant C5

As a continuum

Participants experienced 'cross-boundary learning through time, places and space' as a continuum, describing how they saw their engagement in the course as something that provided opportunities for uninterrupted engagement (both with the course and others) in a variety of ways. This continuum was also experienced in the form of interactions with others from within the course and elsewhere. This uninterrupted opportunity for engagement defines how the word continuum is used in this analysis.

This qualitatively different variation indicates that creating a seamless, connected learning experience seen as a continuum that brings together the digital and non-digital, the time-bound and timeless, the local and the distributed, as well as the mobile, was helpful for learning and created dynamic learning experiences.

Participant C1, for example, describes how mobile connectivity through their own smart device helped them stay connected and engage with others on the go: "I was in the bus and I was exchanging opinions". Their words reflect excitement about this possibility and the reality they experienced that enabled them to continuously be engaged in the course with others.

> "When I was entering my email, I had lots and lots of emails, that informed me for example, a member of the community posted this, or commented my post, or my thought, or in my portfolio. And that was a little bit, that caused me a little bit upset, because I felt that I had to keep up with the rest of the activities and the interactions, and I was saying 'Oh, I have to get in the community', and sometimes I had no time, so, when I was in the bus, or at the university I was given through my smartphone, and if I had, for example, five minutes free I was getting in the community and try to keep up with the material and the thoughts that were shared in it. But, there was an option in Google plus where I could de-activate those notifications, but I didn't want to do that. I, I think that I would lose my feedback, the flow of the information and thoughts. Something that I didn't

want to do so. […] For example, if I had seen someone commenting on my post, and I was available at that time, I could go to the community, comment and I found this really interesting. It was the first learning situation which was not in a classroom, or in a university. I was in the bus and I was exchanging opinions, thoughts. It was very interesting." Participant C1

Participants also described how they reached out to local communities during the course, how these formed part of their support networks, and how there was no perceived need to connect with others online in the course. Therefore, the continuum had different dimensions for participants also associated with place and spaces. Participant C7, for example, reflects on their situation and how useful their local community was as part of the open course in which they participated. In addition, they note how the established community took priority over developing a new online support network and community which would take time and effort.

> "When I found online communities in the past a lot more useful for me before I started this job, so the job I had before this when I was one of only two librarians and the other librarian was my boss and she was a lot older and worked two days a week, so I was the only librarian really so I didn't have anyone to bounce off ideas from, so I spent a lot of time online and built up a really good network, which I think is what the Google community was trying to do but now in my new job at the university the team is really well established, they're very supportive, there are a lot of us and we've all got different backgrounds and so I've kind of let the online side slip a bit because my needs are being fulfilled by my work colleagues really." Participant C7

Furthermore, participants from some institutions described how local events were organised during the open course. These brought individuals together from the same institution or the local area and provided a valuable extension to the open course and provided a continuum across place as described by participant C8, who also highlights an opportunity to connect beyond the life of the course.

> "Our facilitator contacted a few people within my institution to see if we would be interested in meeting up face to face to talk about the course. So I had already you know, applied online to join the community, the Google community, the smaller group because from doing an open course before I found that belonging to a group was, not just increase, it was, it feels like it's easier to manage, that there's more of a sense of belonging. So the facilitator said would any people be interested in meeting up face to face just to talk about the course and that was really, really good, I think we met maybe three times, I think there were three or four meetings in our institution with a variety of staff, just a small group of four or five of us at any one time but to talk offline about this and part of those meetings was really people going "Well how does this work?", "What am I supposed to do?" […] I didn't take part in the structured activities although and I felt less guilt than I have with other courses that I haven't fully participated

because I made this conscious decision at the beginning it has still had a really big impact for me and also within my institution with colleagues, people that I know but that I don't necessarily work closely with, having a conversation about what they do, why they do it, what they're interested in with our colleague who was a facilitator on the course sharing and enthusing about what she has been doing with her students" Participant C8

Participant C8's realisation of continuing engagement locally is also echoed by participant C4 who highlights the opportunity for staying connected with others beyond the timeframe of the course in the digital world.

"The fact that some of that group I know will carry it on, is great. I found myself thinking this is no time at all, I've only just got into it and it's finishing okay, now that's easy to see from this perspective, if at the beginning you said this course is going to be twenty weeks I would have gone, oh my god I can't manage that commitment. So somehow I think the magic word would be extension ability would be the thing that is important, if it looks too big from the outset then that gets in the way and my disappointment was just that it was ending, but I'm not really disappointed because I'm not letting it end because that little group will keep talking." Participant C4

The two qualitatively different variations of the category of description 'cross-boundary learning through time, places and space' show that participants experienced it as 'a disconnected experience' and 'as a continuum'.

The next category 'cross-boundary learning through culture and language' is presented in the following section.

5.3.3 Category of description: cross-boundary learning through culture and language (C2.3)

In this category of description, the focus is on how 'cross-boundary learning through culture and language' was experienced. This category emerged through the data analysis, as there was no specifically related question in the interviews. The focus was more on cross-institutional collaboration.

The two open courses created opportunities for bringing together individuals and groups from different countries and cultures. As a result of the cultural and linguistic mixing, learning as a cross-boundary experience through culture and language provided an interesting dimension. This was experienced and described by participants.

Within the collective case study, English was used as the course language. Participants had different levels of confidence, expertise and fluency in English,

had different linguistic and cultural backgrounds, and experienced 'cross-boundary learning through culture and language' in two distinct ways:

- As a barrier
- As enrichment

The role of language is well supported in the data. While the cultural aspects are present, it is acknowledged that there is less support in the data around these.

As a barrier

Participants experienced 'cross-boundary learning through culture and language' as a barrier, with both, English native speakers and participants who spoke English as a second or foreign language, recognising that there was a language challenge. This had an impact on engagement within the culturally and linguistically rich environment. Participant F2 who is an English native speaker notes that "it felt like the UK people tended to take over." Participants recognised that it was harder for non-English native speakers to fully engage and that they possibly lacked confidence.

> "I find it useful to learn from other people's experiences. The international nature. I think it's useful, I think it was useful to share those experiences, but I think sometimes the language barrier, like there was a lack of confidence from some members of the group, which was fine in some aspects, but meant that in discussions it felt like the UK people tended to take over. Not because they, you know, they wanted to, but I always got the impression it was, like a lack of confidence, and, to be honest I would probably find it quite hard if I had to do it in a foreign language and keep up with the, the following a conversation, to be able to do that." Participant F2

This is also noted by non-English native speaking participants. Participant C10 is such an example who says

> "I didn't participate in a group, because I didn't feel confident about the language and I feel, I felt a little bit, I felt the pressure." Participant C10

These words come with a realisation that, within the groups, the demands for communication and interactions were increased and led to the participant choosing to learn outside a group. It is particularly interesting that participant C10 recognises that the participants became more confident over time:

> "In the last week I feel more confident to communicate, to react with others. But it was the last week". Participant C10

> "I felt a little bit anxiety, because I have 1 year, 2 years my English I can understand very well but I don't use it. I had a long time to use my English. So the language was problem for me. But I find it a challenge to make it better. […]I didn't feel the confidence about my writing skills. So I read it and I read it again. I couldn't manage the time. I couldn't realise how many hours I could use for a specific section because, I was trying to read and read again my texts. And I was losing a lot of time during this process. […] I didn't participate in a group, because I didn't feel confident about the language and I feel, I felt a little bit the pressure. I wanted to have a little time to adjust in the community and it was in the last week I feel more confident to communicate, to react with others. But it was the last week." Participant C10

This increase in confidence that helped remove some of the related barriers was influenced by positive behaviours enacted by English-native speaking participants as captured for example by participant C1:

> "We had to remember again our English. Not only in a written dimension, but in an oral one too. Something that was totally challenging. And, of course, the rest of our participants who were heroes to hear us, they supported us and never made any statement or insult, for example, I don't know. They were really encouraging and supportive." Participant C1

An example were the language barrier became a real challenge comes from participant F9:

> "I'm not good at English so it was the biggest problem. So, it was more difficult than I expected to participate. I was very sorry for others and for myself. I wasn't happy. […] But it was my choice. I knew it [the course] was only in English so it was my choice. But I was more tired than I expected. It, it became more difficult." F9

As enrichment

Participants experienced 'cross-boundary learning through culture and language' as an enrichment, describing their excitement about working with other professionals from different countries and cultures. The findings suggest that felt that this opportunity enriched their experience more than just working with colleagues from other institutions. The words of participant F7 included below offer such an example. The diversity of learners helped them to see themselves as professionals in a wider context beyond the boundaries of their own country or culture. This appeared exciting and useful for them, especially as it enabled them to learn together as peers, sharing experiences that were new to others and enriching their understanding and sharing practices as the following extract shows:

> "We were from two different countries in my group. And that was, I think that was more attractive for me rather than different institutions. I mean if everybody was from UK, maybe because I think, or I feel that I know the UK system and

how it works, maybe it wouldn't have made any difference. I see how things are working in different countries. Maybe I think that everybody's doing e-learning in a certain way. And then I realise that they are doing it differently or they're not doing it or, you know? So from that point of view it was good. […] I think that I felt good of contributing with my experience to what they're doing. So when, they ask something, and I saw that it can work in a certain way because we have done it here in the UK I could tell them what we have done and then they can experiment. So from that point of view it felt good, of sharing information." Participant F7

Furthermore, being a learner seems to be an enrichment for participants who were academic staff as this enabled them to experience learning in such settings. Participant F3 describes this and the value of connecting at a personal level with diverse individuals from different parts of the world:

"I think the working across different cultures and working across different, understandings, I think was, was really interesting. And, also getting an insight into so, you know the sorts of things that people are having to deal with in their everyday lives. Like [group member 1]-, never seemed to be staying still in one country, and [group member 2] was worried about the hurricane, you know, and then, and then, [group member 3] got no electricity, and [group member 4] was saying he does some part time stuff all over the place, so, getting an insight into people's lives and the sorts of things they're having to juggle, and how that can impact on what they 're able to do as, as a learner, I think that's quite , that was quite interesting." Participant F3

A further example that demonstrates enrichment of the learning experience working within a community of individuals who speak different languages, comes from participant C1:

"I like the basic concept of the course. I like the fact that I was collaborating with participants not only professional backgrounds, but linguistic background, cultural background educational background. […] We had to remember again our English. Not only in a written dimension, but in an oral one too. Something that was totally challenging. And, of course, the rest of our participants who were heroes to hear us, they supported us and never made any statement or insult, for example. They were really encouraging and supportive. In that way they were trying to, I think, they were trying to set up 'we're not here to judge you about the fact that maybe you, make errors or you mix perhaps some words and I don't know what else, but we're here to share our thoughts, opinions, ideas'. And, of course, there was an image that was shared in the community that was 'never judge a person who doesn't speak your language. He just knows another one'. So this motto was, was present in the, in the community. No one never said anything about errors or syntax, syntactical or grammatical errors." Participant C1

The two qualitatively different variations within the category of description 'cross-boundary learning through culture and language' show that participants experienced it as 'a barrier' and 'as enrichment'.

The next category of description, 'cross-boundary learning through diverse professional contexts' is presented in the following section.

5.3.4 Category of description: cross-boundary learning through diverse professional contexts (C2.4)

In this category of description, the focus is on 'cross-boundary learning through diverse professional contexts'. This category emerged half way through the data analysis, though it is acknowledged that there was a question around learning in collaboration with colleagues from different institutions. This might have triggered reflection around a wider diversity that was experienced and is relevant to this category of description.

While the courses were primarily for HE professionals who teach or support learning, they also attracted postgraduate students and individuals from outside HE and varying professional contexts. This coming together of a diverse body of participants was possible due to the openness of the course and the lack of entry requirements. Participants experienced 'cross-boundary learning through diverse professional contexts' in two qualitatively different variations:

- As initial discomfort
- As a catalyst

The positive aspects of 'cross-boundary learning through diverse professional contexts' is well supported in the data, but there is less support for related difficulties.

As initial discomfort

Participants experienced 'cross-boundary learning through mixed professional contexts' as 'initial discomfort', participants from sectors outside HE in particular, describing how they initially felt initially uneasy working with staff from HE. These participants saw individuals from HE as superior in an environment where hierarchies were flattened. The example included below from participant F10 provides such an example. It also demonstrates how these initial feelings of discomfort disappeared when learners got to know each other and realised that they had a lot in common:

> "I remember it was really strange, actually, in many ways. Because there was all these university lecturers, and staff, and there's me in a school thinking 'am I out of my depth here? Should I be involved in this process? And all the problems we had as a group, of getting on to Google hangouts and people coming on at different times, but everybody was so welcoming, that it didn't really matter that I was from, a school background and everybody else was in a university setting, we all had the same issues to face and we all were exploring the same sorts of problems. I really enjoyed the process. I began to look forward to our weekly meetings, and getting into what we had to be focusing on, and doing the, the work outside, and trying to keep up to date with everything and run a job and live a life, and so on, and so forth." Participant F10

Further participants, who were postgraduate students, describe similar feelings of discomfort in relation to learning with individuals who teach or support learning in HE. They used this discomfort as an opportunity for deeper engagement and learning as they felt that it stretched them intellectually often in a foreign language:

> "The fact that we would be collaborating and cooperating with professors of Universities from abroad was rather challenging for me, as I had to try to generate more high level activities, and try to share my thoughts, especially in another language, which was another aspect of this. In that way I found it really interesting." Participant C1

As a catalyst

Participants experienced 'cross-boundary learning through diverse professional contexts' as a catalyst, describing experiencing the mixing of individuals from different professional sectors as refreshing and valuable for their development. It provided new perspectives and triggered creative ideas and exchanges that could be transferred to other contexts. Therefore, this mixing of individuals from HE and other sectors arguably acted as 'a catalyst' for those involved. Participant F2, who is an HE professional, highlights this:

> "I find the learning, the thinking of different ideas, hearing how other people had dealt with it really useful. And 'cos we were from such different backgrounds, that's quite useful as well, 'cos obviously I'm a lecturer that is my primary role… […] But there was somebody else who was more from a school background rather than a university background, so it was bringing together lots of different ways of thinking about things. I did find it useful, because I think you need those, you need to think outside, -side the box. I was talking about self-reflection yesterday and thinking about sort of like the higher levels of, self-reflection, it's challenging assumptions. So as a higher education lecturer, I have certain assumptions and sometimes you need to sort of like, step back from those and that's where having those people from different experiences is useful. Because you're, thinking more, you're not just using your HE, assumptions, you're thinking "actually that might work in my situation, I'd never thought of that." And I've had a go at some of the things, you know that, some of the things we talked about, some of them work - some of them don't. Some of

them you think "oh, that's not actually for me", so I think it is useful, and I would worry, if we'd all been HE lecturers I wonder whether it would have been the same experience. That we wouldn't all just gone, "Oh that doesn't work!" Participant F2

A further example comes from participant C4 who acknowledges that the different professional contexts of participants also helped identify common grounds:

"You know that situation with your own employer or you know just the way that UK higher education or whatever, because you got such a wide range of experiences and culture that's there, so I think in this particular case where, we were trying to describe practice, so again you know some of these people were school teachers, some of these people are lecturers you know, it was helpful that, it was good to have that variety really, yes I think it helped you realise that we were talking about stuff that was generalisable and portable if you like." Participant C4

The two qualitatively different variations of the category of description 'cross-boundary learning through diverse professional contexts' show that participants experienced it as 'initial discomfort' and 'as a catalyst'.

The next section is a summary of the categories of description included in pool 2.

5.3.5 Summary of pool 2

Four categories of description are included in pool 2 together with their qualitatively different variations. These are: 'cross-boundary learning through modes of participation', ' cross-boundary learning through time, places and space', ' cross-boundary learning through culture and language' and 'cross-boundary learning through diverse professional contexts'. These categories and their identified qualitatively different variations, evidence among other things that the crossing of boundaries was experienced by participants in collaborative open learning, as an opportunity to learn with individuals from diverse backgrounds including students and the public, online and offline.

Figure 5.2 below shows how cross-disciplinary and cross-cultural learning relate to cross-boundary learning and the findings of this study. It shows that cross-boundary learning is a much broader term that includes cross-disciplinary and cross-cultural learning. However, cross-boundary learning goes further in the context of this study and includes learning with the public and bringing together formal and informal learners.

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┌──────────────┐   ┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│  Modes of    │   │ Time, places │   │ Culture and  │   │   Diverse    │
│ participation│   │  and space   │   │  language    │   │ professional │
│   (C2.1)     │   │   (C2.2)     │   │   (C2.3)     │   │  contexts    │
│              │   │              │   │              │   │   (C2.4)     │
│              │   │              │   │              │   │              │
│              │   │              │   │              │   │ (including   │
│              │   │              │   │              │   │   cross-     │
│              │   │              │   │(cross-cultural│  │ disciplinary │
│              │   │              │   │  learning)   │   │  learning)   │
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┌──────────────────────────────────────────────────────────────────────┐
│                       Cross-boundary learning                         │
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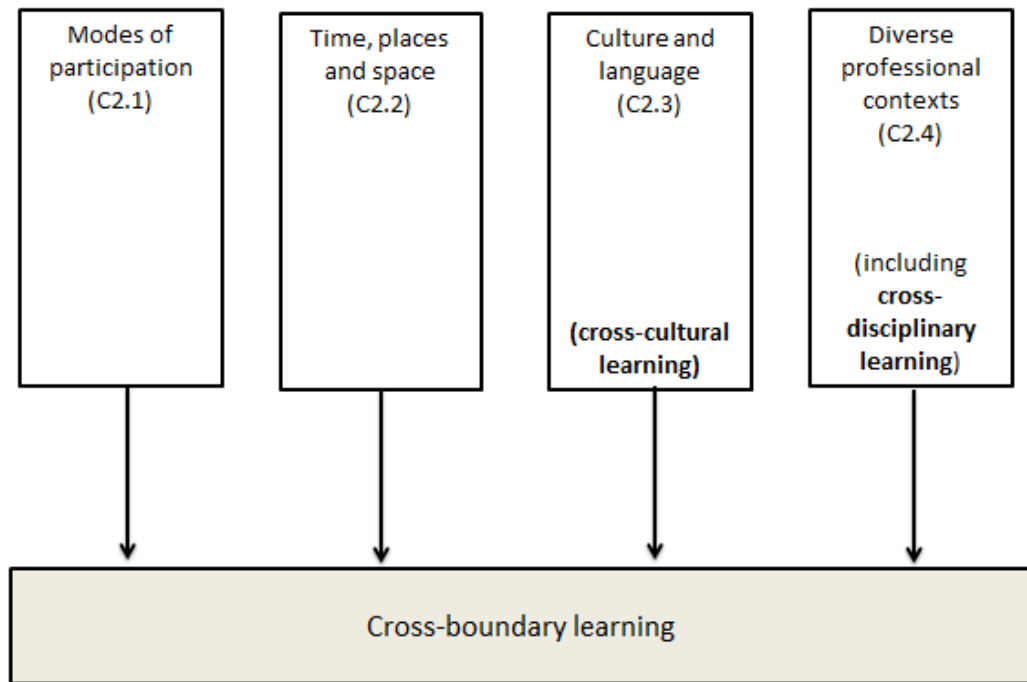
Figure 5.2 Cross-boundary learning

Pool 3, which follows, shows how cross-boundary collaborative open learning was experienced in the two courses of this study.

5.4 Pool 3: Collaboration

Pool 3 consists of categories of description that emerged through the data and which relate to the different ways collaboration was experienced within the collective case study. Collaboration is defined by the course as optional learning opportunities in small groups supported by facilitators to enable learning with others. Therefore participants could choose if they wanted to learn within a group or autonomously. Three categories of description were formed that highlight distinct ways of experiencing collaboration in these courses and form this Pool of Meaning:

- Collaboration as engagement in learning
- Collaboration as a means to shared product creation
- Collaboration as relationship building

The first category 'collaboration as engagement in learning' is presented in the next section.

5.4.1 Category of description: collaboration as engagement in learning (C3.1)

In this category of description, the focus is on 'collaboration as engagement in learning'. Engagement in the context of this study is defined as being occupied in learning through interaction with others or on one's own that might not necessarily be visible to others. This category emerged early on through interview questions linked to the collaborative open learning experience.

Participants experienced 'collaboration as engagement in learning' in two distinct qualitative variations:

- Selective
- Immersive

The synchronous engagement across both courses and how this impacted engagement is well supported in the data.

Selective

Participants experienced 'collaboration as engagement in learning' as a 'selective experience', describing how they were less connected during collaborative learning due to the volume of activities, their circumstances and availability as well as their decisions about levels of participation. The findings show that participants' reality and priorities made them more selective in their engagement in collaborative learning activities and interactions with group members. Participants F8, for example, notes that their interest was in maximising personal outcome and using their available time to engage mainly in asynchronous activities. There was less desire for being immersed and committed to a group learning experience.

> "I think that I've come to accept that with larger Google communities, with things, you know, tweetchats and Twitter and whatever that you can't follow everything. And, so you have to be selective, and sometimes that does mean you're gonna miss out on some stuff. But, I feel like I've got benefit from what I did. I didn't waste the time I hope that I contributed to the bits that I did do, so, for me it was good. You know, I may well have benefitted more from paying more attention to the rest of it, but I, I don't feel as guilty about that as I do about not finishing with my group." Participant F8

Participant C8 highlights selective engagement as an informed choice and expresses awareness of others in their group and their different way of working.

> "My involvement was much more peripheral, much more. I was interested in what people were saying, what they were posting but I felt less involved, less of a part of it, and I felt a little bit of, I tried not to feel guilty, I hoped that joining a group would encourage me to find more time to take part but it turns out it didn't, but I don't feel that it was a failure, I don't feel that that I wasted any time, I hoped that I didn't waste anyone else's time, you know taken part in a few hangouts and having the discussions with people online and face to face, it felt worth doing. […] I think that one of my colleagues in particular you know was concerned that you ought to be completing it in a very linear fashion and that works for some people, to have a structure, to have the weeks, for things to happen synchronously is good but if you are not able to take advantage of that it's, it felt like it was okay to approach it in the way that I did, to dip in."
> Participant C8

Immersive

Participants experienced 'collaboration as engagement in learning' as an immersive experience. This state showed varied and deep engagement of a synchronous and asynchronous nature using a series of technological tools and approaches that indicate a strong commitment to learning within the group.

An example of an immersive collaborative experience comes from participants C4 who also highlights the role synchronous communication played in this experience.

> "I found that I was able, that once that group space appeared I was making more use of stuff that was coming out of that because it was becoming more focused. So we did, we told little bits, little aspects of our life stories if you like, to each other and then because we could see patterns of interests I think that then, of course that then snowballed because that then fed on. […] We very quickly decided that we were going to meet at seven o clock on a Sunday night, you know it was almost like, I was looking forward to it during the week, it was like going to the pub or something and it was, it was a milestone somehow to, it was an easier milestone even though, even though we only had vague objectives about what we might want to talk about next time because there was, as soon as you got into that there was a reinforcement of what's happened this week, we would each go through what has happened this week and then between us we would then reflect on that and build on that and yeah. So I think for me what was actually powerful about those hangouts is that immediate reinforcement. […]
>
> If I look back again when you're in the big creative space you've no idea who's there, you are conscious it's quite a big group, you've maybe only engaged with a small number of participants but what happened for me was it became that self-selecting group who went off into that special space and most of the attention to me went on in there because, it was very much cemented by that early hangout where. I think that the very early ice breaker in that hangout made all that difference. It felt very informal, it felt like sitting, chatting around the table and although we all very quickly we were getting into, although it was very relaxed, you know it was like, it was like a small seminar, it was like a

tutorial, you know you got that visual contact, you could pick up the body language and because we'd already done some of the exercises in the main stream bit of it, it's not like, it's not like going to a party where you don't know, you've never met anybody before, you were arriving already armed with things to talk about." Participant C4

Participant F5 describes how a specific type of collaborative learning, where group members talked and worked together simultaneously, was a powerful learning experience and a productive use of time for group members. This is echoed by other participants in the transcript. However, it is also recognised that due to personal or professional time constraints and different time zones, it was not always possible to participate in synchronous group activities, and for some this had an impact on how connected and immersed they felt about learning within the group as the findings suggest. Evidence of this immersive experience can be seen in the following quotation by participant F5.

> "The web tools that we used, webinar, using Google Drive, you know, collaborative authoring, all those kind of things, are so powerful. And the only difference in approach, was a combined use of Google Hangouts with Google Drive simultaneously. So several of us, being present in the conversation live, and being present together in the document. And that's, that really is a very efficient and productive way of getting stuff on, you know, typed out and, and it's a very rich and inclusive way of making everybody feel as though they're contributing to that document at the same time. Of course, the downside to that is if you can't make it then that's problematic. And obviously the time difference for Sweden's not significant enough for it to be a huge challenge, but potentially, you know, if you were working with a more distributed set of locations, they would be more challenging to get those value experiences out of the conversations. […] You can have a very powerful and rich conversation that benefits from all of the natural social cues of body language, and intonation. So in that respect the collaboration can be far richer and far more valuable. I mean it is a very powerful example of being able to talk together and work together, simultaneously on a document." Participant F5

The two qualitatively different variations of the category of description 'collaboration as engagement in learning' show that participants experienced it as 'selective' and 'immersive'.

The next category of description 'collaboration as a means to shared product creation' is presented in the following section.

5.4.2 Category of description: collaboration as a means to shared product creation (C3.2)

In this category of description, the focus is on 'collaboration as a means to shared product creation', which was experienced in small groups. This category emerged very early on directly through the data analysis, as there was no

question included in the interviews around this particular aspect of collaborative learning.

Participants in the two courses experienced 'collaboration as a means to shared product creation' in two distinct variations:

- As a product-process tension
- Fulfilling

The product vs process dilemma is well supported in the collective data study especially in that derived from the FDOL132 course.

As a product-process tension

Participants experienced 'collaboration as a means to shared product creation' as a product-process tension, describing the challenge they experienced when learning with others collaboratively for the co-creation of the shared group output. Their observations evidence high learning expectations and a reality which was very different to how learning within a group was perceived linked to the group process and product. For example, participant F4 notes that "I was not satisfied. I think the product was, actually not a high quality product." Participants suggest that assessment could be used as a possible quality driver for group product. The also suggest that the focus of collaborative learning could be moved away from creating a shared product and focus more on the process of collaborative learning.

> "We learned and improved a lot, but with the product of the PBL group I was not satisfied. I think the product was, actually not a high quality product. I think when I would have a topic to do for my own and retrieve high quality information and work an essay or summary, I think it, it would better. But I think maybe the product was not really the most important thing of the PBL group. Maybe the way was actually more important than the product, the artefact of the group. But if you would only look at the product, then I think you would be a little bit, dissatisfied. I mean if you compare it with publications about the topic, we have a topic about collaboratively learning, and if you compare this six, seven slides we generated during a one week PBL topic, I mean this is way behind a decent publication, in an online journal about e-learning. I mean it's OK, we are not professionals but the quality is not satisfactory, it would absolutely impossible to publish that. I think the structure of the course could be adapted or modified, that the PBL product, the PBL artefact will also, be involved in the assessment, for the students. And you would not assess only the number of reflections, but also the product. Then this might be a motivation for students to increase the quality of the product, and so by this you could also strengthen the role of peer reviewing aspects. I came across there was not so much focus on peer reviewing of the products and critical discussion of the products." Participant F4

A further example has been included. Participant F5 describes their preference of focusing on collaborative learning as a process instead of collaborative learning as a product development:

> "The value of looking at the process using a PBL approach is that you're challenging your conceptions, prior experiences based on the, the new scenario, or the new problem, um, but through a lens of that theme of that week. So some of the activities that were useful were, related to the reading activities, you know, so linking the going exploring, finding the piece of literature where there was division of labour in the group to each identify themes from the literature and, and bring those back and use that as part of the lens for the problem. That was quite valuable and helpful, as a process. But actually, I would have been happy to stop there. And, and then just take that way and write my blog entry and retain it in terms of relating it to my personal practice, rather than trying to synthesise a, a kind of generic, set of outcomes that we share the other way, you know, to the broader group. Because of, you know, again, like I say my motivation was there because I was interested in how it relates to me with my practice so I guess that's where I wanted the outcome to lead to." Participant F5

Fulfilling

Participants experienced 'collaboration as a means to shared product creation' as fulfilling, describing not only how much they enjoyed learning with others collaboratively in their groups, but also the personal benefits collaborative learning had for their engagement through the creation of a shared output. This was achieved through critique and inquiry, and created a sense of achievement for participants. Participant F10 noted that "it really made you question what you were doing and go into the topic in a deeper way."

> "I remember you had the option of you could join a group or you could try and do your own thing. And I thought 'Well, it's gonna be more fun in a group, rather than feeling like- on your own it's gonna be a bit, less to bounce off and it's much more involved with yourself and you know, you'd need a lot more control to really keep yourself going each week without having the feedback. I really enjoyed the collaborative nature of the online learning part of it, and the collaboration made it a lot more fun, because people would give insights and I'd say 'Oh, I never thought of that'. And so it just made it more worthwhile because you get other people's inputs, and it improved your own thinking on the topics, because they'd come up with insights and ideas that I hadn't had and I'd have ideas that they hadn't had and we shared it. And because we shared the different tasks around, and had to produce different things and collaborate on the Google pages outside of the meetings, it really made you question what you were doing and go into the topic in a deeper way than you might have done if you'd been working on it on your own where you'd've probably cursorily read the material, jotted down some responses and hoped that everybody would like it. And this made you think more." Participant F10

A further example has been added from participant F8 that demonstrates how the group worked together and how fulfilling it was to achieve something together as a group:

> "The smaller group and the hangouts, and just kinda working together to work out how we would work, and trying to make sense of it together – sharing the tasks the responsibility, and then seeing what that turned into – the little mini-presentations, that seemed, yeah I really liked that, because there were a mixture of people from the UK and from, was it from Sweden. And I don't think that any of us knew each other. So that was good. […] I remember at the time, especially the first few units when we got together our little presentations. You know we weren't sure about what it was but it felt like – You know that, you know that feeling when you work together with people and what you've produced at the end is more than you could have done on your own. It's sort of the more than the sum of its parts. That's, yeah, that's what it felt like for a few of the units where we collaborated successfully." Participant F8

The two qualitatively different variations of the category of description 'collaboration as a means to shared product creation' show that participants experienced it as 'product-process tension' and 'fulfilling'.

The next category of description 'collaboration as relationship building' is presented in the following section.

5.4.3 Category of description: collaboration as relationship building (C3.3)

In this category, the focus is on 'collaboration as relationship building'. This category emerged through the data analysis, as there was no question included in the interview around relationships and the role they played in learning. It was not, however, a straight forward process, as fragments of this category were initially scattered across other categories of description and their variations.

Within this specific category of description, clarification is given about how participants experienced collaboration as relationship building in the collective case study. Participants experienced collaboration as relationship building in two distinct qualitative variations:

- Questioning the behaviour of others

- Valuing the presence of others

There is more support in the data regarding the positive nature of relationships and the role this played in the learning experience in the data, than for the more critical side of relationships.

Questioning the behaviour of others

Participants experienced 'collaboration as relationship building' as questioning the behaviour of others. Collaborative learning in groups provides opportunities for group members to learn more closely together. This often translates into a higher volume of exchanges among individuals. In addition, interaction with a smaller number of individuals might magnify actions and behaviours, especially those that create confusion. Participants described situations where others' behaviour created such tensions. Participant F3, for example, describes behaviour that seemed to be typical, where some individuals shared a large volume of links and resources, often without explaining how these would contribute to the experience. The situation could not be resolved as learners often did not share their frustrations with others at the time. They tried to tackle these diplomatically, unfortunately, without success as the example shows.

> "[Group member] just constantly bombarding everybody with all this stuff, which is all very interesting and everything, but then there's never any quality control. Never any "Well what do you expect us to get from this?" So I guess helping people to understand how they might make it meaningful for other folks is important. Because if you're gonna send them a link about something, they've got to know why they might want to go and look at it. […] I tried to send an email, well I tried sending something through Google Plus. I think this person sent us lots of stuff both in our little group and also to the bigger group. And I kept asking questions, so "what do you like me to take away from this? What do you mean me to get from this?" and they did respond at one point saying "yeah, you're asking good questions" and all the rest of it. But then they didn't modify their behaviour or tell me why, so I tried to get them to think why they were actually sending us all these links which were interesting, but there's only so much you can take on board." Participant F3

Participants, especially those who engaged extensively in group activities, noticed that some of their peers were not contributing or were disappearing. Participant F3 describes such a situation and the impact this had on collaborative learning in the group.

> "We seemed to have lots of 'drop by's' who said they were gonna join us and they never did. So I think that really held us up to start off with because we were expecting people to do things and then people would just disappear. I think that was a really major challenge. […] It just felt, at the beginning 'Oh God! Who are these people? One minute they're there, one minute they're not. You connect people through the circles and then they disappear.' It just felt really destabilising at the same time as trying to get used to this new way of working." Participant F3

A further type of behaviour was identified where a learner was upset with a facilitator's decision. In this case, as described by participant C6, a contribution was removed, which made the participant feel censored, something which, according to this individual, was against the nature of the open course and had a negative impact on their participation thereafter.

> "I was asked to remove a couple of postings, which actually I felt was not particularly appropriate. It was supposed to be an open community, and I tried very hard not to say anything that was offensive. And I know that when we put things in writing, without the, the body language, things can come over in a different way from what they were intended. But I did feel I was being censored – if I'm honest. It wasn't intended to be critical, it was just expressing my sadness really that we hadn't had greater participation. In the interests of openness, was it within the spirit of the community really? […] I was frustrated, I didn't intend to be offensive, but was simply an expression of fact as I saw it. So after that, I felt 'well, I'll step back and see what other people have to say'." Participant C6

Valuing the presence of others

Participants experienced 'collaboration as relationship building' as valuing the presence of others, describing the important roles other individuals played in their learning experience at course level, particularly when learning collaboratively with others in groups. Many highlighted, for example, the power synchronous connection established via Google hangouts had, from the outset, in getting to know others, starting to build learning relationships, and helping them realise they were not alone on this journey. As participant F2 states, "I felt like I knew everybody" and this influenced their engagement, motivation and confidence in participating and overcoming potential challenges as the last lines of the extract below reveal.

> "I like the fact that in Google Hangouts and Skype you can see the other person. It gives you that personal feel, I'm not so sure if it had been just by chat or just by Google Plus that you'd have that same experience. I suppose it's about being able to read the other person's body language, and, things like that. I just feel that it gave it the personal feel. I felt like I knew everybody because I knew what they looked like and, you know. And I think that made a difference. Then they weren't just, an icon on a computer screen, that I'd recognised them as a human being if that makes sense. […] The first couple of Hangouts, or at least the first one, a lot of the time we spent going "Ahh!" sort of like, as we all realised we felt the same way and it all tied into the digital literacy side of it. So it was sort of like, I think it all fit- and that's when I suddenly felt "oh it's not just me. I'm not the only one. I'm not out of my depth, and". At that point you started to see the structure of everything else that you thought "Oh actually, yeah I can do this, I don't need to" yeah, I don't know." Participant F2

How this relationship was developed and the difference it made to participants is illustrated in the extract below by participant C3:

> "I think it [the hangout] was that it enabled me to get more of a relationship, although you do get kind of disclosure online in the little messages that we see it brings the person to life more when you can see them face to face and you can get those visual cue's and also kind of learn a bit more about them and what their background is and you know where they're actually talking to you from, what their environment and their space is and it's great to see people's kind of own environment and that really helps you get that connection with them and I think it's, it makes you feel more of a relationship has built with them. Does that help? Yeah. I think so, I mean you tend to feel that you know people anyway online and I think it kind of just takes it to one step further, it takes it that bit further and for me I think the visual side of it does help a lot as well. You know meeting other people online that I didn't necessarily know and just having people kind of waving in the backgrounds, even those kind of subtleties were great really and it really makes you warm to people, so yeah I think that it's a really good tool to have in a course like this, definitely.[…] I just think that I learn better in a kind of open environment, in a friendly supportive environment and I think without building those relationships with people it's very difficult personally for me to be able to learn, I need that kind of interaction off people and to kind of bounce off people and I find that I pick up things better, somebody could explain something to me and I would probably pick that up better than if I had just read it, you know I just prefer that and I think that you have also got more of an investment in that relationship, which kind of pushes you on then to kind of to learn a bit more then as well." Participant C3

The two qualitatively different variations of the category of description 'collaboration as relationship building' show that participants experienced it as 'questioning the behaviour of others' and 'valuing the presence of others'.

A summary of the categories of description included in pool 3 is presented in the next section.

5.4.4 Summary of pool 3

The three categories of description included in Pool 3 are: 'collaboration as engagement in learning', 'collaboration as a means to shared product creation' and 'collaboration as relationship building'. These categories and their qualitatively different variations, evidence that collaborative open learning was experienced as 'selective' and 'immersive'. These two learner engagement patterns, defined how and to what extent participants experienced group relationships and the group product creation.

The outcome space presented in the following section shows possible relationships and links among the above categories of description.

5.5 Phenomenographic outcome space

The outcome space (Chapter 3.4.1.2) is the final output of the phenomenographic analysis of this study. It is an empirical construct that has been developed following an iterative process described in Chapter 3.6.4. In constructing the outcome space the researcher inferred from the categories of description, within the pools of meanings, the logical relationship and links between them. The iterative process involved in doing this is illustrated and reflected upon in a reflective diary.

The outcome space synthesises the 11 categories of descriptions identified in this study and shows the potential links and logical relationships between these that provide further insight into aspects that influence and shape the collaborative open learning experience related to the collective case study. The outcome space also provides insights that aid the formulation of a response to RQ3 based on answers to RQ1 and RQ2. These contribute towards the design of a collaborative open learning framework, which will be discussed in Chapter 7 after responses to RQ1 and RQ2 have been addressed and discussed in Chapter 6.

The outcome space emerged through an iterative and explorative process from the data through organising and reorganising the categories of description until a picture emerged that was stable and showed possible links between categories of description and how they might influence each other.

The 11 categories of description from the three pools of meanings shown in the outcome space are referenced with their code so that they can be easily identified (Figure 5.3).

The outcome space consists of two main areas and is a result of the phenomenographic analysis process (Chapter 3.4.5). The two areas have been identified as Structural factors (Area A), which illustrates the design characteristics and Lived experience (Area B), which shows how the design characteristics were lived and experienced in the collective case study. The outcome space is shown in Figure 5.3.
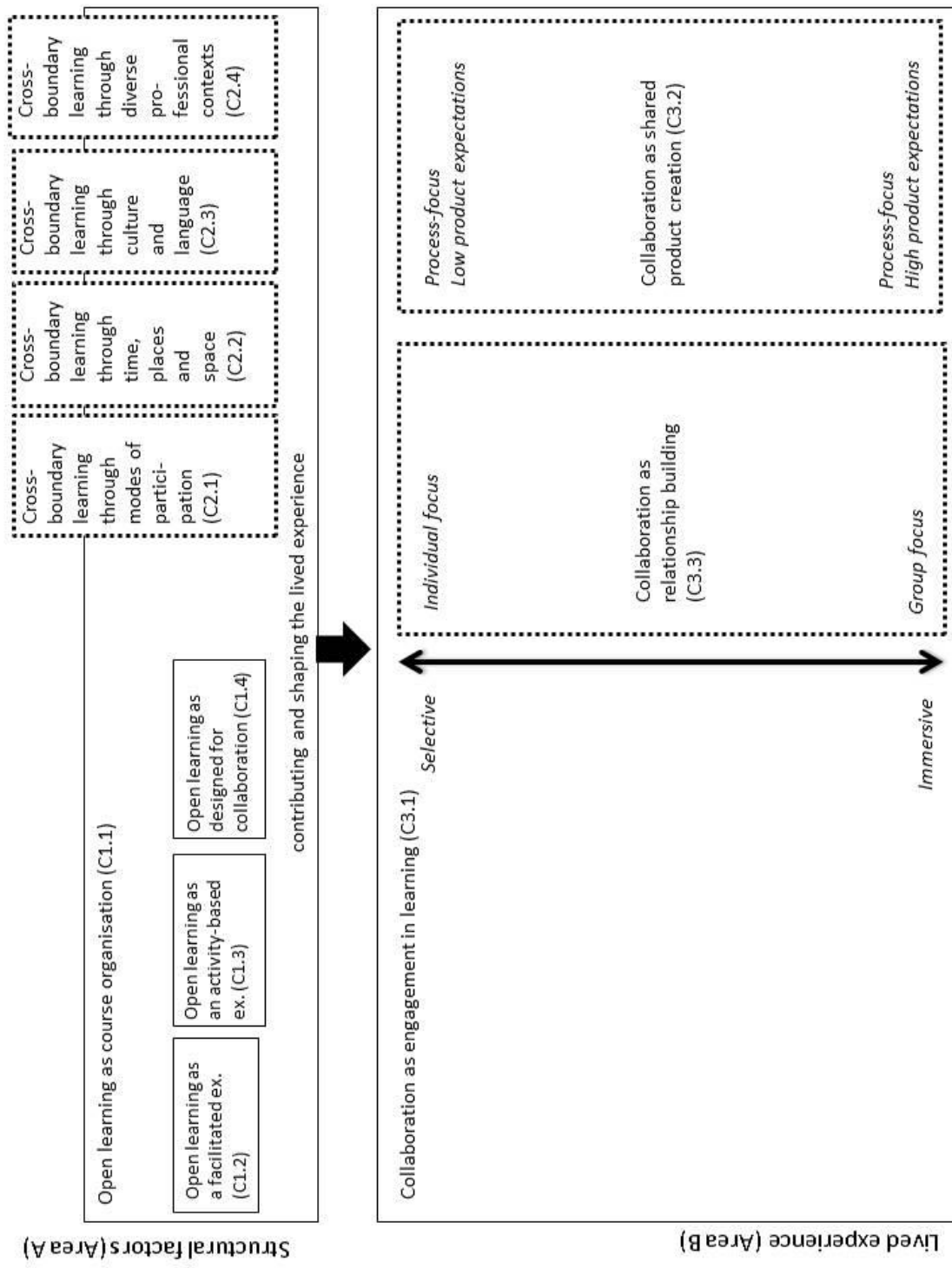
Figure 5.3 The outcome space

These two areas of the outcome space, the Structural factors (Area A) and the Lived experience (Area B) capture in Figure 5.3 using the wider downwards arrow, the relationship between how collaborative open learning was designed into the collective case study and how these design decisions shaped the collaborative open learning experience as described by participants.

In the following sections, Structural factors (Area A) and Lived experience (Area B) are described followed by an analysis linked to the selective and immersive engagement in collaborative open learning within the collective case study.

5.5.1 Description of structural factors (Area A)

Area A consists of categories of description situated in pool 1 (course) and pool 2 (boundary crossing). The specific categories of description, which emerged through the phenomenographic analysis process, show that the two courses of the collective case study as they were organised and structured played a key role in how collaborative open learning was experienced. Their organisation provided the foundations by which the participants experienced the course in certain ways and fostered collaborative open learning for those who chose to engage in a particular way. Therefore, the pool 1 categories 'open learning as a facilitated experience' (C1.2), 'open learning as an activity-based experience' (C1.3), 'open learning as a collaborative design' (C1.4) are located within the category of description 'open learning as course organisation'. As a result, the category 'open learning as course organisation' (C1.1) is overarching, an umbrella, category within Structural factors (Area A). See Figure 5.3. Area A brings course characteristics from pool 1 and pool 2 together as they were experienced and described by the participants. This arrangement of the outcome space illustrates the connections between these designed-in course characteristics and how they were organised through their positioning in the outcome space.

The four categories of description in pool 2 (boundary crossing) linked to cross-boundary learning ('cross-boundary learning through modes of participation' (C2.1), 'cross-boundary learning through time, places and space' (C2.2), 'cross-boundary learning through culture and language' (C2.3), 'cross-boundary learning through diverse professional contexts' (C2.4)) are also placed within

'open learning as course organisation' (C1.1). This position is because cross-boundary learning was enabled through a designed-in feature that attracted diverse participants within and beyond HE. However, due to the nature of these four cross-boundary dimensions they are dynamic and open, and extend beyond the boundary of 'open learning as course organisation' (C1.1). This is represented by using dotted lines in Figure 5.3.

5.5.2 Description of lived experience (Area B)

The arrow linking Structural factors (Area A) and Lived experience (Area B) in Figure 5.3 indicates that the categories of description in Area A played a key role in shaping how 'collaboration as engagement in learning' (C3.1) was "lived" and experienced in the collective case study. The related categories of description from pool 3 make up the Lived experience (Area B).

The category of description 'collaboration as engagement in learning' (C3.1 defined in Chapter 5.4.1) is depicted as an overarching, or umbrella category in Area B and shows that there were two distinct ways that participants in the collective case study experienced collaborative open. This is reflected in the two variations of this category of description, 'selective' and 'immersive'. These variations are placed within their category of description (C3.1) and occupy particular positions within its visual representation in the outcome space: 'selective' is placed at the higher end and 'immersive' at the lower end within this category.

The category of descriptions 'collaboration as relationship building' (C3.3) and 'collaboration as shared product creation' (C3.2) are positioned within the category of description 'collaboration as engagement in learning' (C3.1) and the dotted lines in Area B (Figure 5.4) which have been used to visualise C3.2 and C3.3 show their close relationship with C3.1.

The variations identified in this category, 'selective' and 'immersive' have been positioned at the top and bottom ends of the space they occupy in the outcome space in the Lived experience (Area B), aligned to the 'individual focus' and 'group-focus' of 'collaboration as relationship building' (C3.3), and the 'low-product expectations' and 'high-product expectations' dimensions of 'collaboration as shared product creation' (C3.2).

What the two variations of collaborative open learning, 'selective' and 'immersive', have in common is that they are seen as process-focused. The double ended arrow running between the top and bottom of Area B indicates participants' change of engagement in collaboration.

'Collaboration as shared product creation' (C3.2) is situated at the bottom end of the Lived experience (Area B) together with the category 'collaboration as relationship building' (C3.3). The rationale behind this positioning and linking is that both of these categories are issues of 'concern' for participants when the engagement in collaborative open learning is of an immersive nature. These two categories (C3.2 and C3.3) from pool 3 capture specific characteristics linked to the nature and depth of participants' engagement in collaborative learning and indicate the importance relationships played in this engagement. These categories of description (C3.2 and C3.3) also illustrate a concern by participants over the depth of their engagement in collaborative open learning. This comes in the form of co-creating quality collaborative products and engaging in effective collaborative processes that foster stimulating interaction and collaborative open learning as a process.

An analysis based on the phenomenographic data linked to the selective and immersive engagement in collaborative open learning follows.

5.5.3 Analysis of selective and immersive engagement in collaborative open learning

The category of description 'collaboration as engagement in learning' (C3.1), its relationship with the remaining categories from pool 3 but also categories of description depicted in Structural factors (Area A) of the outcome space, illustrate specific characteristics linked to 'selective' and 'immersive' collaboration. These are presented in this section.

5.5.3.1 Selective collaborative open learning

Engagement in collaborative open learning which is 'selective' evidences within the collective case study that it generally entails lower commitment to others, much looser learning relationships (particularly in a group context), and an increased strategic focus on development priorities of oneself and one's own practice. These characteristics are depicted in the outcome space in the Lived experience (Area B) and particularly at the top end of the categories of

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description 'collaboration as relationship building' (C3.3) and 'collaboration as a shared product creation' (C3.2).

There is a focus on 'self' as identified through the phenomenographic data (Figure 5.4).
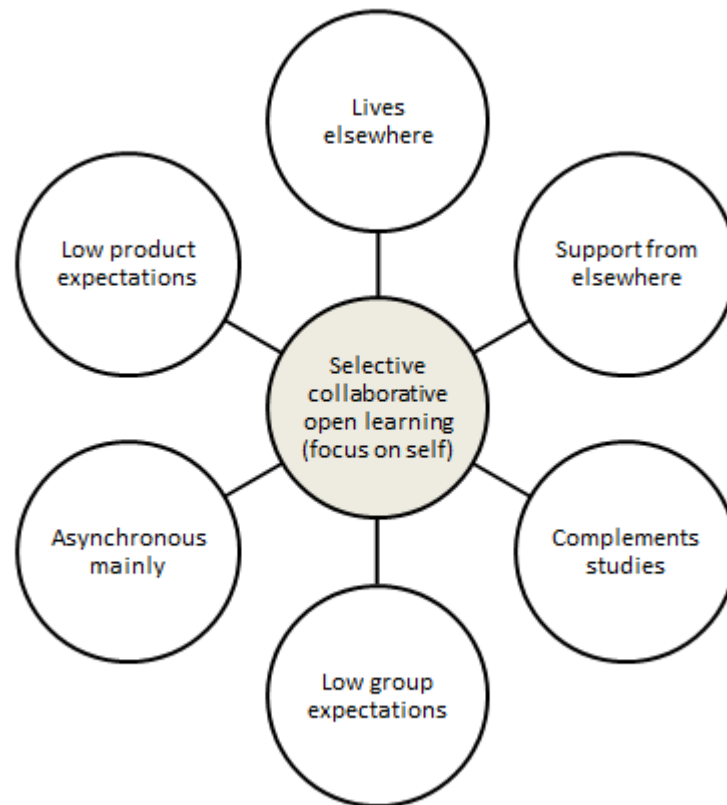
Figure 5.4 Selective collaborative open learning characteristics

'Selective collaborative open learning' indicates that synchronous engagement is often the non-preferred way or a perceived barrier for engagement. The preferred way to engage as a 'selective collaborator' is asynchronously through group conversations and activities that can be selected and completed individually with limited interaction with others. When 'selective collaborators' work in a group, their focus is on collaboration as a process. There is limited investment from their side in shared product creation. Asynchronous communication and collaboration foster more flexible engagement opportunities for 'selective collaborators'. The data showed that 'selective collaboration' relates to individuals who at times experience increased time constraints or a preference to engage in this way in an open course. 'Selective collaborators'

can be part of another online or local course or support network and engage in related collaborative activities elsewhere representing a sophisticated mode of functioning as an open learner. Therefore, learning as a 'selective collaborator' may mean that learners use their engagement in the open course to complement other formal or informal studies or activities related to a professional recognition external to the course, as the findings of this study suggest.

Furthermore, selective engagement also indicated in some cases a lack of confidence in engaging in collaborative open learning due to a lack of familiarity with this type of learning. Language, learning difficulties, feelings of discomfort and feeling overwhelmed by the technologies used, as well as other learners, are further barriers for engagement in collaborative open learning as noted through the data analysis. These could be the downside of cross-boundary learning and the complexity this generates.

5.5.3.2 Immersive collaborative open learning

In 'immersive collaborative open learning' (Figure 5.5) there is an increased commitment to engaging in collaborative activities with other group members and working together continuously to support each other, problem-solve and work towards achieving group goals. This can be of a varying nature, including shared learning processes and working towards a shared output.

Furthermore, for 'immersive collaborators' there is an increased emphasis on quality, with regard to relationships, processes and group product in the immersive mode. Participants recognise that individual growth is achieved through collective engagement and a shared learning process. Extensive participation of 'immersive collaborators' in collaborative activities is visible to, and recognised by, others. Regularly scheduled synchronous online meetings using audio-visual tools are seen as important for developing and strengthening relationships, a group identity and working together in real-time, which is valued. Immersive collaborative learning does mean deeper engagement in learning with others as part of a group. These characteristics are depicted in the outcome space in the Lived experience (Area B) and particularly at the bottom end of the categories of description 'collaboration as relationship building' (C3.3) and 'collaboration as a shared product creation' (C3.2).

The focus for 'immersive collaborators' is the group community or "us". Therefore 'immersive collaborative open learning' (Figure 5.5) happens within the group and less in the wider course community as the data of this collective case study shows.
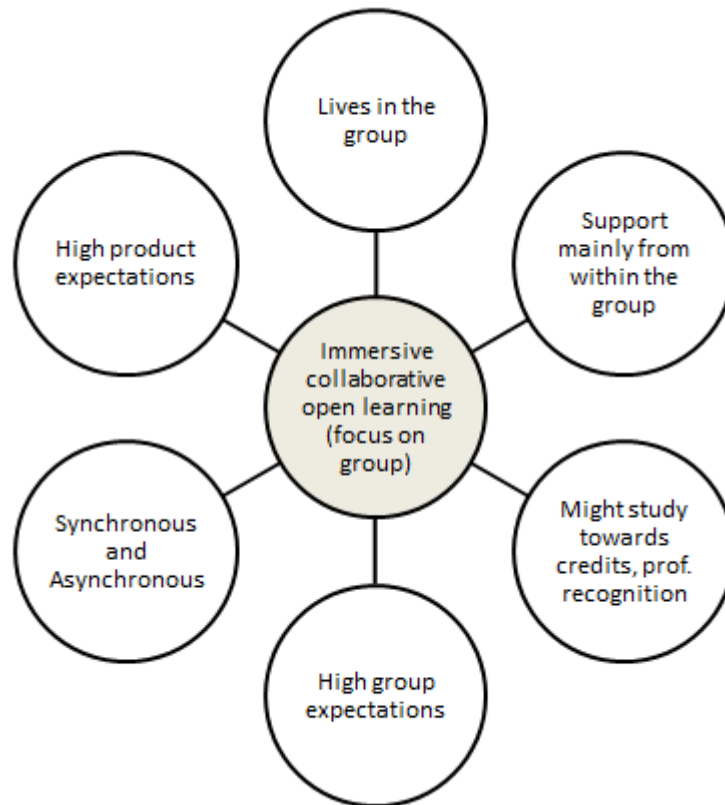
Figure 5.5 Immersive collaborative open learning characteristics

'Immersive collaborative open learning' fostered engagement which is both stimulating and demanding, but also manageable within a group of peers, as the phenomenographic data indicated. The Structural factors (Area A) as depicted in the outcome space contributed to this. This includes the categories of description from pool 1 (course) and pool 2 (boundary crossing).

The sense of belonging and community is strong and acts as a motivator and driver for engagement, inquiry and learning. 'Immersive collaborative open learning' attracts learners who are studying towards a qualification, or who have invested, or are prepared to invest, more time in the open course, since they recognise the value of this mode of collaborative learning for their own development. They often see the relationships formed as part of collaborative

open learning and a way to extend their professional network and explore the possibility of continuing learning together beyond the timeline of the course, seeing it more as a community than as a course.

Within this section, the phenomenographic outcome space of this phenomenographic study was described. This consists of two main areas: structural factors (Area A) and lived experience (Area B). It shows that the design characteristics of the two courses influenced how collaborative open learning was experienced in the collective case study as 'immersive' or 'selective' and how the categories of description relate to each other. The characteristics of 'selective' and 'immersive' collaborative open learning have been summarised in Table 5.2.

Table 5.2 Characteristics of selective and immersive open learning

Selective	Immersive
Process-focused collaboration	Process-focused collaboration
Focus on self	Focus on the group
Asynchronous engagement mainly	Synchronous and asynchronous engagement
Low product expectations	High product expectations
Low expectations from group	High expectations from group
Might use course to complement studies, professional recognition	Might be studying towards credits on the course, professional recognition
Lives elsewhere	Lives in the group
Support from elsewhere	Support mainly from within the group

The next section is a summary of the phenomenographic findings presented in this chapter.

5.6 Chapter summary

Within this chapter, the phenomenographic findings were presented in the pool of meanings and categories of description. In addition, the outcome space, the final outcome of this phenomenographic analysis, was constructed. Insight were gained into the qualitatively different variations of the collaborative open learning experience of participants in cross-institutional collaborative learning in the context of academic development in the context of the collective case study.

In total, 11 categories of descriptions on how collaborative open learning was experienced were formed each containing a number of qualitatively different

variations. The findings suggest that the design of a course fosters multi-faceted cross-boundary learning in the form of 'selective' and 'immersive' learner engagement patterns in collaborative open learning. The characteristics of these two distinct learner engagement patterns suggest varying engagement in collaborative open learning and support online and offline.

Chapter 6, which follows, contains a discussion based on the findings presented in this chapter. It synthesises the phenomenographic analysis, categories of descriptions and the outcome space, underpinned by relevant literature. This synthesis enables the addressing of the research questions RQ1 and RQ2.

CHAPTER 6: DISCUSSION OF RQ1 AND RQ2

In Chapter 5, the findings of this study were presented in the form of eleven categories of description arranged in three pools of meaning: 'the course', 'cross-boundaries' and 'collaboration' (Table 5.1), which emerged through the analysis of the phenomenographic data. The outcome space constructed illustrates the relationships between these (Figure 5.3), and the analysis suggested that collaborative open learning in cross-institutional academic development, can be a cross-boundary experience in the form of 'selective' (Figure 5.4) and 'immersive' (Figure 5.5) modes of engagement. These learner engagement patterns of collaborative open learning were described by the participants of the study as having characteristics that enabled varied, relevant and valued engagement and that was supported both online and offline, depending on personal circumstances.

This chapter discusses the phenomenographic findings in the context of the theoretical perspectives put forward in the literature review. This discussion is informed by the categories of description presented in Chapter 5.2, 5.3 and 5.4, and the outcome space (Chapter 5.5) and address the RQ1 (Chapter 6.1) and RQ2 (Chapter 6.2) of this study. The chapter is, therefore structured around these two questions.

RQ1: How are open cross-institutional academic development courses that have been designed to provide opportunities for collaborative open learning experienced by learners?

RQ2: Which characteristics of open cross-institutional academic development courses influence learners' collaborative open learning experience and how?

RQ3: Drawing upon research findings from RQ1 and RQ2, what could be the key characteristics of a proposed collaborative open learning framework for open cross-institutional academic development courses?

RQ3 of this study is addressed in Chapter 7 where a framework for collaborative open learning is constructed using the outcome space, the relevant literature informed by the discussion of RQ1 and RQ in Chapter 6.

The discussion of RQ1, around how participants experienced collaborative open learning, follows.

6.1 Discussion of RQ1

Through this study, insights were gained into how participants experienced collaborative open learning in the two cross-institutional academic development courses of this study. This suggests that there were qualitatively different ways collaborative open learning was experienced. These will be discussed in this section in order to address RQ1.

The section is structured using three dimensions that synthesise the phenomenographic findings as relevant to the collaborative open learning experience (Chapter 5):

- Anyone (academic staff, students and the public)
- Anywhere (online, offline and mobile)
- Learners as community (relationships and belonging)

These are discussed in the following sections, with the first, 'Anyone', addressed below.

6.1.1 Anyone (academic staff, students and the public)

The opportunity proved to be beneficial for anyone to participate in a collaborative open learning experience is well supported in the phenomenographic findings. Breaking free from disciplinary, institutional, cultural, course and HE boundaries played an important role in how collaborative open learning was experienced. Participants' associated motivations, opportunities and challenges to collaborative open learning were uncovered (Chapter 5.3 and Chapter 5.4).

Academic development is traditionally offered by academic developers for academic staff within a specific HE institution (Chapter 2.5). It should be

acknowledged that there is already diversity within academic development provision. In these contexts, the diversity of academic staff is often associated with cross-disciplinary learning, which has a positive impact on academic staff engagement and learning (Parsons *et al.*, 2012). The removal of restrictions to access and participation in an academic development course, and the open and free nature of such provision, has the potential to bring together a large number of diverse learners from different backgrounds and different parts of the world from within and outside HE as this study suggests. This type of academic development involves academic staff and individuals outside HE, students, and the public all learning together, online and offline. The benefits of developing cross-institutional collaborations among HEIs, is something that is widely supported by the literature (Chapter 2.3.4). It is seen an enabler for sharing resources and expertise, saving costs, and connecting students and academic staff from different programmes and HEIs and in an academic development context (Chapter 2.5.4). This study illustrates how collaborative open learning in a cross-institutional context was experienced in the two courses of this study.

In particular, the courses used an open and practitioner-driven cross-institutional approach to academic development (Chapter 3.5.5 and Chapter 3.5.6). Participants were academic staff and students in HE, as well as open learners from other sectors, who would not normally learn together. While the design of the open courses was intended to foster cross-institutional and cross-disciplinary collaborative open learning, the cross-boundary nature of collaborative open learning seems to have influenced the participants' experience (Chapter 5.3). The cross-boundary nature of the courses within this study and their positioning within the structural factors (Area A) of the outcome space (Figure 5.3) illustrates how it increases the diversity within the collaborative open learning experience.

Findings related to boundary crossing (Chapter 5.3) suggest that a highly diverse set of participants was beneficial in promoting collaborative open learning because it brought a wider range of perspectives and other-minded individuals together. As mentioned above, within the two courses of this study academic staff were also learning with students (Chapter 5.3.4). Healey *et al.'s* (2014) proposed conceptual model for student and staff partnership to increase student engagement, highlights the opportunity for co-learning of academic staff

and students (Chapter 2.3.4). This study suggests how co-learning was experienced by the participants who included academic staff, students, and members of the public, in the context of collaborative open learning within academic development. Therefore it is proposed that the student and staff partnership model by Healey *et al.* (2014) may also be useful to foster academic staff engagement in CPD and aid the development of cross-boundary relationships (Chapter 5.4.3).

Furthermore, cross-boundary collaborative open learning enabled and supported by social media (Chapter 2.4.2), in the context of academic development, created opportunities for academic staff to experience a form of the *leaky institution* (Wall, 2015) and the *unbounded curriculum* (Hall & Smyth, 2016, Chapter 2.3.4 above). This is due, mainly, to the fact that it was experienced as something not aligned with traditional practices which have an institutional focus and are only offered internally to academic staff (Chapter 2.5.2). As a result this study suggests that applied cross-boundary collaborative open learning where HE teaching, and particularly academic development, breaks-free from traditional practices and models. It becomes a new, open and public form of academic development can bring together academic staff, students and the public.

While the courses of this study were open, they were also part of a formal academic development offered for credits in at least one of the collaborating institutions. These courses, therefore, presented cross-boundary engagement opportunities that could be characterised as *blurred* (Conole, 2013a). The modes of participation suggest that this blurring of formal and informal learning brought benefits to the participants, especially in the area of learner support (Chapter 5.3.1). This should be considered by academic developers when designing collaborative open learning experiences. However, participants contemplated recognition and academic credits when informally involved in the courses (Chapter 5.3.1). This suggests the importance recognition can play for academic staff when engaging in CPD (Beetham, 2015), as well as the need for academic developers to explore ways of recognising engagement in informal CPD as advocated by Bamber (2009).

Beyond bringing formal and informal learners together in the two courses, having English as the course language meant that native speakers learned alongside non-native speakers, presenting opportunities for cross-cultural communication and collaboration through digital technologies and social media. As a result, participants from different cultures and countries engaged in collaborative open learning together. Cross-boundary learning through culture and language suggests that the cross-cultural nature (Chapter 5.3.3) of participants' experiences was seen as enrichment, but also as a barrier. Perceived limitations for participation in collaborative open learning, due to a lack of language ability, were highlighted (Chapter 5.3.3). This was especially the case at the initial stages, though there are also suggestions that some participants were able to resolve these issues by identifying opportunities for collaboration offline (Chapter 6.1.2). Such language limitations, leading to reduced participation, have also been identified through other studies in online cross-cultural learning settings that involved undergraduate (Liyanagunawardena, 2012) and graduate students (Gunawardena *et al.,* 2001).

While the findings of this study are consistent with previous research (Chapter 2.4.5) in other settings regarding the challenges that reduced language skills can bring, they also point towards ways in which these challenges can be addressed in order to minimise exclusion from collaborative open learning. They suggest that supportive peers and facilitators (Chapter 5.2.2), as well as social interactions and a sense of community (Chapter 5.4.3), can smooth out these difficulties, boost confidence in language ability, increase cross-cultural awareness and communication, and enable collaborative open learning within diverse groups. These findings are consistent with the research by Ou (2012) and Mittelmeier *et al.* (2016) into cross-cultural online collaborative learning. While Ou claims that the main barrier to successful online collaborative learning is language, they also highlight the important role support plays in cross-cultural settings, and the difference it can make to engagement in online collaborative learning. The identified importance of the role relationships (Chapter 5.4.3) play as a booster for interaction in the context of cross-boundary collaborative open learning, echoes Mittelmeier *et al.*'s (2016) findings about cross-cultural diversity and how this can increase participation in online collaborative learning.

The importance of support in collaborative open learning also emerged through this study, and is particularly evident in the category of description 'open learning as a facilitated experience' (Chapter 5.2.2). Support requires special attention (Chapter 2.3.3) and will be further discussed in Chapter 6.2.1.

This study suggests that cross-boundary diversity may increase participation in collaborative open learning especially as they show that there was an increased interest in others who were different and other-mindedness was reported as increasing curiosity in collaborative open learning in groups (Chapter 5.3.3 and Chapter 5.3.4). Other-mindedness was perceived as a valuable opportunity for sharing a diverse range of experiences and practices to support each other. This echoes findings by Morgan and Carey (2009).

Cross-boundary learning suggests that the participants experienced collaborative open learning as a valued opportunity to engage in a discourse with other-minded individuals and to learn with them (Chapter 5.3). This opportunity was strengthened when learners were from different cultures and sectors. The findings suggest that this cross-boundary experience provided a strong motivator to participants for engagement in collaborative open learning (Chapter 5.3).

6.1.2 Anywhere (online, offline and mobile)

Collaborative open learning in small groups was a feature of the courses in this study. Cross-boundary learning through time, places and space (Chapter 5.3.2) reveal that some participants did, in addition to or instead of online, engage offline in collaborative activities during the course. This suggests that collaborative open learning in this study was something that could be, and was, experienced online and/or offline.

The 'anywhere' dimension of engagement across the online and offline spaces is captured in the outcome space (Figure 5.3). There, the category of description 'learning through time, places and space' (Chapter 5.3.2) is depicted as part of the course organisation. However, the positioning of this category of description within the outcome space indicates that it extends beyond the course and therefore reveals varied opportunities for engagement. This 'anywhere' dimension includes a part which is located outside the course boundaries and therefore beyond the control of the course organisers.

The activities external to the course in which some participants engaged, are present in the findings, together with their mobile dimension, particularly, through the category of description 'cross-boundary learning through time, places and space' (Chapter 5.3.2). These activities suggest that some participants were reaching out and learned collaboratively with others offline, often external to the course, using their own learning support network and structures. Beyond the offline dimension, mobile connectivity and the role mobile access to social media played in collaborative open learning suggests that it extended engagement in learning and turned it into a seamless experience beyond online course participation. This is consistent with the literature (Chapter 2.4.2) in which it is argued that networked mobile devices can create a bridge for learning and collaboration for open learners that connects the online and the offline.

While some participants experienced difficulties with the technologies especially at the beginning of the course (Chapter 5.2.1), the findings did not indicate that social media use was perceived as inappropriate for this type of courses. This contrasts with the work of Salmon *et al.* (2015) where social media and the perceived blurring of the boundaries between professional and social identities through social media, was seen as inappropriate by some. In Salmon *et al.'s* (2015) work, social media use in a MOOC was complementary to a MOOC platform. In contrast, the open courses of the collective case study were built and offered exclusively via social media. This study suggests that Wenger *et al.'s* (2009) 'patchwork strategy' adopted with the inclusion of mobile social media, was seen as beneficial to extending engagement of academic staff, students and the public in collaborative open learning activities (Chapter 5.3.2). Furthermore, the findings suggest that the blurring of boundaries enabled by social and mobile media was seen as a motivator for collaborative learning and not a concern for participants. Therefore, this study indicates that the 'patchwork strategy' (Wenger et al., 2009) used also enabled a mobile dimension, which played a key role in collaborative open learning. As a result of this extended 'stitching' of experiences through the use of mobile social media, particularly on smart devices with access to the web, a seamless learning experience was created for and by some participants (Poore, 2016).

In addition, the category of description 'collaboration as engagement in learning' and particularly the two variations 'immersive collaborator' and 'selective collaborator' (Chapter 5.4.1), provide further detail about the learner engagement patterns in addition to the 'anywhere' dimension. The 'anywhere' dimension of engagement in collaborative open learning, suggests that participants' non-visible online engagement did not always mean learner disengagement. Less visible participants may, as this study suggests (Chapter 5.3.2), engage in learning related to the course elsewhere, online and/or offline. This finding suggests that the more invisible and sporadic online 'visitors' presence White and LeCornu (2011) is also relevant in collaborative open learning. Lave and Wenger's (1991) 'peripheral' participation mode in communities of practice due to newness can, in the context of this study, be interpreted as an informed choice made by participants. It is, accordingly, an indication that learners can be engaged in learning elsewhere but not necessarily be less engaged or disengaged completely, which is consistent with Wenger *et al.* (2009).

This study brings insights into not only the online dimension of collaborative open learning, but also its offline and mobile dimensions (Chapter 5.3.2). It demonstrates how these were equally important engagement opportunities for the participants in a cross-institutional academic development context. Therefore, the study suggests how the 'anywhere' dimension of engagement in collaborative open learning using OEP in the context of academic development has been experienced. The study also provides insight related to the existence and nature of the offline dimension of open learning. This remains something which is still under-explored and overlooked in the literature (Hall & Smyth, 2016) despite open education having its roots in the physical world (Chapter 2.3.1 and Chapter 2.3.4). Ideas, such as the *leaky institution* (Wall, 2015), where digital technology can provide a bridge to connect the HEI, online, offline and local communities, indicate an opportunity for new practice for HEIs or a new type of HE. The online, offline and mobile experience of participants in this study (Chapter 5.3.2) suggests the benefits that a *leaky* approach had for participants' engagement in collaborative open learning and their development. These findings also provide new insight into how such a *leaky* approach can be developed and implemented, particularly through open education supported by

social media, in the context of cross-institutional academic development, with collaborative open learning characteristics.

The online, offline and mobile dimension of collaborative open learning and open learning more generally, provide insights into how collaborative open learning and open learning can be experienced online and offline. This has implications for academic developers designing and facilitating such open learning experiences. Therefore these insights could be taken into consideration when designing and facilitating such collaborative open learning experiences.

6.1.3 Learners as community (relationships and belonging)

Collaborative open learning in small groups (discussed in Chapter 6.2.2) was experienced by participants socially within a community. This seems to be especially relevant for participants who operated as 'immersive collaborators'. The outcome space (Figure 5.3) illustrates how the two learner engagement patterns of collaborative open learning, and especially the 'immersive collaborator', are associated with relationship building and establishing a community.

The categories of description 'collaboration as relationship building' (Chapter 5.4.3) and 'collaboration as engagement in learning' (Chapter 5.4.1) provide related insights into this experience. These suggest how social engagement and feeling part of a community created a sense of belonging, feelings of caring and reduced loneliness (Chapter 2.4.2 and Chapter 2.4.3). The generated learning relationships were a powerful motivator in the context of collaborative open learning (Chapter 5.4.3). This suggest that learning relationships especially for 'immersive collaborators' play a key role in collaborative open learning, and echo Rovai's (2002) findings about communities in the context of online collaborative learning.

Furthermore, these experiences helped participants overcome barriers associated with the technologies, language and confidence and acted as a motivator for engagement as discussed in Chapter 6.1.1. The social dimension of collaborative open learning as experienced in this study, suggests the important role social relationships play for engagement in such settings. These relationships resemble the idea of 'learning partners' and 'learning friendships'

(Wenger *et al.*, 2009), and were further strengthened through the diversity of learners as this study suggests (Chapter 6.1.1).

These findings on the social dimension of collaborative open learning, are consistent with previous research in the area of blended learning (Armellini & De Stefani, 2015). Armellini and De Stefani (2015) applied the Community of Inquiry Framework (Garrison, Anderson & Archer, 2000) in a mono-disciplinary formal educational setting and discovered the important role social presence plays for engagement and peer support. The facilitator also played a role in laying the foundations of such relationships, as discussed in Chapter 6.2.1, as did group size (Chapter 6.2.2).

As an extension to the social aspect, it was found that the atmosphere in the groups was positive and supportive throughout, and participants demonstrated high levels of empathy and tolerance within these communities. Participants' closeness within the groups, especially experienced by 'immersive collaborators', despite being in different geographical locations, impacted on the ease participants experienced in crossing boundaries through the relationships they formed and their emotional involvement. This indicates that closeness can emerge even in these circumstances.

The power of positive relationships is consistent with characteristics of the social interdependence theory developed for cooperative learning (Deutsch, 1949; Johnson & Johnson, 1999) and the role positive interdependence and mutual interest play in such group learning situations (Chapter 2.2.4). The two learner engagement patterns of collaborative open learning, 'selective' and 'immersive', are reminiscent of what Johnson, Johnson and Smith (2007) defined as transitions of 'self-interest' (selective) and 'mutual' interest (immersive). These indicate different states of being while learning collaboratively with others depends upon the depth of relationships and the emotional connection with others. This study suggests that social interdependency theory (Johnson, 1970), see also Chapter 2.2.4, may also be relevant in the context of collaborative learning, particularly collaborative open learning. Collaborative open learning should therefore be considered by academic developers working in such settings as it will help interpret behaviours

and attitudes and develop strategies to overcome challenges associated with group dynamics within collaborative open learning.

While the findings suggest that the relationships of participants (Chapter 5.4.3) had the characteristics of positive interdependence (Deutsch, 1949), at times they led to minor misunderstandings and frustrations and made some feel excluded, if, for example, they could not participate in a scheduled synchronous activity (Chapter 4.5.3). The scarcity of data that suggest *negative interdependence* does not mean collaborative open learning is immune from such tensions. Such an element would not be that surprising as participants focused on behaviour and personal irritations. However, the data around relationships (Chapter 5.4.3) show that none of these issues escalated and there was a wide sense of tolerance and forgiveness. The levels of tolerance were increased due to the cross-cultural and cross-boundary nature of the online interactions and collaboration. This is also present in this study (Chapter 5.4.3) and the literature (Chapter 2.4.2). Gudykunst's (2004) observations, for example, around cross-cultural learning may also be relevant in cross-boundary communication and collaboration. The strategy individuals used to overcome challenges focused on shared values that connected them. Another contributing factor to overcome cross-cultural and cross-boundary challenges could be that individuals who volunteered to participate were predisposed to be more willing to learn with a diverse set of peers.

Due to an increased investment in the development and maintenance of relationships, especially by 'immersive collaborators', these participants regularly spent time together online. Regular synchronous communication enabled by social media video calling seems to have made a difference to how participants experienced collaborative open learning, how they perceived and felt about each other, and what they achieved individually and collectively as a group (Chapter 5.3.2 and Chapter 5.4.3). This suggests the power of synchronous communication, which made interacting with others more natural, and indicates that such communication plays an important role in relationship building online echoing Holmes and Gardner (2006) and Kear (2011), also in the context of collaborative open learning settings when building community.

While the above demonstrate that synchronous communication was important for relationship building within collaborative open learning it also became clear that this type of communication also played a significant role in enabling synchronous working practices within the groups especially for 'immersive collaborators' (Chapter 5.4.1).

The findings suggest that collaborative open learning in the context of cross-institutional academic development was experienced as social engagement, as relationships and as a community for 'immersive collaborators'. Learners as a community show that synchronous web conferencing technologies, especially social media video calling, can aid the process of relationship building. They can also provide opportunities for synchronous collaborative open learning. Feeling part of a diverse and cross-boundary community helped overcome barriers, increase tolerance and interest into other-minded individuals and acted as motivators for collaborative open learning (Chapter 5.3).

Though perceived as predominantly beneficial, there were also associated challenges for synchronous communication due to availability and time zone constraints. These challenges were also present, especially in relation to the category of description 'cross-boundary learning through time, places and space' (Chapter 5.3.2). This is consistent with the literature (Meloni, 2010) and highlighted the participant's realisation that asynchronous engagement was generally a more flexible way to engage (Chapter 2.4.4).

6.1.4 Summary of discussion around RQ1

In summary, the findings linked to RQ1 suggest that collaborative open learning in the two cross-institutional courses, was experienced by the participants as an opportunity to learn with a diverse set of individuals, as formal or informal learners, including academic staff, students and the public. This cross-boundary nature of learning seems to have had a motivational impact on engagement and opened participants' horizons and development. Furthermore, participants experienced collaborative open learning that stretched seamlessly across online, offline and mobile spaces, thereby creating valuable opportunities for flexible engagement. Those participants who adopted the 'immersive collaborator' pattern in particular, found it important and useful to nurture relationships with members of their group, and often used synchronous

communication and collaboration approaches to achieve this. As a result their collaborative open learning experience also had a social dimension, as they felt part of a community.

Moving on from RQ1, the discussion of RQ2, which is centred on course characteristics that influenced the participants' collaborative open learning experience, follows.

6.2 Discussion of RQ2

This study suggest that there were qualitative differences in the course characteristics that influenced collaborative open learning within the two courses. These will be discussed in this section in order to address RQ2.

The section is structured using three dimensions that synthesise the phenomenographic findings relevant to the course characteristics that influenced collaborative open learning (Chapter 5):

- Anyhelp (facilitator and peer support)
- Anyhow (elasticity of the design)
- Course as community (the continuum)

These characteristics influenced the participants' collaborative open learning experience and engagement in the two courses of this study in the context of cross-institutional academic development.

6.2.1 Anyhelp (facilitator and peer support)

A team of distributed facilitators from different participating institutions supported participants in collaborative open learning in small groups.

Facilitation, and the role it plays in cross-boundary collaborative open learning (Chapter 5.2.2), is shown in the outcome space within area A and the structural factors (Figure 5.3). Facilitation was built into the course design (Chapter 3.5.5 and Chapter 3.5.6). The positioning of the category of description 'open learning as a facilitated experience' (Chapter 5.2.2) within the outcome space as a contributing factor, is to indicate that collaborative open learning is influenced by facilitation.

The findings around 'facilitation' (Chapter 5.2.2) indicate that the facilitator has a role to play in the context of OEP. In collaborative open learning particularly, the facilitator seems to play an important fostering role during the initial stages of the course, and helps sustain engagement and strengthen peer support throughout. While these outcomes are consistent with earlier findings (Nerantzi, 2011b), the role of the facilitator more generally has been largely overlooked in OEP (Conole, 2012a), as the literature review around open education in HE revealed (Chapter 2.3.3).

Chapter 5.2.2 also suggests that facilitation played an important role in promoting collaborative open learning, and in scaffolding learning and developing learner confidence. This was particularly clear at the beginning of each course, where the facilitators were helping learners find their way into the groups, scheduling activities and building relationships with peers. The category of description 'open learning as a facilitated experience' (Chapter 5.2.2) suggests that, as the courses progressed, participants still valued the facilitation support offered, though they relied less on the facilitator directly. Participants became more self-sufficient, preferring to negotiate the collaborative open learning activities of their groups with their peers either independently or with others. Some participants even chose to reach out for local support (Chapter 6.1.2).

However, the findings around 'facilitation' (Chapter 5.2.2) suggest that a reliance on exclusively peer-focused collaborative open learning which in OEP does not provide sufficient support mechanisms for learning in groups especially during the initial stages of a course. The literature review of design frameworks suggests the importance of facilitation in other technology-supported settings (Chapter 2.4.3). Facilitation plays a key role in supporting collaborative open learning. This study suggests that participants found it even more helpful when the facilitator was a co-learner. This particular mode of facilitation seems to break down hierarchies and allows participants to see the facilitator as part of the group.

The collaborative and distributed nature of facilitation, especially since it was offered by a range of academic staff, including academic developers, learning technologists and academics, shows that it was viewed by participants as a

devolution of power and partnership and a co-learning experience. This finding echoes Bayne and Ross' (2014) facilitator as co-learner dimension in their facilitation model in MOOCs, and Nerantzi *et al.'s* (2014) outcomes around the facilitator as co-learner specifically in OEP. The partnership model for facilitation adopted in the courses of this study also resembles the characteristics of Wenger, White and Smith's "technology steward" (Wenger, White & Smith, 2009, p.24) especially since facilitators also played a key role for participants in overcoming some of the initial technological challenges.

The effectiveness of a collaborative form of facilitation in the context of academic development more generally was highlighted in the literature review (Chapter 2.5.2). Debowski's (2014) idea of academic developers as co-learners is especially relevant in the context of this study as it provides insights into how such a facilitation approach works in an OEP especially where the purpose of such provision is to model new learning and teaching approaches. The academic developer adopts the role of the modeller-broker (Land, 2004) and change agent (Elton, 1995 and Chapter 2.5.2). These strategies also worked in the context of this study.

While the role of the facilitator is often absent or under-played in OEP, and learners are expected to be self-organised and self-directed, researchers have increasingly recognised the need for OEP support models (Weller, 2014, also Chapter 2.3.3). This study provides insights into the need of facilitation in open educational settings but also what type may work particularly in collaborative open learning. They suggest that the role of the facilitator in OEP is something that needs to be addressed in the design phase in order to provide that support scaffold that some participants will need. In such settings learners have different needs and some will require more support than others (Lane, 2009).

In summary, the organisational support strategy outcomes of this study, in the context of collaborative open learning in cross-institutional academic development courses, suggest that facilitation is vital to scaffold participant support and engagement in these OEP settings. A collaborative approach to facilitation plays a key role in bringing collaborative open learners together. Such an approach can resolve initial difficulties and leads to greater group

autonomy and peer support. It is therefore important for academic developers to consider the development of facilitation strategies in such open courses.

6.2.2 Anyhow (elasticity of the design)

Two distinct but related collaborative open learning designs were used in the two courses (Chapter 3.5.5 and Chapter 3.5.6), and are discussed in this section.

The category of description 'open learning as designed for collaboration' is in the outcome space (Figure 5.3) within area A: structural factors. Its positioning in relation to the category of description 'collaboration as engagement in learning' and the remaining categories indicates that it contributes to how collaborative open learning was experienced by participants.

While the category of description 'open learning designed for collaboration' suggests that the PBL approach (Chapter 2.2) used in FDOL132 (Chapter 3.5.5) helped scaffold participant engagement in collaborative open learning, they also reveal that PBL created tensions and resistance in participants. PBL was perceived by some as an imposed and inflexible learning design, restricting freedom and choice, even despite the use of the simplified PBL model FISh (Nerantzi & Uhlin, 2012). These findings relate to PBL as a highly structured learning approach. The problem-solving activities themselves, however, were perceived by participants as beneficial, especially as they could be personally contextualised. This process had led to participant empowerment and increased engagement in collaborative open learning (Chapter 5.2.4). This suggests that PBL, when used as an exclusive learning design element, can create challenges for participants due to its structure and prescriptive process and hinder engagement in collaborative open learning. These outcomes suggest alignment with Ehlers' (2011b) medium degree of pedagogical openness where knowledge is discussed based on pre-defined pedagogical models that have a structure that is followed and the focus is on dialogue and PBL (Chapter 2.3.2).

In contrast to the above, the collaborative open learning design used in #creativeHE (Chapter 3.5.6), the second course in this study, was perceived by participants as highly flexible, liberal and negotiable and, therefore, it is suggested that this echoed Ehlers' (2011b) high degree of pedagogical openness, which related to learner self-directedness. The conditions needed to

increase participant engagement were created, enabling them to undertake collaborative open learning together as discussed in Chapter 6.2.1.

The outcomes from both collaborative open learning designs suggest that Slavin's (1980) proposition that a greater degree of autonomy and less structure in cooperative face-to-face learning, is also relevant in the context of collaborative open learning. Furthermore, the reviewed design frameworks with collaborative learning characteristics (Chapter 2.4.3) and White and LeCornu's (2011) and Beetham's (2015) work in relation to online learning, indicate the importance of letting learners decide whether they wish to learn collaboratively or on their own. However, none of the frameworks and studies reviewed focus on choice in the context of the collaborative learning design and what this could mean for learners and facilitators. The increased choice in agreeing the collaborative open learning design, was not without challenges. The category of description 'facilitation' (Chapter 5.2.2) and 'organisation' (Chapter 5.2.1) suggest that, in giving the participants choice from the outset, the result was perceived by some as chaotic due to their unfamiliarity with collaborative open learning. However, facilitation, as discussed in Chapter 6.2.1 seems to help reduce such difficulties and establish group cohesion in these setttings.

This study, provides insight into collaborative open learning design choices. These choices should be discussed by facilitators with the learners and agreed in cross-institutional academic development courses as such a move can lead to greater flexibility, empowerment and engagement in collaborative learning.

The category of description 'collaboration as a means to shared product creation' (Chapter 5.4.2) is related to the above. The product/process dilemma, often evident in the literature (Dillenbourg, 1999) reviewed in relation to collaboration as a shared product or as a shared process (Chapter 2.2.2), was also a concern to many participants. This suggests that this dilemma influenced participants' collaborative open learning experiences. In FDOL132 particularly, a shared output was an expectation built into the PBL design (see above and Chapter 3.5.5). The category of description 'collaboration as a means to shared product creation' (Chapter 5.4.2) suggests that there was an increased challenge for group participants in creating a group product. This was especially the case for 'immersive collaborators' who fully engaged in the collaborative

open learning process (Chapter 5.4.1) and who generally had high expectations of themselves and their peers. Furthermore, the study indicates that the shared output was seen by some participants as a mechanism to control and instruct, especially when it was perceived as part of the course design (Chapter 5.2.4). In contrast, the findings also suggest that participants acknowledged that the main benefits to their development of working from collaborative open learning groups were derived from the shared process of learning, that is the shared inquiry and the cross-boundary nature of the experience (Chapter 6.1.1). These outcomes echo, for example, Dillenbourg (1999) and Stahl, Koschmann and Suthers' (2006) perspectives around collaborative learning as an interaction and process, as opposed to the creation of a shared product (Chapter 2.2.2). The study, see outcome space (Chapter 5.5) provide new insight into how collaboration as either a product or a process was experienced by participants in collaborative open learning in cross-institutional academic development. Nerantzi and Gossman (2015) indicate that collaboration as a process should be considered for collaborative open learning. The implication for academic developers and other designers of collaborative open learning experiences is that the concept of collaboration as process should be carefully considered when designing collaborative open learning activities.

Despite the two distinctive collaborative open learning course design approaches used in the two courses (Chapter 3.5.5 and Chapter 3.5.6), findings across the collective case study indicate that participants followed two dynamic learner engagement patterns in collaborative open learning. These learner engagement patterns derived from the variations of the category of description 'collaboration as engagement in learning': the 'selective collaborator' and the 'immersive collaborator' (Charter 5.4.1). They represent a dynamic and changeable spectrum and suggest that some participants adopted different learner engagement patterns during the course (see outcome space in Chapter 5.5). By examining collaborative open learning in the two courses of this study, through Lave and Wenger's (1991) lens of 'legitimate peripheral participation' and 'full participation' in the context of a community of practice (Chapter 2.4.3), it is apparent that there are a number of factors that defined the learner engagement patterns in this study. The two learner engagement patterns identified within this study, 'selective' and 'immersive', have parallels with Lave

and Wenger's 'peripheral' and 'full' participation. However, this study in this particular context, suggests that these learner engagement patterns were the result of choice, preference or necessity. This finding is in contrast to Lave and Wenger's (1991) association of 'peripheral' participation, which relates exclusively to the newness of a member to the community of practice, but aligned with Wenger *et al.* (2009).

The dynamic learner engagement patterns reported influenced learning in groups and at times created difficulties such as ways of organising synchronous meetings and sharing responsibilities (Chapter 5.4.3). However, these difficulties related to the fluctuation of the learner engagement patterns which were often overcome when group members were positive, shared resources and supported each other. Furthermore, this study suggests that both learner engagement patterns were beneficial for the participants and their CPD. This is also suggested by the category of description 'cross-boundary learning through modes of participation', which indicates that some participants used the courses of this study as complementary to other development activities and studies towards a qualification or professional recognition and enhance their practice (Chapter 5.4.1).

The category of description 'collaboration as engagement in learning' suggests that even the 'selective' collaborator learner engagement pattern, which resembles a form of 'peripheral' participation (Lave & Wenger, 1991) or 'visitor' behaviour (White & Le Cornu, 2011), had perceived benefits for participants.

Overall, 'collaboration as engagement in learning' (Chapter 5.4.1) shows that the related learner engagement patterns in collaborative open learning that emerged through the analysis, are beneficial for participants, though this does depend on their personal and professional circumstances. This has highlighted two different opportunities for flexible collaborative open learning in a cross-institutional academic development context.

A further common characteristic of the designs applied in the two courses of this study was the use of inquiry-based activities (Chapter 3.5.5 and Chapter 3.5.6). Particularly the category of description 'open learning as an activity-based experience' (Chapter 5.2.3) suggests that the variety of inquiry-based activities in different formats and media, supported participants operating in either the

'immersive' or the 'selective' learner engagement patterns of collaborative open learning. These findings also indicate that the range of media, and the nature of the activities were attractive for some participants. They provided the opportunity for engagement synchronously and asynchronously in collaborative open learning and, in some situations, also offline beyond the boundaries of the course (Chapter 6.1.2). The category of description 'open learning as an activity-based experience indicates that the design provided flexibility to participants in making their own decisions within the groups (Chapter 5.2.3). These decisions were linked to the development of personal learning and engagement strategies, based on a response to participants' preference, or a constraint due to personal circumstances, a learning or language difficulty, and enabled them to sustain engagement in learning and develop confidence. Furthermore, the category of description 'collaboration as engagement in learning' (Chapter 5.4.1) and 'open learning as a facilitated experience' (Chapter 5.2.2), suggest that the activities were negotiated within the groups and helped participants break free from course instructions, and shape their own learning process and learning paths supported by their facilitator. This process of negotiation suggests that participants took ownership of their collaborative open learning experiences and adapted the activities to suit their needs.

The important role inquiry-based approaches play in learning and teaching in HE and academic development in the UK are well documented and have been reviewed in the literature more generally (Chapter 2.2.1 and Chapter 2.5.3) as well as in the context of design frameworks (Garrison *et al.*, 2000 and Chapter 2.4.3). Their role is also acknowledged in the review of design frameworks in supporting collaborative learning in a range of technology-supported settings (Chapter 2.4.3). The findings of this study around inquiry-based activities further extend the relevance of these formally in cross-boundary collaborative open learning in cross-institutional academic development. These contribute particular insights around how inquiry-based activities have been experienced and the implications they have for future practice.

Finally, outcomes related to group size which was a further designed-in characteristic of both courses (Chapter 3.5.5 and Chapter 3.5.6), indicate that this also influenced the nature of the collaborative open learning experience.

The findings around 'collaboration as engagement in learning' (Chapter 5.4.1) and 'collaboration as relationship building' (Chapter 5.4.3) indicate that there is greater engagement in smaller groups with fewer participants (Race, 2007). This is consistent with literature (Chapter 2.2.3) and suggests that small groups of learners are equally as important in OEP as they are in other educational settings.

In summary, the findings linked to the *anyhow* dimension show that collaborative open learning design flexibility is needed when designing such experiences in a cross-institutional academic development course. Inquiry-based synchronous and asynchronous activities, as well as a focus on collaborative learning as a process, may have a positive impact on 'selective collaborators' and 'immersive collaborators', and extends their engagement across-boundaries.

6.2.3 Course as community (the continuum)

The cross-institutional academic development courses of this study with collaborative open learning characteristics were scheduled to be offered and facilitated within a predefined timeframe. The findings around cross-boundary learning through time, places and space (Chapter 5.3.3) suggest that, while the courses had a predefined duration, collaborative open learning and the courses more generally were experienced by some participants as a continuum that stretched beyond this, due to their cross-boundary nature. This is depicted in the outcome space within Area A (Figure 5.3) and provides insight into how duration as a course characteristic influences collaborative open learning in an open and cross-boundary environment.

The above findings indicate that some participants recognised an opportunity to become part of a professional community through their engagement in the course. The open and cross-boundary nature of the courses discussed in Chapter 6.1.1, as well as the perceived usefulness for practice due to their inquiry-based approach (Chapter 6.2.2) and the elasticity of the design (Chapter 6.2.2) together with the support (Chapter 6.2.1), created a sense of belonging and community for the participants (Chapter 6.1.3). Furthermore, the findings from participants' experiences highlight an opportunity for continuous engagement beyond the duration of the course. Not only did participants

(particularly the 'immersive collaborators') experience collaborative open learning as a community, they also saw the course itself as an opportunity that offers access to a professional community which did not end at the conclusion of the course. This suggests that the course, for these participants, was valuable for the ongoing development of their teaching practice and echos the research of Parsons *et al.* (2012) which showed that longer cross-disciplinary academic development programmes within institutions, such as PgCerts, build community among academic staff and therefore have a greater impact on practice. This study suggests a desire by participants to be part of a wider community, to enhance teaching practice that is not only cross-disciplinary but also cross-boundary (Chapter 5.3). Therefore, this study extends Crawford's (2009) work around academic staff reaching out to engage in external disciplinary communities and networks after the completion of an institutional PgCert, as well as Parsons *et al.'s* (2012) work around the formation of an often cross-disciplinary community within a PgCert. In particular, this study provides insight into how open cross-institutional academic development courses can play a role in creating opportunities for wider cross-disciplinary and cross-boundary communities to emerge, which in turn are attractive to academic staff. These experiences create a sense of belonging and value for the ongoing development of their teaching practice. Considering the development of academic staff and the increased emphasis and need for keeping up-to-date and enhancement of teaching practice (Chapter 2.5), a community-based model of open cross-institutional courses can provide alternative ways to engage academic staff in CPD. It can turn academic development from an internally-focused to a cross-institutional and cross-boundary focused provision that reaches academic staff and engages them pro-actively in CPD.

The cross-institutional academic development courses and the communities that emerged within them, were constructed by the organisers adopting a combination of grassroots and community-building models (Popovic & Plank, 2016). However, the model used in this study also has a cross-institutional focus and brings together formal and informal learning opportunities. This study therefore provides new insights into community-building academic development models that are of a grass root, distributed, collaborative and cross-institutional nature therefore extending the meaning of the community-building model that

has an institutional focus. This type of community-building model and particularly its grassroots dimension in the context of open education has parallels with Weller's (2011) 'little' OER approach in the context of OEP and demonstrates how it can be applied in the context of academic development.

The category of description 'cross-boundary learning through time, places and space' (Chapter 5.3.2) suggest that Weller's (2011) 'little' OER approach and the social media 'patchwork strategy' (Wenger *et al.*, 2009, p.127) using a range of social media (Chapter 3.5.5 and Chapter 3.5.6) adopted in the courses of this study were effective in fostering opportunities for cross-boundary collaborative open learning. They also fostered relationship building, and strengthened the sense of community as discussed above. The courses brought informal and formal learning together in an academic development context (Chapter 5.3.1) which seems to be of benefit for participants' personal and professional development. This suggests that the idea of cross-boundary communities in informal settings (Perryman & Coughlan, 2013, 2014) can also be considered when bringing together formal and informal learning in academic development, and particularly in cross-institutional courses.

6.2.4 Summary of discussion around RQ2

In summary, the findings linked to RQ2 suggest that collaborative open learning in the two cross-institutional courses, as experienced by the participants, was influenced by specific course characteristics. Facilitator support played a key role in enabling collaborative open learning, establishing the group, resolving initial technological challenges and increasing confidence that led progressively to peer support and greater group autonomy. The elasticity of the collaborative open learning approach used is a further characteristic that influenced participants' experience, together with the use of social media technologies. While the collaborative open learning approaches in both courses enabled participation following 'selective' and 'immersive' learner engagement patterns in collaborative open learning, choice in selecting not only particular inquiry-based collaborative learning activities, but also the collaborative open learning approach, were important in bringing the groups together. Generally, the focus on the collaboration process rather than the collective product or output was more appropriate for collaborative open learning, particularly due to the varying learner engagement patterns, while smaller groups seem to work better. Finally,

the outcomes indicate that the course also presented an opportunity for participants to extend their engagement beyond the traditional boundaries of a course and become part of a wider and ongoing community.

A summary of the discussion of RQ1 and RQ2 is presented in the following concluding section of this chapter.

6.3 Chapter summary

Within this chapter, the findings of this study are discussed in an attempt to address RQ1 and RQ2. The response to RQ1 illustrated how collaborative open learning was a cross-boundary experience, with an online, offline and mobile dimension and experienced as 'selective' or 'immersive'. Furthermore community played an important role especially for 'immersive collaborators'. The response to RQ2 illustrated that the two distinct learner engagement patterns of collaborative open learning, 'selective collaborator' and 'immersive collaborator' were fostered through specific course characteristics. These were the facilitator, the flexibility of the collaborative open learning approach, and related inquiry-based activities that enabled contextualisation and created a sense of community that for some extended beyond the course.

Chapter 7, which follows, draws on the research findings from RQ1 and RQ, the outcome space and this discussion to propose an evidence-based cross-boundary collaborative open learning framework for academic development (RQ3).

CHAPTER 7: TOWARDS A CROSS-BOUNDARY COLLABORATIVE OPEN LEARNING FRAMEWORK

In this chapter a framework for cross-boundary collaborative open learning in academic development is proposed in response to RQ3.

> *RQ3: Drawing upon research findings from RQ1 and RQ2, what could be the key characteristics of a proposed collaborative open learning framework for open cross-institutional academic development courses?*

The chapter starts with a discussion of RQ3 (Chapter 7.1) followed by the presentation and description of the cross-boundary collaborative open learning framework (Chapter 7.2).

7.1 Discussion of RQ3

The literature review demonstrates that new design frameworks are needed to respond to the fast pace of change in HE that can be used to model innovative practices in academic development (Chapter 2.5.2). The use of innovative approaches to learning and teaching will create opportunities for academic staff to experience these as learners first and consider such approaches for their own practice (Chapter 2.5.5) to further enhance and transform the student experience.

A range of well-known and widely used theoretical and evidence-based design frameworks were reviewed (Chapter 2.4.3) from a range of mainly HE contexts and included modes of engagement supported by technology, to identify what is already available and in use that could also be of relevance for this study. The frameworks reviewed included, the 5-stage e-tivities (Salmon, 2000, Salmon 2002; Salmon, 2013) also appropriated as the 5-stage framework for online e-groups (Jaques & Salmon, 2007), the 3E Approach/Framework (Smyth *et al.*, 2010; Smyth *et al.*, 2011) and the 5C Framework (Nerantzi & Beckingham, 2015a). (See also Table 2.3 and Appendix 2.1).

The frameworks reviewed discuss a range of scaffolding strategies to enable and promote learner interaction and active engagement. In some cases,

collaborative learning is covered in a variety of settings from blended, technology-supported and fully online provision, in formal or informal educational settings, as well as in MOOCs and OEP (Chapter 2.4.3). These frameworks highlighted the importance of facilitator support, the community, the activities, and the choice – to learn on one's own or with others. However, this study suggested a potential gap: none of the frameworks reviewed has been designed with a primary focus on fostering cross-boundary collaborative open learning in cross-institutional academic development settings. This is the lens of the framework generated by the current study. It is true that one of the frameworks reviewed, the 10 Dimensions of open education framework (Inamorato dos Santos *et al.*, 2016), has been created for open education and does refer to collaboration. However, it is a framework for implementation of open education more generally and not a design framework. It therefore does not contain details about pedagogical approaches including collaborative open learning (Chapter 2.3.2).

A small number of academic development units and academic developers have started engaging in the development of OER and offering OEP (Chapter 2.5.4). However, overall, academic development, while it has a central function within HEIs in the UK, still has a traditional character and is often criticised for being behind the times, especially when it comes to the modelling of digital practices (Chapter 2.5.3). Despite the fact that researchers in this area and policy makers (Crawford, 2009; European Commission, 2013; King, 2004) have called for more open, decentralised and collaborative academic development provision stretching across institutions, academic development still seems largely the same as practised for many years.

The cross-boundary collaborative open learning framework for cross-institutional academic development developed from this study (Chapter 7.2) is described in detail in the following sections.

7.2 The Framework

The design of the cross-boundary collaborative open learning framework for cross-institutional academic development (hereafter 'the framework') emerged

from the phenomenographic findings and synthesises these from RQ1 and RQ2. The framework is a design tool for academic developers through which, key characteristics of collaborative open learning as a learner choice in cross-institutional courses have been identified and synthesised. It has been constructed from the outcome space of this study (Chapter 5.5), underpinned by critical engagement with the relevant literature (Chapter 2), and informed by responses to RQ1 and RQ2 (Chapter 6.1 and Chapter 6.2) as well as the discussion of RQ3 (Chapter 7.1).

The recommendation is that the framework be used as a dynamic design tool. However it will require contextualisation and adaption before application. It can be useful to academic development course designers as well as academic staff in other disciplines who are engaged in developing, evaluating or reviewing open or online provision with collaborative learning characteristics.

The framework consists of the following three dimensions:

- Learner engagement patterns
- Learner needs
- Design considerations

The framework in detail is depicted in Table 7.1. It shows these three dimensions of the framework and associated features.

Table 7.1 The framework

Learner engagement patterns

Selective collaborator	Immersive collaborator
• Focus on self • "Lives" elsewhere • Low group product expectations • Some small group participation • Might use course to complement other studies, professional recognition • Support mainly from elsewhere	• Focus on group • "Lives" in the group • High group product expectations • Might be studying towards credits on course, or professional recognition • Support mainly from within the group

Learner needs

• Milestone cohort activities
  • Process

Selective collaborator	Immersive collaborator
• Some asynchronous group activities • Sporadic synchronous group activities • Light touch facilitation	• Social relationships, community • Regular asynchronous group activities • Regular synchronous activities • Regularly facilitation (push – pull) • Co-created products

Design considerations

Collaborating institutions	Organisation, and facilitation team	Learner profiles and cross-boundary considerations	Learning and Teaching approach	Group work and community
Resources, tools and open licensing	Accreditation / Recognition	Online / Offline mode	Course outcomes and activities	Timing and scheduling

The similarities and differences of the reviewed frameworks mentioned in Chapter 7.1, further frameworks mentioned in Chapter 2.4.3, and the framework of this study have been summarised in Table 7.2.

Table 7.2 Comparing key reviewed frameworks with the cross-boundary collaborative open learning framework

Commonalities among all reviewed frameworks	Unique features of the cross-boundary collaborative open learning framework
- Facilitator support - Community - Activities - Choice - Collaborative learning options - Tutor support - Community - Activities - Choice - Collaborative learning characteristics - Different modes	- Focus specifically on collaborative open learning - Focus on cross-institutional collaboration - Focus on cross-boundary engagement, - Dynamic learner engagement patterns and learner needs are part of the framework

Table 7.2 showcases the novelty of the proposed framework's focus on cross-boundary collaborative open learning in the context of cross-institutional academic development. The framework includes guidelines on which elements to consider when designing for cross-boundary collaborative open learning experiences in these settings. Therefore, the framework is a practical proposition for application and use in academic development. It can also be used as a basis for further exploration of collaborative open learning and related research within academic development.

The three dimensions of the framework are described in the following sections, beginning with the learner engagement patterns (Chapter 7.2.1), followed by the learner needs (Chapter 7.2.2) and the design considerations (Chapter 7.2.3). The potential usefulness of the framework for specific stakeholders (Chapter 7.2.4), and its strengths and limitations (Chapter 7.2.5) and licensing (Chapter 7.2.6) are also discussed.

7.2.1 Learner engagement patterns

The learner engagement patterns included in the framework (Table 7.3) are the findings of the phenomenographic analysis. These have been discussed in Chapter 6.1.2. The two learner engagement patterns associated with

collaborative learning, 'selective collaborator' and 'immersive collaborator'. They are well supported in the phenomenographic outcomes and reflect the category of description 'collaboration as engagement in learning' as depicted in the outcome space in Area B: Lived experience (Chapter 5.5 and Figure 5.3). These two learner engagement patterns provide insights into the learners' activity and behaviour in the context of the collective case study.

Table 7.3 Learner engagement patterns in informal cross-institutional academic development provision with collaborative open learning characteristics

Selective collaborator	Immersive collaborator
• Focus on self • "Lives" elsewhere • Low group product expectations • Some small group participation • Might use course to complement other studies, professional recognition • Support mainly from elsewhere	• Focus on group • "Lives" in the group • High group product expectations • Might be studying towards credits on course, or professional recognition • Support mainly from within the group

The qualitatively different variations are captured in Table 7.3. The results indicate that the learner engagement patterns are dynamic (Chapter 5.4.1). This means that learners may move between these two identified learner engagement patterns. The level of learners' engagement with others, and their participation in asynchronous or synchronous group and course activities and associated support strategies will vary. Furthermore, learners can behave differently online and offline. For example, a learner may seem to be a 'selective' collaborator online within the course, but offline in a local setting, he or she may be an 'immersive collaborator' enjoying the benefits of an existing trusted community. Therefore, when organising groups and collaborative open learning, it is important to take these different learner engagement patterns into consideration as they will affect group work and there may be tensions especially between 'selective collaborators' and 'immersive collaborators'. Making learners in groups aware of these issues and monitoring engagement patterns of learners could be considered to reduce potential challenges and misunderstandings among group members.

The learner engagement patterns, as this study shows, depend on personal circumstances, interests, preferences, challenges and constraints and these can all change (Chapter 5.4.1). This is consistent with White and Le Cornu's

(2011) Visitors and Residents Typology reviewed in Chapter 2.4.2 and discussed in Chapter 6.1.2. As some learners can be less visibly engaged with others online in the course, it needs to be acknowledged that these individuals, especially 'selective collaborators' can have other support, engagement and collaboration strategies in place which sit outside the course. These could be other online communities or offline formalised or informal support networks (Chapter 5.3.2). Such information can be included in the learner profiles kept and shared by learners in an online space related to the course.

Providing clear course guidelines for learners is important, as is having facilitators who are engaged where needed. Proposed support measures can be found in the framework under design considerations (Chapter 7.2.3), and these, have been shown to lead, progressively, to learner autonomy (Chapter 5.2).

The next section presents the learner needs dimension of the framework in more detail.

7.2.2 Learner needs

The learner needs (Table 7.4) as identified through the two distinct learner engagement patterns, 'selective collaborator' and 'immersive collaborator' (described in (Chapter 7.2.1), have been visualised in the outcome space (Chapter 5.5 and Figure 5.3). These needs are grounded in the phenomenographic results and the collaborative open learning experience was discussed in relation to RQ1 in Chapter 6.1 and to relation to RQ2 in Chapter 6.2.

The learner needs dimension of the framework is a guide for academic developers, course designers and facilitators to design and facilitate collaborative open learning as these provide engagement activities that may be appropriate depending on particular learner engagement patterns.

Table 7.4 Learner needs in cross-institutional academic development provision
with collaborative open learning characteristics

Selective collaborator	Immersive collaborator
• Milestone cohort activities • Process • Some asynchronous group activities • Sporadic synchronous group activities • Light touch facilitation	• Milestone cohort activities • Process • Social relationships, community • Regular asynchronous group activities • Regular synchronous activities • Regularly facilitation (push – pull) • Co-created products

Table 7.4 shows the needs linked to the corresponding learner engagement
pattern. The learner needs are aimed at providing a guide for academic
developers during the design stages of a course to help them develop
appropriate activities that will be suitable for each need. This will potentially
increase the engagement in collaborative open learning and in learning more
generally. Furthermore, these activities can also be useful for facilitators to
adjust support strategies in collaborative open learning. They may also help
learners identify ways to engage in a course depending on their circumstances,
or the learner engagement pattern.

As learner needs are linked to the corresponding learner engagement patterns
it is recommended that academic developers make clear from the outset what
level of commitment is required from learners for each pattern. This is especially
important for those learners who intend to engage in collaborative open learning
in supported groups, and to clarify the nature of the work involved. Learners can
be asked to identify which learner engagement pattern would be more
appropriate for them, depending on their circumstances at a specific moment in
time. This could help them manage their engagement more effectively and
realistically depending on their circumstances. However, there is an adverse
potential for a learner to 'lock themselves in' to a learner engagement pattern
and then become less open to change. Being aware of learners' needs may
help facilitators and learners to reduce potential challenges experienced in
collaborative open learning in groups, especially where a higher level of
commitment to others is required or expected.

Finally, the design considerations dimension of the framework, is presented in the following section.

7.2.3 Design considerations

The design considerations are course characteristics, which according to this phenomenographic study, lay the foundations for collaborative open learning in cross-institutional academic development. They are important for individuals, groups of academic developers and others who are interested or involved in organising and/or enhancing current informal cross-institutional provision with collaborative open learning characteristics (Table 7.5).

Table 7.5 Design considerations for collaborative open learning in cross-institutional academic development provision

Design considerations				
Collaborating institutions	Organisation and facilitation team	Learner profiles and cross-boundary considerations	Learning, and Teaching approach	Group work and community
Resources and tools	Accreditation / Recognition	Online / Offline mode	Course outcomes and activities	Timing and Scheduling

Each design consideration is briefly described below, including future considerations and guidelines for academic developers and course designers.

Collaborating institutions: Collaboration between institutions in this study was of an informal nature and practitioner-led (Chapter 3.5.5 and Chapter 3.5.6) and conducted without formal cross-institutional agreements. This approach is in line with what Weller (2011) defines as 'little OER' and Rennie and Reynold (2014) as 'Bottom up OER' (Chapter 2.3.2). The discussion linked to RQ2 (Chapter 6.2) suggests that these concepts are also relevant for OEP. Practitioner-led cross-institutional initiatives could also be formalised through cross-institutional agreements and therefore be turned into 'Big OEP'. Such a step can have implications on the flexibility, quality and sustainability of the initiative and therefore further research is needed in this area.

In order to find collaborators, an academic developer or course designer first needs to identify individuals in at least one other HEI who would be interested in

offering a cross-institutional initiative. Individuals from an HEI in another country can be considered as they potentially offer greater diversity within the learning experience as this study shows (Chapter 6.1.1).

Organisation and facilitation team: A team approach to organisation and facilitation among collaborators from different institutions was used in both courses of this study. In particular, the outcomes linked to facilitation and the distributed team approach (Chapter 5.2.2 and Chapter 6.2) suggest that this had a beneficial effect on participants' engagement in collaborative open learning, and reduced some of the managerial perceptions around academic development (Chapter 2.5.2). Therefore, it is suggested that a distributed and collaborative approach to academic development should be considered as it could alleviate potentially negative perceptions of academic development.

The role that facilitation has played in this study suggests the importance it plays in OEP in the context of academic development, and the difference it can make for collaborative open learning in these settings as discussed in Chapter 6.2. A supportive environment where facilitators are present and engaged, and in which they are co-learners, builds confidence among learners and reduces their anxiety around contributing (Chapter 6.2.1). The study also indicates that facilitators play an important role in overcoming challenges related to technology and language for example (Chapter 5.2.2 and Chapter 5.4), and that facilitation should therefore be acknowledged as an important aspect of OEP.

On the matter of defining a course language, even if collaborators originate from the same country, open learners may still be from a wider range of countries with different first languages and varying levels of competencies in the course language. As this study has shown, a defined language can therefore be a barrier for some to collaborative open learning (Chapter 5.3.3 and Chapter 6.1.1). It is important to acknowledge this and identify strategies to help learners overcome any restrictions from the outset. Language learning resources or a buddy system for example, could be considered. Helping establish positive relationships can also make a difference as the findings show as these may reduce among others language barriers and bring individuals closer together. Furthermore, collaborators need to agree on the details of the course, such as

its organisation including the structure, scheduling, approaches, and activities, as well as define and agree an appropriate evaluation strategy.

Resources and tools: A range of resources and tools for collaborative open learning were used in the two courses of this study (Chapter 3.5.5 and Chapter 3.5.6). The outcomes suggest the importance of using media-rich resources alongside text-based resources as they provided varied and flexible engagement opportunities which supported participants' learning especially where English was not the first language, there were learning difficulties or time constraints (Chapter 5.2.3 and Chapter 6.2).

The digital tools and social media used in the two courses of this study supported collaborative open learning and, while they presented initial technological challenges for some participants, these were overcome with peer and facilitator support (Chapter 5.2.1). These outcomes seem to be consistent with the idea that social media is a vehicle for open learning (Weller, 2014).

Challenges are especially acute during the initial stages of a course (Chapter 5.2.1 and Chapter 5.3.3) when learners first encounter the resources and tools. Providing clear guidelines that help learners familiarise themselves with these, and which help them navigate through the course, is important for developing confidence in learners (Chapter 5.2.2 and Chapter 5.3).

Further challenges for collaboration would be expected due to varying levels of proficiency in the defined course language due to the openness of the provision, as discussed in the organisation and facilitation team section above and in Chapter 5.3.3. Special resources for overcoming some of these associated challenges should, therefore, be provided in combination with facilitator support.

Finally, making all course areas and resources available from the outset of the course and after course completion increases and extends flexible engagement, since, as the study suggests (Chapter 5.2.3), learners engage in different ways with the course.

Accreditation / Recognition: Conole (2013a) has noted that the blending of formal and informal learning has started happening in HE. Examples of this in practice are the two courses of this study. Formal and informal learning opportunities were part of the design due to its open nature. Courses were

linked to formal institutional modules in at least one of the participating institutions. This enabled the bringing together of formal and informal learners in a cross-institutional academic development context (Chapter 3.5.5 and Chapter 3.5.6). This blending or blurring of modes of participation had a positive impact on collaborative open learning for both informal and formal learners in the two courses of this study, and was often seen as motivational (Chapter 5.3.1).

Furthermore, this study shows that the opportunities for accreditation and recognition presented by the courses became increasingly important for some participants due to their level of engagement in the course (Chapter 5.3.1). While informal recognition, in the form of a certificate or badge or other notification of participation was seen as appropriate for some, other participants (Chapter 5.3.1), were interested in how they could use the course towards gaining academic credits, a qualification or a professional recognition. Some participants had the opportunity to use the course to complement their studies elsewhere or work towards recognition external to the course (Chapter 6.1). Further research in this area is required to establish how informal and open learning in the context of academic development can be recognised.

Johnson *et al.* (2016) state that there are associated opportunities for HE brought about by the blending of formal and informal learning, especially around the role of informal learning for formal learning and qualifications. The outcomes around recognition and accreditation in this study suggest that there is value in bringing together formal and informal learning in the context of academic development. If the provision is part of an existing academic programme that has been opened-up, it will already have in place accreditation and recognition strategies and related summative assessment for learners who are interested in working towards recognition or academic credits. However, the outcomes point towards the need to identify pathways that lead to accreditation or recognition, especially for open learners, as the certificates and open badges may not be appropriate or desirable in all cases (Chapter 5.3.1).

This study indicates that it may be appropriate that any formal opportunities for accreditation or recognition are dealt with at institutional level and not cross-institutionally, because in a practitioner-led collaboration there will be no formal agreements in place. Even if there were, a joint recognition or accreditation

process for open learners would add a layer of complexity which may not be helpful when designing, and offering open courses of this nature. Research in this area will provide related insights to inform practice.

Learner profiles and cross-boundary considerations: Open provision without prerequisites, increases diversity and cross-boundary representation of learners as this study suggested (Chapter 5.3). Such courses have the potential to attract academic staff and students from other institutions from the same and other countries and cultures, as well as individuals from outside HE (Chapter 5.3). This study takes Perryman's and Coughlan's (2013, 2014) informal academic and public subject communities using social media, and show that such cross-boundary communities can also work when bringing together formal and informal learning of academic staff, students and the public in an academic development context. Such practices add another dimension to the diversity of learners and how cross-boundary collaborative learning is experienced.

Knowing who the learners are and their expectations is important for facilitators helping them to support participants in collaborative open learning. The information that provides insights into the demographics of learners as well as their intended learner engagement patterns and details regarding any existing additional and/or external support in place, could be shared with facilitators and peers in the course, with learner's consent, especially as generally less information will be available for open learners compared with learners who will be registered from a particular institution. The creation and use of learner profile spaces could be considered for gathering relevant information about collaborative open learners that will be useful for facilitators and peers during the course and should be constructed following data protection guidelines. Alternatively, reflective individual or group portfolios could provide this information when shared with others on the course.

Learning and teaching approach: This study has shown that inquiry-based learning and teaching approaches engage learners in a meaningful and critical way enabling contextualisation (Chapter 5.2.4). Many participants enjoyed and valued learning through inquiry especially as this enabled them to link learning to their own practice (Chapter 6.2).

Overall, it is recommended that flexibility and choice are built into the teaching approach, so that it is not overly structured and predefined, and gives facilitators and learners freedom to make learning suit their needs (Chapter 5.2.2). This study suggests that when open learners take ownership of the learning process, this may translate into increased engagement (Chapter 5.4 and Chapter 6.2).

Group work and community: Learning in facilitated small groups was an option in the courses of this study. There were additional options for learners to learn on their own or with others in the course community. These arrangements added flexibility for learners to engage.

This study suggests that supported small groups have a positive impact on engagement (Chapter 5.4 and Chapter 6.1). They also point towards an increased interest in collaborative open learning when the group members, and the voices and perspectives they expressed, were diverse (Chapter 5.3 and Chapter 6.1). Therefore when creating groups, mixing learners from different institutions, backgrounds, roles and cultures is recommended as it will increase diversity and might influence individual learner engagement patterns (Chapter 7.2.1). The development of strategies for group formation that foster cross-boundary collaborative open learning can assist in achieving this. Some learners might need more support than others and time is needed to form groups. These requirements should be recognised and built into the course.

Perceptions of facilitation in this study and especially the sometimes directive and controlling aspect of it (Chapter 5.2.2), indicate that it is important to create a scaffold that will lead to group autonomy as time progresses. This would help learners get the maximum out of collaborative open learning and open learning more generally. The approach adopted for collaborative open learning needs to be owned by the group members (Chapter 5.4.1). In addition, while it is often desirable in collaborative learning to produce a group output, this study indicates that this can be problematic, since engagement fluctuates and individual priorities can be conflicting (Chapter 5.4.2 and Chapter 6.2). Therefore, the suggestion is to consider approaches that focus more on the process of collaborative learning. Further insights regarding learner engagement patterns and associated learner needs can be found in Chapter 7.2.1 and Chapter 7.2.2.

Scheduling when the group gets together is important and will help group members get to know each other which, in turn, will have an impact on their interaction and learning within the group (Chapter 5.4.3). In particular, using synchronous video links where individuals can see each other, can create a sense of belonging among group members and enable them to learn together in real time (Chapter 5.2.3). Creating opportunities for learners to be part of a community within a group as well as at a course level (Chapter 6.1, Chapter 6.2) is an important design consideration identified through and in the literature (Chapter 2.4.3). A community enables 'immersive collaborators' and 'selective collaborators', as well as 'individual learners', described in Chapter 7.2.1, to reach out and connect. This happens if or when they want depending on their personal circumstances and preferences (Chapter 5.2.3 and Chapter 6.2).

Online / offline mode: The mode of engagement provided insights into where participants experienced collaborative open learning and how they engaged more generally in the open course (Chapter 5.3.2 and Figure 5.3 and discussed in Chapter 6.1 and particularly in Chapter 6.1.2).

The potential offline learning in an open course is often not acknowledged (Wall, 2015). The outcomes especially around 'cross-boundary learning and time, places and space' (Chapter 5.3.2) provided an insight into the role offline learning played for some participants and their learning. They indicate that offline was often preferred or at least complimentary to online and mobile learning as it enabled participants to engage differently and be supported locally (Chapter 5.3.2 and Chapter 6.1.2). The knowledge that learners engage in offline activities could provide a possible explanation of why some participants might be less visible online within groups and the course more generally. This information can help manage group expectations and collaborative open learning more generally. It is therefore recommended that academic developers, course designers and facilitators take online and offline modes into consideration when planning, designing and supporting collaborative open learning in cross-institutional academic development courses, even if such information is not known.

Course outcomes and activities: The courses of this study had broad outcomes, which were accompanied by a range of various learning activities.

These could be used in collaborative open learning in groups or individually. Peers and tutors commented on contributions (Chapter 3.5.5 and Chapter 3.5.6) and learners were encouraged to personalise the learning outcomes.

Structuring the course based on broad learning outcomes and offering a small set of activities linked to course themes that can be used and adapted individually or collaboratively, online or offline, was seen as beneficial for participants especially as time for engagement was often an issue (Chapter 5.2.3). Keeping instructions of activities short and clear is therefore recommended.

Furthermore, designing activities that are inquiry-based and which can be contextualised and completed in a variety of media enables alternative engagement (Chapter 5.2.3). The use of video for reflection is such an example. Using a wide range of media is important for a number of reasons, including: the possible engagement difficulties that some learners will encounter because of language barriers; learning difficulties, time constraints; and personal preference for engagement in learning (Chapter 5.4). This study shows that media-rich approaches work well and learners enjoy sharing and commenting on each other's contributions (Chapter 5.2.3). Further details regarding activities linked to collaborative open learning have been noted in an earlier related section.

Timing and Scheduling: The courses studied in this project were each eight and 12 weeks long. Shorter courses could also be considered including block delivery within five days. An example of this is included in Nerantzi and Beckingham (2015a) which reports on the five-day Bring Your Own Devices for Learning course and the value this had for learners, their CPD and their practice. However, the nature of collaborative open learning is shaped by the duration of the course. In courses that stretch over a longer period of time there is more time available to develop learning relationships in groups, which is important especially for 'immersive collaborators'.

Scheduling synchronous and asynchronous activities for all learners and at group level early on in the course and throughout, is important as this helps learners manage their time from the outset. Providing indicative study time per day or week depending on the length of the course should also be considered.

Furthermore, this study indicates that some participants wanted to keep in touch with peers after the course had been completed and to feel part of a community (Chapter 5.3.3, Chapter 5.4.3 and Chapter 6.2). Therefore providing extended engagement opportunities beyond the course duration can be beneficial.

Having looked at the framework itself in detail, its potential usefulness for the stakeholder is described in the following section.

7.2.4 The potential usefulness of the framework for specific groups

This research has shown that collaborative open learning can be a powerful learning and development strategy for engaging academics and other professionals who teach or support learning, in pro-active CPD (Chapter 5). Collaborative open learning can bring together a wide range of individuals from different cultures, sectors and professional roles, including students, and individuals from outside HE. The application of the framework also presents opportunities for academic staff to become part of a diverse cross-institutional learning community with the potential to live beyond course boundaries, and create and strengthen relationships among practitioners in different institutions. The framework is therefore a cross-boundary collaborative open learning framework developed in the context of cross-institutional academic development. In addition, as noted above (Chapter 6.3.2), the framework may also bring value to other course designers in other professional areas where the advantages of cross-boundary learning can also be harnessed.

Looking at the potential participants who would benefit from the opportunities the framework may present, these can be divided into groups, each of which are considered below.

Academic developers: Collaborative open learning is an approach for academic developers to consider in their practice that potentially creates a new type of CPD and brings more diverse individuals together, creating opportunities for cross-institutional collaboration (Chapter 5.3.4 and Chapter 2.5.4). This can be motivational, not just for those participating but also for those co-organising and co-facilitating such a provision. It also presents valuable CPD opportunities for academic developers themselves as such initiatives provide opportunities to work with colleagues and individuals from different institutions, cultures and sectors.

Academic staff: It is recommended by the researcher that academic staff first experience collaborative open learning as a learner (Chapter 5.2.1, Chapter 5.3.3 and Chapter 2.5.3) and then become a co-facilitator as a second stage of engagement. This will help in developing a deeper understanding of what it is like to learn in such an environment and how to support others, by experiencing challenges and opportunities first-hand, thereby better preparing for integrating and adapting similar approaches into their own practice.

Students in HE: There is an opportunity for students, especially at postgraduate level, to learn in partnership with educators and other professionals from other sectors and cultures, in an environment characterised by horizontal communication and collaboration. Such activities can have a positive effect on students' motivation to learn and study, and increase students' confidence and sense of belonging (Chapter 5.3 and Chapter 2.3.4).

Professionals from other sectors and the public: This includes those from sectors such as secondary or further education, and from diverse sectors such as the voluntary and corporate institutions and the public more widely, who all have an opportunity to learn and develop within a diverse community with shared interests. It is a way for HE to open-up, connect with and integrate more with society (Chapter 2.3.4), and to embrace learners more widely from every walk of life. By doing this it extends its reach by providing access to the wider community and valuing diverse learner input and reciprocity through open communities of collaboration, knowledge creation and sharing for the public good based on democratic values according to the ethos of open education (Chapter 2.3). Furthermore, it creates connections and opportunities for diverse collaborations, and a link between sectors and the public, which, as this research has shown (Chapter 5.3.4), is vital for cross-fertilisation of ideas and knowledge creation.

Researchers: As the framework brings together a range of dimensions and features around collaborative open learning, it may be a useful starting point for researchers to generate new ideas of interest for further research. Therefore, it could be used as a tool to further explore particular areas of interest linked to this.

The framework as described above has both strengths and limitations, and these are considered in the following section.

7.2.5 Strengths and limitations of the framework

The framework can be useful for academic developers and course designers who have a particular interest in collaborative open learning, to plan set up, open up, join or enhance such opportunities, including cross-institutional settings. The framework may also be relevant for practitioners who are exploring opportunities for collaborative open learning or collaborative learning without cross-institutional involvement in other online settings.

Further work is needed to validate this empirical framework. Though untested, following development, an initial step was the sharing of the framework with eleven colleagues in a wide range of roles from different parts of the world for open peer review. This strategy is aligned to phenomenographic practice and aids external scrutiny and judgements to be made by the wider researchers' community of the researcher's interpretations of the phenomenographic analysis (Chapter 3.4.6). Their comments indicate the usefulness of the framework for practice in a range of learning and teaching contexts, within and beyond academic development. It was highlighted that the framework provides a deeper understanding around collaborative open learning and the boundary crossing dimension. Furthermore, colleagues stated that the framework could be a useful tool for course designers in implementing cross-institutional academic development provision which could help overcome some of the managerial approaches used.

7.2.6 Licensing of the framework

The proposed release of the framework under a CC licence NonCommercial ShareAlike (CC BY-NC-SA) enabling adaptations, will encourage others to test the framework, evaluate it and further contribute to the knowledgebase around collaborative open learning and open cross-institutional provision.

7.2.7 Summary of the framework

In Chapter 7.2, the cross-boundary collaborative open learning framework designed on the phenomenographic findings of this study and informed by critical engagement with the literature was described. Its three dimensions: learner engagement patterns, learner needs and design considerations, provide

a guide to academic developers and course designers interested in implementing collaborative open learning within cross-institutional academic development. The proposed release of the framework under a CC licence will enable adaptations for particular academic development needs.

The following concluding section forms the summary of this chapter.

7.3 Chapter summary

RQ3 presented an opportunity to synthesise the discussion from RQ1 and RQ2 and propose an evidence-based cross-boundary collaborative open learning framework for academic development. Its three dimensions: learner engagement patterns, learner needs and, design considerations, may be useful as a whole or in parts for academic developers and course designers interested in implementing and supporting collaborative open learning experiences in cross-institutional settings. Such experiences could extend beyond the boundaries of a course and present opportunities for alternative and ongoing engagement in CPD based on collaboration and community.

Chapter 8 follows, providing an overview of the completed study. It includes the limitations of this study and concludes with directions for further research.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

The key findings of this study were discussed in Chapter 6, through which the following were identified:

a) new insights into learner engagement patterns in collaborative open learning (RQ1), and

b) specific course characteristics which, in this research, influence collaborative open learning (RQ2)

As a result, a cross-boundary collaborative open learning framework for cross-institutional academic development was introduced in Chapter 7 as a direct output in response to RQ3. The framework and the opportunities this presented for academic development were also discussed.

In this concluding chapter, the study is summarised (Chapter 8.1) and the contribution to knowledge and practice shared (Chapter 8.2). Furthermore, the implications for academic development are presented (Chapter 8.3) followed by the reflections on this study (Chapter 8.4). The chapter concludes with directions for further research (Chapter 8.5) and final remarks (Chapter 8.6).

The overview of this completed study is presented in the following section.

8.1 Research overview

Through this study insights into the learner experiences of collaborative open learning in the context of cross-institutional academic development in the UK were gained in response to the following three research questions:

RQ1: How are open cross-institutional academic development courses that have been designed to provide opportunities for collaborative open learning experienced by learners?

RQ2: Which characteristics of open cross-institutional academic development courses influence learners' collaborative open learning experience and how?

RQ3: Drawing upon research findings from RQ1 and RQ2, what could be the key characteristics of a proposed collaborative open learning framework for open cross-institutional academic development courses?

The main empirical findings of this study are summarised within Chapter 5 and discussed in Chapter 6 which addresses RQ1 and RQ2 and Chapter 7 which addresses RQ3.

In addressing the three RQs, the study set out to explore the collective collaborative open learner experience through exemplars in the form of two cross-institutional academic development courses (FDOL132 and #creativeHE). These courses involved at least one UK-based HEI, and enabled cross-institutional collaboration using collaborative open learning approaches supported by academic developers and academic staff from these institutions. Phenomenography was used as the methodology for the study in order to explore the collaborative open learning experience of participants, and the findings identified that such learning was experienced as 'selective' and/or 'immersive'. The findings also highlighted the organisational characteristics of the courses, which played a key role in shaping this experience.

From the study, a design framework has been developed (Chapter 7.3) for course designers considering developing and offering such provision in an academic development context and in HE more generally. The framework consists of three dimensions: learner engagement patterns, learner needs and design considerations, and is based on the phenomenographic findings of this study.

This study is in an emerging area of open education and academic development where relatively little evidence-based research is available (Chapter 2.5.5). However, learning is generally becoming more collaborative and informalised (Redecker *et al.*, 2011) and the boundaries between formal and informal learning are blurring (Chapter 2.3.2). This realisation, together with the call for more openness and cross-institutional collaboration among HEIs in the area of teaching and academic development (British Council, 2015; European Commission, 2013, 2015; HEFCE, 2011) to enhance the quality of

teaching based on collaboration among institutions and collaborative learning, were important drivers for this study. The study itself, presents an alternative academic development proposition, especially in the UK HE context, to the approach to achieving teaching excellence through UK Government interventions such as the recent TEF, which is in contrast to the above calls for more openness and collaboration among HEIs, where the quality of teaching and the enhancement of teaching is linked to institutional financial incentives and competition (BIS, 2016a; BIS, 2016b). There is also the potential that this study could be considered to underpin the TEF. Furthermore, the literature, specifically in the context of academic development in the UK, also highlighted the need for more outward-facing (Crawford, 2009), technology-supported academic development (Pickford & Brown, 2013) following collaborative and open approaches that stretch beyond institutional boundaries to engage academic staff in CPD to enhance teaching practice, the quality of teaching and student learning (Chapter 2.5.4, Chapter 2.5.5). Nevertheless, open cross-institutional academic development is still currently in an embryonic state. The modelling by academic developers of such practice, supported by technologies and providing opportunities for staff to engage as learners, has the potential to better prepare them to harness these technologies and practices in their own teaching (Bates & Sangra, 2011; Donnelly, 2010; Littlejohn, 2002; Oliver & Dempster, 2003).

Gibbs' (2012) proposition for a national initiative on the professional development of teaching in the UK, the collaborative CICED PgCert in Central Scotland in 1989 (Ellington & Baharuddin, 2000) and the attempt in the 1990s to develop a joined up course in teaching across London for polytechnics and HEIs, may seem, for some, too radical (Chapter 2.5.4). However, the findings of this study suggest that there could be an opportunity to go even further; to bring not just institutions closer together through academic development, but also cultures, sectors and the public. Such practices can lead to cross-fertilisation of ideas and model a more integrated approach of academic development and HE positioned within society using cross-boundary collaborative learning approaches. Cross-boundary learning by the participants was understood and experienced as the bridging and fusion of modes of participation, professional

contexts, cultures and language, as well as time, place and space and enabled diverse individuals to learn together.

The insights gained into the lived collaborative open learning experience in the context of two cross-institutional academic development courses, are based on the phenomenographic analysis including the categories of description and the outcome space.

In the next section these answers are synthesised and the contribution to knowledge and practice is presented.

8.2 Contribution to knowledge and practice

The contribution to knowledge provided by this study is in the area of collaborative open learning in the context of academic development in cross-institutional settings. The study proposes an alternative approach for enhancing the quality of teaching based on academic development via collaboration and open education, as these hold the potential to generate collective growth and innovation (Orr, Rimini & van Damme, 2015). Through this study, new understanding of collaborative open learning was developed, particularly around collaborations that transcended boundaries between institutions. These add to the body of literature in this area (Chapter 2.2) and provide new insight into the related opportunities for academic development presented by open education (Chapter 2.5) and collaborative learning.

The three key outputs of this study, which are explored in the following sections, are as follows:

- Gaining new insights into learner engagement patterns in collaborative open learning (Chapter 8.2.1)
- Identification of course design characteristics that foster cross-boundary collaborative learning (Chapter 8.2.2)
- Design of a cross-boundary collaborative open learning framework (Chapter 8.2.3)

They are based on the phenomenographic analysis through which the qualitatively different variations of the collaborative open learning lived

experience were identified, and the categories of descriptions (Chapter 5.2, Chapter 5.3 and Chapter 5.4) and the outcome space (Chapter 5.5) were constructed. This, together with a critical engagement with the literature, led to the development of the framework (Chapter 7.3).

8.2.1 Gaining new insight into learner engagement patterns in collaborative open learning

Within this study, collaborative open learning in groups supported by facilitators was experienced as a choice by participants. Course participants could choose if they wanted to work on their own or within a facilitated group. This resulted in individual learners studying alongside those who were learning in collaboration with others in groups. The range of learner engagement patterns in collaborative open learning are represented in the framework (Chapter 7.2). These were derived from the outcome space, which provides a visual representation of the potential relationships of the categories of description and the qualitatively different variations in how participants experienced collaborative open learning. They depict the factors that influenced the experience as described by the participants themselves. What is revealed is that participants experienced learning in two qualitatively different ways: as 'selective collaborators' or 'immersive collaborators'. These two learner engagement patterns shaped the participant engagement in collaborative open learning within the two open courses. In collaborative open learning, these patterns provide additional explanations for less-visible engagement within collaborative open learning settings, both online and offline. They also highlight that the characteristics of engagement are not exclusively related to challenges experienced by learners, but are often an informed choice and may evidence self-directedness, circumstances, preferences and needs.

New understandings were developed in relation to the process-product dilemma within collaborative open learning present in the academic literature (Chapter 2.2). The learner engagement patterns identified in this study suggest that process driven approaches to collaborative open learning are generally more effective in promoting collaborative open learning in groups. This has implications for the way collaborative open learning is practised, as collaborative learning more generally is often associated with the production of a shared output in the form of a product (Chapter 2.2.2). The above results

indicate that more process-driven collaborative open learning approaches should be considered.

The findings of this study also suggest that regular scheduled synchronous video connections made learning with others real, strengthening participant learning relationships and commitment to each other. Additionally, the offline dimension of open learning and the fact that 'selective collaboration' became 'immersive collaboration' in other settings, often outside the course, highlights the benefits of the flexible engagement opportunities that suited participants' circumstances (Chapter 5 and Chapter 6). These findings contribute to the growing body of literature around open educational practices and its local and offline dimension (Chapter 2.3.2) especially in the context of academic development.

A further outcome related to cross-boundary collaborative open learning was that it created a sense of belonging and community that some participants did not want to end. This finding contributes to the body of evidence around the value of community within academic development (Chapter 2.5.2). The idea of 'course as community' contributes to the current literature around the notion of community and the important role it plays for learning and development (Chapter 2.5.3).

The findings suggest that academic developers could potentially form a community-based pathway for further exploration within academic development that could transform the way it is practised today (Chapter 6.2.3). The current focus of academic development based on institutional workshop- and course-based provision, could move towards a community-based model. This could happen when such a model is valued and has been recognised more widely by academic developers. Such a community model could form the connector for courses, workshops and further provision, including local and digital conferences and events. To encourage engagement in such CPD, it is important to promote participation for colleagues from within and outside HE, students and staff, from different countries, formal and informal learners, and to acknowledge the role of the online and offline dimensions of open learning in development and community building. Such communities could potentially provide an additional academic development approach where appropriate, or

even replace some provision. It could sit alongside subject- and disciplinary-focused academic development provision and extend the notion of existing cross-disciplinary development at institutional level to create opportunities for wider reaching communities of cross-boundary nature. However, it needs to be acknowledged that due to competition, economic and political reasons such initiatives will not always be feasible or institutionally acceptable.

8.2.2 Identification of course design characteristics that foster cross-boundary collaborative open learning

The flexibility of the collaborative open learning design, using inquiry-based approaches, coupled with facilitators support, were key characteristics for making collaborative open learning work (Chapter 6.2). Increasingly, support within OEP is seen as important in the literature (Chapter 2.2) and this research suggest the need for facilitation strategies such as coaching approaches to support collaborative open learning. Facilitation presents resource implications for practice, such as involving academic developers and other academic staff and providing development for them. However, practitioner-driven cross-institutional academic development provision could be seen as a valuable strategy for distributed facilitation (RQ2), and could present a more sustainable solution as resources and responsibilities are shared. Further research in this area could provide valuable information to increase understanding of distributed facilitation.

Furthermore, what emerged strongly from this study, and brings new understanding to the existing body of literature (Chapter 2.3.4), was the important role the cross-boundary dimension played within collaborative open learning. Cross-boundary collaborative open learning experience strengthened participant motivation and engagement (Chapter 5.3). This was especially relevant for 'immersive collaborators' as it helped them overcome barriers (Chapter 5.4) linked to the technology, culture and language. It also created a sense of belonging (Chapter 5.4 and Chapter 6.1.3).

Boundary crossing as depicted in Figure 5.2, and experienced in collaborative open learning in the collective case study was broad. The cross-boundary dimension linked to modes of participation brought together formal and informal learners and showed that this mixing has learning benefits for both types of

course participants. The findings suggest (Chapter 5.3.1) that while this mixing of learners was seen as beneficial by and for participants and influenced their engagement and learning, it also made some participants aware of the unexplored opportunities for potential recognition or credentialing of pro-active informal CPD. This would translate into tangible benefits for them, something that is also highlighted in the more recent literature in the context of CPD (Beetham, 2015).

The discovery of the importance of the cross-boundary dimension of learning has implications for academic developers, including those involved in, or who plan to be involved in, the design of collaborative open learning experiences. In particular, when considering and fostering 'cross-boundary-friendly' collaborative open learning, conditions by design and practice can be achieved within heterogeneous groups. The outcome space (Chapter 5.5) and the framework developed (Chapter 7) are put forward as guides to creating and enabling such conditions.

8.2.3 Design of a cross-boundary collaborative open learning framework

The literature review on design frameworks (discussed in Chapter 2.4.3) revealed a lack of frameworks specifically for open educational practices with a focus on collaborative open learning in cross-institutional settings, to which this study responded (Chapter 6.3). As collaboration and collaborative open learning have been recognised as a characteristic of future learning (Redecker *et al.*, 2011), it should be considered more by academic developers. Providing opportunities for academic staff to experience collaborative open learning in such settings and support them would lead them to consider such approaches in their practice.

The design framework provides insights for academic developers, researchers and practitioners to consider when designing collaborative open learning opportunities within cross-institutional academic development provision. The framework includes design considerations, learner engagement patterns and learner needs in collaborative open learning and is aimed at academic developers and course designers who are interested in developing 'cross-boundary friendly' collaborative open learning opportunities in cross-institutional academic development settings (RQ2 and RQ3).

In the next section the implications of this study for specific stakeholders are shared.

8.3 Implications for specific groups

Below, the possible implications for a variety of groups are considered.

8.3.1 Academic developers

Academic developers could review current provision, identify and create opportunities to connect with similar provision in other HEIs within and beyond the UK. This would enable them to collaborate, share resources and create new ways of practising academic development which could attract academic staff who perhaps engage less in more traditional institutional CPD provision.

In the future academic developers and others involved in academic development could consider developing fully open cross-institutional provision to replace at least some of their exclusively internal offerings. This would create opportunities for academic staff and academic developers to learn with others in distributed communities and benefit from the potential increased diversity of perspectives. Such a move would have organisational and financial implications for the HEIs and the HE sector, and could involve a total rethink and restructuring of how academic development resources are distributed and used.

Open cross-institutional and cross-boundary learning would also be of value as CPD for the academic developers. Through this, academic developers could model experimentation, learning and collaboration with colleagues from other HEIs, become agents of change and keep at the forefront of innovative approaches that could inspire colleagues in the faculties and within academic development. Furthermore, such an initiative would enable academic developers to share resources, expertise, and spread innovative ideas about learning and teaching in cross-boundary settings. Therefore introducing an alternative model for academic development, based on the principles and values of sharing, reciprocity, collaboration and open education.

8.3.2 Academic staff

Adopting open cross-institutional approaches run by facilitators to foster collaboration among practitioners and between institutions, could give staff engaging in CPD opportunities to enhance their teaching practice through regular access to a wide range of CPD that stretches beyond their own institution and is both flexible and diverse. Academic staff, as this study suggests, already engage in pro-active CPD using some of the opportunities open education presents. OEP provides alternative, additional or complementary engagement opportunities for pro-active CPD. Being supported by facilitators and learning in collaboration with diverse individuals in small groups, can make learning more interesting, and increase commitment and engagement. Connecting with colleagues from their institution and the geographical area in offline settings, as the findings show, can provide additional or alternative support for collaborative open learning and open learning more generally.

In the future, academic staff engaged in academic development courses within a specific institution could seek to see provision opened-up or connected with similar courses in other institutions. The benefits for academic staff participating in such courses would be learning within a more diverse and cross-boundary community that could enhance their experience and expand their professional horizons. Realising these benefits depends on the open course design and the nature of collaborative open learning. Therefore the design framework developed would present a valuable tool to ensure these benefits are maximised.

8.3.3 Researchers

Finally, the design framework could become a valuable tool for research into specific dimensions associated with collaborative open learning in cross-institutional academic development settings.

The researcher's reflections on this study are presented in the following section.

8.4 Reflections on this study

While efforts were made to ensure that methodological approaches and appropriate methods were utilised, there are some limitations of this study beyond the methodological challenges presented in Chapter 3.7. The limitations that follow are based on the researcher's reflective diary and are related to the study participants, sole researcher and the researcher's development as a phenomenographic interviewer.

8.4.1 Study participants

Participation in this study was open to all learners from both courses forming this study. The majority of those who volunteered to become study participants, were individuals who had chosen to learn in a group. Therefore, a large proportion of the phenomenographic data originated from participants working in groups. There is a possibility that if a larger number of course participants who engaged autonomously with the course had participated in the study, the data collected may have been different.

8.4.2 Sole researcher

This study is a sole researcher project and while there is evidence that phenomenography is suitable for this type of research in the context of doctoral research (Åkerlind, 2005), there are challenges which sole researchers in particular face when new to phenomenography. The findings may have been strengthened further through discussion and validation during the analysis process by fellow researchers (Merriam, 1995). This was not possible due to sole nature of this study.

This limitation was addressed by engaging in reflection throughout the study and especially during the analysis of the phenomenographic findings, which has been captured in a reflective diary. Furthermore, the researcher aimed to provide sufficient information so that the reader can decide on the credibility and trustworthiness of this study.

8.4.3 The researcher's development as a phenomenographic interviewer

This study was a development opportunity for the researcher in the area of phenomenographic interviewing.

Experience showed that the researcher had over-prepared the number of interview questions, and realised that deeply reflective responses were elicited from a much smaller number of questions that captured the collaborative open learning experience due to the openness of the questions that were used and the manner in which they were asked. As the project progressed, the researcher rapidly developed as a phenomenographic interviewer. The pilot interview conducted helped the researcher to overcome some of the challenges. In future, a more open and organic approach to interviewing would be utilised from the outset.

The directions for further research are presented in the next section.

8.5 Directions for future research

This study is in an emerging area of open education, in the area of academic development and particularly in collaborative open learning, where relatively little evidence-based research is available. The study provides findings in the area of academic development and specifically around collaborative open learning in cross-institutional provision, there is a need for further research as suggested below to develop and build upon the findings of this study.

8.5.1 Testing the collaborative open learning framework

The value of design frameworks for technology supported learning and teaching especially for fostering interaction and collaboration is recognised (Reeves & Reeves, 1997) and the collaborative open learning framework developed here is evidence-based. The framework needs to be tested in practice to be validated that it is fit for purpose. It is hoped that as the framework is made available under a CC licence, it will encourage researchers and practitioners to further explore its possibilities and strengthen it further.

8.5.2 A case-study free approach with a different sample

The two open courses of the collective case study used in this research had designed-in collaborative open learning characteristics. While this enabled the study of collaborative open learning in these two settings, it also focused the inquiry of collaborative open learning as something that was designed into a specific open course in the form of collaboration in groups that were supported

by facilitators. This is reflected in the categories of description, the outcome space and the collaborative learning framework developed from this study.

When conducting further research in the area of collaborative open learning, different approaches to data collection could be considered. Participants could, for example, be selected from a wider range of open professional development opportunities, organised or self-organised, including professional networks and communities, where collaborative open learning is also experienced perhaps with less or no facilitator support. Collaborative open learning in these settings would provide an interesting area for further study.

8.5.3 The facilitator experience

Finally, this research had a focus on exploring the collaborative open learner experience in cross-institutional academic development provision. As such experiences within the two cases were supported by facilitator teams, it would also be valuable to consider research into the related facilitator experience. The study of this could provide insights into facilitation and could further inform the collaborative open learning framework, especially the design considerations for which there is currently less support in the data of this study (Table 7.5). It could also lead to the construction of a facilitation framework that fosters collaborative open learning.

Final remarks about this study are presented in the concluding section which follows.

8.6 Final remarks

This study into collaborative open learning in the context of cross-institutional academic development courses highlights the important role that diverse cross-boundary communities play in engaging academic staff, students and the public in stimulating development activities that have the potential to enhance teaching practice.

A distributed and collaborative vision for academic development as a cross-boundary community has been proposed that will help academic developers and course designers in different institutions to work together to provide new

modes of provision of CPD for academic staff. It is hoped that the collaborative open learning framework developed will trigger interest into new forms of more community-based academic development and cross-institutional and cross-boundary collaborative open learning. Sharing, reciprocity, collaboration, building communities and interlinking the world of academia with the public and society has the potential to empower individuals and increase engagement in academic development and positive change that raise the quality of teaching in HE in the UK and more widely.

EPILOGUE

After completing this study and writing this thesis I am taking this opportunity to briefly share how this research activity, which has stretched over the last four years and a half, has influenced me as an open researcher and practitioner.

As an open practitioner, before embarking on this journey, my curiosity to explore and make discoveries in the area of open education and specifically in academic development was my driving force. I have not just grown older but also feel that I have become a little bit more knowledgeable in the area of my research. Phenomenography became my friend but it was not always that way. Sometimes relationships do not start on a high but then when we work on them, it can work out. I learnt to love phenomenography as my confidence using it grew and I look forward to continuing to study experiences. I also look forward to helping others develop their understandings of this methodology via research supervision.

During this study, and thanks to working within academic development, I had many opportunities to directly test and apply ideas in my practice that I was exploring within my research. I took risks and played with pedagogic ideas and concepts. Moving institutions in late 2013 gave me a focus that I needed. As an academic developer in my current institution I have the opportunity to bring together creative learning and teaching and open education. A marriage of many opportunities, as I discovered.

I have had the chance, thanks to my role and through my active engagement in professional networks and communities, to co-design and develop a range of open educational initiatives in the area of academic development. These have been directly influenced and informed by my doctoral research. For example, FDOL132 was offered one more time after I collected data for this research in 2013. Thereafter, the course team split and two new teams came together. These teams took FDOL, which was based on an idea from my MSc in Blended and Online Education at Edinburgh Napier University, into two different directions. Two new openly licensed courses were born, the children of FDOL, Open Networked Learning (ONL) and Flexible, Open and Social Learning (FOS). Furthermore, the open courses Bring Your Own Devices for Learning

(BYOD4L) and the Learning and Teaching in Higher Education tweetchat (#LTHEchat) on Twitter, were projects that came from the initial seed. The #LTHEchat, perhaps more than the other initiatives, presents a community model for CPD, thanks to its open-endedness, and signals a departure from the idea of CPD as a course. Despite the fact that the #LTHEchat was originally set-up for three months as a pilot with three colleagues from other institutions in the UK in 2014, it is still around at the time of writing. The community seems to have embraced #LTHEchat and being part of it is valued CPD. Rotating organising teams were set-up during the academic year 2015/16 for distributed and democratic leadership by the community itself instead of its originators. These teams are versatile and consist of academic developers, learning technologists, academics from different disciplines and different HEIs working together to co-ordinate and organise the weekly chats. Furthermore, the #LTHEchat has joined forces with the HEA since January 2016. This marriage created further opportunities for sharing and community growth. #BYOD4L has so far been offered twice, in January 2016 and January 2017, as a community led cross-institutional model. For me it signalised a shift in how OER courses are re-used for OEP. The approach taken, might present a more sustainable solution. However, related research needs to be carried out in this area. The #creativeHE course continued growing after the iteration that was used for data collection for this study. It was offered two further times in 2015/16 and I experimented with five-day iterations similar to the way BYOD4L was initially offered. Throughout 2016/17 more regular cross-institutional facilitated events linked to #creativeHE were offered and a year long project Creativity in HE has been brought to life with the Creative Academic and further collaborators from different organisations and institutions. The rotating course leadership, introduced for the first time in 2015/16, creates ongoing opportunities for course renewal. I have seen already that this brings colleagues back again and again as they know that the experience will not be the same and #creativeHE and #BYOD4L have created a sense of community around them. In early 2017, I brought to life a further open education initiative, the #101openstories. On this project, I work with five further project members who are colleagues from the Global OER Graduate Network (see below more about this network). We are from six different continents and aim to curate 101 open stories from learners,

practitioners and researchers by the end of 2017 about their journeys into openness that will help us gain new insight, celebrate openness together as well as find ways to spread open education further based on diverse collaborations.

Furthermore, I have used the time to complement my doctoral research with additional scholarly activities in the area of openly licensed concepts: The 5C Framework (connecting, communicating, curating, collaborating, creating) (Nerantzi & Beckingham, 2015b) and the snowballing model to scale-up cross-institutional CPD (Nerantzi & Beckingham, 2015a) are two such examples. Related research activities enabled me to develop, with a colleague, a framework that would aid course designers to scaffold active engagement as well as identify opportunities to extend cross-institutional engagement. Through a further project, I started exploring the open facilitator experience and created an edited collection of such stories (Yeager & Nerantzi, 2015). While some might see all these activities as unrelated or adding unnecessary work to the already intense process of doctoral research, I feel that these complemented my doctoral studies as the focus was on the collaborative open learner experience and provided me with the opportunity to actively experiment with some of my emerging ideas. A complete list of open initiatives has been included in Appendix 1.1 together with related rewards and recognitions. In addition, a complete list of dissemination activities linked to this study can be found in Appendix 8.1.

My practice and research sit comfortably within practitioner-driven open education; as one that is dynamic, elastic and empowers individuals to act. None of my projects has received any funding at any stage. Perhaps this not only enabled me to be creative and resourceful and seek ways to make the initiatives work, but also to sustain and develop them in collaboration with others. The power of the collective and the community is something that I have recognised throughout my life and work. Bottom-up innovation can be a powerful cocktail for practitioners, learners and society as a whole. Democratic empowerment can be a real driving force for societal innovation and encourages more exploration in this area.

I cannot ignore the political tsunami that happened in 2016 in the UK. On the 23rd of June 2016 72.2% of UK Citizens who had the right to vote in the referendum decided whether the UK should stay or leave the European Union (EU). The results showed that 51.9% of voters, wanted to leave the EU while 48.1% wanted to stay (The Electoral Commission, 2016). This news sent shockwaves around the globe and the academic community. Further seismic political developments followed in November 2016 in the US and at the time of submitting this thesis the UK is preparing for snap General Elections announced by the Prime Minister Theresa May to be held on the 8th of June 2017.

The day after the UK referendum in June 2016, Barnett reminded us that the modern university as an "ecological university" (Barnett, 2016, para.8), is built on cross-national relationships and collaboration at practitioner and institutional level, and is increasingly positioned within the world in multiple ecosystems "of knowledge, institutions, the economy, individuals' well-being, culture, learning and the physical environment" (Barnett, 2016, par.8). He notes,

> "It [The ecological university] understands itself as having responsibilities towards playing its part in strengthening these ecosystems, in repairing them where they need to be repaired, and in helping to take each of them to a new level of well-being. The ecological university orients itself and acts in the interests of the whole Earth." (Barnett, 2016, par.9)

These observations echo the values of open education, related practices and research as reviewed and explored within this study (Chapter 2.3). Furthermore, the findings of this study linked to the two cases show that cross-boundary learning can be a strong driver for engagement and create a sense of belonging to diverse communities that lead to individual and the collective enrichment and growth (Chapter 6).

Barnett (2016) warns that the outcome of this referendum will have a negative impact on how UK HE is perceived across the world and therefore calls on UK HE to unite and mobilise to influence change and the future. In line with this observation, Bell writes that "we can achieve a healthy democracy where people are politically active across the spectrum of listening, learning, organising, campaigning, challenging government and politicians, and of course voting" (Bell, 2016, para.22). While Weller (2016b) reminds us of the important role collaboration with European partners play in the advancement of

knowledge. This also highlights the current lack of collaboration between politicians and experts as an important issue for society as a whole.

Whatever happens politically in the UK in the next few years, will also have implications for the future of HE in the UK including open education and cross-institutional collaborations that stretch beyond its borders. Research to study the new UK and global HE landscape will be essential to gain insight into the emerging changes and respond to these in a positive way.

What needs to happen so that open education can play a key role of and for social change?

During year three of this study, I became a member of the Global OER Graduate Network and I felt, for the first time, a real sense of belonging as a doctoral student. I became part of cross-cultural group of doctoral students from around the world. This was exciting and filled my batteries with fresh energy and determination to continue and bring this study to fruition. Through some of the relationships developed, with special thanks to having been given the opportunity with eight others to share my research-in-progress during the Global Open Education Conference in Krakow (2016) and in Cape Town (2017) I started feeling part of a community. I felt that I could help others and others were willing to help me. So, in a way, I was experiencing cross-boundary learning in a way similar to that which participants in this study had experienced, although in a slightly different context. Thinking about the 'selective' and 'immersive' learner engagement patterns in collaborative open learning, I can now see similarities with my own experiences as a doctoral student. My support community also had both local and digital dimensions and included individuals from a variety of different countries, cultures, and HE disciplines, as well as global and local colleagues I came to know personally. Cross-boundary learning has arrived. If the UK leaves the EU as it was decided in the Referendum in 2016, nobody will have the power to stop people coming together to learn together. Open education can and has to play a key role in creating and extending opportunities such as cross-boundary learning which has the potential to help us shape a brighter future together. A future built on mutual trust, openness and collaboration. Carey (2015) in his book talks about

the *University of Everywhere*, which very much resembles my personal vision of an open, cross-boundary university that is fully interwoven into the fabric of society. Are we heading in this direction? The University Alliance in the UK is ambitious. There are plans that were shared in early 2017 to develop a national academic development programme.

Finally, it is important to acknowledge my own development journey in the context of this study which will have influenced the strategies I employed. In particular, this was the first time I undertook a phenomenographic study in the area of academic development of this scale. The fact that there is no precise process in phenomenography to be followed during the analysis beyond guidelines through which discoveries are made, might have increased the level of complexity for a relative new researcher in this area (Marton, 1986) but I feel much more confident now as a phenomenographer thanks to this study and all the work that I have put into it. I have started helping other PhD students to familiarise themselves with the methodology and can see how my thinking and understanding in this area has grown. The informal community 'Phenomenography chat' in Facebook has also played a significant role in this. There are colleagues who are interested in using the framework I developed and I am really looking forward to working with them on related projects. The journey continues…

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APPENDICES

Appendix 1.1 Open educational projects

Year	Projects	Characteristics	Area	Phd collective case study link
2004-2010	IlearnGreek site	Created over 300 activities for language learning (Greek)	Modern foreign languages	
2005	SEBRAN, Greek localisation	Free software	Language learning	
2009	Mobile Reflections (MoRe)	open educational activity	Teacher Education in FE	
2010-2011	Open Problem-Based Learning around Assessment and Feedback	open educational activity connecting PgCert students from across the UK	Academic development	
2013-2014	Flexible, Distance and Online Learning (FDOL) – offered three times FDOL131, FDOL132, FDOL141	open cross-institutional course	Academic development	Case study 1 (September – December 2013) 12 weeks FDOL132
2014-2016	Bring Your Own Devices for Learning (BYOD4L) – offered in January 2014, July 2014, January 2015, January 2016	open cross-institutional course	Academic development	
2011 to present	Teaching and Learning Conversations (TLC)	open webinar series	Academic development	
2011 to present	Food for thought series	Open Educational Resources in video format	Academic development	
2014-2015	Open Facilitator Stories	Openly licensed publication co-edited with Carol Yeager, supported by CELT MMU and the Open Knowledge Foundation	Academic development	
2014 to present	Learning and Teaching in HE tweetchat (#LTHEchat)	Open synchronous chats on Twitter	Academic development	
2014 to present	FLEX programme at MMU	Practice-based CPD with formal and informal pathways, inclusive of gaining credits for engagement in open learning activities	Academic development	
2015 to present	Flexible, Open and Social Learning (FOS) – offered in July 2015 (based on FDOL)	Open course	Academic development	
2015 to	Creativity for Learning in	Open cross-	Academic	Case study 2

present	HE (#creativeHE) – offered in January 2015, September 2015, March 2016, April 2016, July 2016	institutional course	development	(Sep-Nov 2015) 8 weeks
March to August 2016	Wheels app funded by CELT, MMU and developed in collaboration with Digital Labs MMU	Open source multiplatform mobile application	Personal and professional development	
Sep 2016 to present	#101creativeideas as part of the Greenhouse and in collaboration with the Creative Academic Network	OER project to collect and curate creative ideas for learning and teaching in HE	Academic development, Learning and Teaching	
March 2017 to present	#101openstories	Global OER project to collect and curate stories about openness from practitioners, learners and researchers	Open education	

Appendix 1.2 Glossary of terms

Within this appendix, specific terms used throughout the thesis are defined and explained in alphabetical order.

Academic development

While the terms 'educational development' and 'academic development' co-exist and are often used interchangeably (Bullen & Janes, 2007), Mcdonald (2002) note that educational development as a term has become more popular in recent years at least in the UK. Stefani (2003) notes that in the US the terms 'faculty developers' or 'instructional developers' are used more commonly.

Initially, educational development excluded any reference to scholarly activities, as such activity was atypical for educational developers at the time. This changed in more recent years according to Gosling (2007) to reflect the shift into a more scholarly approach to educational development. However, there are conflicting views regarding academic and educational development. Rowland (2006, p.75) uses the term academic development and defines it as "double academic practice: […] an academic practice about academic practice" that marries research and teaching and the learning which emerges through theory and practice. Bath and Smith (2004) make similar observations and refer to such developers as academic developers.

For consistency, the term 'academic developer' is used throughout this thesis.

Academic developers

The term is used in this thesis when referring to individuals working in Higher Education whose role is to support colleagues to enhance and transform teaching practices using scholarly approaches (Bath & Smith, 2004; Rowland, 2006). Often academic developers are also called educational developers (Mcdonald, 2002; Bullen & Janes, 2007), 'faculty developers' or 'instructional developers' in the US (Stefani, 2003).

Academic staff

This is used as a collective term that incorporates academics and other professionals who teach or support learning in HE on different contracts including those on non-academic contracts.

Blended learning

Blended learning is a mixed mode of learning in which some parts are organised online and others in physical spaces (Holmes & Gardner, 2006). It is a term used for academic programmes and courses.

Collaborative open learning

In the context of this study, collaborative open learning is defined as learning that can happen in small groups with others in open courses and is supported by a facilitator. This study showed that there are two distinct modes of collaborative open learning, 'immersive' and 'selective'. Immersive collaborative learning is characterised by an increased commitment to others and a focus on building learning relationships, while selective collaborative open learning is more focused on self and personal goals and this is reflected in the relationships which are much looser.

Collaborative open learning framework

The collaborative open learning framework is one of the outputs of this study. It is derived from the phenomenographic analysis and specifically the outcome space, as well as the findings from the supplementary data and the discussion of the literature. The framework consists of design considerations, learner engagement patterns and learner needs. It is intended as a tool to be used by course designers working on academic development provision who are interested in collaborative open learning in cross-institutional settings.

Collective case study

Stake (1995) defines three types of case studies, among them the collective case study. Later, Stake (2006, p.x) defines the multiple case study as a "set or collection of case studies so that they effectively illuminate a common program or phenomenon." The terms "collective case study", "multiple case study" and "multicase" are also used (Stake 2006, 2010; Punch, 2014) to describe approaches that appear to be similar in nature. In the context of this study the term "collective case study" is used. Within this study, the collective case study consists of two cases, FDOL132 and #creativeHE, two openly licensed cross-institutional academic development courses with collaborative learning characteristics.

Cross-boundary learning

The definition of Cross-boundary learning in this study is developed from the research findings and the phenomenographic analysis of this work, and is informed by relevant literature.

Cross-boundary learning is a mode of learning enabled by open educational practices supported by digital networked technologies where formally registered learners and informal open learners from higher education and other sectors and the public , learn together online and offline locally , in different spaces, places and times. Furthermore, in cross-boundary learning, educators from different disciplines learn with students and individuals from different cultures and languages learn together and therefore break-free from traditional educational conventions. The learning bridges created through cross-boundary learning seem to create highly diverse and enriched experiences especially when individuals are mixed-up in small groups supported by facilitators as this research suggests. A factor that can enhance the possibilities of cross-boundary learning is cross-institutional collaboration, especially when partners are from different countries and sectors.

Formal CPD

Formal CPD are organised opportunities that are offered by educational providers and professional bodies with the opportunity to gain recognition for learning gained and demonstrated through certification, a qualification or a professional recognition.

Formal learning

Formal learning is education that happens intentionally and is offered by educational providers. It leads to certification, a qualification or a professional recognition (OECD, 2007).

Informal CPD

Informal CPD is professional development gained through any activity or experience that is not formally constituted for example through participation in a conference or workshop, reading a book or developing a new module or even participating in something outside the higher education environment through which useful learning and insights are gained including development that is practice-based.

Such learning does not normally lead to formal certification, a qualification or a professional recognition unless is part of a reflective portfolio that is designed to present claims for learning within a predetermined framework. However, other forms of recognition may be provided for example a certificate of attendance or a badge.

Informal learning

Informal learning happens usually unintentionally. It is practice-based and normally doesn't lead to certification, a qualification or a professional recognition (OECD, 2007). Often this definition also incorporates non-formal learning. This extended definition that included non-formal learning is used in this study.

Massive Open Online Courses (MOOCs)

Massive Open Online Courses is a phenomenon enabled by networked technologies which started in 2008 in Canada that attracts usually registrations in the thousands. It soon started spreading across Northern America and reached the United Kingdom and Europe and there are now MOOCs that are offered in many different parts of the world. The first MOOC was an experiment and an application of connectivism and open education through which the term cMOOC was formed. A further MOOC development are xMOOCs, courses which are often based on content delivery via videos and a set of automated tasks. It is often questioned how open these are as many of them are not openly-licensed. Generally, MOOCs seem to be used as promotional tools to attract paying students on further academic courses within specific institutions and less attention has been paid so far on how learning can happen and be supported effectively in such courses.

Non-formal learning

Non-formal learning is learning that happens intentionally which can be an organised form of study but does not lead to certification, qualification or a professional recognition (OECD, 2007). Non-formal learning is often also incorporated in the definition of informal learning.

Online learning

Online learning is learning that happens via the Internet formally (for example, in organised courses) or informally (for example, by accessing resources and participating in informal learning via social media and digital networks and communities. Before the internet, distance learning was a term widely used to describe remote learning enabled through correspondence for example.

Open badges

Open badges are digital stickers with metadata that can be used to acknowledge participation, contribution, achievement in informal learning activities and belonging to communities that can be easily displayed and shared digitally.

Open cross-institutional academic development

Open cross-institutional academic development refers to shared, openly-licensed pedagogical initiatives managed by at least two different institutions. Such initiatives create opportunities for the staff of these institutions who teach or support learning to learn in distributed and networked cross-institutional, cross-disciplinary, cross-cultural and more generally cross-boundary settings. In 'open' provision, practitioners external to these institutions and the wider public are able to fully participate and be supported in these activities at the same time. The cross-institutional provision might be linked to local formal or informal academic programmes and therefore summative assessment, if any, might be dealt with at institutional level of the participating

institution or the participant from a particular institution. Resources, expertise and support become shared as well as the development and evaluation of such initiatives. Taking 'open' out of cross-institutional development, would simply mean a collaboration between two or more institutions without opening this up to colleagues from other institutions. In the context of this study, the term 'open' is taken to relate to the collaborating institutions and the nature of their collaboration which is built on informal practitioners' agreement. It is therefore provides flexibility in working practices and implementation and also requires a certain level of commitment, shared responsibility and trust among practitioners within the same and different institutions. Such informal cross-institutional collaborations could also lead to formal agreements among participating institutions.

Open cross-institutional development might have started with formal or informal provision at one host institution and further developed into a cross-institutional collaboration, or it could have been created from the outset collaboratively between at least two institutions. This provision might be connected with institutional formal or informal programmes. Linking global and local engagement are important and will enable practitioners to put pedagogical ideas and practices into perspective and context while also having the opportunity to synthesise the bigger picture.

Open education

Open education can often be accessed without registration or participation restrictions. Open education is a collective term for open education resources and open educational practices offered by institutions and other providers. MOOCs are generally regarded as open education initiatives together with other forms of open educational practice.

Open educational practice (OEP)

Open educational practices are defined as courses, a series of learning activities or practices supported by online digital technologies and social media, often made available under a creative commons licence. Open educational practices can also be of non-digital nature. Open educational practices are generally organised by institutions, individuals or groups of practitioners that are associated with education institutions or organisations. The output of open online education practices can be Open Educational Resources (OER) or courses and processes that are openly licensed and can be re-used and re-purposed according to the specific creative commons license attached to these. Such practices can lead to informal recognition via open badges, certification as well as academic credits if provision within an institution has been developed to enable this.

Open educational resources (OER)

Open educational resources are materials for learning and teaching in different media which have been made available under an open licence and can therefore easily be re-used in other contexts respecting and acknowledging authorship (UNESCO, 2012). Wiley (2014a) talks about the 5Rs of openness, which are also relevant for OER. These are "retained, reused, revised, remixed and redistributed". OER are often made available using repositories and can also be found integrated into OEP and MOOCs.

Open learning

Open learning is self-organised and self-directed by the learner and might occur outside formal education courses and structures but could also be part of formal education or open education initiatives. It might utilise open education resources (OER) including open access journals, courses and MOOCs and further publicly available materials. Open learning might complement formal studies or be part of lifewide or lifelong learning activities.

Open licencing

Open licencing Open Educational Resources (OER) and Open Educational Practices (OEP) is a way to acknowledge the origin and creators of these and enable easy retained, reused, revised, remixed and redistributed according to the conditions of a specific open licence. There are currently six such licences available from Creative Commons.

Technology-supported learning

Technology supported learning in the context of this study is learning where digital technologies are used during the learning process regardless of the mode of delivery. The term e-learning has also been used in the past to describe such activities (Holmes & Gardner, 2006). Technologies can be in a physical classroom as well as outside of it through institutional technologies, social media or mobile devices. The term does not refer to a specific place or space and focuses on the use of digital tools that support learning in different situations. In the literature, the term technology-enhanced learning is often used (HEFCE, 2009; Mayes & de Freitas, 2013). HEFCE (2009, p.2) define technology-enhanced learning as "enhancing learning and teaching through the use of technology" and present three levels of potential benefits: efficiency, enhancement and transformation. However, the term technology-supported learning is less widely used in the literature (O'Donoghue, 2006), but is used in this thesis as it captures more accurately the role of technology and emphasises that technology on its own does not provide an indication of its effective use or that it does automatically enhance learning.

Appendix 2.1 Selection of design frameworks presented with detailed information

Dates	Model/Framework	Key characteristics	Context
1971	OU SOL (Supported Open Learning) model (Bell & Lane, 1998; Jones, K. 2015; Jones et al., 2009; McAndrew & Weller, 2005; Swan, 2004; also mentioned in Weller, 2014)	A generic support model developed by the Open University with the following factors: • Open-entry (distance) learning • Variety of resources • Systematic and regular tutor support • Social, inclusive and flexible • Connectivity, co-operation, creativity	• University level • Blended learning • Systematically supported by educators locally and online • Individual and collaborative learning options
1985	Computer-Supported Collaborative Learning (CSCL) (Stahl, Koschmann and Suthers, 2006) Key projects: • The English Network for Interaction (ENFI) at the Gallaudet University in 1985 ; technology was used to teach deaf students through social interaction in synchronous collaboration using chat software with teacher support (Batson, 1988); • Computer Supported Intentional Learning Environment (CSILE) University of Toronto; Scardamalia and Bereiter aimed to create knowledge-building communities through collaborative writing using an interactive communal database. (Scardamalia et. al, 1989). CSILE received support from Apple and operated in a number of schools connected via a Local Area Network (LAN). • The Fifth Dimension (5thD) project, University of California San Diego, 1980s, focused on reading and problem-solving becoming a collaborative after-school initiative presenting interactive and flexible learning engagement supported by, others	• Participation in a community of practice • Individual knowledge construction • Collaborative knowledge construction • Content is resources for learning and can only be effective within a motivational and interactive context. • The Teacher effort per student is increased significantly in online settings compared with a face-to-face classroom. Interactions are ongoing to create and sustain social presence and community. • Developing collaborative learning and peer-to-peer interactions requires time and effort, careful planning and a pedagogical design that enables this, and also provides ongoing support. • Learning activities are organised in a variety of settings, not all of them are online. Technologies are also used in face-to-face synchronous and asynchronous interactions.	• School and university projects • Using technology to support collaborative learning, • peer and tutor support • Individual learning within the group is also an important factor and taken into account within CSCL, while the technology provides the spaces through which activities are supported (Stahl, Koschmann and Suthers 2006; Sfard, 1998).

Year	Framework	Description	Notes
1991	Community of practice (Lave and Wenger, 1991) (Cole, 1996).	A group of people with a shared interest who come together regularly supported by technology to advance their individual and collective knowledge in a particular area. The three dimensions of the community of practice (Wenger, White and Smith 2009) are: • Domain • Practice • Community	• informal learning • "technology steward" (Wenger, White and Smith, 2009) to support the community and select and use appropriate technologies and encourages exploration and experimentation to learn together • Legitimate peripheral participation and full participation
2000	Community of inquiry framework (Garrison, Anderson and Archer, 2000; 2010)	Components: • social presence • cognitive presence • teaching presence Phases: • triggering event • exploration • integration • resolution	A process model, originally to study the effectiveness of blended asynchronous discussions in formal educational settings. Later shift towards studying collaborative learning experiences in online learning communities. Also used to define, describe and measure elements supporting the development of online learning communities. Focus on interactions and social presence of peers and tutors that shape engagement and learning. It is acknowledged that students get more out of their engagement with the four phases when activities are designed by tutors and facilitated by them.
2000	5-stage e-moderating / 5-stage e-tivities (Salmon, 2000; Salmon, 2002; Salmon, 2013) e-groups framework (Jaques & Salmon, 2007)	The 5 stages are: • access and motivation • online socialisation	• initially developed for online learning at university level • since 2007 the original

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Year	Framework		
		• information exchange • knowledge construction • development	• framework was also used to develop the e-groups framework since 2013 also for blended, mobile learning and MOOCs • interaction and conversation at the heart • Supported by e-moderators leading students progressively to autonomy • Learning is scaffold from individual, cooperative to collaborative

2002	Conversational Framework (Laurillard, 2002)	Supported by a range of appropriate digital media and technologies. Five types:
		  • narrative
		  • communicative
		  • interactive
		  • productive
		  • adaptive
		
		The framework focuses on four aspects of the teaching and learning process:
		  • teacher concepts
		  • teacher's constructed learning environment
		  • student's concepts
		  • student's actions
			• Role of teacher to scaffold and support active learning
			• Focus on the ongoing interactions and flow between teachers and students
			• Using conversation and reflection to scaffold learning maximising technological capabilities.

2010	3E Approach (Smyth et al. 2010), 3E Framework (Smyth et al. 2011)	The 3Es are:
		  • enhance
		  • extend
		  • empower
			• Use of technology for active learning in a variety of settings, including face-to-face, blended and fully online.
			• Originally developed for FE and HE.
			• focus on student engagement

Year	Framework	Description	Notes
			• The framework is supported by educators leading to greater student autonomy
2012	Online Collaborative Learning Theory (Harasim, 2012)	Focus on the collaborative process The role of the teacher is important to connect students with the knowledge community and induce new members to this.	Focuses on the process of collaborative learning: • ideas generating • ideas organising • intellectual convergence
2013	7Cs of the Learning Design Framework (Conole, 2013a)	The 7Cs are: • Conceptualise • Capture • Communicate • Collaborate • Consider • Contribute • Consolidate Designers to constructively align activities with course objects through using a varied activity base to foster and scaffold interaction.	• To help designers and educators develop activity-based technology-supported learning opportunities. • Move away from content-based learning. • Also relevant for the design and evaluation of MOOCs
2014	5C Framework (Nerantzi & Beckingham, 2015a)	The 5Cs are: • Connect • Communicate • Curate • Collaborate • Create	• Activity-based framework for mobile, open and social learning • Engagement is scaffold from simple activities to progressively to more complex • Supported by facilitators

Appendix 3.1 The FDOL pilot

The Flexible, Distance and Online Learning (FDOL) pilot was offered between February 2013 and May 2013. The purpose of the open pilot was to trial and evaluate a simplified PBL Framework developed by the organisers in open online settings in readiness for offering the open FDOL module while also to bring learners from different institutions together as open learners and investigate Flexible, Distance and Online Learning through PBL and other collaborative activities. Learners were involved in collaborative learning tasks in a structured course that included asynchronous and synchronous characteristics and opportunities for engagement and learning based on PBL and learnt fully online using the course technologies for communication and collaboration but also other tools they were familiar with. The PBL groups were formed to represent multiple disciplines, institutions and skill sets and enable a richer exchange, sharing of practices but also individual and collective development through this process.

The pilot was a non-accredited course. A certificate of completion was provided to learners who engaged throughout the course in the activities.

Data of this pilot were collected and analysed for methodological purposes and results informed this project methodology.

Organisers: Two academic developers from different institutions and countries, the University of Salford in the United Kingdom and from the Karolinska Institutet in Sweden designed the FDOL pilot using a simplified version of the FDOL module which at the time was under development at the University of Salford.

PBL facilitators: In total, four PBL facilitators, two from the UK and two from Sweden participated at the start of the pilot. These were academic developers and academic staff. The facilitators from each country knew each other before working together during the pilot. The two organisers were part of the PBL facilitator group and got assigned PBL groups. The facilitator role was more hands-on at the beginning to help learners co-ordinate the initial activities so that you can get started. Progressively, the facilitators stepped back and let the groups decide when they need his/her help. The PBL facilitators were kept up to date by the group to identify specific support needs and act when required. A private Google community was set-up for facilitators to communicate, collaborate, co-ordinate, plan and problem-solve in advance and during the course. One of the PBL facilitators left the pilot after unit 2 due to change of job and other priorities.

Participants: In total 80 individuals registered for the pilot. 64 of these intended to participate in facilitated PBL groups. Participants were from the University of Salford in the UK and the Karolinska Institutet in Sweden but also from other HE institutions in the UK, Sweden and elsewhere.

Target learners were teachers in HE and Educational Developers, Learning Technologists and others working in HE who were interested in learning more about Flexible, Distance and Online Learning practices and wanted to use this course as an informal learning opportunity to enhance their understanding in this area and reflect on their current practices but also immerse into the experience of being an open online learner and widen their professional network through collaborative open online learning activities.

The FDOL pilot structure

The pilot was structured in units. Each of these around a specific theme linked to the FDOL course.

- Unit 1 (1 week) orientation

- Unit 2 (2 weeks) introduction to flexible, distance and online learning

- Unit 3 (2 weeks) collaborative learning and communities

- Unit 4 (2 weeks) supporting learners

- Unit 5 (2 weeks) open practices

- Unit 6 (1 week) celebrating learning

In each of the units a series of participatory activities were offered. These included online discussions, resources gathering, a webinar, in the main units with a guest expert as well as PBL activities linked to units 2 to 5 for individuals who were working in PBL groups.

PBL group design

The pedagogical design used was based on Problem-Based Learning. This was based on findings from my MSc investigation (Nerantzi, 2011) and the related pilot which brought together learners from different institutions working towards a Postgraduate Certificate in Teaching and Learning/Academic Practice at different institutions that enabled cross-institutional collaboration and peer learning using PBL.

The approach used in this initial pilot was adopted and the FDOL groups consisted of core and peripheral members. The core members, around 4 participants in each group, were formed by participants who intended to work towards a certificate of completion as indicated in their registration document. Additional learners (around 4) joined the groups as peripheral members (Figure 1). It was expected that core members would participate more actively and that peripheral members would dip in an out and support the group more generally. The group size was decided to enable effective online collaboration when working in small groups. Mills (2006) states that eight to ten as the ideas PBL group size while Woods (2000) suggests a group to consist of three to nine members, while Dillenbourg (1999) talks about small groups that consist of three to five individuals. It has been observed that in online settings, groups work better together when smaller in size. Donnelly (2009) suggests five to seven while Linge and Parsons (2006) for example talk about four to five. The mixed group formation approach, with the core and peripheral membership approach adopted, was used to add flexibility in open settings especially as there was no guarantee that any of the group members would complete the whole course. It was anticipated that some group members would not participate actively and therefore reduce the group size, bringing it down to an optimum smaller number which is more effective as noted by Donnelly (2009) and Dillenbourg (1999), however Dillenbourg also notes that the optimum group size will depend on the collaborative learning tasks and he recognises that knowing from the outset what will enable effective collaboration is challenging to define.

The groups were international and cross-disciplinary to encourage sharing and critiquing of practice and perspectives. Each PBL group was facilitated by a tutor. This mixed-approach was used to secure the ongoing PBL activities throughout the course and also made the groups more dynamic and responsive to changes.
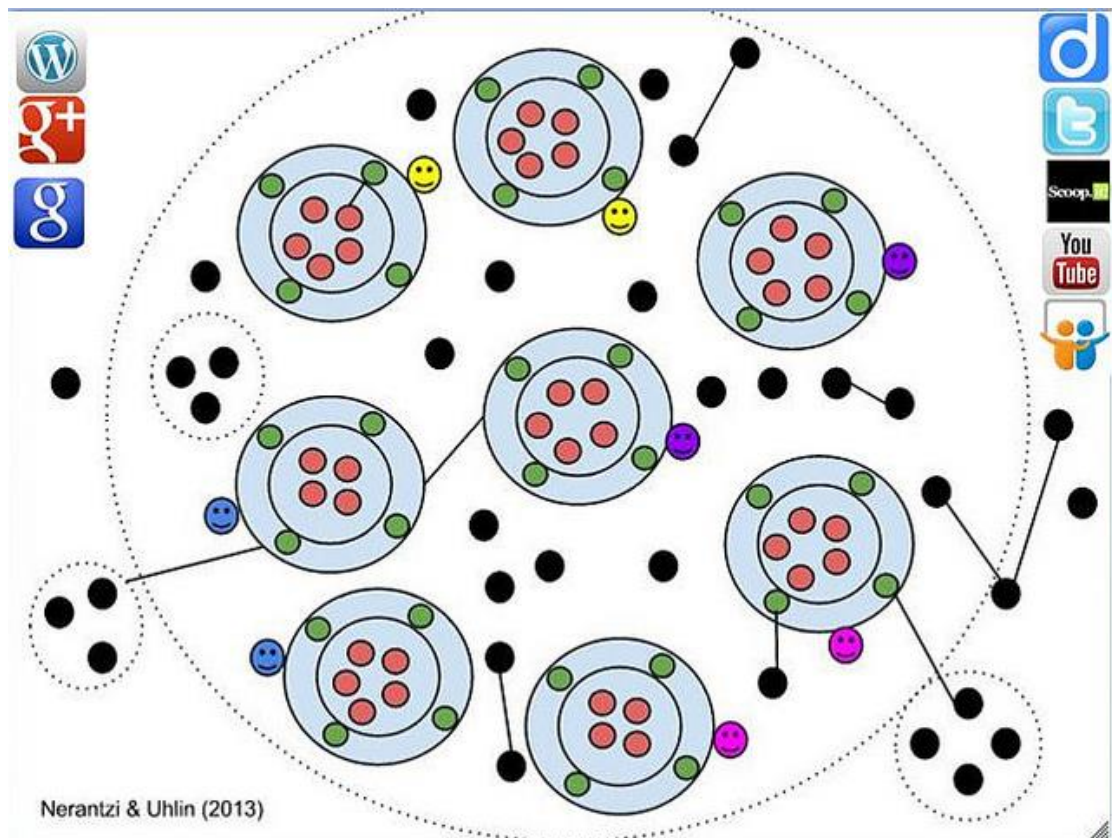
Figure 1 PBL groups and relationships

PBL roles were assigned for working in the PBL groups. The following were suggested:

- Chair: keeps the group on task

- Note taker: keeps a record of what is discussed and agreed

- Time keeper: makes sure the group stays on time

Participants who wished to study on their own without participating in the facilitated PBL groups were also welcome and could participate in the course activities more widely and autonomously. Also, an additional option was to participate in a non-facilitated PBL group or identify a study buddy. A wanted notice board was set-up in Google docs to help with this. In summary the following options were set-up for FDOL

- Core member of a facilitated PBL group

- Peripheral member of a facilitated PBL group

- Member of a non-facilitated PBL group

- Study buddy

- Autonomous learner

It was recommended to all learners to keep a reflective journal and reflect on their learning experience during the course.

As FDOL operated as an open course and all activities and resources were made available freely and not password-protected, others, non-registered learners might have accessed and used the resources and activities in different modes which remain unknown to the organisers.

PBL practice

Participants who decided to learn in PBL groups came together as a group to get to know each other, formulate and agree group rules and how they are going to work together as a group and when they would meet synchronously online. This was encouraged from unit 1. In unit 3, 4 and 5 the groups choose an authentic story from the archive linked to the unit theme they wished to investigate with the support of a PBL facilitator. Initially we had eight groups and four facilitators. Each facilitator looked after 2 groups.

The stories used for FDOL were contributed by participants, organisers and facilitators before the start of the course via a Google form and available to all throughout the course as Open Education Resources.

Figure 2 Google form Submit a story
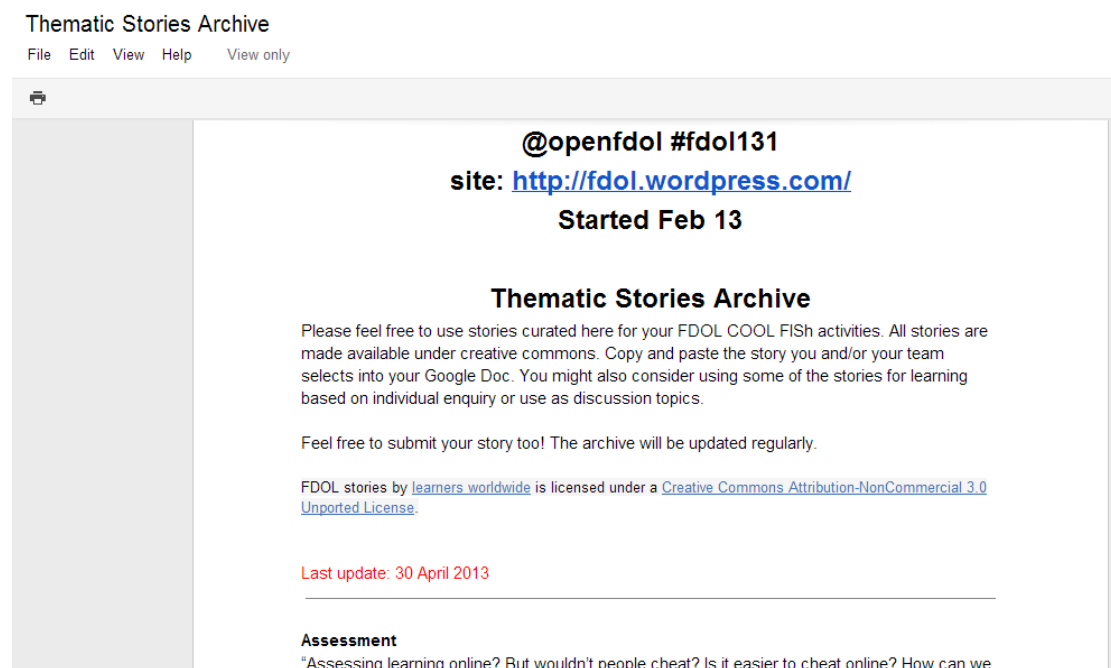
Figure 3 Thematic Stories Archive

The PBL activity involved inquiry into the story or scenario with discussion of the related issues and topics using the COOL FISh design. The intended learning outcomes needed to be defined by the group itself and shared with all group members. A plan of action was put forward by each group and responsibilities were shared. The facilitator was there when needed. Resources were shared as mentioned already and an input webinar was arranged at the beginning of week 2 of the PBL units to enable learners to ask the invited speaker specific questions linked to their story.

The PBL COOL FISh design

There are a number of models which suggest a series of steps when using PBL. In FDOL a simplified model based on Mills (2006) 5-step model which we call FISh (Nerantzi and Uhlin, 2012) was used. This model could also be used when learning autonomously or with a learning buddy.
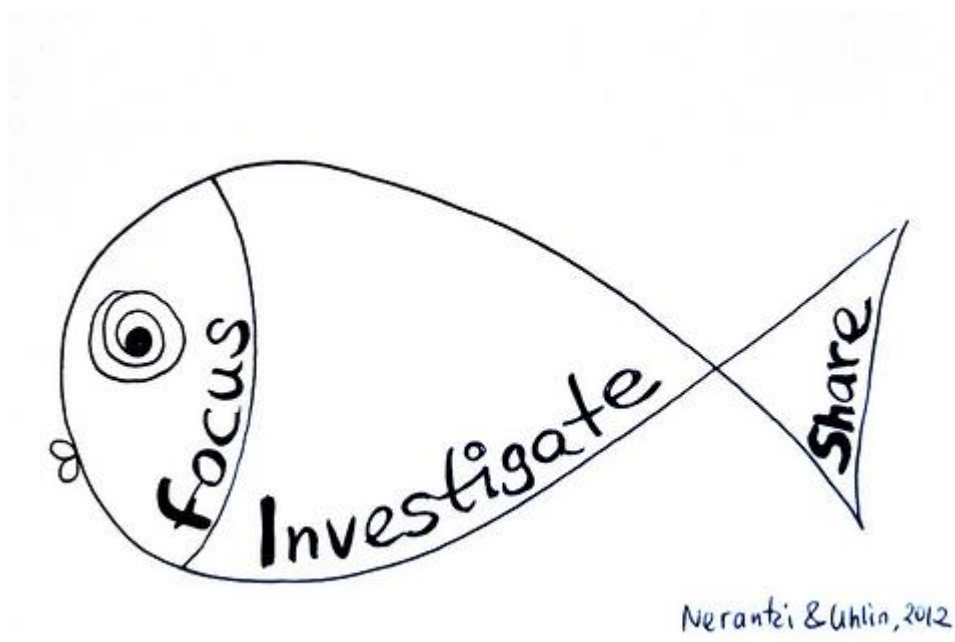
Figure 4 FISh, Nerantzi and Uhlin, 2012

Step 1: Focus

- What do we see?

- How do we understand what we see?

- What do we need to find out more about?

- Specify learning issues/intended learning outcomes!

Step 2: Investigate

1. How and where are we/am I going to find answers?

2. Who will do what and by when?

3. What main findings and solutions do we/I propose?

Step 3: Share

- How are we going to present our findings within the group?

- What do we want to share with the FDOL community?

- How can we provide feedback to another group?

- What reflections do I have about my learning and our group work?

Problem-Based Learning was used in units 3 to 5. The first two units provided a gentle introduction to the course and helped learners to familiarise with the concepts and processes of PBL as a learning design plays an important role for the success of PBL (Holland, 1999).

Platforms: Freely available social media tools were used to build and offer the FDOL pilot that didn't require technical know-how or support. An institutional web conferencing tool, Blackboard Collaborate was for the course webinar as no alternative free tool could be identified.

The course was built by the FDOL organisers resembling a DIY learning design model that others could also use.

The course site is at https://fdol.wordpress.com/ using Wordpress.com

Figure 5 FDOL course site at http://fdol.wordpress.com/

The collaboration spaces have been set-up using the Google + community feature. A special private community space was set-up for facilitator communication. Each PBL group also had their own community area in Google +.
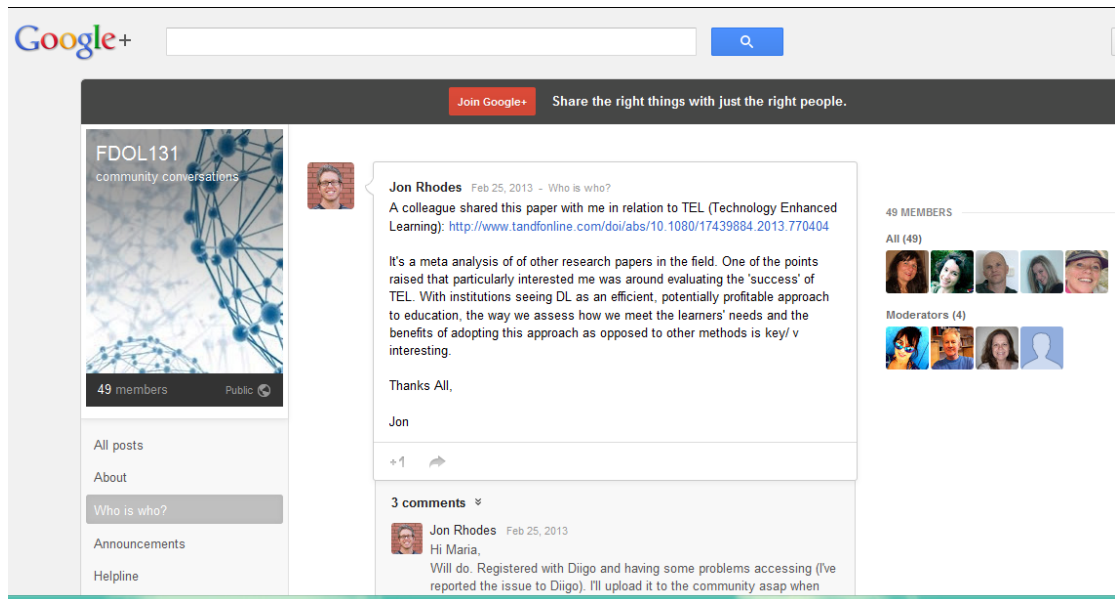
Figure 6 FDOL131 community space in Google + at
https://plus.google.com/communities/102772793404931941723
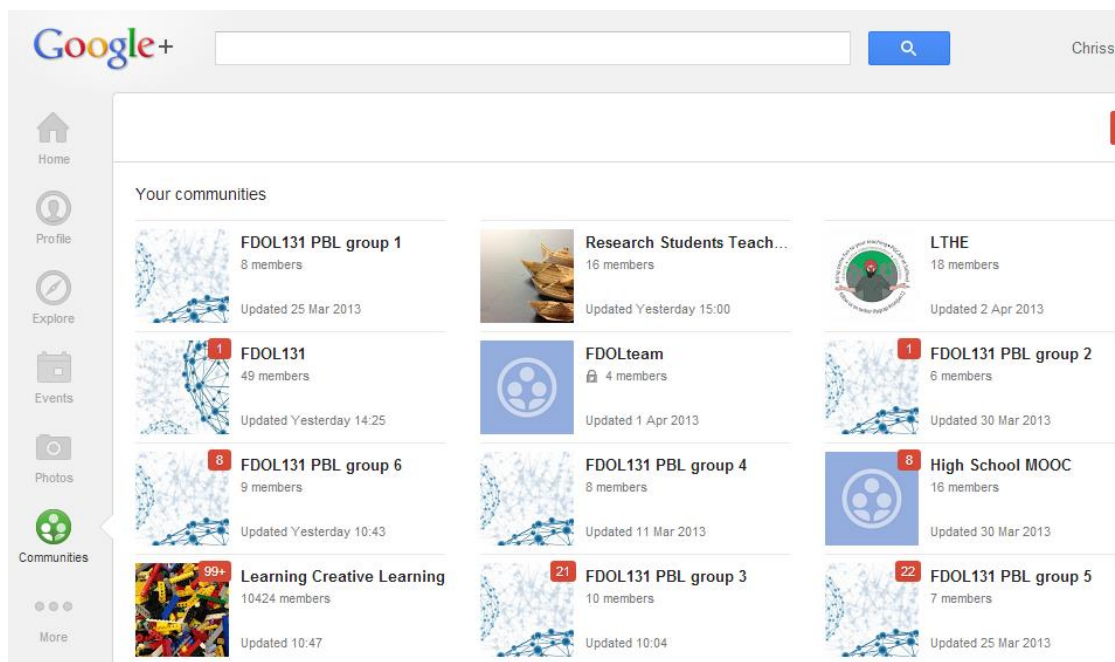
Figure 7 FDOL community spaces overview, see FDOL131, FDOL131 PBL group1, group 2, group 3 etc.

Synchronous communication and collaboration tools such as Google hangout and Blackboard Collaborate were also used by organisers, facilitators, guest speakers and learners.
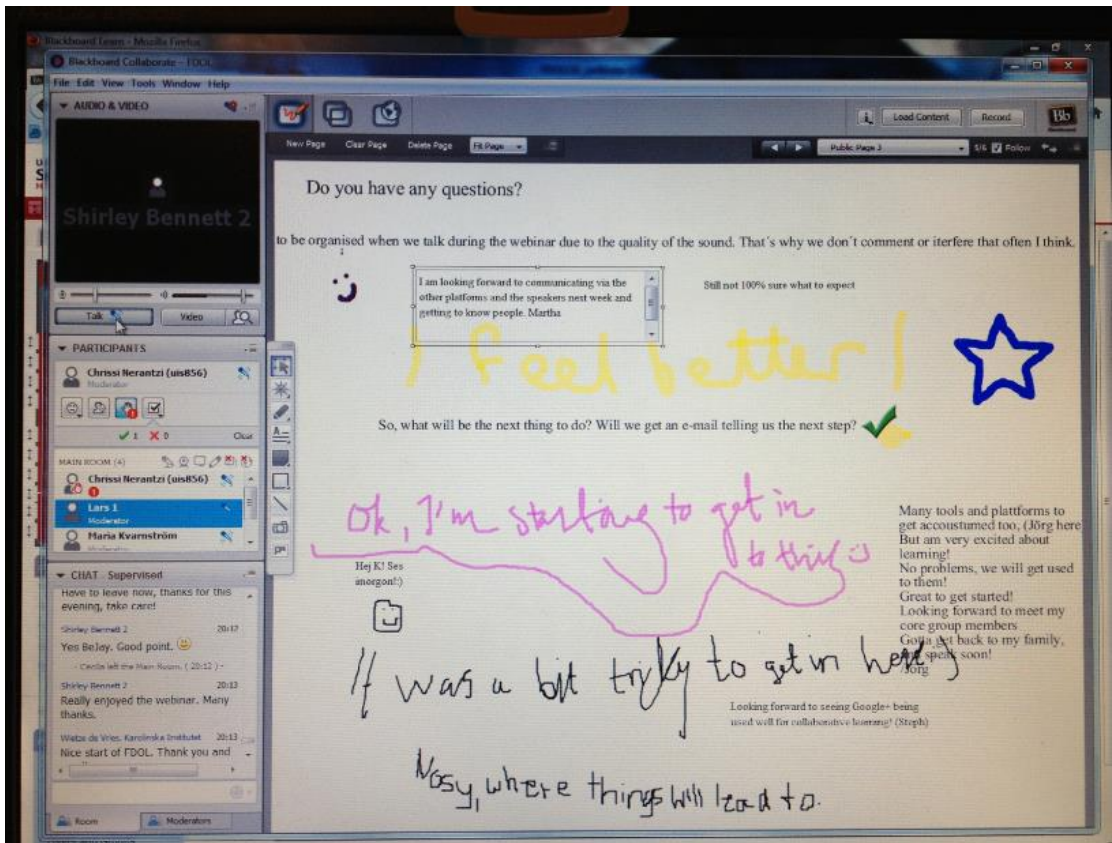
Figure 8 FDOL webinar using Blackboard Collaborate: unit 1, at the end of the webinar
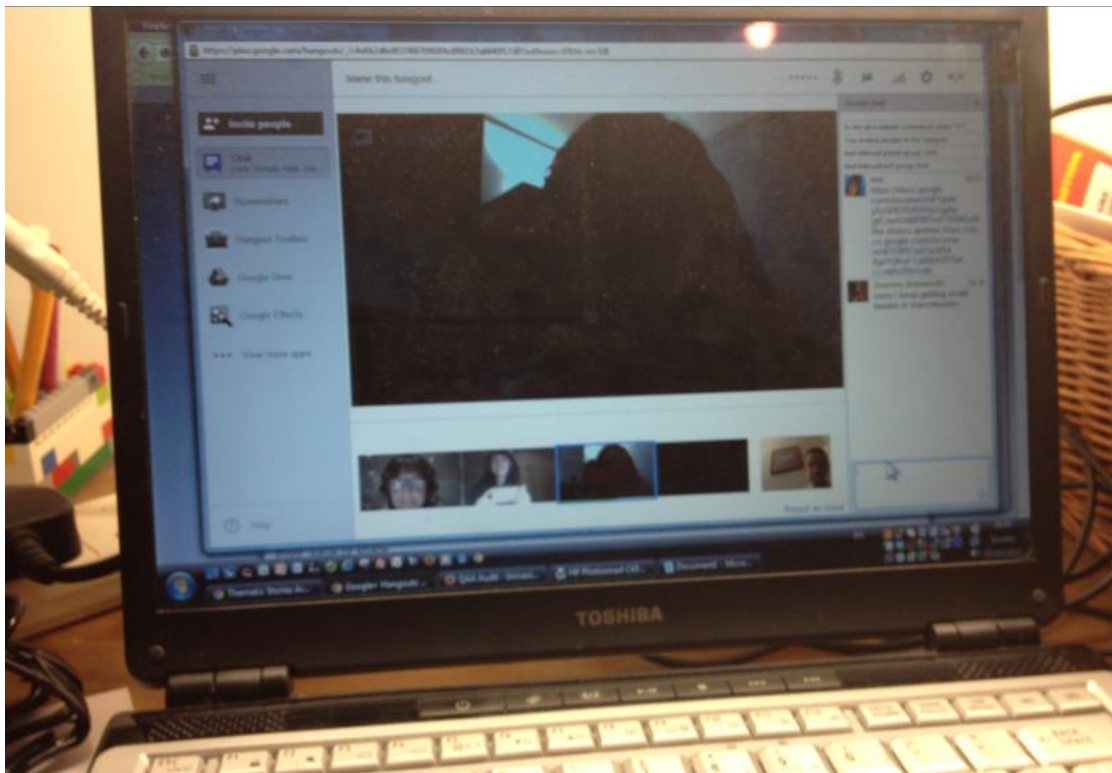
Figure 9 Google + hangout with PBL group 1
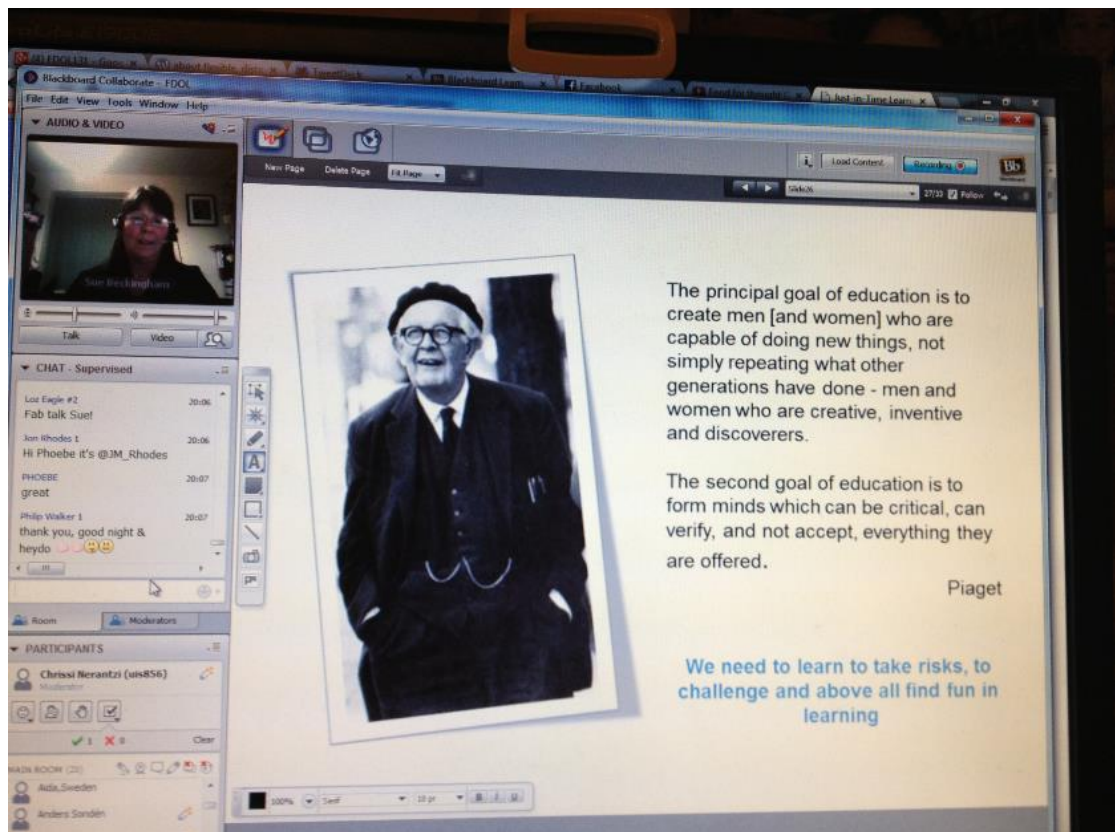
Figure 10 FDOL unit 3 webinar with guest speaker Sue Beckingham using Blackboard Collaborate

Further collaborative spaces as well as registration and other surveys have been made using Google docs.

Figure 11 FDOL131 document sharing space using Google docs for organisers and facilitators

Figure 12 COOL FISh spaces in Google docs linked to the PBL groups to capture collaborative learning

Resources

Resources useful for the course were provided by the organisers using a prepared collection at the social bookmarking site www.diigo.com but also via a scoop.it feed. Additional video resources used were from the OER Food for thought and other publicly available collections available via YouTube www.youtube.co Links to resources per unit, where made available in the relevant Wordpress pages.

Figure 13 Diigo FDOL course link collection

Figure 14 Diigo FDOL course link collection

Figure 15 Food for thought collection at YouTube

The microblogging site Twitter www.twitter.com and an additional dynamic group space within Diigo were also used to provide additional spaces for sharing resources by participants, organisers and facilitators and connect with each other but also connect with external to the course communities.

Figure 16 @openfdol Twitter page and the use of the #fdol131 hashtag

Figure 17 FDOL group at www.diigo.com

The rationale to provide course resources was to potentially enhance the learning experience and enable learners to focus on the PBL task itself instead of spending excessive time searching for resources (Jeorg & Hmelo-Silver, 2010; Donnelly, 2005).

Findings

The FDOL131 pilot was completed by 16 participants in total. These were individuals who participated in the PBL groups and actively participated in the PBL group activities throughout the course.

There were 22 early drop-outs from the initial 80 registered participants some of which intended to participate as PBL core and peripheral members. This non-participation resulted in regrouping during unit 2. From the initial eight PBL groups, four groups were formed that enabled active participants to fully participate in the course activities. Between ten and twenty individuals participated in the webinars and 45 individuals signed up to the Google + community. While there were initially conversations happening there, as the PBL tasks were under way, it was observed that the majority of exchanges did happen in the PBL group community spaces and the FDOL131 community space was used mainly by facilitators to make announcements. In total 16 individuals completed the course and received a certificate of completion.

The following are preliminary findings based on conversations with FDOL131 participants during the closing webinar that capture the voices of the participants and provide some details about their experience as learners during this pilot.

- Participants found this course challenging but rewarding.

- They stated that being part of a PBL group helped them learn and increased their level of commitment

- Participants, who are teachers themselves, felt that it was useful for them to be a learner and experience difficulties from a learner's perspective in preparation for teaching online

- They stated that they progressively developed confidence as an online learner

- They developed a better understanding of how to use digital technologies more effectively in their own practice (Google apps seemed to work well also on mobile devices, extending opportunities to engage on the go)

- They noted that they have started exploring opportunities for application in own practice as a result of their engagement with this pilot.

- They also stated that feeling part of a community was really important to them and shared their ideas on how to achieve this

  o getting to know each other through synchronous online 'events' such as hangouts and webinars made a huge difference, hearing a voice, seeing a person made it human

  o increased commitment when you know the others

  o bonding happened through engagement

  o learning to trust

  o more early hangouts would speed up the process of socialisation

- The simplified COOL FISh PBL model was received well and participants noted that it was effective for online settings. It speeded up working in groups, helped group members to keep on track and made the experience of PBL manageable and enjoyable

- Participants stated that the tutor support was vital for them. Knowing that there was somebody there when needed, especially at the beginning helped them feel more confident about their learning and the course

- Participants suggested to widen and strengthen opportunities for peer-to-peer learning and feedback with other groups outside the individual PBL groups.

- It was also suggested by the participants to create a central feedback space and a group buddy system to provide further opportunities to make links across the PBL groups.

Learning from the FDOL pilot

Organising an open course is challenging but also deeply rewarding especially when organised and facilitated collaboratively and when you can see that it helps bring people together to learn together. Our findings from this pilot suggest that signing up to an open course might be a decision individuals make quickly and on the spot as there is no financial cost involved. There seems to be a mismatch of registration readiness and commitment to the course as observed during this pilot. It is difficult to identify participation in the course if this is happening outside the periphery of the course. From participants who were active in the FDOL pilot we learnt that groups have a place in open online learning. They have the power to create learning communities that can be motivational for individuals. All participants who completed the course where PBL group members. While the initial group size of eight was realistic and allowed for exiting group members that would benefit the final smaller group size, the core and peripheral membership didn't work.

The design of the FDOL course to be used as a case study of this project has been modified to reflect some of the above findings. The main change is the PBL approach used, particularly details linked to group formation. This has been simplified further and no longer includes core and peripheral members. Instead individuals are asked how many hours they are committed to the PBL group tasks per week and according to this and other criteria are then grouped. The group size has been modified from seven to nine to add further flexibility and allow the group to shrink and become a central unit more organically.

Appendix 3.2 Ethical approval documentation for this study

BUSINESS SCHOOL RESEARCH INTEGRITY APPROVAL FORM (Edinburgh Napier University)
Section 1 – Research details
Name of researcher: Chrissi Nerantzi Date: 12 July 2013   Staff ☐ Student - Matriculation number: 08016904 Undergraduate ☐ asters D ral x
Title of project Developing a flexible collaborative learning framework for open cross-institutional Academic Development courses at postgraduate level
Aim of Research Aims The overall aim of this research is to investigate the use of collaborative learning in open cross-institutional courses and develop a flexible collaborative learning framework. Expected contribution to knowledge - Greater understanding of pedagogical models and frameworks used in open courses in the context of cross-institutional collaborative learning linked to Academic Development. - Recommendations and guidance on how flexible collaborative learning can work in open online cross-institutional Academic Development contexts. - Develop a collaborative learning framework and offer guidance on how this could be used, adapted and implement in cross-institutional Academic Development provision at postgraduate level. Research questions 1.What design and enabling aspects of a flexible collaborative learning framework could promote deeper engagement in open cross-institutional Academic Development courses at postgraduate level? 2. How can we use flexible collaborative learning approaches to create positive opportunities for collaboration and peer learning that unite and motivate both registered students at specific institutions and the wider public in open cross-institutional Academic Development courses? 3. How could a proposed flexible collaborative learning framework be used and adapted for

accredited cross-institutional Academic Development courses offered at postgraduate level?

Details of the research methods to be used, please consider all of the following in your response:

 a. how the data will be collected (please outline all methods e.g. questionnaires/focus groups/internet searches/literature searches/interviews/observation)
 b. data collection tools to be used (e.g. SurveyMonkey)
 c. where the data will be gathered (e.g. in the classroom/on the street/telephone/on-line)
 d. who will undertake the data collection if not the lead researcher detailed in section 1 (list all involved)
 e. how the data sample will be selected (e.g. random/cluster/sequential/network sampling)
 f. the criterion for an entity to be included in the sample –
 g. how research subjects will be invited to take part (e.g. letter/email/asked in lecture)
 h. how the validity and reliability of the findings will be tested

if applicable, please attach a copy of the questionnaire/interview questions (for student researchers, please include notification of approval of the questionnaire from your supervisor)

The primary research methodology employed will be phenomenography Marton (1981, 181). Phenomenography is a qualitative research framework developed for educational research in HE and has been used widely to investigate the student experience (Heikkilä & Lonka, 2006) but also more recently to gain an insight into the experience of academics as teachers and learners (Åkerlind, 2008; Åkerlind, 2003) including in online settings (Smyth, Mainka and Brown, 2007; Nerantzi, 2012) as well as their experiences as researchers (Brew, 2001). Phenomenography will enable me to gain a deep insight into the variation and spectrum of the lived experiences of teachers as learners. Qualitative narrative data will be extracted and analysed from individual reflective interviews to identify patterns and generalisable categories (Marton, 1981). A collective case study (Stake, 1995) is a set of case studies selected based on specific criteria that allow the study of related activities, features and experiences in different natural settings that has been used widely especially in social sciences (Crowe *et al.*, 2011). This is the reason why it will be used as a method to gain a deeper understanding of the spectrum of in-situ experiences in specific open courses which will have commonalities and differences. The collective case study approach will enable me to analyse in depth the individual and collective experience from three cases and answer my research questions, theorise and inform the collaborative open online learning framework I would like to develop.

Case studies would include

 1. The open online course Flexible, Distance and Online Learning http://fdol.wordpress.com/. This course is offered online and learners from different institutions studying towards different qualifications and open learners will be learning collaboratively in PBL groups using social media. This course is offered in collaboration with colleagues from the Karolinska Institutet in Sweden for cross-institutitional fertilisation. This case study will enable me to investigate the use of PBL as a collaborative design for learning in the context of an informal cross-institutional collaboration.
 2. Global dimensions in HE http://globaldimensionsinhe.wordpress.com/ – this postgraduate OER module developed by Academic Developers at Aston University, Edinburgh Napier and the University of Dundee, will enable me to investigate a shared and open module that is been delivered as part of accredited CPD and Postgraduate Certificate Programmes.
 3. A MOOC, to be selected, with collaborative learning characteristics which attracts teachers in HE from different institutions and is used as an informal or formal CPD opportunity. This case study will enable me to tap into emerging and wider issues and experiences of collaborative learning in large scale open courses.

Potential participants will be identified through email communication. Invitations will be sent to all participants of the open courses. The sample will be inclusive and potential participants will opt-in. It will be clear to potential participants that there is no penalty or disadvantage due to non-participation or advantage due to participation for their course of studies due to their participation or not in this research project. All potential participants will receive the consent form in advance of making a decision and be contacted using email communication and social media. An independent person, who knows about this project but is not involved in it, can also

be contacted if the potential participants require further information and re-assurance about their participation. This is Carol Yeager and her contact details are included below.

Independent person:

Carol Yeager, MFA, MS

Mentor/Instructor for SUNY/Empire State College

5761 Cauterskill Road Catskill, NY 12414 US

telephone (US): 518-943-2007

email: Carol.Yeager@esc.edu

The data will be collected by the researcher. Data would be collected using survey instruments such as Google forms in addition to individual interviews carried out with learners. No data will be collected related to or observed in face-to-face learning situations. Questionnaires and interview questions are currently under development and will be finalised in agreement of the supervisory team.

A first unapproved draft of the initial survey can be found at

https://docs.google.com/forms/d/1UYrsVhRvkkNThiMC8krzJCDilEluW9J_jjFTsdOrHu4/viewform

and of the final survey at

https://docs.google.com/forms/d/1iTC_xFXMHEUHK7j62oaO2NC8zFFUnZpUMqRNDGXd3nc/viewform

Interview questions will be linked to the following themes in the area of learning and development in an open online environment

1.engagement

2. motivation

3. flexibility

4. collaboration

5. facilitation

6. completion

The data will be used to capture and categorise the experiences of learners to draw conclusions that will help form generalisable findings as well as refine the collaborative open learning framework aiming to enhance the learner experience in open online courses.

Who/what will be the research subjects in the research?   a. Staff/Students of Edinburgh Napier (please give details)   Participants on the 'International Perspectives' module may be staff members at Edinburgh Napier University   b. Vulnerable individuals (please give details e.g. school children, elderly, disabled etc.)   NO specifically   continue from section 2   c. All other research subjects (please give details)   Participants in open cross-institutional courses in the area of accredited Academic Development provision who participate for credit and not for credit. Also participants in Massive Open Online Courses (MOOCs) that provide formal and informal CPD opportunities for teachers in HE.   continue from section 3
Section 2 – research subject details
Will participants be free NOT to take part if they choose?   Potential participants will be identified through email. Invitations will be sent to all participants. It will be clear to potential participants that there is no penalty or disadvantage due to non-participation or advantage due to participation for their course of studies due to their participation or not in this research project.   All potential participants will receive the consent form in advance and will be given seven (7) to make an informed decision.   Individuals who wish to be part of this study will provide their consent by returning the completed consent form via email. An independent person, who knows about this project but is not involved in it, can also be contacted. This is Carol Yeager and her contact details are included below.   Independent person: Carol Yeager, MFA, MS   Mentor/Instructor for SUNY/Empire State College   5761 Cauterskill Road Catskill, NY 12414 US   telephone (US): 518-943-2007   email: Carol.Yeager@esc.edu   .
Explain how informed consent will be achieved.   I will describe the main procedures to participants in advance so that they are informed about what to expect in my study. This will be achieved via aninformation sheet which will be emailed to all potential participants.   Participation will be voluntary and I will obtain written consent for participation will will be given via email. Participants will also be informed that they can withdraw at any stage of the

study without any penalty and for any reason. Participants will have the option not to respond to questions included in the questionnaires used for this study without being penalisied. Confidentiality will be agreed. Participants will not be identifiable in any records, presentations or reports, oral or written, of the research. Participants will be informed that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs. A brief explanation of the purpose of the study will be provided to all participants and at the end of their participation in it, any questions will be answered.

Will any individual be identifiable in the findings?

Participants will not be identifiable in any records, presentations or reports, oral or written, of the research. Participants will be informed that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs.

How will the findings be disseminated?

The results may be published in a journal or presented at conferences and will be included in my PhD thesis.

Is there any possibility of any harm (social, psychological, professional, economic etc) to participants who take part or do not take part? Give details.

no

How / where will data be stored? Who will have access to it? Will it be secure? How long will the data be kept? What will be done with the data at the end of the project?

All data collected will be kept in a secure place stored on a personal computer that is password protected to which I am the only one who has access. These will be kept till the end of the examination process, following which raw data that could identify you will be destroyed.

Any other information in support of your application

References

Åkerlind, G. S. (2008) A phenomenographic approach to developing academics' understanding of the nature of teaching and learning. In: Teaching in Higher Education, Vol. 13, No. 6, December 2008, pp. 633-644.

Åkerlind, G. S. (2003) Growing and Developing as a University Teacher—Variation in Meaning, Studies in Higher Education Volume 28, No. 4, October 2003, Carfax Publishing, pp. 375-390.

Brew, A. (2001) Conceptions of research: a phenomenographic study, Studies in Higher Education, Volume 26, No 3, 2001, pp. 271-285.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. and Sheikh, A. (2011) The case study approach, in: BMC Medical Research Methodology, 11:100, available at http://www.biomedcentral.com/1471-2288/11/100 [accessed 9 May 2013]

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Marton, F. (1981) Phenomenography – describing conceptions of the world around us, Instructional Science, 10, pp. 177-200.

Nerantzi, C. (2012) A case of problem-based learning for cross-institutional collaboration, Special European Conference in E-Learning, Brighton 11, Volume 10, Issue 3, Special Issue EJEL, The electronic Journal of e-Learning (EJEL), pp. 306-314.

Smyth, K., Mainka, C. and Brown, N. (2007). Teacher's conceptions of and approaches to online teaching. In: D.Remenyi (Ed), Proceedings from the 6th European conference on e-learning, Copenhagen Business School, Copenhagen, 4th-5th October. Academic

Conferences International, pp. 583-590.

Stake, R. E. (1995) *The Art of Case Study Research.* Thousand Oaks: Sage.

Continue to section 3

Section 3 – RI (Research Integrity) Advisor's Approval
Delete as appropriate: I approve this research / I refer this research to the FRIC (give reason for referral)
Name of RI Advisor Signature of RI Advisor Date
Signature of researcher/s to confirm understanding and acceptance of RI Advisor's decision Date
Section 4 – FRIC (Faculty Research Integrity Committee) Approval
FRIC decision
Does this issue need to be referred to the URIC (University Research Integrity Committee)? If YES Secretary to forward to URIC Secretary for referral with any appropriate paperwork Date actioned
Reason for referral
Signature of Convener of FRIC Date
Date researcher/s informed of FRIC decision – include copy of email to researcher/s

Information sheet

Dear colleague,

My name is Chrissi Nerantzi. I am a Research Student within the Office of the Vice Principal (Academic) at Edinburgh Napier University. As part of my doctoral degree, I am undertaking a research project for my thesis. The title of my project is: Developing a flexible collaborative learning framework for open cross-institutional Academic Development courses at postgraduate level

This study will investigate the use of collaborative learning in open cross-institutional courses and develop a flexible collaborative learning framework.

The findings of the project will be valuable because

- they will lead to a greater understanding of pedagogical models and frameworks used in open courses in the context of cross-institutional collaborative learning linked to Academic Development;

- it will inform recommendations and guidance on how flexible collaborative learning can work in open online cross-institutional Academic Development contexts;

- it will lead to the development of a collaborative learning framework and offer guidance on how this could be used, adapted and implement in cross-institutional Academic Development provision at postgraduate level

As a participant of an open course you will be able to provide me with insight into the situation. All participants of the open course are welcome to take part.

If you agree to participate in the study, you will be asked to complete an initial and final questionnaire as well as participate in a remote interview. The format of the interview will be a discussion during which I would like to discuss with you your experience in the open course you participated. The interview will be between you and me. I expect that this will last no longer than one hour and conducted remotely over the internet. With your permission, I would like to record the interview so that I can transcribe it afterwards accurately. I might also take screen captures of online activities, contributions, collect additional authentic and observational data linked to learning and assessment activities during the course for further analysis and investigation.

You will be free to withdraw from the study at any stage, you would not have to give a reason, and it will not affect your treatment.

All data will be anonymised. Participants' names and identity will be anonymised in the thesis and all published work and related presentations. Your identity will be known to myself as the researcher during the data analysis. Your name will be replaced with a participant number, and it will not be possible for you to be identified in any reporting of the data gathered. All data collected will be kept in a secure place stored on a personal computer that is password protected to which I am the only one who has access. These will be kept till the end of the examination process, following which raw data that could identify you will be destroyed.

The results may be published in a journal or presented at conferences and will be included in my PhD thesis.

If you would like to contact an independent person, who knows about this project but is not involved in it, you are welcome to contact Carol Yeager. Her contact details are given below.

Carol Yeager, MFA, MS

Mentor/Instructor for SUNY/Empire State College

5761 Cauterskill Road Catskill, NY 12414 US

telephone (US): 518-943-2007

email: Carol.Yeager@esc.edu

If you have read and understood this information sheet, any questions you had have been answered, and you would like to be a participant in this study, please complete the following consent form providing also your email address and return via email to me by Monday the 7th of October 2013.

The data collection will be carried out shortly in the course with a distribution of an initial questionnaire and will conclude with a final questionnaire and an interview within 2 months of completion of the open course you participated in. You will receive a notification well in advance to be able to arrange at a suitable day and time for you.

Best wishes,

Chrissi Nerantzi

08016904@napier.ac.uk

Consent Form

Developing a flexible collaborative learning framework for open cross-institutional Academic Development courses at postgraduate level

I have read and understood the information sheet and this consent form. I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in this study.

I understand that I have the right to withdraw from this study at any stage without giving any reason.

Please accept this email as my consent to participate in this study.

My name is _____and

email address is _____.

Date _____

Contact details of the researcher

Name of researcher: Chrissi Nerantzi

Address: Edinburgh Napier University

Email / Telephone: 08016904@napier.ac.uk / 0131 455 6181

Appendix 3.3 Confirmation of ethical approval

xxx, xxx <xxx@napier.ac.uk>

Tue 01/10/2013 15:12

To:

Nerantzi, Chrissi;

Cc:

xxx, xxx;

You replied on 01/10/2013 20:12.

Dear Chrissi,

This is to inform you that your research integrity application form, dated 12 July 2013, has been approved by Chair's action. For reference and tracking the application has been given the identifier ENBS/2013-14/004.

Regards,

xxx

xxx xxx

Research Administrator

Edinburgh Napier University Business School

Craiglockhart Campus

219 Colinton Road

Edinburgh

EH14 1DJ

t +44 (0)131 455 4617

f +44 (0)131 455 4479

j.doyle@napier.ac.uk

Appendix 3.4 Interview schedule and rationale

Sections	Questions	Rationale
1 Introduction to the interview	1. What were your main motivations and interests to take part in this course? 2. How did you find the first few weeks on the course? What was that experience like? How did you find that?	Two questions were included in this section which aim to break the ice, build rapport (Cousin, 2009; Yeo *et al.*, 2014; McGinn, 2008) and make the interviewee feel more relaxed which can be achieved in an in-depth interview (Boyce & Neale, 2006) and start the conversation in a more natural way while also helping the reflective process to start. The questions encouraged interviewees to reflect back on their motivations to participate in this course but also to reflect on the first few weeks of the experience after joining and helped to capture the starting point of this journey.
2 Specific experiences on the course	3. Which aspects of the course did you like/find most valuable? Please explain. 4. Could you share with me an activity you like/found particularly useful? 5. Did you feel engaged? 6. What were the factors that fostered your engagement in the course (or not)? 7. Which part of the course did you find most effective for your learning? Explain. 8. Which part of the course did you feel you learned the most from? (What stuck with you?) 9. Were there any aspects of the course you felt were less	Questions included here were meant to provide the opportunity to the interviewee to reflect on specific characteristics that had a positive or negative impact on their course experience and their learning. All questions are open ended and avoid pointing interviewees into a specific direction (Yeo, *et al.*, 2014). Interviewees were given the opportunity to reflect and surface aspects that had the most significant impact on the experience, their engagement and learning. It was expected to get some emotional responses, as some of the questions were linked to the affective domain and helped to deepen reflection.

	positive for your learning?	
	10. Why do you think you felt like this (negative feelings/experience) and what was the outcome?	
3 Collaboration on the course	11. Did you work with others during the course?	These questions link directly back to the research questions and have a focus on the cross-institutional collaborative learning aspect, characteristics and experiences linked to these. They relate to the specific interviewee in the context of the course they participated but also their engagement in collaborative activities with colleagues in their own institution and beyond, in face-to-face and online settings.
	12. Could you share an example with me?	
	13. Do you work with colleagues from other institutions in face-to-face settings? What are the enablers and barriers there?	
	14. Could you share with me your experience of working with colleagues from different institutions within this course. What did this mean to you?	The aims is that these questions will assist the interviewee, reflect deeper on cross-institutional collaborative learning and the factors that influenced most their experience during the course. Furthermore, they also identify how interviewees work and learn collaboratively in other settings, including cross-institutional opportunities, and how their thoughts are forming about similarities, differences, as well as opportunities and challenges taking into account their more recent open course experience.
	15. How would you compare the experience working collaboratively online and face-to-face? Explain.	
	16. Did you experience any challenges?	
	17. How did you overcome the main challenges you experienced?	
4 Overall course experience	18. How would you describe your overall experience on this course?	A small selection of questions that aim to enable the interviewee to reflect primarily on the overall experience of the course.
	19. Is there anything that would have enhanced your experience of taking the course?	

	20. How could such a course that is also offered for credits with colleagues from other institutions be enhanced further?	
5. Additional questions	21. How did you engage with the course?	This section is open for additional questions by the interviewer if needed and could be identified during a specific interview.
6. Final question	22. Is there anything else you would like to share with me about the course?	This final question gives the interviewee the opportunity to share any other aspect of their experience on the specific course if not mentioned or shared already (Yeo et al 2014). It might also be the point during the interview were the interviewee will share something that they feel strongly about. Even if they repeat something that has been mentioned earlier, it might give an indication of its importance to them personally and their experience. After this question has been asked and fully explored, the interview end naturally. The interviewer thanks the interviewee and remind them what will happen with the recording and the transcript.

Appendix 3.5 Initial survey

Dear open course participant,

My name is Chrissi Nerantzi. I am a PhD student and you have kindly provided your consent to participate in my research project "Developing a flexible collaborative learning framework for open cross-institutional Academic Development courses at postgraduate level" carried out at Edinburgh Napier University. Please note, ethical approval has been secured for this project.

If you have changed your mind and no longer wish to participate that is absolutely fine. If, however, you are still willing to participate, please complete this survey below. Feel free to skip any questions you prefer not to answer.

Another survey will be forwarded to you within two months of course completion and a remote interview will also be organised with your agreement.

If you have any questions, please get in touch with me. If you would rather contact someone not directly involved in my research Carol Yeager can provide help, as indicated in the consent form.

Thank you in advance for your collaboration.

Chrissi (Nerantzi)

08016904 @ napier.ac.uk (without the spaces)

Please respond to the following questions.

1. Please indicate your study status.

Please tick all statements applicable.

- ☐ full-time in Higher Education (university)
- ☐ full-time in Further Education (college)
- ☐ part-time in Higher Education (university)
- ☐ part-time in Further Education (college)
- ☐ undergraduate studies
- ☐ postgraduate studies
- ☐ doctoral studies
- ☐ post-doctoral studies
- ☐ informal continuous professional development
- ☐ not a student at the moment
- ☐ Other: [   ]

2. Please indicate your employment status.

- ☐ full-time employed
- ☐ part-time employed
- ☐ hourly paid
- ☐ self-employed
- ☐ apprentice
- ☐ voluntary
- ☐ not in employment
- ☐ Other: [   ]

3. Please indicate your employment sector.

Please tick all statements applicable.

- o ☐ Higher Education (university)
- o ☐ Further Education (college)
- o ☐ Primary Education
- o ☐ Secondary Education
- o ☐ Adult and Community Learning
- o ☐ Private Sector
- o ☐ Public Sector
- o ☐ Voluntary Sector
- o ☐ Training Company
- o ☐ Consultant
- o ☐ Other: ▭

4. Please read the following statements and rate them as important dimensions for your study on this course.

	strongly agree	agree	disagree	strongly disagree
Opportunity to develop professionally in this area	○	○	○	○
Experience an open course as a learner	○	○	○	○
Connect with fellow educators	○	○	○	○
Study towards a qualification	○	○	○	○
Consider returning for further studies	○	○	○	○
Receive a certificate of participation	○	○	○	○
Learn with others collaboratively	○	○	○	○

	strongly agree	agree	disagree	strongly disagree
Supported by a facilitator	○	○	○	○
Get feedback on my work and how I progress	○	○	○	○
Participate in webinars and interact with other learners, speakers and facilitators	○	○	○	○
Provide feedback on other participants' work	○	○	○	○
Topic relevant to current aspect of work or project	○	○	○	○
Participate as it is free.	○	○	○	○

5. Which part of the open course do you intend to complete?

Please tick as many as appropriate in your situation.

o ☐ the whole course
o ☐ a specific unit/specific units
o ☐ the collaborative activities
o ☐ access the course resources
o ☐ participate in the course webinars
o ☐ read the regular course updates
o ☐ participate in the discussions
o ☐ Other: [____]

6. Please add here any additional learning and networking activities you will engage in, which are not listed above.

7. Have you participated in an online course before?

○ ⊙ yes

○ ⊙ no

8. If you answered yes to the above question, please indicate what type of online course(s) you have participated in and how many.

Please tick as any boxes as applicable.

	1	2	3	more than 3
online undergraduate degree	○	○	○	○
online postgraduate degree	○	○	○	○
online doctoral/research degree	○	○	○	○
short course for professional development	○	○	○	○
open online course (this might be a Massive Open Online Course)	○	○	○	○

9. Please add information about any other type of online course you have completed which is not listed under 8.

10. If you ever participated in an open online course (this could be a Massive Open Online Course or other open educational opportunities) please indicate which statements apply to your situation linked to that course.

- ☐ I completed the whole course.
- ☐ I completed a specific unit/specific units.
- ☐ I accessed the course resources.
- ☐ I participated in the course webinars.
- ☐ I read the regular updates I was receiving.
- ☐ I participated in some of the discussions.

11. Please indicate the degree of experience you have in the following areas.

	very experienced	experienced	not very experienced	not experienced at all
Participating in open online courses	○	○	○	○
Facilitating open online courses	○	○	○	○
Participating in group tasks/projects	○	○	○	○
Problem-Based Learning	○	○	○	○
Participating in online seminars	○	○	○	○
Using LinkedIn or similar for online professional networking	○	○	○	○
Using Twitter or other social media for professional development	○	○	○	○
Engaging in Case-Based	○	○	○	○

	very experienced	experienced	not very experienced	not experienced at all
Learning				
Participating in webinars	○	○	○	○
Participating in online collaborative writing activities	○	○	○	○
Participating in online collaborative research activities	○	○	○	○

12. In terms of your own learning, please indicate how effective the below activities are for your learning.

	very effective	effective	not effective	not effective at all
independent study	○	○	○	○
participating in group tasks/group projects	○	○	○	○
participating in a structured course	○	○	○	○
using media-rich resources (video, audio, animation etc.)	○	○	○	○
being supported by a tutor/facilitator	○	○	○	○
being supported by other learners	○	○	○	○

13. If you would like to share something else that you feel is related to this survey, please add this in the box below.

Personal Information

The following questions relate to personal information. Please remember that these are optional and you do not have to provide answers to these.

14. What is your name?

15. In which country do you live?

16. What is your age range?

o   17-24

o   25-34

o   35-44

o   45-54

o   55-64

o   64-74

o   75 plus

17. What is your gender?

o   female

o   male

18. What is your highest qualification?

o   Secondary School/Highschool qualification

o   Professional qualification (NVQs, Level 2, Level 3)

o   College degree (HNC, HND, Foundation degree)

o   Undergraduate Degree (BA, BSc, BEd etc.)

o   Postgraduate degree (MA, MSc, MBA, MEd etc.)

o   Doctoral Degree (PhD, EdD etc.)

o   Other:

19. If you are willing to be contacted to discuss some of your comments in more detail, please provide your email address in the box below.

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Thank you for completing this initial survey.

Please note, all information provided will be kept confidential and only fully anonymised data will be used through which you won't be able to be identified by others. Further details regarding this have been included in the consent form. Chrissi (Nerantzi) 08016904 @ napier.ac.uk (without the spaces)

Submit

Never submit passwords through Google Forms.

Bottom of Form

Powered by Google Drive

Appendix 3.6 Final survey

Hi,

My name is Chrissi Nerantzi. I am a PhD student and you kindly provided your consent to participate in my research project "Developing a flexible collaborative learning framework for open cross-institutional Academic Development courses at postgraduate level" carried out at Edinburgh Napier University. Ethical approval for this project has been granted by the university.

The open course you participated in has now finished and I would like to invite you to answer the following questions.

If you have changed your mind and no longer wish to participate that is absolutely fine. If, however, you are still willing to participate, please complete this survey below. Feel free to skip any questions you prefer not to answer.

This is the final survey. A remote interview will also be organised with your agreement. Please let me know by adding your name into the relevant box. The interviews will be conducted via Skype and last between 45 minutes and 1 hour and will be recorded.

If you have any questions, please get in touch with me or the independent person Carol Yeager as indicated in the consent form.

Thank you in advance for your collaboration.

Chrissi (Nerantzi)
08016904 @ napier.ac.uk (without the spaces)
* Required

1. How did you engage with the course?

- ○ as a group member
- ○ as an autonomous learner
- ○ I didn´t participate
- ○ Other: [   ]

2. As an overall estimate how many hours per week did you engage in course related activities?

(please add your estimate)

- ☐ up to 3 hours
- ☐ between 3 to 5 hours
- ☐ between 5 and 7 hours
- ☐ over 7 hours

3. If you would like to be interviewed, please add your name and email below.

Thank you for completing this final survey

Please note, all information provided will be kept confidential and only fully anonnymised data will be used through which you won't be able to be identified by others. Further details regarding this have been included in the consent form. Chrissi Nerantzi

Submit

Bottom of Form

Powered by Google Drive

Appendix 8.1 Dissemination activities linked to this study

Publications

Nerantzi, C., 2017. PhD Journeys of a Scholastic Explorer, in: Jackson, N. (eds.) *Exploring explorations*, Lifewide Magazine, Issue 18, January 2017, pp. 57-60, available at http://www.lifewideeducation.uk/uploads/1/3/5/4/13542890/lifewide_magazine_18.pdf.

Nerantzi, C. & Withnell, N., 2016. We just 'clicked' or sharing team experiences, a reflective conversation between a learner and a facilitator of an open online course. In: Whatley, J. and Nerantzi, C. (eds.) (2016) Teaching with Team Projects, Santa Rosa, CA: Informing Science Press, pp. 43-60.

Nerantzi, C., 2016. My reflections on #creativeHE, in: Creative Academic Magazine, Issue 4, January 2016, pp. 57-60, available at http://www.creativeacademic.uk/magazine.html or directly here

Nerantzi, C. & Gossman, P., 2015. Towards collaboration as learning. An evaluation of an open CPD opportunity for HE teachers, in: Research in Learning Technology Journal, volume 23, availablehttp://www.researchinlearningtechnology.net/index.php/rlt/article/view/26967

Nerantzi, C., 2015. Who says academics don't do CPD? Connecting practitioners and developing together through distributed cross-institutional collaborative CPD in the open, in: Rennie, F. (ed.) The distributed university, JPAAP Special Issue, Volume 3, Issue 1, pp.98-108, available at http://jpaap.napier.ac.uk/index.php/JPAAP/article/view/136

Nerantzi, C., 2014. Personal journey of discoveries through a DIY open course development for professional development of teachers in Higher Education, invited paper, Journal of Pedagogic Development, University of Bedfordshire, Volume 4, Issue 2, pp. 42-58, http://www.beds.ac.uk/jpd

Conference presentations

8-10 March 2017 "Opening-up the HE box through cross-boundary collaborative open learning in cross-institutional academic development", Global Open Education Conference, Open Education Consortium, Cape Town, South Africa, 8-10 March 2017, funded place by the Global OER Graduate Network (GO-GN)

March 2017 "The discoveries I made about collaborative open learning as a phenomenographer", presented at the pre-conference and OE Global Conference, in Krakow, Poland, thanks to the generous support by the Global OER Graduate Network meeting in Cape Town, South Africa

24 Feb 2017 "A ticket for a cross-boundary higher education system. Just a dream?", Educational Futures and Fractures Conference, Strathclyde University, Glasgow, Scotland

3-4 Nov 2016 "The developer's real new clothes… is cross-boundary learning the new cross-disciplinary learning?" 21st Annual SEDA Conference, Surviving and Thriving - Effective Innovation and Collaboration in the New Higher Education, Brighton

12 April 2016 "Developing a collaborative learning design framework for open cross-institutional academic development courses", Global Open Education Conference, Open Education Consortium, Krakow, Poland, 12-14 April 2016, funded place by the Global OER Graduate Network (GO-GN)

10 April 2016 "I would probably find it hard if I had to do it in a foreign language" Exploring learner experiences in open cross-institutional and cross-boundary professional development courses in HE, A PhD project work-in-progress, presented at the pre-conference and OE Global Conference, in Krakow, Poland, thanks to the generous support by the Global OER Graduate Network

8 July 2014 "I felt I knew everybody" learner experiences in an open cross-institutional CPD course for teachers in HE', Connected learning in an open world Conference. APT2014, Greenwich University, London

2-3 July 2014 "It is really cool to learn together." Is it? Exploring collaborative learning in an open professional development course for teachers in HE, Annual HEA Conference, Aston University, Birmingham

28-29 Apr 2014 "FDOL132 just a buzz?" Poster presentation with Neil Withnell, OER14 Conference, University of Newcastle, Newcastle.

3 April 2014 "My first baby steps. Developing a flexible collaborative learning framework for open cross-institutional Academic Development courses at postgraduate level", Postgraduate Research Conference, Edinburgh Napier University

11 March 2014 "About chaos, the big wave, confusion and overcoming loneliness in Openland, invited presentation for the Open Education Event organised by the University of Sussex, Brighton

12 Dec 2013, "COOL FISh or Enabling cross-institutional collaborative learning in HE", invited presentation with Neil Withnell for NW ALT SIG, Manchester Met

29 May 2013, "Flexible, Distance and Online Learning (FDOL) course: experiences and implications for the future", with Lars Uhlin and Maria Kvarnström, Centrum för medicinsk pedagogik (CME) vid Institutionen för Lärande, Informatik, Management och Etik och, Sweden