The dynamics of intense long-term motivation in language learning: Directed Motivational Currents in theory and practice

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Abstract

Directed Motivational Currents (DMCs) are a novel motivational construct which describe periods of highly motivated behaviour while working towards a well-defined and personally significant end goal (see e.g. Dörnyei, Henry & Muir, 2016). Such periods of motivation are found in diverse contexts and directed towards varied outcomes, yet are uniquely recognisable by the highly positive emotionality exhibited by individuals, who during this time often surpass even their wildest expectations. To date, DMC research has focused on qualitative accounts of the personal experiences of DMCs, and while this has offered a wealth of comprehensive data, key research strands remain unexplored. In response to this, this thesis comprises two complementary studies, each looking at a novel aspect of DMC theory and application.

Study 1 takes a quantitative approach to research by addressing questions related to the recognisability of DMCs across continents and contexts, and considers basic questions such as how many people report having experienced periods of DMC-like motivation, what inspired them, and the durations they lasted. It additionally looks at the demographic factors of respondents to understand whether there are links between DMCs and either gender, age or nationality. The study uses a newly developed online questionnaire tool and involves a total of 1563 participants of 71 different nationalities. The results support the notion that DMCs are a well-recognisable and widely experienced motivational phenomenon in society, and indicate no significant links between DMCs and any demographic factors. In terms of language learning, the findings support the assertion that DMCs are found across a wide range of language levels and contexts.

Study 2 addresses the practical applicability of DMC theory to language learning and teaching. This classroom intervention study – conducted in collaboration with Jessica Florent and David Leach – aimed to purposefully facilitate a group DMC experience in a class of 16 business English language learners. The basis of this study stems from the observation that within a classroom context, group DMCs can be thought of as intensive group projects. The study was structured around an 'All Eyes on the Final Product' project framework (Dörnyei et al., 2016), the end goal being the organisation of a large charity fundraising event. Data was collected throughout the five weeks from personal diary entries and Skype interviews with both students and teachers. Findings suggest the intervention was highly successful in creating a group DMC experience, and significantly, it was also found that students reported

notable positive developments throughout the course, both in terms of their language learning and in other key skills.

The cumulative conclusions presented in this thesis are therefore highly encouraging, offering strong empirical support to the claim that DMCs are a well-recognised and widely experienced motivational phenomenon which transcends borders and contexts. Results equally suggest that the purposeful facilitation of DMC experiences with varied groups of language learners in diverse contexts – to achieve dual motivational and educational aims – might be a very real possibility. Although positive results are reported, both studies venture into previously unchartered research territory and, in light of this, the conclusions put forward require validation and confirmation through further empirical work. Suggestions for future research are made.

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List of abbreviations

ANOVA = analysis of variance
CDST = complex dynamic systems theory
CELTA = certificate of teaching English to speakers of other languages
CLT = communicative language teaching
DMC = directed motivational current
EFL/ESL = English as a foreign language/English as a second language
L1 = first language
L2 = second language
PBL = problem based learning
PCA = principled communicative approach
SDT = self-determination theory
SLA = second language acquisition
TESOL = teaching English as a second or other language

Chapter One
Introduction

The field of applied linguistics is far from an exact science, yet, it is precisely this point at which it becomes interesting. I have always been fascinated by languages, and language learning has always been a part of my life, whether as an enthusiastic (yet ultimately unsuccessful!) German student at school, through living and studying in Russia, and on to the first day I myself stood in front of a group of eager language learners. It was while I was completing my Masters degree, however, that I was at last able to do something that I had long wanted to, and experienced first-hand the thrill of empirical research. It is unsurprising that my first piece of empirical work at this time saw me looking into a topic that had both an intrinsically practical application, and which was of central importance to students' success within the language learning classroom: motivation.

Research into the fostering of day-to-day motivation in discrete classroom contexts, however, did not interest me. What interested me was the bigger picture. What was it that kept students coming back day after day to sit though dry grammar explanations? Why was it that some students were able to sustain their interest throughout the language learning process far more effectively than others? What influence did an individual's understanding of themselves and their broader personal ideals have on their motivation and action when in the classroom? Sitting for the first time in Zoltán's office, I railed off multiple ideas about the possible directions in which I wanted to take my doctoral research. The second time we met – by which time I had managed to more efficiently restrain my naïve enthusiasm! – Zoltán shared with me the outline of an idea that had been sitting with him, and suggested that it might be something that I would be interested in collaborating on and investigating further. Existing then under the moniker 'motivational contingency' – a nod to Raynor's (1974; Raynor & Entin, 1983) work which inspired some of the initial theorising – this idea ticked all the boxes of things that I knew I wanted to include in my research: dynamic systems theory, vision theory, research into self and identity, and the shifting context of English language teaching in a continually changing world, to name but a few. In considering the journey of the previous few years it is interesting to look back now through the word document I put together after this second meeting with notes from the recording: a full five pages holding text in a total of six colours, a proliferous use of emboldening, underlining,

italicisation and capitalisation for emphasis – all punctuated wildly and with an uncomfortably prominent overuse of question marks. With hindsight, it seems I am able to pinpoint the exact day at which my own directed motivational current took hold! A throwaway comment by Zoltán made during this meeting has turned out to be a remarkably accurate summary of the journey that we have all been on since then: "an interesting thing about a contingency is that it might have its own will, it might take you to places which you *never thought you would go…*"

In striving to understand the theoretical underpinnings of this novel motivational phenomenon – in collaboration with Zana Ibrahim, and with Alastair Henry who later also joined the 'DMC research team' – the significance of what it was that we were researching became increasingly and intensely clear. Not only was the notion of DMCs fascinating from a theoretical standpoint, but the achievements witnessed in individuals who had experienced such intense flows of motivated energy were extraordinary. Significantly, it appeared that these were not unique motivational occurrences limited to a trivial number of individuals, but instead, DMCs appeared to represent a fundamental way in which we engage with extended projects more generally – they appeared to be a well-recognised and widely experienced motivational phenomenon. This was evidenced early on, for example, by the fact that as soon as we started to share our ideas, we immediately began hearing from people with whom the notion had resonated so strongly that they felt compelled to write and share their experiences with us.

It did not take long for that side of me which instinctively looks for the practical application of ideas and possibilities for their exploitation in the classroom to become hooked by the possibilities that DMCs might hold for language learners. Yet, it was not until the notion of DMCs was developed further to include 'group DMCs' that this appeared a real possibility: understanding the notion of group DMCs within a classroom context as intensive group projects suddenly opened up a tangible research agenda which could feasibly be applied in practice, in real language classrooms. This likewise brought with it into relevance an additional new host of novel and exciting theoretical insights, for example the principles of group flow (Sawyer, 2003, 2006), group vision (Dörnyei & Kubanyiova, 2014), and emotional and goal contagion (Barsade, 2002; Aarts & Custers, 2012), each of which contributed new perspectives to the understanding and functioning of group DMCs, and indeed the DMC framework as a whole.

The two studies which are presented in this thesis each address key questions related to different aspects of DMC theory, and each forges a new path in developing our

understanding of DMCs. For the first time in DMC research, Study One adopts a quantitative approach to investigation. Using a newly developed online questionnaire tool, this study aimed to reach as many participants around the world as possible in order to answer basic questions related to who, where, why and how many individuals in varied contexts have experienced DMCs. In contrast to this, Study Two looked at DMCs from a practical standpoint. Data was collected from regular Skype interviews and from teacher and student diaries throughout a five week classroom intervention study, the primary aim of which was simple: to demonstrate for the first time that it is possible to purposefully facilitate a group DMC experience in a class of language learners. While both address questions central for the continuation of the DMC research agenda, these two studies equally satisfied my desire to develop my knowledge and experience within both qualitative and quantitative research methodologies and traditions.

This thesis comprises a total of eight chapters. Following this introduction, Chapters Two, Three and Four offer a comprehensive literature review of language learning motivation as a whole, and of topics related to the area of study more specifically. Chapter Three offers a concise history of motivation research from its beginnings in the 1950s up until the present day, and in doing so traces the forces and influences which led to the emergence of directed motivational currents as a novel motivational framework. This creates the basis for DMCs to be introduced in full in Chapter Three, which concludes by widening the discussion to introduce the notion of group DMCs. Chapter Four moves the focus from theory to practice and considers the possibility of using project work as a means of purposefully facilitating the emergence of group DMCs in the language classroom, through the use of intensive group projects. The specific research methodologies used in the two studies presented are laid out in Chapter Five, which outlines the participants, instruments, procedures and means of data analysis. The results of the two studies are presented separately in the following two chapters, Chapters Six and Seven, each of which offers a combined analysis and discussion of results. The thesis concludes in Chapter Eight, in which results from the two studies are interpreted together, and suggestions for future research are made.

Chapter Two
A brief overview of L2 motivation theory: From integrative motivation to directed motivational currents

The primary aim of this chapter is to offer a broad overview of the field of second language motivation research, from its beginnings in the 1950s through to the present day. Key points of transition are highlighted, and in order to offer an accompanying narrative explaining the underlying trends driving these developments forwards, where appropriate they are also situated within the wider context of mainstream motivation research in educational psychology. The chapter begins in Section 2.1 with a brief description of the socio-educational perspectives which governed the field of second language learning motivation for its first 30 years, before Section 2.2 goes on to pinpoint specific justifications for the general move away from these traditions in the 1990s, and for the 'educational shift' which followed. Sections 2.3 and 2.4 describe the years leading up to the turn of the century, a period characterised by its focus on more situated learning contexts, a greater awareness of the real life complexity of language learning, and the unavoidable methodological implications of these developments.

The turn of the new millennium saw the field of L2 motivation research reframed in terms of self and identity, and both this and subsequent developments are discussed in Section 2.5. The final content section of this chapter – Section 2.6 – introduces the newest development within the field of L2 motivation research, and the framework on which the basis of the current thesis is founded: directed motivational currents. The contributions of DMCs to our more general understanding of long-term motivated behaviour are highlighted, and justifications are made as to why they have not been identified previously. The chapter concludes in Section 2.7.

It is important to note that in tracing this narrative storyline throughout the history of L2 motivation theory in this way, the focus necessarily centres on crossroads and other points of change. As such, it does not purport to be comprehensive. Important themes and perspectives are, at times, brushed over in order to achieve the broader aim of offering a complete overview of the path the field has traversed over the past half century. Omissions

are not representative of the relative importance a theory or perspective represents, nor its relative impact on the field, merely on its ability to contribute to the current narrative. (For a more comprehensive review of this type, see e.g. Dörnyei & Ushioda, 2011).

2.1 The origins of motivation research: Motivation from a social perspective

The modern field of L2 motivation research is traceable back to the publication of Robert Gardner and Wallace Lambert's seminal 1959 article Motivational Variables in Second Language Acquisition. This paper established the field as ostensibly separate from that of mainstream motivation research in educational psychology, and offered a new perspective on L2 motivation which was rooted firmly in that which most clearly separates the field of language teaching from the teaching of other subject matter: the existence of a social group of users of the subject content. Prior to this, research into second language acquisition had primarily focused on the importance of linguistic aptitude as an explanation of language achievement, in chief due to the difficulty in measuring other possible factors like motivation and interest (Gardner & Lambert, 1959). Drawing on theories from L1 acquisition such as that of Mowrer (1950), who posits that language acquisition is driven first by the desire to be like other family members and then the entire linguistic community, Gardner and Lambert (1959) sought to demonstrate that similar motivational processes – that is, attitudes to the L2 group – also played a role in second language acquisition. Their arguments for the applicability of attitudes to the importance of second language acquisition was later also reflected in similar arguments made by Spolsky (1969), who argued that one of the most important attitudinal factors for second language learning was an individual's attitude to the language and its speakers. Gardner and Lambert's (1959) seminal study included a cohort of 43 male and 32 female L1 English students studying French at a Toronto high school. A key finding from the study – further to the isolation of motivation as a fundamental factor in the understanding of L2 achievement (the primary factor identified in this study was linguistic aptitude) – was the introduction of the notions of integrative and instrumental motivation. (Other early empirical studies of note include Anisfeld & Lambert, 1964; Gardner, 1960, 1985; Gardner & Lambert, 1972; and Lambert, Gardner, Barik & Tunstall, 1963).

The work of Gardner and his colleagues identified these primary motivational orientations – or goals – to describe students' reasons for learning a language. As Gardner

and Lambert (1972) explain, these clusters of reasons for learning an L2 can be understood as:

> instrumental in form if the purposes of language study reflect the more utilitarian value of linguistic achievement, such as getting ahead in one's occupation. In contrast, the orientation is integrative if the student wishes to learn more about the other cultural community because he is interested in it in an open-minded way, to the point of eventually being accepted as a member of that other group. (p. 3)

The notion of integrative motivation has become one of the most researched concepts in the field of second language motivation, and since its identification the vast majority of studies have included this factor as a key variable (Csizér & Dörnyei, 2005b). A significant body of empirical work investigating integrative motivation can be found based in the North American context where it originated (e.g. Clément & Kruidenier, 1985; Gardner, Day & MacIntyre, 1992; Gardner & MacIntyre, 1991, Hernández, 2006; 2008; McEown, Noels & Samure, 2014), and Gardner's socio educational model has likewise been corroborated in varied contexts around the world (for example Hungary: e.g. Clément, Dörnyei & Noels, 1994; Dörnyei, 1990; Poland: e.g. Gardner, 2012; and Lebanon: e.g. Shaaban & Ghaith, 2000). Empirical data has tended to support the notion that integrative motivation impacts a stronger influence on behaviour and achievement than instrumental motivation (e.g. Gardner, Masgoret, Tennant & Mihic, 2004; Masgoret & Gardner, 2003; McEown, Noels & Saumure, 2014), although it has nevertheless been demonstrated that instrumental motivation plays a key role, particularly in the context of foreign language learning (e.g. Belmechri & Hummel, 1998; Dörnyei, 1990; Gardner & MacIntyre, 1991; Kraemer, 1993; Lukmani, 1972; Warden & Lin, 2000).

The thirty years following the publication of Gardner and Lambert's paper in 1959 saw the field of motivation become firmly established as a key component of second language acquisition, and although the above overview is necessarily brief in the wider context of this chapter, it is indisputable that integrative motivation has contributed significantly to, and remains an enduring facet of, the motivational landscape (for further and a more recent overview see e.g. Gardner, 2001, 2010). Its significance is recognised not only in terms of the content and ideas it has contributed to the field, but also as stemming from the authors' strenuous insistence on methodological rigour (Skehan, 1991).

These powerful perspectives guided the compass for the direction of motivation research up until the early 1990s – a time retrospectively labelled the social-psychological period (Dörnyei & Ushioda, 2011) – and it was not until this decade prior to the new millennium that a new research direction began to emerge.

2.2 From macro to micro perspectives: The 'educational shift'

Widely considered to be the founders of the field of L2 motivation research, Gardner and Lambert' background was not as linguists but as psychologists, and with this in mind it is perhaps unsurprising that the next generation of linguists who were to inherit the field brought to it a different set of perspectives and a different skillset to that of its founders. This new generation were not psychologists interested in SLA – as were Gardner and Lambert – but rather, SLA researchers interested in psychology. The resulting re-energisation the field experienced during this time was so significant a period of change as to have been described a motivational renaissance (Dörnyei, 2001a; Dörnyei & Ushioda, 2011).

2.2.1 A critique of the Gardnerian tradition

Research interest in the social psychological perspectives advocated by Gardner and his colleagues remained ongoing, yet newly emerging findings began to provide contradictory results. Three key issues are important in understanding the critique made against the Gardnerian tradition at this time: these are the issues of context and contact, the issue of globalisation, and, to a lesser extent, the issue of terminology.

The issues of context, contact and identification

The Canadian context in which integrative and instrumental motivation were first identified is unique in that two world languages – English and French – both hold a prominent position within society. This bilingual context created the perfect playground for researchers interested in second language acquisition and, as Ryan (2009, p. 123) describes, this had a "profound influence on some of the theoretical conclusions drawn from the data". As this research agenda continued, it became apparent that this unique context was far removed from

those found in much of the wider language learning and teaching world, where students often had little or no contact with L1 speakers of the language they were studying. As a result of this, the relevance of integrative motivation in these latter contexts began to be questioned (e.g. Au, 1988; Chen, Warden & Chang, 2005; Coetzee-Van Rooy, 2006; Dörnyei, 1990; Lamb, 2004; Lukmani, 1972; Warden & Lin, 2000; Yashima, 2000, 2002).

Further, empirical evidence likewise suggested a basic lack of identification with target language groups (e.g. Lamb, 2004; Warden & Lin, 2000; Yashima, 2000). In the Japanese EFL context, for example, Irie (2003) reports researchers hesitant to use the term 'integrative motivation', believing that the original definition was not appropriate for the factor that had been identified, i.e. a motive which was primarily defined as "an openness to identify, at least in part, with another language community" (Masgoret & Gardner, 2003, p. 172, emphasis mine). Such arguments have been put forward not only for students learning world English, but also in connection with other languages. Busse (2013), for example, reports in her study on UK university students studying German, finding that these students had very little contact with native speakers, and similarly that they exhibited little to no integrative motivation (the UK context in particular is one in which integrative motivation within language learning is known to be low, see further e.g. Coleman, 1996).

This lack of identification and clear impossibilities for integration threw into confusion studies where integrativeness was nevertheless identified as a key variable. This enigma is epitomised in Csizér and Dörnyei's (2005b) study in which they struggled to satisfactorily interpret integrativeness as having emerged as a key factor motivating their Hungarian students of English. As the authors explain: "it is not easy to explain this superior position in the context of the present study where not only was any real integration into the L2 community impossible, but even direct communication with members of the L2 community was an unrealistic expectation for most respondents" (p. 28; see further Section 2.5.2). These findings led to new context specific factors being identified – such as the Chinese imperative (Chen et al., 2005) – and pushed the field to consider whether integrative motivation may have "relevance only in specific sociocultural contexts" (Noels, Pelletier, Clément & Vallerant, 2000, p. 60; Clément & Kruidenier, 1983; Skehan, 1991).

The issue of globalisation

The world has become a starkly different and more globalised place since the introduction of integrative and instrumental motivation over half a century ago, and the role and perception

of English – and, by association, the teaching and learning of both English and other 'non-world' languages – have likewise changed considerably. English has lost its affiliation to specific English speaking cultures such as the UK or the US, and has become associated instead with a more generalised 'international' culture and identity (e.g. Crystal, 2003). As soon as the notion of the 'ownership' of English comes into question (Widdowson, 1994, 1997) the notion of integration is complicated still further; what is it that students are wanting to integrate into when "English now represents the language of the 'world at large'" (Csizér & Lukács, 2010, p. 2)?

As a reflection of this, a collection of new terms emerged (see also above). From Japan arose international posture (Yashima, 2002), capturing "the general attitude toward the international community", or – more generally still – towards "what English symbolises" (pp. 54, 57). This is similarly referred to in other contexts as a world English identity (Dörnyei, 2005; see also Lamb, 2004; 2009; Yashima, 2009). Students were found to be looking less to integrate into the second language culture, than to develop bicultural identities (Norton, 2001), and, as Dörnyei (1990) argues, in this new world integrativeness might be more accurately connected to a more generalised understanding of foreign culture.

The learning of L2 English in particular has been complicated by its changing position in light of the fact that in modern contexts it is oftentimes considered less as a second/foreign language, and more as an integral part of an individual's basic skillset required for success; something directly comparable to other subjects such as maths and science (Dörnyei & Csizér, 2002). Both this and other factors – such as difficulties in interpreting specific motives for goals such as foreign travel – have contributed to claims that in some foreign language learning contexts the distinction between integrative and instrumental motivation forms a deceptively clear categorisation. It is suggested that although previously identified as two separate orientations, in reality and in certain contexts they have been found to be 'indistinguishable' from each other (Lamb, 2004).

The issue of terminology

Dörnyei (2003) has referred to the notion of integrative motivation as an 'enigma', referring to the multitude of definitions and understanding of the term identifiable within the literature. Recognition of this is likewise made by Gardner himself, who acknowledges that "close inspection will reveal that it has slightly different meanings to many different individuals"

(2001, p. 1). Misconceptions abound in the differences between the terms 'integrative motivation', 'integrative orientation', 'the integrative motive' and 'integrativeness': while each stand as discrete terms they are often used interchangeably, and are commonly understood and conceptualised differently by different researchers (Clément & Kruidenier, 1983). This fact that has not only theoretical but methodological implications. Although repeated attempts at clarification have been made (e.g. Clément et al., 1994; Gardner & Tremblay, 1994a), further confusion has stemmed from a view of instrumental and integrative motivation as two ends of a continuum (Clément et al., 1994), and that the cornerstone of Gardner's socio educational model lies in a dichotomy between the two (Dörnyei, 1990; see also Crookes & Schmidt, 1991). Although if viewed in isolation this concern is not one in itself capable of changing the direction of a field, it nevertheless contributed to the feelings of unease which characterised the desire for change at this time.

2.2.2 The 'educational shift'

In a seminal paper by Crookes and Schmitt (1991; see also Brown, 1990; Julkunen, 1989 and Skehan, 1989 for discussions of similar, concurrently voiced opinions) it was further suggested that the understanding of motivation from the social psychological perspective which had driven the field had little to do with students' lived experiences, and, consequently, little to do with the working understanding of motivation held by classroom practitioners. For teachers, their understanding of motivation was more in line with recent developments occurring within the field of mainstream educational psychology. As Crookes and Schmitt explain: "When teachers say that a student is motivated, they are not usually concerning themselves with the student's reasons for studying, but are observing that the student does study" (1991, p. 480, emphasis mine). They go on to suggest that, "From a conceptual point of view, much of the work on motivation in SL [second language] learning has not dealt with motivation at all" (p. 502), but has focused instead more on student attitudes.

Drawing on the work of Keller (1983), Crookes and Schmitt (1991) suggested a new approach, and a more generalised research agenda for L2 motivation research based on four key factors of interest, relevance, expectancy and outcomes, and at four levels, the micro level – dealing "with motivational effects on the cognitive processing of SL stimuli" (p. 483) – the classroom level, the syllabus level, and finally at a wider level representing "considerations relevant to informal, out-of-class, and long-term factors" (p. 483). This

sparked a radical change in the research traditions of the field. Whereas focus had previously been founded on understanding motivation from the macro perspective of whole speech communities – for example the Anglo- and Francophone communities in bilingual Canada – the emerging tradition focused attention increasingly inward: from entire communities, to discrete classrooms, and, eventually, to individual learners. As Dörnyei and Ushioda (2011) describe, this upheaval was characterised not only by a drive to achieve a greater alignment with research traditions in mainstream motivational psychology – it is of note that no immediate parallels exist between integrativeness any construct in mainstream motivational psychology (Csizér & Dörnyei, 2005b) – but by the perceived need to "sharpen the focus on a more situated analysis of motivation in specific learning contexts" (Dörnyei & Ushioda, 2011, p. 46).

A later exchange in 1994 in The Modern Language Journal debated these issues more fully (Dörnyei, 1994a; 1994b; Gardner & Tremblay, 1994a, 1994b; Oxford, 1994; Oxford & Shearin, 1994), and many cognitive theories of motivation from educational psychology were put forwards for discussion. Oxford and Shearin's (1994) article was particularly elaborate in this respect, and highlighted the significance of need theories, expectancy-value theories, equity theories, reinforcement theories, theories of social cognition and cognitive development. Their paper also drew on the work of Vygotsky (socialcultural theory, 1978) and Piaget (cognitive development theory, 1979; 1955). While Oxford and Shearin (1994) clearly state that their aim was to offer a starting base for an expanded theory of motivation – rather than their trying to offer a model themselves – such a proposal was soon put forward by Dörnyei (1994a), who proposed a new motivational framework operating over three levels: a language level, a learner level and a learning situation level.

Before moving on, it is important to emphasise that this shift did not position itself in opposition to the work of the social psychological tradition which had come before it. First generation researchers remained involved in this discussion and contributed likewise to the formulations of new ideas being put forward (e.g. Gardner, 2001; Tremblay & Gardner, 1995): as Gardner and MacIntyre concur "…motivation itself is dynamic. The old characterization of motivation in terms of integrative vs. instrumental orientation is too static and restricted" (1993, p. 4; Gardner & MacIntyre, 1992).

2.2.3 Imports from educational psychology

Appropriately since dubbed the cognitive situated period (Dörnyei & Ushioda, 2011), the following years saw an assortment of cognitive theories imported from the field of educational psychology and applied to the understanding of language learning motivation. Theories picked up at this time include self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000), which was introduced into the L2 literature primarily by Kimberly Noels and her colleagues (e.g. Noels, Clément & Pelletier, 2001; Noels et al., 2000). SDT has since been widely embraced by the field and its empirical relevance to the L2 context has repeatedly been demonstrated (e.g. Comanaru & Noels, 2009). Other key theories imported at this time include various expectancy-value frameworks, which are understood as those which posit that "individuals' motivated decisions to engage in particular tasks and their performance and persistence can be explained by their expectations of how well they will do on the task and how much they value its achievement" (Dörnyei & Ushioda, 2011, pp. 13-14). Examples of these frameworks include attribution theory (Weiner, 1985) – introduced into the L2 field by Marion Williams and colleagues (e.g. Williams & Burden, 1999) – and the principle of self-efficacy (e.g. Bandura, 1977, 1994; for a fuller discussion see Dörnyei & Ushioda, 2011, Chapter 2). A final area of note – goal theories – did receive limited attention at this time, yet deserves more detailed consideration.

Goal-setting theory: A key omission

A strand of research from mainstream motivation psychology of particular relevance to the current narrative but largely missed by the educational shift is that followed by Locke and Latham (1990, 2006) related to the importance of goal setting, a discrete avenue of research from a wider body investigating the importance of goals to motivated action. Their research interests focused in particular on the practical aspect of goal setting, and looked to explain relative performance differences between individuals by way of goal attributes. Highlighting three key areas in particular – specificity, difficulty and goal commitment – their body of work can be summarised as follows:

1. The more difficult the goal, the greater the achievement.
2. The more specific or explicit the goal, the more precisely it can regulate performance.
3. Goals that are both specific and difficult lead to the highest performance.

4. Commitment to goals is most critical when goals are specific and difficult (i.e., when goals are easy or vague it is easy to inspire commitment: it does not require much dedication to reach easy goals, and vague goals can be easily redefined to accommodate low performance).
5. High commitment to goals is attained when (a) the individual is convinced that the goal is important; and (b) the individual is convinced that the goal is attainable (or that, at least, sufficient progress can be made toward it). (Dörnyei & Ushioda, 2011, p. 20; Locke, 1996)

The beginnings of the importance of goal setting was picked up within the field of L2 motivation (see Tremblay & Gardner, 1995), but was largely not investigated further. A reasonable argument to explain this is the surface incompatibility of the conceptualisations of 'goals' within these two research traditions. The motivation literature in educational psychology considers generic goals such as mastery versus performance (Ames, 1992) or learning versus performance (Dweck & Leggett, 1988). Both fall under the heading of goal-orientation theory, and as Dweck describes, these two dichotomies function largely in the same way: "Put simply, with performance [or mastery] goals, an individual aims to look smart, whereas with learning goals the individual aims at becoming smarter" (1985, p. 291). In the field of L2 motivation, however, from its very inception, goals have been conceptualised at a fundamentally different level – i.e. they have primarily been viewed as 'orientations' (Gardner, 1985) – and as described above, much of the work on goals has actually maintained a primary focus on student attitudes. Although Tremblay and Gardner (1995) called for further research in this area, direct investigation of the applicability of various goal theories within the field of second language acquisition remains scant, in particular with regards to two key areas: goal setting – described above – and self-concordant goals (e.g. Sheldon & Elliot, 1998, 1999; Sheldon & Houser-Marko, 2001; see further Section 3.2.1).

2.3 Motivation as a dynamic concept

Following the absorption of such a broad collection of cognitive theories and a zoning in on specific learning contexts, focus soon turned to address the now unavoidably dynamic nature of motivation, and the importance of understanding and researching motivation as it occurs

over time. This emerging tradition was "characterised by an interest in motivational change" and later dubbed the process oriented period (Dörnyei & Ushioda, 2011, p. 40). Such a recognition developed our understanding of motivation for the first time beyond that of a stable individual difference variable: as all good teachers know, "within the context of institutionalized learning especially, the common experience would seem to be motivational flux rather than stability" (Ushioda, 1996, p. 241). Several models were put forward (see below). However, their ability to explain the minutiae of motivational change in real time and in real life contexts remained limited, and understanding quickly continued to develop further. The newly emerged socio-dynamic period (Dörnyei & Ushioda, 2011) began at the turn of the new millennium, and remains the dominant perspective within the field. The following sections overview the key findings of this period of transition.

2.3.1 Motivation as process

The most fully worked out of these emerging 'process models' of motivation was that by Dörnyei and Ottó (1998). In addition to responding to the need for a theory which took into account the dynamic element of time, their process model of L2 motivation was borne from the predominance in the literature of what Heckhausen (1991) refers to as choice motivation – motivation to choose a specific course of action – and, with it, the relative disregard of executive motivation, or those factors which cause an individual to act (also referred to as intention formation and intention implementation). As Dörnyei and Ushioda (2011) explain, "A basic first step in analysing motivation from a temporal perspective is to clarify the conceptual distinction between motivation for engagement (choices, reasons, wishes, intentions, decisions), and motivation during engagement (how one feels, behaves and responds during the course of learning)" (pp. 60-61). Dörnyei and Ottó (1998) argued that without both these factors brought into consideration, a full understanding of motivated behaviour in the language classroom was simply not possible. They drew on Heckhausen and Kuhl's (1985) action control theory, and proposed a linear, cyclical construct comprised of an 'actional sequence' made up of three stages; the preactional phase, the actional phase and the postactional phase, and additionally supported by a second element titled 'motivational influences'.

Their process model of L2 motivation was directly compatible with the developing thoughts of other researchers in the field (e.g. Ushioda, 1998, 2001 and Williams & Burden,

1997), and several other motivational frameworks attempting to take into account the dynamic aspect of time were also put forward. Williams and Burden (1997) proposed a three stage model corresponding to the different stages of the motivational process, from initiating motivation (stages one and two: 'reasons for doing something' and 'deciding to do something') to sustaining motivation (stage three: 'sustaining the effort, or persisting'). Ushioda's reasoning centred on the possibilities for developing understanding through the use of more qualitative research methodologies (see further section 2.4). Her perspective highlighted the changes in learner goal orientations as they emerged and developed over time, and in doing so stressed the importance of understanding the full L2 context and the language learning experience more generally. This is key in sustaining continued engagement: not only will different individuals be guided by different motives, but these motives should likewise be expected to evolve over time (Ushioda, 1998, 2001).

2.3.2 Motivation as complex

Although the process models were successful in highlighting the different stages of the motivational process and the importance of the everyday experience of language learning, their linear approach was soon overshadowed by an emerging awareness and focus on the complexity of the innumerable factors which affect language learning and teaching, and indeed which affect the field of SLA in general. The complex dynamic systems perspective which subsequently came to the fore (e.g. de Bot, Lowie & Verspoor, 2007a, 2007b; Ellis & Larsen-Freeman, 2006; Larsen-Freeman & Cameron, 2008; van Geert, 2008) was far more attuned to the everyday experience of classroom practitioners. It viewed motivation "as emergent from relations between human intentionality and the social world" (Sealey & Carter, 2004, p. 206): there are indeed different stages of the motivational process, but the linear nature of the process models meant that even their most complex representations failed to capture the full intricacy of the motivational factors affecting any L2 classroom context (Dörnyei, 2005, 2009a). In a chapter introducing her person-in-context relational view of motivation, and likewise following on from Sealey and Carter (2004), Ushioda (2009) stresses the importance of "understand[ing] second language learners as people, and as people who are necessarily located in particular cultural and historical contexts" (p. 216). Her argument is for "a focus on 'person-in-context', rather than on context as independent

variable, to capture the mutually constitutive relationship between persons and the contexts in which they act – a relationship that is dynamic, complex and non-linear" (p. 218).

Nick Ellis (2007) describes the impact of the adoption of a CDST approach and the characterisation of language learning as an emergent process as "the coming of age of SLA research" (p. 23), and an ever growing body of research certainly reflects this. Hiver and Al-Hoorie (in press) argue that not only has a recognition of CDST principles for furthering understanding become indispensable for furthering our understanding of L2 motivation, but that it is inescapable: CDST has now become "an integral part of empirical research". As they describe, evidence for this can be found within the field of L2 motivation (Dörnyei, MacIntyre, & Henry, 2015; Waninge, Dörnyei, & de Bot, 2014), yet also fields as diverse as L2 writing and vocabulary (e.g. Baba & Nitta, 2014; Verspoor, Schmid, & Xu, 2012 and Verspoor, Lowie, & van Dijk, 2008; Zheng, 2012), L2 anxiety and willingness to communicate (Gregersen, MacIntyre, & Meza, 2014 and MacIntyre & Legatto, 2011), and the self concept (Henry, 2015; Mercer, 2012, 2014).

2.4 Changing methodological concerns

In parallel to these developments – the narrowing down of focus from broad social to individual contexts, and the increasing emphasis on the importance of incorporating time and a more complete range of situation specific factors into more a more complex, non-linear understanding of motivation – the field likewise expanded its boundaries in terms of the research methodologies it employed. In short, the new types of questions that were now being asked demanded that the traditional quantitative research methods which had initially characterised the field be expanded upon in order that new answers might be sought.

In very broad terms, this period saw the field shift to place a greater emphasis on the importance of qualitative research. It highlighted the limitations of a reliance on quantitative research methodologies to investigate the lived reality of the human experience, which was now a primary focus of investigation. A particularly strong proponent of this was Ema Ushioda (1993, 1994, 1996; Ridley & Ushioda, 1997), and her early research sought to demonstrate that not only could a far more nuanced understanding of the motivational processes and experiences involved in second language learning be gained from adopting a more qualitative approach (1994), but that this was needed in order to be able to fully explore these new developments "in motivational experience over time, as well as to identify the

contextual factors perceived to be in dynamic interplay with motivation" (1996, p. 241). In this series of papers, Ushioda reports on an interview based study with 20 undergraduate students completing a French module option. Her findings offered strong initial empirical support for the value of focusing on forming a deep understanding of specific contexts, which incorporated factors from both within and outside of the immediate L2 context (1996). These arguments later formed a basic principle of her person-in-context approach (2009; see also Section 2.3.2).

The adoption of CDST perspectives later created again a renewed demand for innovative methodological avenues to be explored. An early model was put forward by Larsen-Freeman and Cameron (2008), and their notion of complexity thought modelling has recently been expanded upon by Hiver and Al-Hoorie (in press) through their dynamic ensemble, "a practical catalogue of complexity considerations for research design". Other, more specific research methodologies have also been put forward, such as retrodictive qualitative modelling (e.g. Chan, Dörnyei & Henry, 2015; Dörnyei, 2014). The year 2015 likewise saw the publication of Dörnyei, MacIntyre and Henry's anthology, which presents a collection of studies aimed directly at investigating promising applications and methodological possibilities and opportunities for research looking to adopt CDST perspectives specifically within the field of L2 motivation.

2.5 Motivation from a self perspective

Although they only took centre stage at the turn of the century, self perspectives were certainly not new to the field of L2 motivation. Self-determination theory had long purported the importance of the internalisation of goals for motivated behaviour (e.g. Noels et al., 2001; Noels et al., 2000), and the premise of integrative motivation (Gardner, 1985) likewise has its roots in the core identification of an individual with a second social group. A fascination with the self has long been a predilection of psychologists, and it is unsurprising that it "headlines more psychological variables than any other concept" (Higgins, 1996, p. 1062). Continuing to develop this body of knowledge, at the turn of the century Zoltán Dörnyei proposed his L2 motivational self system (2005, 2009b), and in so doing, he offered a radical reframing of L2 motivation theory. The following subsections highlight the key developments outside the field of SLA which foregrounded this, before going on to overview the L2 motivational self system itself and subsequent related developments.

2.5.1 Possible selves and future self-guides

Markus and Nurius' seminal 1986 paper – along with their wider body of work during the 1980s (1987; Markus & Kunda, 1986; Markus, Smith & Moreland, 1985) – introduced the notion of possible selves as a means of providing a conceptual link between motivation and cognition. By their very nature possible selves are future oriented, and as such they are understood to exist as a "cognitive manifestation of enduring goals, aspirations, motives, fears and threats" (Markus & Nurius, 1986, p. 954). Markus and Nurius describe possible selves as representing what we would like to become, what we afraid of becoming, and what we could become. While their third categorisation – the selves we could become – are understood to represent one's most likely or 'expected' selves (Carver, Reynolds & Scheier, 1994), the former two represent a myriad of possibilities:

> The possible selves that are hoped for might include the successful self, the creative self, the rich self, the thin self, or the loved and admired self, whereas the dreaded possible selves could be the alone self, the depressed self, the incompetent self, the alcoholic self, the unemployed self, or the bag lady self. (Markus & Nurius, 1986, p. 954)

Higgins (1987) drew on the body of self literature which highlighted key differentiations between an individual's personal desires and their moral conscience, and proposed "three basic domains of the self" (p. 320): the actual self, the ideal self and the ought self. As Higgins quotes, "ideals and superego morality have been confined together when each should long ago have had a place of its own" (Schafer, 1967, p. 131). Conceptually distinct, ideal and ought selves are thus able to function as future self-guides.

Higgins' notion of self-discrepancy theory (1987) was introduced primarily in order to distinguish between the different types of emotional discomfort which would be expected to be felt as a result of different pairs of self-states, for example between actual/ideal or between actual/ought: the former has been found to be linked with dejection-related emotional outcomes such as disappointment or sadness, and the latter with agitation-related emotion such as tension or fear (see also Higgins, Bond, Klein & Strauman, 1986; Higgins, Klein & Strauman, 1985). Higgins (1998) also looked into the diverse ways individuals may

approach different goals. Drawing on the age-old notion that people approach pleasure and avoid pain, Higgins and colleagues (Higgins, Roney, Crowe & Hymes, 1994) posit that although ideal and ought selves are similar in that they both represent desired end states, they stand as motivationally distinct from one another because, whereas ideal selves are characterised by a greater promotion focus, manifested as an individual's dreams, desires, hopes etcetera, ought selves are characterised by a greater focus on prevention, that is, a desire instead to avoid the possibility of negative outcomes.

2.5.2 The L2 motivational self system

During the first decade of the new millennium, Zoltán Dörnyei and his colleagues conducted a large scale quantitative research project in their native context of Hungary (Csizér & Dörnyei, 2005a, 2005b; Dörnyei & Csizér, 2002; Dörnyei, Csizér & Németh, 2006; Kormos & Csizér, 2008). They investigated the motivational dispositions of upward of 8,000 school students studying five languages, and although integrativeness was identified as a key variable, the researchers struggled to explain this in the foreign language context in which the study was situated. It was concluded that "the motivation dimension captured by the term is not so much related to any actual, or metaphorical, integration into an L2 community as to some more basic identification process within the individual's self-concept" (Dörnyei & Csizér, 2002, p. 453).

Building on these results and drawing likewise on the recent convergence of theories of self and motivation within the field of mainstream psychology (as described above), Dörnyei put forward a radical reformulation of L2 motivation theory by reframing it in terms of self and identity. The L2 motivational self system (Dörnyei, 2005, 2009b) strove to draw together in an integrated manner the various research directions which had emerged in recent years, and strived likewise to offer a meaningful account the complexity of language learning in the L2 classroom (see further Sections 2.2 and 2.3). Structurally, the L2 motivational self system is made up of three components:

- The Ideal L2 self: a representation of what an individual would ideally like to become,
- The Ought-to L2 self: a manifestation of the expectations of others regarding an individual's future, and finally,
- The L2 Learning Experience: consuming other factors relevant to the specific learning context.

Since its introduction, a wealth of literature has emerged in support of the key principles of the construct. Dörnyei & Ushioda's 2009 anthology provided strong initial evidence that the Ideal L2 self was not only a key predictor of motivated learning, but that it provided greater explanatory power than integrativeness. It was also concluded again that integrativeness might instead be understood as part of a "broader L2 self concept" (Ryan, 2009, p. 137). Strong support was also gained from the varied contexts in which it was investigated – for example Hungary (Csizér & Kormos, 2009), Saudi Arabia (Al-Shehri, 2009) and China, Japan and Iran (Ryan, 2009; Taguchi, Magid & Papi, 2009) – and in all sample groups, from secondary school students to adults (see Ryan & Dörnyei (2013) for a discussion of the applicability of the L2 motivational self system across the lifespan).

This not only confirmed the findings of the initial Hungarian studies, but also demonstrated their relevance in countries which have similarly limited contact with L2 speakers, yet which represent starkly diverse cultural contexts (for example China, Japan and Iran in the case of Taguchi et al., 2009). Other findings include empirically weak correlations between the three strands of the L2 motivational self system (Csizér & Kormos, 2009) – so supporting the assertion that they stand as three distinct variables – and support for Higgins' (1998) hypothesis that promotion motives are more often linked with ideal selves and prevention motives with ought selves was also given by Taguchi et al. (2009). Empirical research has since also been approached from a qualitative perspective (e.g. Aubrey & Nowlan, 2013; Irie & Brewster, 2013, Lamb, 2007, 2009, 2011; Taguchi, 2013), and these studies represent a growing body of work which has been highly informative in developing our understanding of the underlying processes at work.

Of the two self related strands of the construct, the Ideal L2 self in particular has received strong empirical support. Csizér and Lukács (2010) describe it not only as a "crucial component to long term success in language learning", but also more generally as "an indispensable part of motivated learning" (p. 9). Initial studies typically found the Ideal L2 self to explain 42% of variance (Dörnyei, 2009b), and while subsequent results in some instances found lower correlations (e.g. Busse, 2013) they nevertheless remained strong. Empirical research has also offered support for the L2 motivational self system in contexts of L2 acquisition other than global English. Busse (2013) reports that her students' Ideal L2 self remained stable throughout data collection, and argued that it was a "substantial component in these students' motivation to study German" (p. 386). This result was likewise corroborated by Csizér and Lukács (2010) with their Hungarian learners of German.

2.5.3 Vision

The zoning in of attention on vision – and at a wider level also the zoning in of attention on the L2 motivational self system more generally – was motivated by a search for higher-order factors which could explain the sustained periods of motivation that are required for remaining committed to long-term learning processes, such as language learning (Dörnyei & Kubanyiova, 2014). The visual representation of idealised future selves is central to the motivational capabilities of the L2 motivational self system – and to the motivational capabilities of possible selves more generally – and led organically on to a focus on the relevance and importance of visualisation, and also of other sensory elements. Significantly, it is argued that it is exactly this "experiential element that makes possible selves 'larger' than any combinations of goal-related constructs" (Dörnyei, 2009b, p. 15, emphasis mine). The importance of the imagery aspect in the visualisation of possible selves in this respect was also foregrounded in the field of psychology in the bringing together of self and motivation constructs (e.g. Markus & Nurius, 1986; Markus & Ruvolo, 1989).

A vision can be defined as "a mental representation that occurs without the need for external sensory input" (Stopa, 2009, p. 1). Within the context of language learning, vision is understood as "the sensory experience of a future goal state, or in other words, a personalized goal that the learner has made his/her own by adding to it the imagined reality of the goal experience" (Dörnyei & Chan, 2013, pp. 454-55). The detailed visions we create and the senses we use to form each vision of our future selves are generated through largely the same neural mechanisms as if we were to experience the event in reality (e.g. Moulton & Kosslyn, 2009; Reisberg & Heuer, 2005). Indeed, the brain can have difficulty in distinguishing an event which is occurring in reality from a detailed vision of the same event (Cox, 2012). Taylor, Pham, Rivkin and Armor (1998) posit that it is due to this that mental simulations gain their motivational capabilities: by functioning within the constraints of reality, they are believed as genuine possibilities.

Although vision is often spoken of as a clearly defined entity, in practice the term is more often used to describe a number of diverse arenas in the social sciences. To this end, van der Helm (2009) talks about the vision phenomenon, covering "the ensemble of claims and products which are called 'visions' or could be called as such" (p. 96). Van der Helm highlights seven different types of vision, including religious, political, humanistic or personal. They are held together as a unified whole because all are focused around the future, the ideal or the desire for deliberate change, and because "all visions build on a number of

more or less universal characteristics" (van der Helm, 2009, p. 97). Vision "possesses potent orienting capacities" (Levin, 2000) and functions to instigate transformation by inspiring motivation and providing direction (van der Helm, 2009), and as such, vision is an indispensable element in the motivating power of possible selves (see further Section 2.5.4).

The instinctual use of vision and imagery is part of the very essence of the human experience – we regularly imagine what we will have for dinner, or picture ourselves on well-earned holidays – yet the concept of vision is conceptually distinct from this familiar daydreaming of everyday life. Vision research began and has a particularly rich research tradition within the field of sports psychology (see Allan Paivio's seminal 1985 paper), and it is thus apt that the words of Michael Johnson – the legendary American track athlete – describe this distinction particularly clearly:

> You must understand, I am not by nature a daydreamer. I try to control those parts of my life that can be controlled, to plan everything that I want to happen down to the most insignificant detail. I travel in a world in which fractions of a second separate success and failure, and so I'd visualised the 1996 Olympics down to the millisecond. I'd crafted a decade of dreams into actions, refined ambitions into goals, and finally hammered goals into plans. (Harwood, Cumming & Hall, 2003, p. 292)

The use of mental imagery within a vision is, therefore, "similar to vivid daydreaming but is much more purposeful and directed" (Knudstrup, Segrest & Hurley, 2003, p. 573, emphasis mine).

Imagery research centres on the experiential aspects of the vision experience, and has been investigated through multiple avenues of inquiry. For example, different types of imagery have been explored – including goal achievement imagery, process-based imagery, mental rehearsal and negative imagery (e.g. Achtziger, Gollwitzer & Sheeran, 2008; Gollwitzer & Sheeran, 2006; Pham & Taylor, 1999; Taylor, Pham, Rivkin & Armor, 1998) – as have the different imagery perspectives that might be employed, i.e. first or third person (e.g. Libby & Eibach, 2011). Research has focused on highlighting specific motivational effects, and the affective and cognitive functions of each choice (for further discussion see Dörnyei & Kubanyiova, 2014.)

2.5.4 Possible selves and vision as educational tools

A growing body of research has centred on developing opportunities for the practical application of possible selves and vision theory within educational contexts, both in general education and specifically within the field of L2 education itself. The body of literature within general education has demonstrated positive links between possible selves, motivation and academic achievement: for example, positive possible selves have been linked to improved GPA scores (Anderman, Anderman, & Griesinger, 1999; Oyserman, Bybee & Terry, 2006), greater motivation to prove personal competence (Anderman et al., 1999), and has highlighted positive associations between academic possible selves and persistence on academic tasks (Leondari & Gonida, 2008). A discrete strand of this literature has investigated the use of possible selves with 'at risk' and low income students, in which students were found to be positively motivated to take action to move away from their feared selves (Kloep, Hendry, Gardner & Seage, 2010). Intertwined with this research, there has likewise been a growing interest in possible selves related intervention studies within the general education context (e.g. Kaylor & Flores, 2007; Oyserman, Brickman, & Rhodes, 2007; Oyserman et al., 2006; Hock, Deshler & Schumaker, 2006).

Building on this basis, similar lines of research have likewise been conducted within the context of language learning and the L2 motivational self system. The importance of imagery in the use of possible selves was again underlined when vision was demonstrated to be multisensory in nature, so supporting the importance of a broad imagery capacity which includes both visual and auditory dimensions (Dörnyei & Chan, 2013). Both visual (Al-Shehri, 2009) and auditory learning styles (Kim, 2009; Kim & Kim, 2011) have also been linked to Ideal L2 selves, imagination capabilities and motivated behaviour. Understanding was further developed when it was demonstrated that different languages form discrete ideal L2 selves, meaning that at any point in time an individual may possess multiple ideal L2 selves, each related to a different language (Dörnyei & Chan, 2013).

Basic conditions for the motivating power of possible selves

From a motivational perspective, Higgins' self-discrepancy theory assumes the following: "that people are motivated to reach a condition in which their self-concept [i.e. their actual self] matches their personally relevant self-guides" (1989, p. 95). However, in order for any

motivational consequence to be borne out in practice, it is demonstrated a basic set of conditions must be met. The following highlights the most important of these.

- The possible self must exist. A fundamental starting point is that an individual must have a possible self (Dörnyei & Kubanyiova, 2014).
- The possible self must be accessible *and regularly active within an individual's* working self concept. A basic tenet is that possible selves need to be accessible to an individual within their working self concept, that is, they must form a part of an individual's "set of self conceptions that are presently active in thought and memory" (Markus & Nurius, 1986, p. 957, emphasis mine; Markus & Kunda, 1986; Markus & Wurf, 1987; Oyserman & Destin, 2010). One way this might be facilitated is through the use of priming (Dörnyei & Kubanyiova, 2014; Higgins, 1998).
- The possible self must be plausible. Possible selves must be both plausible and perceived to be within reach (Dörnyei & Kubanyiova, 2014; Oettingen & Thorpe, 2006). As goal striving begins, possible selves are continually evaluated in these terms and, where necessary, revised (e.g. Carroll, Shepperd & Arkin, 2009; Granberg, 2006). Motivational impetus will not be created, however, if an individual believes success is 'comfortably certain', independent of the level of effort expended (Dörnyei & Kubanyiova, 2014). Related to the issue of plausibility, Busse (2013) argues that from the consistent links found between the use of mental imagery, motivated behaviour and self-efficacy beliefs (e.g. Beauchamp, Bray & Albinson, 2002; Munroe-Chandler, Hall, & Fishburne, 2008; Wesch, Milne, Burke & Hall, 2006), that "it seems plausible to argue that higher levels of self-efficacy will make the attainment of visions more likely" (p. 381), and that this is an important factor in the understanding of an individual's perception of plausibility.
- The possible self must be vivid, specific and well elaborated. The more elaborate and vivid an individual's possible self, the greater its motivational potential (Dörnyei & Kubanyiova, 2014; Markus & Nurius, 1986; Markus and Ruvolo, 1989).
- The possible self must be sufficient*ly different from an individual's actual self.* Assuming motivational impetus is created from the perception of a discrepancy between an individual's current and their desired selves (Higgins, 1987), it naturally follows that the absence of any perceived gap will not lead to any motivational outcome (Dörnyei & Kubanyiova, 2014).

- The possible self must be supported by relevant plans and strategies. A possible self will not exert motivational potential without a concrete pathway leading to goal attainment (Higgins, 1996; Markus & Ruvolo, 1989), which functions to channel motivational energy once created (Dörnyei & Kubanyiova, 2014). The combination of possible selves with strategies forms the basis of what have been termed self-regulatory possible selves, and are demonstrated to be most likely to impact on behaviour (e.g. Hoyle & Sherrill, 2006; Oyserman, Bybee, Terry & Hart-Johnson, 2004; contrasted with self-enhancing possible selves which by contrast create only positive feeling).
- The possible self must not *clash with any other aspects of an individual's self*-concept. Such a clash might, for example, manifest itself between an individual's ideal and ought self, therefore, harmony is particularly important with regards to expectations from significant others and from an individual's immediate social environment (Dörnyei & Kubanyiova, 2014), or between multiple possible language selves (Dörnyei & Chan, 2013).
- The possible self must be counterbalanced with a feared self. Motivational impact on behaviour is strengthened when "offset or balanced by a countervailing possible self in the same domain" (Oyserman & Markus, 1990, p. 113, emphasis mine). Such feared selves can function as "powerful negative incentives" (Cantor et al., 1986, pp. 107-8; see also Dörnyei & Kubanyiova, 2014).

A vision inspired teaching practice

The better understanding of the role of vision and imagery as an elaboration of the L2 motivational self system has inspired with it a parallel literature founded on imagery intervention studies (Fukada, Fukuda, Falout & Murphey, 2011; Jones, 2012; Magid & Chan, 2012; Sampson, 2012), and has seen a growing bank of resources for classroom language teachers wanting to include aspects of vision and imagery into their teaching (Hadfield & Dörnyei, 2013; Arnold, Puchta & Rinvolucri, 2007). A key work in this regard is Dörnyei and Kubanyiova's (2014) Motivating learners, motivating teachers. The authors describe the key features of their vision inspired teaching practice – developed from the motivational conditions noted above – which offers an inherently accessible set of practical classroom guidelines (see Table 1).

Motivational conditions for desired future language selves	Key facets of a vision-inspired motivational practice
The learner has a desired future self-image (vision) which is related to but is also different from his/her current self-concept	Construction of the desired future selves: creating the vision
The vision is elaborate and vivid	Imagery enhancement: strengthening the vision
The vision is perceived as plausible but not comfortably certain, and it does not clash with other parts of the individual's self-concept, particularly with the expectations of the learner's family and peers	Making the desired future selves plausible: substantiating the vision
The vision is accompanied by relevant and effective procedural strategies that act as a roadmap towards the goal	Developing an action plan: transforming the vision into action
The vision is regularly activated in the learner's working self-concept	Activating the desired future selves: keeping the vision alive
The learner is also aware of elaborate information about the negative consequences of not achieving the desired end-state	Considering failure: counterbalancing the vision

Table 1: A framework for developing a vision-inspired teaching practice (reproduced from Dörnyei & Kubanyiova, 2014)

2.6 Directed motivational currents

It is at this point in the narrative of the development of the field of L2 motivation that discussion of DMCs at last comes to the fore. Directed motivational currents (Dörnyei et al., 2016; Dörnyei, Ibrahim & Muir, 2015; Dörnyei, Muir & Ibrahim, 2014; Henry, Davydenko & Dörnyei, 2015; Ibrahim, 2016; Muir & Dörnyei, 2013; see also Chapter Three in this thesis) have emerged in recent years borne as a direct extension of the vision concept. A DMC represents the perfect match between a vision and an accompanying action plan which

amplifies rather than absorbs energy: DMCs are capable of capturing the power of a final vision and transferring it through a unique structure into sustained momentum in one's life, in so doing prolonging the initial vision led surge and enabling individuals to function at levels over and above what they might normally be capable of. DMCs are thus unique within the field of L2 motivation research (Dörnyei et al., 2016). They fit well, however, into the new zeitgeist characterising the socio dynamic era of current motivation research, precisely because of their ability to channel motivational impetus and energy down a productive path, even in the midst of surrounding chaos. As Dörnyei, Henry and Muir explain, DMCs "have the capacity to align the diverse factors that are simultaneously at work in a complex system, thereby acting as a regulatory force" (2016, p. 96). The roots of DMC theory can therefore be considered as firmly seeded within current motivational thinking (see further Chapter Three).

2.6.1 DMCs and long-term motivation

Dörnyei et al., (2016) argue that DMCs are made up of the same building blocks as those which make up the foundation of long-term motivation in general, and that because of this they are key to furthering our understanding of long-term motivated behaviour. Just as flow (Csikszentmihalyi, 1990) is considered to be an optimal form of short term engagement, so do DMCs represent an optimal form of engagement with long-term projects (see Section 3.1 for further comparisons between flow and DMCs; in this context 'long-term motivation' is understood to refer to motivated periods lasting a week, several weeks or longer, and, significantly, encompassing multiple, varied tasks – as opposed to high motivation in carrying out a single task or motivation lasting only for the duration of a single language lesson). In considering cases where all the elements of a DMC do not come together exactly or where some elements are missing – so creating highly motivated periods of long-term action but which do not fully encapsulate optimal motivational possibilities of DMCs – certain types can be considered partial realisations of DMCs. The 'certain types' qualifier is best understood with reference to two important issues, the approach/avoidance motivation dichotomy and the issue of resilience.

Approach motivation is defined as "the energization of behaviour by, or the direction of behaviour toward, positive stimuli (objects, events, possibilities)" (Elliot, 2008, p. 3), and is clearly representative of the highly goal oriented DMC experience (as contrasted to avoidance motivation; action taken intended to avoid negative consequences). In this sense,

DMCs can be defined as an optimal form of approach motivation energising sustained behaviour, and less intense forms of approach motivation – those in which not all elements of a DMC come together in an optimal form – as partial realisations of DMCs.

The second defining issue in this regard is that of resilience. The experiential element is key to the DMC experience, perceived by individuals as one of being able to move effortlessly forwards towards a final goal, and in this sense, the DMC experience is highly similar to the experience of flow (Csikszentmihalyi, 1990). In the latter context, Jackson (2012) describes the experience as empowering, and as imparting a "sense of infallibility", which "frees one from the all-too-frequent fear of failure that can so easily creep into performance. Failure thoughts are nowhere to be found during flow, enabling the individual to positively approach the challenges at hand" (p. 129). DMC experiences are not linked any perceptions of hardships to be overcome, willpower or self-determination, and therefore the ability to regulate behaviour while enduring difficult conditions and challenges are not prerequisites. Full and partial realisations of DMCs thus might only be labelled as such if they accord with this understanding.

2.6.2 Why have DMCs not been recognised before?

As is demonstrated in this chapter, the field of L2 motivation theory has an extensive history and has seen countless perspectives, theories and frameworks come to the fore at different points throughout its development. If, as has been proposed (Dörnyei et al., 2016), it is correct that DMCs represent a fundamental way in which humans engage with the world around them, it is important to consider briefly why it is that something argued to be such a core facet of the human motivational experience has not been recognised previously.

Although the term 'directed motivational current' is comparatively new, Dörnyei et al. (2016) argue that the proliferance of anecdotal and other evidence readily available from multifarious sources offers strong support for the notion that it is nevertheless widely recognisable (see Dörnyei et al., 2016, Chapter 1 for examples). The most apparent marker by which the DMC framework can be recognised is the powerful positive emotional experience which accompanies the motivational current, and a strong example describing DMC-like motivation in this regard is found in Lepp-Kaethler and Dörnyei (2013). In their description of the experiences of bible translators and translators of other holy and important texts, the extraordinary levels of sustained motivation exhibited by these individuals is remarkable both

in terms of its intensity and its longevity, and is clearly reminiscent of the DMC experience. It is described by the authors as a "jet stream", in which "learners are caught up in a powerful inner current" (p. 186). In similar instances elsewhere in the literature similar motivational experiences have likewise been described as a "fast track" (Harber et al., 2003, p. 262). This body of evidence suggests that even without specific theoretical exploration, DMCs have never been far from the consciousness of those who have seen or experienced them.

Dörnyei, Henry and Muir (2016) posit that the reason DMCs have not been theoretically identified previously stems primarily from the fact that they have not fitted into any of the mainstream theories or motivational paradigms which have dominated throughout this time, and that this can be linked to two primary reasons. The first of these relates to traditional understanding within the field which has tended to separate motivation and behaviour, and the second to the difficulty of relating the concepts of motivation and time (see also Section 2.3).

The traditional separation of motivation and behaviour

The initial thesis underpinning research into motivation was simply to understand why it is that humans think and act as they do. As a recent summary by Schmidt, Beck, and Gillespie (2013) in the Handbook of Psychology explains: "Scholars generally agree that motivation refers to internal forces that underlie the direction, intensity, and persistence of behaviour or thought" (p. 311). At its most basic level behaviour is, therefore, understood to be a consequence of motivation, meaning that from the outset the field was set up neither to recognise nor to assimilate a theory of motivation whose forte was the core integration of these two elements.

DMCs were further overshadowed by the general predominance of research in general education on goal setting, rather than on subsequent goal striving (for a review see Schmidt et al., 2013). The latter, defined as "the on-line or in-the-moment processes involved in pursuing the goals one has set" (Schmidt et al., 2013, p. 312), certainly has clear links to our understanding of DMCs, yet this research avenue has largely not been developed further, with success in goal striving being described as explicitly regulated by "first of all on what kind of goals people have set for themselves" (Gollwitzer & Oettingen, 2012, p. 214), again highlighting the cause-effect relationship between motivation and behaviour.

Goal striving has, however, received an increasing amount of research attention in recent years, primarily in terms of an individual's ability to apply self-regulation to their actions to strengthen their chances of achieving their goal. Foregrounding the self-regulatory perspective, this research strand focusses attention on limiting possible negative aspects of goal striving, effectively diverting attention away from what is the essence of the DMC framework: the positive contributions goal striving can offer (see further Gollwitzer & Oettingen, 2012). Although self-regulation is certainly connected to goal striving, it offers another example of an emphasis on cause-effect behaviour: motivation impacts on self-regulation which, in turn, regulates behaviour. Although self-regulation is undoubtedly an important aspect of motivational psychology both in and outside of the field of L2 motivation, this powerful perspective has, in part, supressed our understanding of DMCs by effectively confining them to a "research blind spot" (see Dörnyei et al. (2016) Chapter 2 for a fuller discussion of these issues).

Motivation and time

The second reason which might account for DMCs not having been previously identified relates to the fact that although the ebbs and flows of motivation within L2 classrooms have long been understood by classroom practitioners, the inclusion of time in theoretical conceptualisations has proved very difficult because it requires accounting for a construct which is continually in the process of ongoing change. As Dörnyei and Ushioda (2011) explain, this is true at all levels: "relatively little research has addressed the process of motivational development over time, either at the micro-level of moment-by-moment experience or the macro-level of long-term experience or life history" (Dörnyei & Ushioda, 2011, p. 6). Although no theory has succeeded in capturing the DMC framework in its entirety, three lines of research, each of which have responded to the 'time challenge' differently, are able to offer unique insight: time perspective, contingent path theory, and velocity.

Time perspective

A focus on the notion of time perspective in mainstream psychology has gained increasing momentum in recent years (e.g. De Volder & Lens, 1982; Zimbardo & Boyd, 1999). This line

of research investigates an individual's general disposition towards and their personal understanding of time, and distinguishes between individuals whose thinking tends to focus on the past, on the present, or on the future. "When chronically elicited, this bias becomes a dispositional style, or individual-differences variable, that is characteristic and predictive of how an individual will respond across a host of daily life choices" (Zimbardo & Boyd, 1999, p. 1272). Empirical research has repeatedly demonstrated that possession of a future time perspective – that is, the ascribing of greater valence to goals in the distant future – consistently connects with greater levels of persistence and achievement in the present. From a motivational perspective, then, it is clear: one's temporal relation to the future matters.

Contingent path theory

Contingent path theory (Raynor, 1974; Raynor & Entin, 1983) has its roots in classic achievement motivation theory (e.g. Atkinson & Raynor, 1974), and was originally conceptualised in relation to career progression in the workplace (e.g. Blackburn, 1997). A contingent path is one in which reaching the next step and continuing along a pathway is contingent on the successful completion of the one before it. Significantly, such pathways do not only concern "rational, long-range, discernible plans in accordance with anticipated career stages", but also "personally meaningful, idiosyncratic events" (Blackburn, 1997, p. 327). The personal element of contingent paths therefore justifies their relevance outside of the context in which they were first proposed, suggesting that the steps themselves might be highly varied with their significance for an individual stemming simply from a perception of them as 'open-ended' – or forward-pointing – rather than them as having a defined upper limit, or as 'closed'.

Velocity

Within the field of motivation, velocity can be simply understood to refer to the perceived rate of progress an individual is making in relation to their goal. It has been demonstrated that the way in which an individual appraises their rate of progress determines their emotional response: poor progress will lead to negative emotions such as frustration, and positive perceptions of progress will inspire positive affect, such as satisfaction (Carver & Scheier, 1990). In their seminal paper, Carver and Scheier (1990) extend one step further, therefore,

Higgins' (1987) notion of self-discrepancy theory: where the latter focuses on predicting the ranges of emotion which can be expected from working towards different types of goals (e.g. Higgins et al., 1985), the former adds to this another dimension by suggesting that an individuals perceived rate of progress will likewise have predictable effects on an individual's emotional well-being. As Lawrence, Carver and Scheier (2002) argue, in this way, "affect ties the goal-related aspect of motivation to the dimension of time" (see also Chang, Johnson & Lord, 2009; Elicker et al., 2010).

A final consideration worthy of note in considering why DMCs have not previously been identified relates to the methodological traditions which have dominated the fields of motivation research both inside and outside of SLA. Quantitative data collection methods such as laboratory studies, large scale cross-sectional questionnaire studies and between-persons methods do not lend themselves effectively to the examination of within-person long term motivational evolution over time. The changing research emphases and traditions (see Sections 2.3 and 2.4) have, therefore, also served to create the basis for this new research direction to emerge.

2.7 Conclusion: From integrative motivation to directed motivational currents

This chapter has traced the development of the field of L2 motivation theory from its genesis up to the present day. It has offered justification for the recent emergence and the importance of directed motivational currents and has described them as a natural extension of the concepts of possible selves and vision, so arguing in favour of their being positioned as an important and highly promising new development within the field of L2 motivation research. In Chapter Three I go on to describe the DMC framework in detail, and highlight the key theoretical insights underpinning each of the fundamental elements of the DMC framework.

Chapter Three
A theoretical overview of directed motivational currents

This chapter elaborates on the DMC construct in more detail. It begins in Section 3.1 by situating DMCs more thoroughly within the wider context of motivation theory – with particular reference to flow theory (Csikszentmihalyi, 1990) – and offers further justification for the positioning of DMCs as a novel motivational framework. Section 3.2 describes methodically each of the key features of DMCs in turn: goal orientedness, the launch of a DMC, DMC structure, positive emotional loading and the closing stages of DMCs. In Section 3.3, this understanding is taken one step further and the notion of group DMCs is introduced. Group DMCs have particular relevance in the application of DMC theory to L2 classroom contexts, and before this idea is explored in full – in Chapter Four – the key theoretical differences between individual and group DMCs are explored. The chapter concludes in Section 3.4.

3.1 Situating DMCs: Links to flow theory

A surface reading of both flow (Csikszentmihalyi, 1990) and DMCs (Dörnyei et al., 2016) suggests that the two are closely related, and in many respects this is certainly true. It is clear that a strongly characteristic element of total absorption is identifiable in both, and in this respect both tap into highly similar experiential constructs. A deeper reading, however, makes explicit the justification for the uniqueness of DMCs, and three aspects in particular shore up this conclusion: the timescales over which each play out, the underlying structures underpinning each, and the starkly differing sources of satisfaction and enjoyment. Before exploring these in greater detail in Section 3.2.1, the following subsection offers a brief overview of the flow construct.

3.1.1 What is flow?

The notion of flow was first introduced during the mid-1970s by a group of scholars led chiefly by Mihaly Csikszentmihalyi. Beyond Boredom and Anxiety (Csikszentmihalyi, 1975b; see also Csikszentmihalyi, 1975a), the first book length treatment of the phenomenon, made few significant waves when it first came out in print (Csikszentmihalyi, 1988a), and it was not until the late 1980 and early 1990s that flow become more widely popularised both inside and outside of academia. It has impacted significantly on many areas of popular culture, and even on seemingly unrelated domains as varied as sports, business and politics. (Two particular publications of note from this period are that edited by Csikszentmihalyi & Csikszentmihalyi (1988a) – which offers both a theoretical basis and an anthology of studies investigating the flow experience in different contexts – and Csikszentmihalyi's (1990) more 'laypersons friendly' description of flow which went on to become a New York Times bestseller).

In its purest form, flow is characterized by focused concentration on and through the enjoyment of an activity within which, as Csikszentmihalyi (2009) describes, people lose track of time and other elements of the human experience:

> Flow is a subjective state people report when they are completely involved in something to the point of forgetting time, fatigue, and everything else but the activity itself. It is what one feels when reading a good novel, or playing a good game of tennis, or when having a stimulating conversation. The defining feature of flow is intense experiential involvement in moment-to-moment activity, which can be either physical or mental. (p. 394)

Archetypical examples of flow include an artist working on a painting, a rock climber scaling a demanding rock face, a surgeon completing a challenging procedure or a dancer lost in experiencing the movement of their body. Offering such a tantalizing prospect of optimal engagement, productive uses of the flow concept have likewise been explored. As Csikszentmihalyi (1988a) describes, these include concepts such as that of "flow management" (p. 13) describing the possibilities for flow within the workplace, the practical applications within psychotherapy and medicine (e.g. Massimini, Csikszentmihalyi & Carli, 1987), within the context of antisocial behaviour, marketing and building design, and even in engaging audiences more strongly with the theatre (Davis, 1988). As Csikszentmihalyi

explains, “Whenever the quality of human experience is at issue, flow becomes relevant” (1988a, p. 14).

As Macbeth (1988) succinctly describes, the flow model is made up of six key elements: (1) The merging of action and awareness, (2) a centering of attention on a limited stimulus field, (3) a loss of ego, (4) control of actions and environment, (5) coherent demands for action and clear feedback, and (6) an autotelic nature (p. 220). Flow occurs when there is a perceived balance between challenge and skill, as represented in Figure 1.

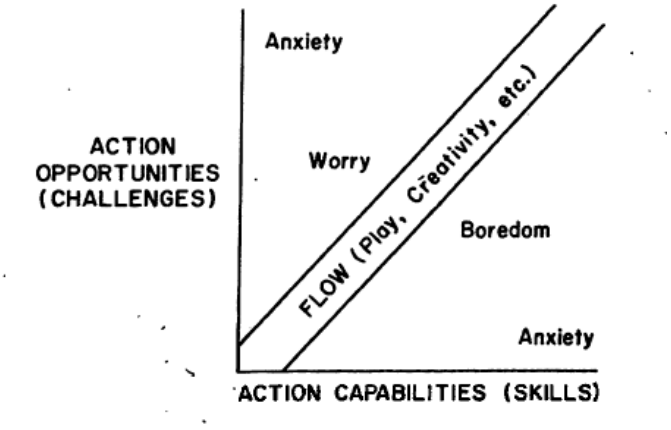


Figure 1: "Model of the Flow State" (reproduced from Csikszentmihalyi, 1975, p. 49)

An individual with a limited measure of skill in an activity will be able to achieve flow when given a moderately easy challenge, whereas someone who is highly skilled in a task would require a far more difficult activity to achieve the same flow experience. Significantly, this definition was later distilled further: “the flow experience begins only when challenges and skills are above a certain level, and are in balance” (Csikszentmihalyi & Csikszentmihalyi, 1988c, p. 260). The enjoyment experienced through flow experiences is purely intrinsic in nature, that is, enjoyment of the activity is rooted purely in and of itself and is not underpinned by the promise of any external reward or recognition (Csikszentmihalyi, 1990).

3.1.2 DMCs as a unique construct

It is interesting to note that both flow and DMCs were borne from the same genesis of curiosity: in both cases researchers recognised powerful motivational phenomena in the world around them for which existing theory was not able to account, and which

subsequently pushed them to dissect the powerful mechanisms at work (see Csikszentmihalyi, 1988a, 1975/2000 and Dörnyei et al., 2016). While this intense experiential aspect undoubtedly highlights clear links between the two, conceptually they nevertheless stand as unmistakably distinct. In the following, these differentiations are highlighted through the discussion of three key aspects: the timescales over which they occur; the underlying structure underpinning each; and the contrasting sources of motivation and enjoyment.

Timescales

Flow experiences are almost always framed within the limits of individual tasks. Such tasks typically do not outlast a period of several hours, and are exemplified in the above examples given of the painter, rock climber, surgeon and dancer. Before considering whether DMCs simply exist over longer timescales, it is important to note that there do exist instances within the flow literature which describe flow as occurring over longer periods of time and which, on the surface, might be more aptly described as DMCs. Macbeth (1988) offers a particularly interesting example by developing the principle of an autotelic activity – i.e. one capable of facilitating flow – and expanding it to the notion of an autotelic lifestyle, described as "one that represents an attempt to restructure everyday life activities into a continuous flow experience" (p. 214). The example given by Macbeth of such a lifestyle is ocean cruisers. 'Cruisers' reject the accepted goals of everyday society, such as social and financial stability and successful careers, and instead spend up to years at a time sailing around the world. The author argues that conceptually, such autotelic lifestyles are no different to the autotelic activities described elsewhere in the flow literature; action is not driven by a desire to achieve extrinsic end goals, but rather intrinsic reward comes in and of the lifestyle itself. The distinction between work and play becomes blurred, and all elements of an individual's existence are 'streamlined' to adhere to the required prerequisites for experiencing flow.

Such extended flow experiences are likewise identifiable within whole communities. As Csikszentmihalyi explains, occasionally "an entire culture, a whole way of life becomes so coherently structured that everything in it provides flow – including work and all the routine, obligatory aspects of everyday life" (1988b, p. 31). Examples of such occurrences are offered by Csikszentmihalyi and Csikszentmihalyi (1988b), who describe Indian communities living off the land in the Shushwap region, and Delle Fave and Massimini (1988) who describe the Occitan culture in mountainous northern Italy. The sense of "a

whole way of life" becoming structured to the extent that "everything in it provides flow" represents the very essence of DMCs, and this relationship is further evidenced by experiences of flow being described likewise as a "metaphor of a stream or current that carried them along effortlessly" (Csikszentmihalyi, 2009, p. 396). However, when looking at the body of flow literature more widely, discussion of longer flow experiences is very limited (it is of note that the studies referred to above are from the 1980s), and flow is almost always described as restricted to a single activity. In striving to 'restructure everyday life activities into a continuous flow experience', the implication is likewise that this is not referring to a single elongated flow experience, but rather the seamless adjoining of the multiple flow experiences generated by different tasks.

In contrast to flow, DMCs are experienced only over longer timeframes, and may continue over several weeks, months, or even, in more extreme cases, up to or exceeding several years. Assuming there are no external factors which function to derail the current, a DMC will continue until the goal providing fuel for the current of energy is achieved (see Sections 3.3.2 and 3.2.5 for further discussion).

Underlying structure

The starkly differing timescales over which flow and DMCs unfold have significant implications with regards to the coherence and functioning of the structures underlying each. This distinction remains true even when taking into account temporally extended flow examples such as those noted above (with understanding being that structurally they constitute multiple single flow experiences). As Csikszentmihalyi states: "To remain in flow, one must increase the complexity of the activity by developing new skills and taking on new challenges" (1988b, p. 30). It is this process of "spiralling complexity" through which an "inner dynamic of the optimal experience" arises, which "forces people to stretch themselves, to always take on another challenge, to improve on their abilities" (ibid.). Flow experiences are elongated, therefore, through the addition of cognitive twists or challenges to the original activity (and, as in the case of the autotelic lifestyles referenced above, by the seamless joining of multiple intrinsically motivated flow activities). A typical example of this is the way in which players are kept 'in the zone' through effective videogame design: their increasing skill levels are matched by correspondingly more difficult levels within the game.

The underlying structure of DMC experiences functions very differently, in that a DMC is a single stream of motivational energy which encompasses multiple, varied tasks linked together by a clear, overarching goal pathway. When viewed in isolation, the disparate collection of tasks which make up any given DMC may appear entirely unrelated and be – in and of themselves – highly unlikely to inspire motivated behaviour. Yet, when viewed within the context of a DMC, each functions as a powerful subgoal and acts as an integral cog in an overarching goal pathway, all held together in a cohesive manner through the existence of a highly valued end goal (see further Sections 3.2.1 and 3.2.3).

Source of motivation and enjoyment

Taking the above into consideration it is unsurprising, therefore, that although both are connected to powerful emotional counterparts, these emerge from starkly different sources. Within the flow experience, action and awareness are merged. As Csikszentmihalyi explains, "A person in flow has no dualistic perspective: he is aware of his actions but not of the awareness itself" (1975b, p. 38). Within flow all focus is directed to experiencing the activity under completion; the detailed marks left by each stroke of a painter's brush, or the next handhold on a climber's path to the summit. By contrast, in a DMC focus is equally directed both into and outside of this immediate experience, as an individual maintains a constant awareness of their progress towards and their distance from their end goal (see further Section 3.2.3 for the importance of feedback in this respect). It is thanks to this that flow is rarely experienced for prolonged lengths of time, and that it is often broken by flashes of an 'outsider perspective':

> These interruptions occur when questions flash through the actor's mind: "Am I doing well?" "What am I doing here?" "Should I be doing this?" When one is in a flow episode (in ludus as opposed to inter ludes), these questions simply do not come to mind. (Csikszentmihalyi, 1975b, p. 38)

From the perspective of a DMC, it is exactly such questions which function as motivational stimuli, where a clear perception of progress and an understanding that positive goal progress is being made form an important basis for continued motivation. The extended timeframe of DMCs means that attention will necessarily be jolted away from the current to

the mundane realities of everyday life, yet rather than bringing the experience to a close – as would occur within flow – long-term motivational impetus is maintained and continually re-triggered until the final goal has been achieved (see further Section 3.2.2).

This 'self-forgetfulness' experienced during flow does not refer to the physical reality of an individual and their situation – which contrastingly often becomes heightened – instead, "what is usually lost in flow is not the awareness of one's body or of one's functions, but only of the self construct, the intermediary which one learns to interpose between stimulus and response" (Csikszentmihalyi, 1975b, p. 43). Again, within a DMC it is exactly this – an individual's awareness of their core sense of self and the highly personal goal oriented nature of the task at hand – that fuels further momentum and persistence (see further Section 3.2.1).

Finally, the flow experience can be understood as being held together by a task's intrinsically rewarding nature, with pleasure and enjoyment derived solely from the act of completing the activity itself. For the ocean cruisers described above "the lifestyle itself is the intrinsic reward" (Macbeth, 1988, p. 218), and this is likewise well depicted in the following description by Csikszentmihalyi:

> the reigning behaviorist explanation suggested that artists are so motivated to paint because they want a reward – the finished painting – and it is this goal that motivates their behavior. But I noticed that the artists I was observing almost immediately lost interest in the canvas they had just painted. Typically they turned the finished canvas around and stacked it against a wall. Nor were they particularly eager to show it off, or very hopeful about selling it. They could hardly wait to start on a new one. (1975/2000, p. xiv)

It is of no surprise to note that the preferred term within Csikszentmihalyi's lab to describe the phenomenon under investigation began as an "autotelic experience" (Csikszentmihalyi, 1975/2000, p. xviii), precisely because it required "no goals or rewards external to itself" (Csikszentmihalyi, 1975b, p. 47).

In a DMC, each of the disparate tasks within a discrete pathway are experienced as deeply enjoyable not from the intrinsic pleasure gained from the completion of the task at hand – as in flow – but from the understanding of this task within the wider context of the overall current of motivation. Pleasure, therefore, is derived not from the specific activity being undertaken – which when viewed in isolation may be entirely objectionable, something contrary to the flow principle – but from the knowledge that the activity is taking an

individual forwards to approach a highly desired and personally significant end goal. The anticipated emotion linked with the achievement of the end goal is projected, as if in a fractal manner, throughout the entire pathway meaning that regardless of the nature of the activity itself, each step towards the final goal reproduces some of the joy linked to the overall journey (Dörnyei et al., 2016; see further also Sections 3.2.1 and 3.2.4).

3.2 Directed Motivational Currents: A theoretical overview

As noted in the previous chapter, although the notion of DMCs is immediately recognisable and past research has tapped into discrete elements of the framework, an attempt has only recently been made to offer a theoretical explanation of the phenomenon in full. In doing so, Dörnyei, Henry and Muir (2016) draw on multifarious research avenues both inside and outside of the field of L2 motivation research. Although when viewed individually each contribution is unable to fully account for the extraordinary motivational capacity of DMCs, the authors argue that such an explanation can be achieved by considering their functioning together in tandem. In the following, the theoretical underpinning of the five most prominent DMC characteristics are discussed: goal/vision orientedness, the launch of a DMC, DMC structure, positive emotional loading, and the final stages of DMCs.

3.2.1 Goal orientedness

DMCs are in each and every case directional, with motivational energy channelled down an explicit goal pathway. A central tenet of goal theory (Locke & Latham, 1990, 2006; see also Section 2.2.3) states that for a goal to stimulate high levels of commitment, an individual must be convinced that the goal is important. Three key strands of research – vision theory, self-concordant goals and proximal subgoals – are able to further distil the particular qualities of a goal which contribute to defining it as 'important' in this way, and the specific nature of the 'conviction' which characterises its subsequent pursual. As Dörnyei et al. (2016) argue, by considering the significance of these three research avenues in tandem, their insight is collectively able to account for the curiously motivating power of goals within DMCs.

As outlined in the previous chapter (see Section 2.5), the notion of possible selves and theories related to vision and imagery have had a significant impact on our understanding of motivated behaviour, and likewise on how this knowledge can be effectively translated to its practical application in the L2 classroom. Key to this understanding is the emphasis that it is not only a 'vision' which is evoked, but also related sensory perceptions and feelings, and that such elaborately visualised goals play a far greater motivating function than would an abstract goal in the absence of this enhancement. Possible selves are experienced so acutely that, for individuals who have strong personalised visions of successful goal achievement, "these future images form, in effect, a part of who the individual actually is in the present" (Dörnyei et al., 2016, p. 47). Due to its relevance similarly to the narrative development of the field of L2 motivation, vision theory was discussed in detail in the previous chapter. Building from this, the following two subsections overview the key conclusions from the other two strands of research relevant to our understanding of the functioning of goals in DMCs: self-concordant goals and proximal goal setting, neither of which have currently been fully explored within the domain of L2 motivation.

Self-concordant goals

Research into self-concordant goals was initiated by Kennon Sheldon and his colleagues in the decade before the new millennium (e.g. Sheldon & Elliot, 1998, 1999; Sheldon & Houser-Marko, 2001). Self-concordant goals can be described as those which "belong to the self in a deeper sense" (Sheldon & Elliot, 1999, p. 494). They are goals which tap into the core values and beliefs of an individual and are, therefore, deep seated and highly identity relevant. The authors argue that it is not sufficient for a goal to be self-determined. Instead, when a goal connects directly to an individual's core set of beliefs or values, it is pursued not due to a sense of either external or internal obligation, but from a strongly-held conviction (Sheldon & Elliot, 1999). As such, self-concordant goals are not only pursued with more determination and vigour, but also in a generally more persistent manner.

There are two features in particular specific to the pursuit of self-concordant goals which are relevant to the understanding of DMCs. The first derives from the fact that self-concordant goals are connected to an individual's core sense of being, meaning that goal striving pushes individuals to act in ways which are identity-congruent. This is a key measure by which DMCs are separated from flow – see also Section 3.1 – whereas the latter is fuelled

by intrinsic motivation linked to the task at hand, individuals experiencing the former will display the same level of effort and intensity during the completion of tasks which are not, in and of themselves, enjoyable or even pleasant. As Sheldon and Elliot (1999) explain, "self-concordant goals do not necessarily feel 'good' nor are they necessarily self-gratifying. … the key distinction is not whether the goal is pleasurable but rather whether the person feels ownership as he or she pursues the goal" (p. 484). In DMC terms, regardless of the nature of the activity itself, reward and often intense feelings of well-being stem from the knowledge that the task is taking individuals' forwards to who they believe they really are.

The second feature of relevance relates to the extended nature of the DMC experience: because, "the developing interests and deep-seated values that such goals express are relatively enduring facets of personality, self-concordant goals are likely to receive sustained effort over time" (Sheldon & Elliot, 1999, p. 483). The centrality of self-concordant goals to both an individual's current and future identity means that such goals have a motivational capacity far more enduring than those goals which are less identity-congruent, and as such they are able to sustain motivational energy and continually regenerate this over time in a way not achievable with goals that are not self-concordant.

Proximal subgoals

Research into proximal subgoals was begun in 1977 with the publication of a paper by Bandura and Simon examining the relative effects of different goal setting conditions on individuals' dieting success. The authors found that those individuals who set more regular subgoals achieved a substantially more significant weight loss, leading the authors to conclude that they have a key motivational role. This initial finding has since been replicated in multiple contexts, both outside of and within the field of education (e.g. Bandura & Schunk, 1981).

This line of research has recently been extended by Miller and Brickman (2004). Their starting point was linked to the notion of self-concordant goals, because such 'self-relevant' goals created the foundation for them to "purposefully generate a coherent framework or system of proximal subgoals to guide action toward the attainment of those valued future goals" (p. 15). This line of research is reminiscent of DMCs which spiral upwards towards their end goal: Miller and Brickman explain, "As the system of subgoals becomes clearer and particular subgoals are accomplished, the level of commitment to the

future goals grows stronger." (ibid.). It should be noted, however, that even the existence of a powerful vision of a self-concordant goal will not by default translate to a well-defined 'action plan', this essential element of the DMC framework is discussed further in Section 3.2.3 (see also Section 2.5.4 for other basic requirements pertaining to the motivating capacity of such personalised goals).

3.2.2 The launch of a DMC

The second key feature of the DMC framework is a clearly defined starting point, linked to a clear triggering factor sparking action into life. DMC experiences have a clearly identifiable point of origin, and can be understood as being initiated dependent on two key factors: "the alignment of the necessary conditions (i.e. contextual, personal and time factors), and the availability of a specific triggering stimulus" (Dörnyei et al., 2016, p. 59). Such factors are necessarily indistinct – due to the uncountable number of permutations which this might manifest as – yet several salient aspects common across contexts have been identified, and are corroborated by lessons drawn from flow research. Drawing from the similarity of the state of high absorption experienced within the two constructs, Dörnyei et al. (2016) hypothesise that it is reasonable to begin further investigation in this aspect of DMCs from the assumption that the necessary conditions for an individual to become caught up in flow equally apply to the DMC experience (for further discussion of these conditions in relation to flow see e.g. Csikszentmihalyi, 2009; Hefferon & Boniwell, 2011; Jackson, 2012).

Before offering a brief review of these conditions, it is of value to return briefly to the notion of dynamic systems introduced in Chapter Two. It is accepted that such systems exist in a state of flux and exhibit a "sensitive dependence" on initial conditions: "A slight change in initial conditions can have vast implications for future behaviour" (Larsen-Freeman, 2015, p. 15). This 'butterfly effect', as it is colloquially referred to, is not a guaranteed system response, however, and as Verspoor (2015) argues, systems are often in a relatively stable and therefore predictable state. The relative effectiveness of a trigger on any individual will therefore depend on the interplay of a host of relevant factors involved in an individual context principally because, when ideally realised, such initial conditions "not only prepare the ground for the triggering stimulus, but they also make the system more responsive to the impact of the trigger" (Dörnyei et al., 2016, pp. 60-61).

Triggering stimuli

In order for a DMC to emerge, an identifiable, concrete trigger is required to initiate action. Although the specific nature of different triggering stimuli are multifarious in nature, two reoccurring triggers are identifiable. The first is an opportunity for action, and the second a negative experience, for example an embarrassment, humiliation, failure or disappointment. While the reasoning is clear as to why – providing the existence of a favourable set of initial conditions – a new opportunity might spark motivated behaviour, the latter requires a little further explanation. Such a strong reaction to a negative event as to spark a DMC becomes clear with reference to the highly identity-relevant nature of the goals fuelling DMCs (see Section 3.2.1). When viewed in such terms, it is clear that a direct threat on an individual's core self-image or sense of self-worth is likely to evoke a strong counter-reaction, to allow an individual opportunity to reaffirm their positive self-image (see Dörnyei et al. (2016) for examples of specific triggering factors in various contexts).

Initial conditions

A triggering stimulus will only be effective if it occurs in conjunction with a specific set of initial conditions. The importance of a clear set of proximal subgoals – as discussed in Section 3.2.1 – is a clear base condition in this respect. Goals are important within flow experiences because they are able to structure experience (Csikszentmihalyi, 2009) and, in doing so, channel attention. Although goals play a different function within DMCs – i.e. they provide overall cohesion to the multiple discrete elements which contribute to a single DMC pathway – they function likewise as an indispensable base condition: without an elaborately visualised, self-concordant goal augmented by a clear set of subgoals, a DMC will not come into being.

A second required initial condition is a complete sense of ownership and control over the process and its outcome and, by way of a prerequisite, an individual must also feel sufficiently capable of achieving success at each sub-stage, and ultimately overall. Ajzen (1991) labelled this perceived behavioural control, and defines it as an individual's personal belief they are capable of achieving their goal because it lies within their means to achieve a favourable outcome. In instances where individuals lack self confidence in this regard, the visionary element of DMCs takes on an added layer of importance, as visionary interventions (e.g. Fukada, Fukuda, Falout & Murphey, 2011; Magid & Chan, 2012) are able to shore up

this condition by pushing individuals to experience their desired goals as a current reality and as such appear more achievable.

A key principle of flow theory is the importance of a perceived balance between challenge and skill, and this notion is similarly important within a DMC context. A development of Ajzen's (1991) theory of perceived behavioural control, in order to achieve a state of flow not only must an individual feel capable of success, but this must be balanced against an adequate level of challenge from the task at hand: "If the challenge is too far above our current skill level, then this will produce anxiety. If it is too low, it will produce boredom" (Hefferon & Boniwell, 2011, p. 80). It is this delicate balancing act which contributes to the inherently fragile nature of the flow experience (Csikszentmihalyi, 2009), within which individuals must continually adjust their behaviour and mental state to their shifting perception of the challenge/skill ratio. DMC experiences are far more robust in this respect due to the systematic underpinning of their elaborate structure: DMCs are capable of supporting momentum by withstanding distractions and negative interferences through an elaborate re-triggering mechanism (further elaborated in the following subsection).

Csikszentmihalyi (1975b) coined the term "autotelic personality" to refer to those people who are particularly prone to experiencing flow like experiences. This disposition is understood as a particular set of metaskills and competencies which combine to enable an individual to enter and stay in flow (Nakamura & Csikszentmihalyi, 2002). These metaskills include "a general curiosity and interest in life, persistence, and low self-centeredness", and result in "the ability to be motivated by intrinsic rewards" (p. 93). Flow has consistently been found in situations where there is a high balance of challenge and skills, indicating that flow experiences are exclusively seen at times when individuals feel challenged or their abilities are stretched to the limits of their capacity. This is highly relevant to DMC theory and is suggestive of a final key condition for the emergence of a DMC: a link between an openness to the DMC experience and a disposition ready to engage positively with projects in a concentrated and conscientious manner.

In personality psychology, a more recent research strand looking at the correlates of a propensity to experience flow has confirmed the existence of an autotelic personality. To summarise a few such studies, Ross and Keiser (2014) reported findings suggesting a strong negative relationship between autotelic personalities and procrastination, and, on the other hand, found conscientiousness to be an important predictor of the propensity to experience flow. Teng (2011) followed a similar research agenda and similarly found novelty-seeking and persistence positively related to the likelihood of experiencing flow. Baumann (2012)

looked at different aspects of achievement-orientation, and concluded that need for achievement and aspects of self-regulation can be viewed as 'boundary conditions' for the flow experience. Such a finding is unsurprising considering the individuals' from which Atkinson's classic concept of need for achievement (e.g. Atkinson & Raynor, 1974) was originally defined included those who were interested in excellence for its own sake, who tended to initiate achievement activities, who worked with heightened intensity at tasks and who persisted in the face of failure.

Baumann (2012) maintains that the relevance of self-regulation is linked to the ability of people with autotelic personalities to detect and utilise a challenge-skill balance. This is in concordance with Csikszentmihalyi's initial thesis that the challenge-skill balance is inherently fragile and must be actively maintained (1975b). Further to this, Baumann and Scheffer (2010) also identify an achievement flow motive, a composite construct involving total absorption in an activity, high concentration without effort, and the merging of thought and action. The authors argue that it is an "amalgam of the aroused need to master challenging tasks (seeking or seeing difficulty) and its mastery-approach implementation (mastering difficulty)" (p. 1306). Dörnyei et al. (2016) posit that this construct offers an integration of the dispositions mentioned above, and forms a bridge to Elliot's (2008) concept of approach motivation (see further Section 2.6.1).

It is clear that there is a growing body of research emerging suggesting that there are characteristics which make people particularly susceptible to experiencing flow, and it is likely that some of these also apply to DMCs. It is of note, however, that such experiences are not believed to apply to only a select group of people. The immediate popularity of Csikszentmihalyi's (1990) bestseller affirmed that the experience strongly resonated with the wider public, and it is reasonable to conclude that likewise, given the right conditions and opportunities, most – if not all – people are also likely to be able to experience periods of DMC-like motivation.

Continual re-triggering: maintaining the current

The triggering stimulus for a DMC provides a key role in the initiation of the current of motivated energy at the outset, yet similar triggering mechanisms also provide a central role in maintaining the current of motivation as it unfolds. The realities and responsibilities of everyday life mean that DMCs remain, to a certain extent, domain-specific: throughout any

DMC current there will inevitably be times at which it must necessarily take a back seat to the tasks and obligations of daily living. The DMC process is supported through such interruptions by a continual re-triggering of the current of energy and, as such, DMCs can be understood as "a long-term motivational process with a highly efficient re-triggering mechanism" (Dörnyei et al, 2016, p. 71).

A theoretical account for this can be obtained by looking again at the body of literature surrounding goal and vision theory. A basic tenet of the motivating power of future self-images is that they must be regularly activated, to save from being overrun by the myriad of other interests and life concerns competing at any one time for attention in an individual's working self concept (Dörnyei & Kubanyiova, 2014). A further basic understanding is that, at any one time, an individual has multiple distinct future self-images, each relating to a different aspect of their life. Due to the breadth of this multiplicity, not all can be held at one time in an individual's working self-concept (Markus & Kunda, 1986; Markus & Nurius, 1986), and the limited capacity of the working self-concept stipulates that specific self-conceptions only become active "when they are triggered by significant self-relevant events, or they can be tuned in by the individual in responses to an event or situation" (Markus & Kunda, 1986, p. 859).

In order to explain this further, Dörnyei et al. (2016) highlight the work of Higgins and colleagues, and the principle of chronic accessibility (Higgins, King & Mavin, 1982). Throughout a DMC, the vision of an idealised future self is not only more frequently activated, but it is activated more widely and in situations not overtly associated with an individual's goal. This is explained further by Markus and Kunda:

> Some self-conceptions because of their importance in defining the self and their extensive elaboration, are probably constantly available for characterizing the self; they are what Higgins has called chronically accessible (Higgins et al. 1982). These conceptions reflect one's behaviour in domains of enduring salience, investment or concern, and they have been variously labelled as core self-conceptions or as self-schemas (e.g. Markus, 1977). Other self-conceptions, however, vary in their accessibility depending on the individual's affective or motivational states, or on prevailing conditions. (1986, p. 859)

Within a DMC, the experience is perceived to be so special that the goal/vision underpinning the experience acquires an 'enduring salience' and so becomes 'chronically

accessible' in the working self-concept. The importance of this chronic accessibility cannot be overstated. As Bargh, Lombardi and Higgins (1988) explain, chronically accessible constructs are "automatic perceptual biases that reflect the long-term nature of one's social experience", and, as such, become "default interpretive mechanisms" (p. 604). Bargh et al. (1988) go on to argue that while such chronic accessibility might be overridden temporarily by the demands of everyday life, "it is just a matter of time before one's dispositional perceptual set will be restored to ascendancy" (p. 604). Relating this understanding to DMCs, once a goal or vision exceeds a critical threshold of personal importance – that is, identity-congruence – it becomes an automatic regulator of behaviour, so ensuring that the resulting actions and the vision itself become an integral part of an individual's life.

More recent research into self-concordant goals and their resulting levels of chronic accessibility as exhibited by individuals have corroborated these initial claims. Sheldon and Elliot (1999) argue that the "deep-seated values" expressed by such self-concordant goals mean they are "relatively enduring facets of personality", and are, therefore, "likely to receive sustained effort over time" (p. 483). This further suggests that relatively little is required in order to trigger their activation. Custers and Aarts (2007) further support the default nature of this activation of effort by chronically accessible goals, concluding that "chronic accessibility may enable people to automatically react to goal-discrepant situations regardless of whether they are primed with the goal" (p. 624): such deep-seated goals or visions "spontaneously trigger the preparation of goal-directed actions" (p. 624). The authors expand their argument by offering an insightful reflection, especially when this is considered from the viewpoint of the extended nature of the DMC experience:

> Having an accessible goal in mind, then, enables people to maintain their social goals without much conscious thought, in much the same way that a thermostat maintains the temperature in a room … This process of automatically maintaining a goal state may be just as, or even more, important than the ability to nonconsciously pursue a primed desired state. After all, the chief advantage offered by a thermostat is not that it achieves the desired temperature once we have set it but that it maintains it by automatically reacting to discrepancies with the goal state, thus allowing us to attend to other matters that require our conscious attention without having to worry about the furnace. (p. 632)

This continual re-triggering mechanism and chronic accessibility of a vision within a DMC is a key differentiating feature from flow. The example offered by Dörnyei et al. (2016) is that of a landscape painter who, in requiring several sittings to complete a work, might experience the same feelings of focus and engagement characteristic of flow each time they sit down at their easel. However, the triggering functions of both constructs manifest in markedly different ways. A flow experience in this context can be understood as being created, and re-created. That is, the second time the painter sits at their easel they experience a replication of their first flow experience, as prompted by the same stimuli, and enjoy again the autotelic experience of painting and the inherent joy the process affords them. In contrast to this, during a DMC the chronic accessibility of the goal or vision triggers a continuation of the current of energy in a wide variety of vision-congruent actions, which may only be linked by the overarching goal pathway itself as defined by an individual's final goal. Taking the same example of the painter, the same current of energy might be triggered by seeing a similar painting elsewhere and immediately looking what can be learned from it, or seeing an art supplies shop, or an advert for an upcoming exhibition, or any one of an infinite number of other possibilities which are of relevance to the individual's goal.

This sensitive re-triggering mechanism means that an individual becomes highly attuned to the potential possibilities of each environment, and can intuitively understand how each might be optimally exploited. Individuals possess, therefore, a chronic capacity to block out competing possibilities for action. It is this which forms the essence of the DMC 'hyperdrive'.

3.2.3 The DMC structure

The third defining feature of a DMC is their unique structure. This structure differentiates the framework not only from flow, but owing to its unique self-renewing capabilities, also from the structure of any other motivation construct: the structure of a DMC itself plays an active role in maintaining the motivational current (Dörnyei et al., 2016). This section highlights three key areas which, when considered concurrently, are able to offer a compelling theoretical explanation for this: automatized behavioural routines, subgoals and progress checks, and affirmative feedback.

It is of note that self-discipline – conspicuous in its absence – does not play a part in this process, especially considering its importance in the maintenance of many sequences of

long-term motivation, and the emphasis in the L2 literature on equipping learners with self-regulatory strategies to encourage them to build strong self-discipline and positive working habits (see e.g. Corno, 2004, 2008; Duckworth & Seligman, 2005). In the context of a DMC motivation is experienced as an effortless outpouring of energy where conscious attention is not required to maintain the current (see further Section 3.2.2) and, as such, self-discipline or self-regulation are of little practical relevance. Momentum is instead achieved through the perfect coming together of each of the DMC defining structural elements.

Behavioural routines, motivational autopilot and nonconscious self-regulation

Clearly perceptible throughout any DMC is the existence of clear routines which become entrenched patterns of behaviour. The ingrained nature of these routines is significant because individual tasks do not require volitional control to carry them out, thus meaning that effectively a type of motivational autopilot is created. (This is contrasted to self-regulated behaviour, where individuals must consciously control and steadily regulate the completion of each action along a goal pathway). When in a DMC, individuals perform successfully without conscious awareness of the need to expend effort. Aarts and Custers (2012, p. 237) encapsulate the essence of this principle in the following way:

> Actions instrumental in attaining goals that are repeatedly and consistently selected and performed in the same context become habitual and associated with the goal in the given context. Accordingly, goal-directed behavior no longer needs to be guided by conscious intentions to attain the goal, but, instead, is activated and maintained by the representation of the goal without conscious intervention.

Nonconscious self-regulation is a strand of research within which researchers have been increasingly more active within the field of motivational psychology in recent years (e.g. Aarts & Custers, 2012; Bargh & Chartrand, 1999; Bargh, Gollwitzer, Lee-Chai, Barndollar & Trötschel, 2001; Custers & Aarts, 2007; Fitzsimons & Bargh, 2004; Papies & Aarts, 2010). While the term is an oxymoron – for how can something be unconscious yet regulated – it nevertheless effectively portrays the understanding that human behaviour is influenced by processes not solely under volitional control (for an overview of nonconscious motivation see Al-Hoorie, 2015). Non-conscious self-regulation functions to enable people to

automatically prepare for goal-directed action while blocking out potential interference from temptations, and although in its early stages, this strand of research has highlighted two processes which might be at the source of such spontaneous reactions. The first of these is linked to the chronic accessibility of an individual's goals/visions within their working self concept, and the emergence from this of certain automatic perceptual biases which influence how they interact with their environment. The second process – borne out in laboratory studies – suggests that when repeatedly activated, goals become associated with performance situations and, as a result, behaviours in these situations become automatized (see further Section 3.2.2).

The protective shield of visionary singlemindedness within a DMC

Nonconscious self-regulation not only concerns the automatic activation of goal-relevant action, but concurrently affords individuals an increased ability not only to ignore distractions, but to resume goal pursuit after disruptions (Fitzsimons & Bargh, 2003). This is demonstrated in two studies by Bargh et al. (2001) and Shah, Friedman and Kruglanski, (2002): the latter demonstrated that when nonconscious goals were primed participants were better able to preserve goal focus and inhibit competing or distracting goals, and the former that participants who had a nonconscious achievement goal activated showed greater task persistence than did control participants. Such findings are able to explain the protective shield of visionary single-mindedness (Dörnyei et al., 2016) experienced by individuals within DMCs, in which levels of commitment to a certain goal/vision becomes so high that it becomes pervasive and the resulting behaviours habitualised, effectively ruling out competing opportunities for action. Fitzsimons and Bargh (2003) refer to this as "chronic motivation", an eloquent term highly apt in describing this protective layer formed around goal pursuit and the all-encompassing nature of a DMC surge.

Subgoals and perceptions of progress

Section 3.2.1 highlights the importance of proximal subgoals in relation to the goal orientedness of a DMC, yet subgoals function not only to inforce this overall directed nature of DMCs but, moreover, create a structure through which motivational energy can be channelled. They are able to do this because they offer not only clearly specified desired

outcomes, but standards by which perceptions of success at each stage can be evaluated. The powerful motivating function of subgoals is likewise a basic tenet of goal-setting theory (see Section 2.2.2): they mark progress, and offer immediate feedback and future incentives for continued learning.

Regular subgoals are clearly important for all long-term motivational sequences, although their level of importance within DMCs is amplified thanks to their critical role as progress markers, and they are key to the maintenance of the energy-yielding capacity of the DMC structure. The role of progress checks is reflected in a point underemphasised in the flow literature and in Csikszentmihalyi's description of the flow experience; as he recollects, "as I watched and photographed painters at their easels, one of the things that struck me most vividly was the almost trancelike state they entered when the work was going well" (1975/2000, p. xiv; emphasis mine). Even within flow – a process fuelled entirely by an intrinsic enjoyment of the activity at hand opposed to any goal related concerns – positive evaluations of progress and a feeling that it is productive are key to maintaining the heightened state: intrinsic enjoyment, in and of itself, is therefore not wholly sufficient to support flow.

From a DMC perspective, this means that positive appraisals of the velocity of goal pursuit (see Section 2.6.2) are critical to the continuation of the DMC current. Measures of velocity calculated solely through individuals' perceptions are inherently subjective, so the existence of regular progress markers – such as proximal subgoals – are "an indispensable condition for having a clear sense of progress" (Dörnyei et al., 2016, p. 88). Their level of importance is underscored by the extended nature of the DMC experience, where at any time an individual's final goal may be temporally very distant from the present (the second key progress marker in the DMC structure – affirmative feedback – is discussed separately in the following subsection).

A further function of proximal subgoals within the structure of a DMC connects to the affective reactions they provoke as each subgoal is completed. As Dörnyei et al. (2016) state, "In a DMC these affective reactions are experienced not only to be positive, but very positive, in that the satisfaction gained from the sense of progress is one of the main drivers of the process" (p. 90). Regular subgoals with finely tuned specifications can very effectively provide an individual not only with regular bursts of energy upon the completion of each stage, but with this a tangible understanding of progress. Further still, a related advantage of such a clear and well-structured path of subgoals is that they make explicitly clear investment already made towards achieving a goal, and momentum already established. In research

within group dynamics – a field with significant relevance to classroom contexts in particular (see further Section 4.3.1) – this is a well-established phenomenon: significant investment made towards the achievement of a group's goals serves to increase subsequent personal commitment, both towards the goal itself and towards the group more generally (see e.g. Dörnyei & Murphey, 2003).

It is of note that within academic contexts such proximal subgoals often exist in the form of exams or other assessment tools. Although such means do clearly offer evaluative opportunities, the feedback information they convey often fails to provide the right kind of information to assist students in using them as positive progress markers (Hattie & Timperley, 2007), and such types of progress marker often lack clear feedback and at times can even mask tangible perceptions of progress.

Affirmative feedback

Hattie and Timperley (2007) describe feedback as "information provided by an agent (e.g. teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding" (p. 81). In addition to providing a second means through which an individual can monitor their personal perceptions of progress while in a DMC, feedback can be a powerful tool in the L2 classroom more generally, both from the perspectives of motivation and instruction.

Feedback in L2 contexts often centres on the latter of these – under the guise of 'corrective feedback' (e.g. Mackey, 2012; Sheen, 2011) – and functions to highlight discrepancies between an individual's current performance and their desired goals. Discrepancy feedback is important because it is able to make learning "visible" (Hattie & Gan, 2011, p. 250), and this is of even greater importance when in a DMC. As Hattie and Gan (2011) summarize, framing feedback in this way can make success criteria for goals transparent, and in so doing can challenge learners to invest effort in setting and monitoring their learning goals. Voerman, Meijer, Korthagen and Simons (2012, p. 1109) develop this further, emphasising that the discrepancy-highlighting function of feedback manifests itself in two ways:

- "Progress feedback", focusing on the difference between initial and current levels of performance; i.e. what has already been achieved, and

- "Discrepancy feedback", focusing on the difference between current and desired levels of performance; what is yet to be achieved.

Their study concluded that by a considerable margin, teachers focused their appraisals of students on discrepancy feedback over progress feedback. This classroom reality stands in stark contrast to the way the role of feedback functions within DMCs, where positive progress feedback – or affirmative feedback – plays a central motivating function, and this has clear implications for the facilitation of DMCs within L2 classrooms. Affirmative feedback can manifest in varied forms – for example from explicit validation of progress from 'expert' L2 users (e.g. Henry et al., 2015), or even indirectly through the nonverbal cues of interlocutors (e.g. Dörnyei et al., 2016) – and is a concrete way of highlighting and contributing to positive student perceptions of progress, and to the motivating capabilities of individuals through the intricate DMC structure.

3.2.4 Positive emotional loading: Eudaimonia and authenticity

The core positive emotional tenor common across all DMC experiences is felt in relation to all aspects of the DMC pathway. Manifested as a seemingly irrational overriding sense of joy, satisfaction and well-being, individuals experience a unique sense of contentedness and fulfilment, and a base feeling of connectedness between activity and identity. This is often experienced both emotionally and physically, as a feeling 'in the pit of your stomach' or in the way in which an individual interacts and represents themselves to the world around them (e.g. 'Bina' in Henry et al., 2015). This literature review has already touched on three areas of research which are able to contribute to the understanding of the positive emotional loading of DMCs, each of which is drawn from different theoretical bases: possible selves theory in social psychology has helped account for how, in a DMC, an individual's ideal self becomes highly accessible and frequently activated; goal theories in motivational psychology have highlighted the relevance of the principle of self-concordant goals; and likewise key links have been drawn between DMCs and flow theory in positive psychology, albeit with the unique 'high' characteristic of each emanating from vastly differing sources.

One further area of theory is informative in explaining the unique sense of well-being experienced within a DMC. Drawing again from positive psychology, the following sections review the concepts of eudaimonic well-being as conceptualised by Waterman (1993, 2008),

with particular reference to two core features; dedicated effort in the pursuit of excellence, and authenticity (Huta & Waterman, 2013).

Eudaimonia

The concept of eudaimonic well-being (Huta & Ryan, 2010; Huta & Waterman, 2013; Ryan & Deci, 2001; Waterman, 1993, 2008) was original defined by Aristotle and is now widely used in positive psychology to refer to a deep and often enduring sense of personal contentment, specifically linked to the experience of actualizing one's potential and the realisation of personal fulfilment (as contrasted to hedonia, a more transitory, euphoric 'in-the-moment' experience of happiness). Eudaimonia involves experiences and feelings of a "rightness", a "centeredness" in one's actions (Waterman, 2008), and a sense of "being where one wants to be, doing what one wants to do" (Norton, 1976, p. 216). It is experienced as a feeling of being intensively alive and being completely fulfilled, a sense that the activity being undertaken was meant to be, and is a part of who one really is. The fact that the motivational current generated within DMC experiences is able to create such feelings of eudaimonic well-being, satisfaction, and inner contentment is explicitly linked to structure of DMCs being built around self-concordant goals (see Section 3.2.1).

The majority of research carried out into eudaimonia within the field of positive psychology has been through a conceptualisation of it at the trait level (Huta & Waterman, 2013) – such as that by Deci and Ryan (2006; Ryan, Curren & Deci, 2013; Ryan, Huta & Deci, 2008), Ryff (1989; Ryff & Singer, 2008) and Seligman (2002) – and focus has generally been centred on its experience in relation to a 'manner' or 'way' of living. The daimon – understood in Greek philosophy as 'the true self' – refers to the possible potentialities of each person, the realisation of which is said to lead to the actualisation of personal fulfilment. The diamon is understood as an ideal state of being, a condition of excellence or perfection, able to give meaning and direction to an individual as they strive to pursue a better way of living: it is the efforts of an individual to "live in accordance with this daimon", and to strive for "self-realization", which give rise to experiences of eudaimonia (Waterman, 1993, p. 678).

Although such research undoubtedly touches on the feelings of deep inner joy as experienced within DMCs, the definition of DMCs as a structured stream of energy facilitating specific, goal-directed behaviour means that they are more closely aligned with

research conducted into eudaimonia at the state level. State level eudaimonia has been most thoroughly explored through Alan Waterman's (1993) eudaimonic identity theory. The central tenet is that feelings of eudaimonia, or 'personal expressiveness' as it is also termed by Waterman, are generated by acting in a manner consistent with the actualisation of personal potential: "the development of one's skills and talents, the advancement of one's purposes in living, or both" (p. 679). Feelings of personal expressiveness in such situations function as a signal to individuals that they are acting in a manner consistent with goals that have an intrinsic value, the consequence of which is that such actions are reinforced (Huta & Waterman, 2013).

A defining element of Waterman's work is the positioning of self-realization and living a life with meaning and direction together as a core defining feature, and around this central core exists what Huta and Waterman (2013) describe as three "near-core markers". These are, respectively, purpose and meaning in life, dedicated effort in the pursuit of excellence, and authenticity. The first of these, purpose and meaning in life, overlaps with experiences of trait eudaimonia, in that it operates at a broadly more general level, yet the latter two – dedicated effort in the pursuit of excellence and authenticity – are of particular relevance in the context of the current narrative in explaining the importance of positive emotional loading to DMCs.

Dedicated effort in the pursuit of excellence

When viewed within a longer-term context – for example that of DMCs – dedicated effort in the pursuit of excellence can make starkly clear the difference between the two forms of pleasure introduced above: the transient highs associated with hedonic pleasure, and deep-seated feelings of eudaimonic well-being. Waterman, Schwartz and Conti (2008) draw on the example of an alpine skier. The intrinsic thrill of alpine skiing is able to generate powerful feelings of hedonic pleasure, yet for some – for example those who are working to improve their skiing abilities in order to actualise their athletic potential – such time spent on the slopes generates not only hedonic pleasure, but also eudaimonic well-being from the pursuit of a highly self-concordant goal and an idealised personal vision. Self-concordant goals therefore function as a mediating construct in this regard, as Sheldon and Houser-Marko (2001) explain: "It is possible to become happier through one's striving pursuits, if one picks

the right goals and does well at them; furthermore, such changes should last and perhaps conduce to even more positive change" (p. 163).

Ericsson's (2006) research into expert performance suggests that for those who strive to achieve such goals, a crucial part of developing and maintaining high-function capabilities is the devotion of time to what, when viewed in a different light, might be considered monotonous activities. Such activities are not only valued highly because they are perceived to generate long-term rewards and satisfaction, but also for the actual enjoyment and well-being generated during the process of carrying them out. The positive emotional loading of a DMC can be understood in a similar way, in which on-task engagement is considered as rewarding regardless of the activity being completed; it is as though, as if in a fractal manner, the joy linked with the final goal is projected back onto each step in the pathway. This can explain why time spent on developing vocabulary lists or mastering complex grammar structures – in the context of language learning – can engender deep experiences of personal well-being. Such a motivational basis even has the power to override what in any other context would be highly energy sapping factors, such as exhaustion or the ability to recover quickly and effectively from distraction, and so continually regenerate reserves of energy, creating an almost permanent channel of positive feelings (e.g. Henry et al., 2015; see further Section 3.2.5 for discussion of the nature of effort within DMCs).

Authenticity

Researched in parallel to eudaimonia, the third of Huta and Waterman's near-core markers, authenticity, is widely accepted within the research literature as being indispensable in the generation of such experiences (Huta & Waterman, 2013). Coming from the Greek authenteo, meaning 'to have full power', authentic functioning refers to an individual's reflection of being "the master of his or her own domain" (Kernis & Goldman, 2006, p. 293). As with research into eudaimonia, the majority of research into authenticity (e.g. Deci & Ryan, 1985; Kernis & Goldman, 2006; Wood, Linley, Maltby, Baliousis, & Joseph, 2008) has focused on it as a personality trait (Huta & Waterman, 2013; Lenton, Bruder, Slabu, & Sedikides, 2013). The study of trait authenticity is broadly characterised by research into how participants generally feel, think, and behave in line with a set of criteria indicative of authenticity. It is typically regarded as an individual difference variable, "that has specific manifestations and influences how self-regulation operates" (Franzese, 2010, p. 35), and

research focus has tended to be directed towards the extent to which a person's behaviour usually expresses their own values (e.g. Kernis & Goldman, 2006). Such studies generally conclude that trait authenticity tends to correlate with greater life satisfaction, subjective well-being, higher levels of mindfulness, self-esteem, and decreased levels of stress.

Considering the concept of authenticity from a DMC perspective, however, it is again of value to look instead to the smaller body of work which conceives of authenticity at the state level. State authenticity is experienced when activities in the present are concordant with core values and features of the self, so authenticity is conceptualised as: "a situational emotional experience rather than a condition of being" (Vannini, 2006 p. 239). It is key to emphasise that such experiences of authenticity are wholly dependent on the match of an individual's current cognitions and actions with both their enduring attitudes, beliefs and values, and core aspects of their sense of self:

> the indicator of realness or authenticity is the degree of congruence between one's actions and one's core self-conceptions – consisting of fundamental values, beliefs, and identities to which one is committed and in terms of which one defines oneself. When actions are congruent with core self-conceptions, one's self is affirmed and one experiences authenticity. (Vannini & Burgess, 2009, p. 104)

As such, state authenticity is an affective quality that people are motivated to obtain (e.g. Gecas, 1994; Lenton, Slabu, Bruder & Sedikides, 2014; Vannini & Burgess, 2009), and when they succeed it positively impacts on their experiences of satisfaction and well-being (e.g. Lenton, Slabu, Sedikides & Power, 2013; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997).

From a DMC perspective, Vannini's description of two distinctly recognisable experiential patterns of authenticity are of particular relevance (Vannini, 2006; Vannini & Burgess, 2009). The first of these is highly reminiscent of the peak moments of hedonia and connectedness experienced during flow, described by Czikszentmihalyi (1997) himself as a sense of fusion between the self and the world. Vannini describes these situations as being instinctive, where "the self awakens to the importance of its meaningfulness and willpower" (Vannini & Burgess, 2009, p. 108). The second pattern is one characterised by authenticity becoming chronic, creating "sensation plateaus" exemplified through constant feelings of satisfaction, serenity, contentment and inner peace. Such patterns can, as argued by Vannini and Burgess, be highly enduring, lasting "for semesters or even years" (p. 110).

Both types of authenticity experiences are connected with DMCs. Evidence of peak moments of flow throughout DMC pathways are not uncommon, but the latter type is clearly of greater relevance in terms of explaining the enduring level of deep satisfaction so characteristic of the DMC experience. A recent line of research into the relationship between state authenticity and the activation of ideal selves has found strong overlaps between the two, and is highly instrumental in explaining the manner in which authenticity experiences within DMCs are maintained. As discussed in Section 3.2.2, ideal selves are likely to not only be highly accessible (that is, easily triggered and brought into awareness) but also frequently activated (both in situations where the goal is directly in focus and also in situations which are not solely goal-related). In researching this interrelationship, Lenton and her colleagues drew on the idea that people may feel most authentic when "conforming to their own ideal selves" (Lenton, Bruder, Slabu & Sedikides, 2013, p. 277). They found that participant characterisations of their 'most-me' authentic-self experiences often included "low-arousal positive emotions" (p. 282) such as calmness and contentment, reflecting highly idealistic views of the self. Further to this, these 'most-me situations' tended to be characterised by high levels of satisfaction reported in relation to both current and future selves, leading the researchers to conclude that in situations where authenticity is experienced, this relates to both current and future ideal self states. They consequently argue for a reciprocal relationship between the two constructs, where not only can the activation of an ideal self "make people feel 'real'", but that it can also become active following on "from experiencing oneself as 'real'" (p. 285).

The reciprocal relationship between experiences of authenticity and the activation of the ideal self argued for by Lenton and colleagues is of particular significance when considered within the context of DMCs. While in a DMC, activities taking an individual forwards towards the achievement of self-concordant goals generate enduring low-arousal feelings of authenticity, caused in part by the chronic accessibility of ideal selves. When this emotional dimension is permeated by feelings of authenticity and eudaimonic well-being, this could, as Dörnyei et al. (2016) contend, stand as a factor which actively facilitates the accessibility of the ideal self. The authors go on to suggest that the sustained motivating power of a DMC current of goal-directed energy maintains its overall positive emotional loading from this symbiotic relationship, and conclude that:

> On the basis of these considerations, it may be reasonable to assume that in a DMC the ideal self becomes a more or less permanent part of the learner's conception of the self. Thus, the vision of the future self is so pervasive that it becomes part of who the learner is; part of 'the real me'. (p. 113)

The classroom implications of this dynamic link between a vision of an ideal self, eudaimonic well-being and authenticity – i.e. the creation of a better 'fit' between student activities and student identities – suggests that the only way to create a firm foundation for DMCs, and for long-term motivation in general, is to recognise that a student's sense of authenticity needs to be synchronised inside and outside of the classroom. Such a notion has already been explored through Zimmerman's (1998) description of transportable identities. An individual's transportable identity refers to their 'core' or master identity, and subsumes fundamental defining features such as their age, race and sex, in addition to other, non-situation specific defining characteristics of their personality such as their likes and dislikes, their sense of humour and their core values. The principle of transportable identities is of importance within the context of L2 motivation in particular specifically because of the limiting effect the possession an incomplete L2 code can have on an individual's expression of identity, and so on their ability to experience feelings of authenticity within their learning. Ushioda (2011) argues that language learners' ideal L2 selves might only be kept alive if their transportable identities are engaged, and if their future self-representations are allowed to become "entirely continuous" with their current selves, so allowing students "to engage directly with their future possible selves as users of the target language, but within the scope and security of their current communicative abilities" (p. 20).

It is of note that in the context of SLA the body of research into authenticity has focused primarily on this in relation to domains other than L2 motivation; for example, it has long been used as a descriptor of teaching materials (e.g. Gilmore, 2007, 2011). This point has recently been stressed by Henry (e.g. 2013). He argues that to bring the focus instead to learners' experiences of authenticity, as described above, learning experiences are required which enhance the authenticity of the classroom experience (for further discussion of the practical implication of this see Section 4.3.2). It stands equally true that likewise for both sustained long-term motivation and for periods of elevated DMC motivation, the inclusion of transportable identities and other core aspects of self are indispensable.

3.2.5 The end of DMCs: the nature of effort and longer-term sustainability

The significance of the final stages of a DMC pathway becomes especially apparent when considered within the context of language learning; something which is often a lifelong process likely to continue on after the heightened period of DMC motivation has come to an end. In contrast to DMCs within other contexts, it is highly likely that a language learning DMC will represent only a smaller section of a far longer (educational) journey.

Practically speaking, motivation at the end of a DMC may come to an abrupt halt – as would be in the case of a DMC leading up to a concert or event – or may instead lose energy and levels of motivation dissipate more slowly to return to those prior to the DMC's emergence. This section addresses issues related to the experiential aspect of the end of DMCs, in particular highlighting relevant theoretical concerns connected to three key processes by which a DMC may lose energy: a growing dissonance between subgoals and the final vision, resulting in increasingly demotivating progress appraisals, the disappearance of the protective shield of visionary single-mindedness, and the increasing perception of effort as a subjective experience. The section concludes by addressing aspects related to the closing stages of DMCs specifically in L2 classroom contexts.

A growing dissonance between subgoals and the final vision

A final goal/vision and the interlinking subgoals carving out a path to success are central to the successful progression of a DMC, and offer not only outcomes to aim for but also definitions of success. Section 3.2.3 highlighted the fact that in order to remain in a DMC it is key that an individual believes that they are doing well, as judged subjectively by each individual through gauging levels of progress and velocity, and, accordingly, any breakdown in this structure will cause the momentum of a DMC to falter. One way this might manifest itself is through the sudden realisation of a discord between an individual's final subgoal and their overall vision (a good illustration of such a breakdown is offered in Henry et al., 2015), with the realisation that even if all subgoals are completed it will not be sufficient to reach overall achievement. The dissonance created from such a realisation can cause an abrupt break in a DMC experience: the breakdown in confidence of the link between a final subgoal and the overall vision means the processes and structure which form the backbone of a DMC – subgoals, progress checks, proxy targets, confirmation processes – cease to function

effectively. From an educational perspective, it is of note that not only would this cause a DMC to falter, but that it is likely to leave a pervading sense of disappointment which can negatively affect an individual's overall motivation to continue on afterwards (Henry et al., 2015). Such a finding is unsurprising considering a DMC's roots in an individual's core sense of identity and the understandable emotions which would be generated in response to a perceived sense of failure, yet has significant implication for DMCs within language classroom contexts.

The disappearance of the protective shield of visionary single-mindedness

The second key process by which a DMC might lose energy is the disappearance of the protective shield of visionary single-mindedness (see Section 3.2.3). Throughout a DMC, the goal at the end of the pathway remains at the forefront of an individual's mind, that is, it maintains a chronically accessible presence in the self-concept (see Section 3.2.2). Once the goal is successfully achieved – or, if as above, anything occurs to weaken the overall functioning of the structure of a DMC – the visionary single-mindedness which while in a DMC forms a strong protective layer around goal pursuit correspondingly becomes weakened. As a consequence, the diminishing prominence of the final goal allows competing outlets for motivational energy to begin to surface, allowing the surfeit of alternative activities which previously could have been pursued to once again become attractive.

Dörnyei et al. (2016) argue that this can be understood as occurring due to the culmination of several underlying processes. The first of these stems from a change in the structure of goal constellations. The diminishing prominence of a final goal brings with it a diminishing level of identity relevance and self-concordance, and so creates opportunities for other goals previously viewed as unimportant to take on new levels of significance. These other goals emerge themselves as self-concordant and personally meaningful, and so take over prominence in an individual's working self concept. The resulting effect of this disruption to the equilibrium of the structural pathway means that those tasks which were previously entered into with enthusiasm (through the mechanisms as described throughout this chapter) are not completed with the same level of focus and single-minded dedication.

The second process relates to an individual's evaluation of the relative costs and benefits of continuing with their course of action. In a DMC, traditional evaluation processes are suspended. Goal-directed behaviour is traditionally guided by an information processing

system which functions through a continual evaluation of the relative costs and benefits of pursuing a particular course of action (i.e. by constantly appraising the rewards a particular goal-directed activity might deliver, and the amount of effort required for these rewards to materialize). This process is described by Hockey (2013) in the context of self-improvement intentions as "where the thrill of anticipated outcomes meets the reality of time commitments, frustration and practice needs" (p. 134). The high level of self-concordance within a DMC pushes this threshold up in excess of usual levels, but as goals diminish in self-concordance, more traditional evaluation processes once again resume charge.

The third of these processes is the loss of the dominance of the ideal self in working cognition. Throughout a DMC the chronic accessibility of the final vision gives it a remarkable ability to resist challenges from competing self-concepts and, in practical terms, insulates it from potentially detrimental self-knowledge (see Sections 3.2.2 and 3.2.3). The decline in the phenomenological strength of the end vision likewise diminishes this robustness to withstand challenge, and self-images from other domains become successful in dislodging the prominence of the DMC-related ideal self from its prominent position in the self-concept. (For a fuller discussion of the dynamic interrelationship between such self-images in a language learning context see Henry, 2015).

The final of these processes stems from the fact the resolution of conflicts between competing goals becomes less effective. The effectiveness of the triggering and re-triggering mechanisms – as discussed in Section 3.2.2 – begins to wane, resulting in increased time lags in the reaction of the previously effective conflict-resolution patterns triggered in response to challenges, stemming again from the lowering of self-concordance and resulting increase in conflicting possibilities for action. Rather than the ideal self being automatically activated in working cognition causing the flow of energy to continue virtually uninterrupted and attention to the task to be rapidly renewed so preserving well-being, what occurs instead is a heavy expenditure of energy, an encroaching feeling of tiredness, energy depletion and a lowering of mood.

Effort as a subjective experience

The culmination of the above processes results in the dissipation of the control mechanisms of the DMC's salient structure, causing it to cease to function effectively. In place of the experience of rapid, effortless progression towards a final goal, action once again requires

self-regulated concentration and effort; tasks rapidly become energy-sapping and, in certain instances, can also trigger feelings of guilt, frustration, and fatigue. Discussion heretofore in this chapter has described how, when in a DMC, cognitive effort both feels different and generates different affective reactions (see Section 3.2.4), and that the expenditure of cognitive effort in, for example, conflict resolution processes, actually serves to generate motivational energy and increase well-being and satisfaction (see also Section 3.2.3). The uniqueness of this experience is most apparent when the current begins to wane, and this feeling of effort once again as a subjective experience is the third process by which a DMC loses energy.

Research into "subjective effort" (Robinson & Morsella, 2014) suggests that in general circumstances it is both predictable and consequential: individuals tend to avoid tasks which require the investment of high levels of subjective effort. Robinson and Morsella (2014) argue, however, that there are specific instances which prove as exceptions to this. As they explain, "There are conditions in which the degree of task difficulty is orthogonal to that of subjective effort, as in the experience of flow" (p. 833). Applying as equally to DMCs (Dörnyei et al., 2016), such instances facilitate the completion of a challenging task as accompanied by a perception of zero levels of effort. A function of the chronically accessible nature of a vision within a DMC (see Section 3.2.2), Robinson and Morsella describe this functioning in the following way: it "actively strengthens processes associated with task-relevant demands and actively suppresses task-irrelevant processes/information" (p. 833). The authors are keen to stress, however, that such focus is difficult to maintain over time, especially when the initial arousal value ebbs away – or, as in the case of DMCs, when there is a break in the facilitative structure underpinning momentum.

Related to the issue of the change in the subjective appraisal of effort, is that of the universal experience of tiredness and fatigue at the end of a DMC (Dörnyei et al., 2016; Henry et al., 2015). In general terms, the research literature conceptualises fatigue as a loss of energy coupled with an inability to make productive use of mental resources. One unique line of research is that completed by Hockey (1983, 2011, 2013), which posits that fatigue has an adaptive function in an individual's control of actions and motivation, where it concerns the selection and control of goals. The practical upshot of this novel perspective on the phenomenology and effects of fatigue is that it is commitment to goals which are not highly desired – and so which as a consequence require high levels of effort to complete – which produce fatigue. And concurrently, that demanding cognitive activities do not, by default, cause fatigue; intense cognitive endeavours invested into highly valued goals rarely lead to

such negative affective reactions. Hockey suggests that instead of viewing fatigue as a barrier to the successful completion of tasks, it should instead be understood as a sensory state or emotional resource, able to make us "aware of the opportunity costs of current activities, and of the attraction of neglected needs and alternative goals (2013, p. 4). More specifically, by interrupting ongoing activity, fatigue "provokes a reappraisal of the benefits and costs of current goals, and allows alternatives to compete for access to motivational control" (p. 10).

Fatigue is experienced through these same mechanisms in every DMC experience. The widely differing ways a DMC might finish, however – the two examples given above of a concert or event, and the breakdown in the relationship between subgoals and final vision being representative of two ends of the spectrum – means that the personal experiential aspect may be felt in vastly different ways due to the differing timescales over which it is played out. In a DMC which slows gradually, fatigue – the affective signal of the increasing difficulty of goal maintenance – and with it an increasingly negative appraisal of the level of effort required to continue with goal oriented behaviour will build slowly. In a DMC which might finish with a surge of invested energy (for example in leading up towards a specific event), experiences of fatigue will be felt as more a sudden overwhelming wave of exhaustion. While the timescales are vastly different, the onset of fatigue nevertheless functions in the same manner. While the onward propulsion of a DMC current of motivation can be considered to function as a consequence of an upwardly spiralling dynamic process (see Section 3.2.1), the slow ebb away of motivational energy as it draws to a close takes the form rather of a downward spiral (c.f. Hockey, 2013): goal maintenance requires greater effort, resulting in increasingly acute feelings of fatigue, and so the promotion of an increasingly greater resistance to investment in further tasks.

Individual affective experiences

From an affective standpoint, the personal experience of transitioning out of a DMC may be felt in different ways and is oftentimes a period of highly mixed emotions. Positively, these emotions have been linked to high levels of personal satisfaction linked to successful goal achievement, often connected to the fact that many DMC experiences push individuals to achieve more than they had previously believed possible, and have also been linked to a sense of relief and an escape from the increasing levels of subjective effort required, for example when a DMC ends more gradually.

Negative emotions can be as keenly felt, as a reflection of the costs of paths not followed – where, in some cases, the levels of commitment enjoyed in goal achievement may have precluded participation or time spent elsewhere or in other activities – and in some cases, most notably those which came to a more abrupt end, as a profound sense of loss, where the 'magic' of the DMC experience suddenly disappears, and individuals are once again left with the weight of having to make day to day decisions instead of enjoying a current of energy which overtook this necessity. The gradual dissipation of motivational impetus in this way has been explored in the context dieting and self-change. Polivy and Herman (2002) suggest that a risk of the total absorption in ultimate goal achievement "takes a toll on the dieter's emotions, ability to concentrate, social relationships, and even physical health", warning that "the allure of the benefits should not, as it so often does, lead the dieter to discount or ignore entirely the costs" (p. 686). (For a fuller discussion of the emotional experience connected to transition out of a DMC and for data examples, see Dörnyei et al., 2016, Chapter 7).

For individuals for whom the end of their DMC does not result in goal achievement – where, for example, cracks appeared in the DMC structure leading to it to break down – the source of negative emotion is clear, although does not denote the goal is unachievable. Polivy and Herman offer the following advice:

> If one fails at one's first attempt(s), instead of abandoning the effort altogether, perhaps the best strategy is to revise the goal. If, as we have argued, failure tends to arise from attempting to do too much too fast and vainly hoping that self-change will bring in its train a host of additional rewards, then perhaps one should consider scaling back one's ambitions. … This resignation may represent a disappointment in how easy and quick it will be to achieve the goal, but a realistic approach has the incomparable advantage of promising a reasonable chance of success. (p. 687)

Negotiating the end of DMCs in educational contexts

Negotiating the transitional period out of a DMC back to 'normal' levels of functioning is especially significant from an L2 perspective, and teachers are ideally placed to exert a positive impact. One way this might be achieved is through the use of positive feedback. As discussed in Section 3.2.3, affirmative feedback is that which is most closely tied to

successful DMC experiences, and such feedback at this time may be of particular value in emphasising progress and celebrating success. Dörnyei et al. (2016) suggest two further approaches of a more pastoral nature through which support to L2 learners might be given. The first of these, awareness raising, suggests that teachers push learners to reflect on their experience and encourage them to build an understanding of how it differed from past and expected future learning experiences, and whether they might be able to maintain any positive elements of their unique DMC experience and integrate them into their future routines. This might relate especially to the powerful structure of a DMC: while it is unrealistic to suggest the pattern of continual goal-setting and achievement will continue on into the post-DMC period, it may be of value to work with learners to ensure that new goals and action plans are realistic and can be carried out at a sustainable level. Dörnyei et al. (2016) likewise suggest that if students might be guided to understand better the nature of the fatigue they are experiencing, it may act as beneficial to help build their understanding of why they are unable to successfully achieve now what they were able to so easily accomplish previously.

Secondly, and related to the above, Dörnyei et al. (2016) suggest that some elements of a DMC might be transferred into a more conventional, institutionalised, and sustainable channel. Such a mechanism is observable in the highly structured belt system of many martial arts, for example, where initial enthusiasm can be captured by the highly structured contingent path and channelled into sustainable levels (see the description of Hanna's experience in Dörnyei et al., 2016, Chapter 1 for an example of one such instance). Although such a clearly defined contingent path is often lacking in L2 contexts, it is nevertheless feasible that some elements and routines begun during a DMC might be practically and sustainably continued, and built into the structure of an individual's daily routine.

3.3 Group DMCs

In the context of language learning, the concept of group DMCs is of disproportionate importance for the simple reason that classroom teaching is primarily a group enterprise. Initial anecdotal evidence suggests that such group DMC experiences are as immediately familiar to people as are individual DMCs, both in the context of language learning and also in life outside of this; all good teachers have either taught or witnessed highly motivated class groups, and are likely to be able to recount tales highly which are highly reminiscent of

DMCs (see further Dörnyei et al., 2016 for examples). A similar notion to group DMCs has already been theoretically explored in the research literature under the guises of 'team flow' and 'group flow', and before looking at group DMCs specifically, it is of value to first consider some key findings.

During the early years of flow research, flow was almost solely researched in terms of the individual nature of the experience. The notion of team flow was introduced in the 1990s in reference to the experience of flow within team sports, although the term is slightly misleading in that it is used more as a broad heading to discuss the considerations for achieving flow within the context of team sports, than as descriptive of a theoretical development of the flow principle extended to describe a collaborative flow experience. Basic findings were that those sports which require a level of interaction between individuals posed a far greater challenge to the achievement of individual flow, where the 'skills' element of the challenge-skills balance is out of the sole control of the individual and where poor communication can thus prohibit flow experiences (Jackson & Csikszentmihalyi, 1999). However, "Sometimes in team sports one or more teammates can create a momentum that helps to bring about a team flow" (ibid., p. 139), and the creation of this momentum may function to mitigate the negative barriers to the possibilities of flow with team sports as noted above.

In contrast to these negative assessments of the possibilities of team flow, the authors do suggest tangible advantages to those teams or partnerships which are able to achieve it, one of which is of particular relevance to DMCs. As Jackson and Csikszentmihalyi describe of a pairs rower:

> For her, when both she and her rowing partner experienced this total focus, it was (in her words) "an awesome experience." Knowing your partner or teammates are simultaneously experiencing the same optimal state you are in can heighten the intensity that flow provides. (1999, p. 120)

There is evidence, therefore, that social experiences of flow are able to engender a far more intensely experienced emotional affect than when experienced alone, meaning that it is, perhaps, reasonable to likewise posit that the social aspect of group DMCs might likewise heighten the positive emotional loading of such experiences.

A more relevant theoretical line of research in relation to DMC theory is that of group flow. In recent years, Keith Sawyer has developed Csikszentmihalyi's (1990) original concept

of flow to apply its understanding to the group level, in doing so coining the term 'group flow'. The key manner by which the two constructs differ is that while Csikszentmihalyi "intended flow to represent a state of consciousness within the individual performer", group flow is "a property of the entire group as a collective unit" (Sawyer, 2006, p. 158). Sawyer's research has primarily focused around the group practices found within the performance arts and in highly creative music ensembles, most notably in jazz ensembles and improvised theatre. The focus of his research is aimed at better understanding the functioning of group creativity, where not only is the direction but also "the creativity of the performance depends on an intangible chemistry between the members of the group" (Sawyer, 2003, p. 4). Of significance for group DMCs, Sawyer posits that the same likewise applies to less overtly creative group endeavours, providing that the group is united in their goal striving. In such product-oriented group situations group flow will most likely occur "when the degree to which the group must attain an extrinsic collective goal is matched by the number of pre-existing structures shared and used by the performers" (Sawyer, 2003, p. 167).

In addition to the notion of group flow, several other areas of theory are also instructive in the theoretical explanation of group DMCs. In respect to the emergence of group-level energy, processes of contagion, that is, the catching or 'infection' of the cognitions and emotions of others, play an important role (Barsade, 2002). The ripple effects of emotional contagion which diffuse throughout the group caused by the positive emotional loading and general enthusiasm generated by a task are capable of furnishing the entire group with a positive mood, subsequently impacting positively on attitude and the collective motivational level of the group. This idea has been developed by Aarts and Custers (2012) who suggest that in social contexts, where goals are inferred by general group behaviour, goal pursuit within a group can be unconsciously triggered, an effect they term goal contagion. Motivational goal state – a notion taken from goal theory describing an affective state which reflects the value of a goal, which has a strong impact on whether a primed goal is to be desired – likewise lends another piece to the theoretical puzzle depicting the way in which collective goal pursuit is able to become a reality, and a final strand of relevant research is taken from vision theory, and the notion that visions can likewise also be conceptualised at a group level. As Dörnyei and Kubanyiova (2014) explain, "various groupings and political movements have successfully achieved collective visions throughout the centuries, uniting members under some vision-related banner, both in the artistic world and in the political and social arenas" (p. 83).

From an instructional standpoint, any practical possibility connected to group DMCs becomes significant only if this can be channelled into a directed stream of motivation, i.e., if such collective motivation can be purposefully directed by an outside agent towards a specific learning outcome. The base foundation of a research body looking at the applicability of group flow to instructional settings already exists (see e.g. Armstrong, 2008; Gaggioli et al., 2011; Salanova et al., 2014). Group flow is argued to function in an instructional context as arising from a shared collective intention:

> We theorize that group flow is a peak creative state that is achieved when members of the team experience high levels of social presence. In this context, we regard social presence as a process that leads the group to develop a 'we-intention,' in which actions of the individuals and those of the collective are in balance, and a sense of mutual trust, sharing and empathy is established. Moreover, we argue that when such optimal collective experience is reached, group-level emotions are shared and embodied in novel and useful ideas. (Gaggioli et al., 2011, p. 41)

A particularly important line of research in this regard is that which has been carried out by David Shernoff (e.g. Shernoff, Abdi, Anderson & Csikszentmihalyi, 2014; Shernoff & Csikszentmihalyi, 2009). He argues that in settings where both the simultaneous combination of environmental challenge and environmental support are present, group flow can be created (Shernoff, 2013). The former, environmental challenge, he characterises as a combination of tasks of sufficient complexity, clear goals and perceived importance, the construction of conceptual understanding and/or language skills, and opportunities to demonstrate performance. The latter, environmental support, he defines as being characterised by positive relationships between teachers and peers, support for motivational drives (e.g. support for experiences of autonomy and perceived competence), constructive feedback, and opportunities to be active and interactive.

3.3.1 Key differences between individual and group DMCs

Within instructional classroom contexts, group DMCs can be understood as manifesting themselves as intensive group projects (Dörnyei et al., 2016). The next chapter, Chapter Four, draws on the considerable body of knowledge existing within educational psychology

surrounding the successful implementation of classroom projects, and highlights the differences between projects in a more general sense, and the type of intensive group projects believed to be capable of inspiring DMCs. The following bullet points overview the key theoretical differences between group and individual DMCs, highlighting in particular those elements which function differently.

- The launch and initial stages of a group DMC function in a significantly different manner to that of individual DMCs. In the latter, the initial goal and the trigger which launches the motivational current and activates action aimed towards goal achievement – for example an opportunity for action – are two separate entities. In a group DMC, these are merged together, i.e. the goal for a group project both acts as the initial fuel to create momentum and the spark which ignites it. The basic motivational conditions in the classroom, therefore, must be already in place when a project is introduced to a group for the trigger to function effectively (see further Section 4.3.1).
- The main conditions required for an individual DMC to emerge – the need for a clear set of goals, a sense of ownership and control, and a perception that the available skills match the task demands – are likewise required for the emergence of a group DMC. However, the final condition – openness to the DMC experience – is reconceptualised within the context of group DMCs to refer to the maturity of the group to work independently (Dörnyei et al., 2016). This is understood to be a direct function of the group's dynamics and their successful arrival at the 'performing stage' of group development, in which they become a balanced and cohesive group where there are high levels of acceptance and trust between group members, and where sufficient advances have been made towards the division of labour within the group. As such, openness to the group DMC experience is characterised by increased cooperation and task orientation, and an agreement within the group on group norms, group roles and decision making procedures (see further also Section 4.3.1).
- The success of individual DMCs is built on the integral foundation of a personally significant end goal that is highly identity relevant. The reality within instructional settings, however, is that this is unlikely to be achievable in a classroom even with just two or more learners. Although not so intimately connected with students' core identities, engaging goals might still be found, for example, the use of authenticity gap-bridging activities (Henry, 2013) and through the acknowledgement and

inclusion of students' transportable identities (see further Section 3.2.4). The presence of tangible outcomes, a real-life audience and clarity in terms of the rubrics that will be used to judge the success of the project can all also be used to engender enthusiasm and accountability (see further Section 4.3.2). The fact the success of group DMCs in educational contexts will be judged primarily by outside 'others' is a key difference between group and individual DMCs, and is key to discerning how they might best be facilitated.

- The basis of the longitudinal structure of individual and group DMCs functions in largely the same way, but with several key differences. In the former, subgoals are generally formulated in broadly a more fluid and spontaneous manner, emerging as the DMC progresses and in response to the various demands and requirements of individual contexts. Such fluidity is neither feasible nor desirable within the context of group DMCs in instructional L2 contexts and, by contrast, goals, subgoals, discrete steps and progress checks need to be collaboratively agreed upon and finalised at an early stage. This is important not only to ensure time is spent productively, but also to help to generate momentum from the outset. The different functioning of these two structures is reflected in the differing pace of action often exhibited at the beginning of individual and group DMCs: while the former is likely to begin in a manner both immediate and intense, it is inevitable the latter may begin more slowly and require time to gather momentum while any remaining conditions fall into place, while the structure is collaboratively approved, and while excitement builds.
- Individuals within group DMCs exhibit the same levels of positive emotionality and satisfaction as those experiencing individual DMCs. The sources of this affective reaction are, however, starkly different. The positive emotionality within an individual DMC is posited as ultimately being a function of an individual's personal goal, reflected back along the pathway and transferred to the specific tasks requiring completion along the way (see further Sections 3.2.1 and 3.2.4). Although for some individuals this might hold true within the context of a group-DMC, it is certainly unlikely to hold true for all group members. Within a group DMC, positive emotionality can be understood as emerging from the 'social well-being' experienced in cooperative groups. "Striving for mutual benefit results in an emotional bonding with collaborators liking each other, wanting to help each other succeed, and being committed to each other's well-being" (Johnson et al., 1998, p. 19). Carl Rogers

(1983) terms the acceptance group members experience within successful groups unconditional positive regard. When considered in tandem with the universal need for human interaction – a basic principle of self-determination theory (Deci & Ryan, 1985) – and the fact that one of the main pillars of the high motivational capacity of cooperative learning stems from the understanding that harmonious collaboration in group work can cater to this need (see Dörnyei, 1997), it is clear that this contributes positively to the mechanisms through which such powerful emotional responses are engendered in group DMCs. This strengthened relationship with colleagues and peers is also a unique outcome of group DMCs, not typically connected with individual DMC experiences.

- The final stages of individual DMCs pose specific challenges (see Section 3.2.5), and these are likewise seen with individuals transitioning out of group DMCs. The importance of this closing dissolution stage is explicitly discussed within the field of group dynamics, which suggests that groups benefit substantially from appropriate closure (Dörnyei & Murphey, 2003; see further Section 4.3.1). This final stage is demonstrated as having both instructional and motivational functions: both affirming and revising the experience and exploring how the new knowledge and skills acquired might be used going forwards, in helping to develop positive lasting impressions, and so leaving the door open for future intensive group project/group DMC experiences. In educational contexts in particular, where learning will continue on beyond the close of a group DMC, management and understanding of the implications of the latter stages are of critical importance.

3.3.2 Language learning through group DMCs

In order to complete this foundation for the discussion in Chapter Four, which surrounds successful project implementation in language classrooms, this chapter concludes by justifying the educational role of projects in L2 classrooms by highlighting key links to our current understanding of language teaching methodology. Although the notion of group DMCs is unique, it should be stressed that such group projects and the learning situations that they are capable of facilitating have direct links with current reigning methodological perspectives.

Communicative language teaching (CLT) was developed and gained initial support in the 1970s as a means of promoting "the development of functional language ability through learner participation in communicative events" (Savignon, 1991, p. 265), and has since gone on to have a pervasive impact on approaches to language teaching in many contexts around the world. CLT is broadly characterised by its promotion of functional language use in real-life communicative contexts, where fluency is often valued over accuracy. As such, activities typical of classrooms which reflect a CLT approach might be role plays, discussions or problem-solving tasks. As the popularity of CLT grew around the world, the different contexts in which it was implemented meant that it began to be realised in classrooms in vastly different ways, meaning that proponents of CLT "developed a very wide range of variants that were only loosely related to each other" (Dörnyei, 2013, p. 161). Commensurate with this, contradictory stances began to emerge, notably, for example, practitioner's differing views in relation to the role and importance of direct grammar teaching within CLT. As Richards and Rogers (2001) explain: "There is no single text or authority on it [CLT], nor any single model that is universally accepted as authoritative" (p. 155).

In recent years, Zoltán Dörnyei and his colleagues (Dörnyei, 2009; 2013; Arnold, Dörnyei & Pugliese, 2015) have developed the principled communicative approach (PCA) to language teaching, highlighting seven key criteria they believe to be necessary for the successful implementation of CLT ideas in language classrooms. These seven principles are developed directly from a core knowledge base in language learning psychology (see further Dörnyei, 2009), and are able to support students in developing multiple core language competencies – from linguistic competence to strategic, discourse and sociolinguistic (both sociopragmatic and pragmalinguistic) competencies (Celce-Murcia, Dörnyei & Thurrell, 1995). The principled communicative approach to language teaching is based on the following seven principles (Dörnyei, 2013, pp. 168-9):

1. The personal significance principle. "PCA should be meaning-focused and personally significant as a whole"
2. The controlled practice principle. "Skill learning theory suggests that … [PCA] should also include controlled practice activities to promote the automatization of L2 skills"
3. The declarative input principle. "PCA should contain explicit initial input components"

4. The focus-on-form principle. “PCA should also pay attention to the formal/structural aspects of the L2 that determine accuracy and appropriateness at the linguistic, discourse and pragmatic levels”, and it is important to find “the optimal balance between implicit and explicit instruction through administering a good mixture of meaning-based and form-focused activities”
5. The formulaic language principle. “PCA should include the teaching of formulaic language as a featured component”
6. The language exposure principle. “PCA should offer leaners extensive exposure to large amounts of L2 input”
7. The focused interaction principle. “PCA should offer learners ample opportunities to participate in genuine L2 interaction.”

These principles can be realised through many different means within language classrooms, yet one such vehicle is that of project work. A detailed introduction and discussion of the wider possible benefits of project work and of issues related to successful project implementation are discussed further in the following chapter, yet before doing so, it is of value to emphasise that projects are capable of satisfying all seven of these principles, and that they are therefore capable of effectively facilitating language development. A basic tenet of successful project work is that it should be relevant to learners’ interests (see further Section 4.3.2), and this is directly reflected within the first of the seven principles of PCA; the personal significance principle. The importance of maintaining regular taught components throughout a project is believed to be key to ensuring both that a strong focus on language development is supported, and also that students have the language structures and vocabulary that they need at each stage, and opportunity to practice and refine them within the relative safety of the language classroom. These tenets are likewise stressed within a PCA approach, through the declarative input principle, the formulaic language principle and the controlled practice principle.

Linked to the above, the focus-on-form principle stresses the importance of finding “the optimal balance between implicit and explicit instruction through administering a good mixture of meaning-based and form-focused activities” (Dörnyei, 2013, pp. 169). The very nature of projects mean that they often include a considerable proportion of meaning-based activities (stemming from the central ‘problem’ or ‘challenge’ given to students at the core of the project itself) and as such projects are ideally placed to realise this principle in the language classroom. However, as is described, it is important that an appropriate balance

between the two is achieved. The final two principles highlighted as core to a PCA approach are the language exposure principle and the focused interaction principle, which posit that both "extensive exposure to large amounts of L2 input" is required, and that plentiful opportunities are created for learners to "participate in genuine L2 interaction" (Dörnyei, 2013, pp. 169). The nature of project work means that – when properly designed and implemented (see further subsequent chapter) – these principles are satisfied as a matter of course. Due to the fact that projects often take students outside of the confines of the classroom, they regularly expose students to varied and considerable L2 input, both written and spoken, and students are required to assimilate, interpret and rework this information for their own ends, goals which often also require considerable amounts of L2 interaction for success to be achieved. For example, students might not only look for written or pre-recorded information to help them achieve their goal, but also work with teachers from other disciplines, or with 'experts' from various fields relevant to the goals of the project on which they are working, looking for advice, sponsorship, advertising, or any other of a whole host of possible motives for communication.

Although included only briefly within the wider context of this literature review, the application of group DMC theory by way of intensive group projects in language classrooms is directly compatible with our current understanding of methodological best practice. When implemented effectively, projects are fully capable of realising all seven principles of a PCA approach to language teaching, and, in light of this, it is believed that the purposeful facilitation of group DMCs in language classrooms through intensive group projects might be of benefit to students not only in motivational terms, but might feasibly also be able to facilitate real, functional language development.

3.4 Conclusion

After situating DMCs in a more detailed way in the wider context of L2 motivation research, in particular with respect to Csikszentmihalyi's (1990) flow theory, this chapter has offered a full overview of the DMC framework. It has systematically addressed each of the key elements which contribute to create the distinctive motivational functioning of DMCs, and brought in a broad base of literature from diverse fields to form a theoretical explanation of the mechanism capable of underpinning this unique motivational experience.

This chapter concluded with the introduction of the related notion of group DMCs, describing the key differences between these and their individual counterparts. As was argued, group DMCs are of particular relevance to the practical application of DMCs in L2 classrooms: in classroom contexts group DMCs are understood to manifest themselves as intensive group projects. The next chapter, Chapter Four, continues the discussion of the applicability and the possibilities for the purposeful facilitation of group DMCs in L2 classroom contexts by drawing on the body of knowledge in yet another related field: educational psychology.

Chapter Four
Directed motivational currents through intensive group projects

This chapter is defined by its focus on the practical application of DMCs. Projects as a methodological tool have a long history within the context of classroom teaching, and a recent revival has led to a resurgence in research and published advice devoted to developing understanding related to the design, introduction, management and successful conclusion of projects, and their ability to facilitate diverse aims for different learner groupings. After justifying their relevance to group DMCs and offering key definitions in Sections 4.1 and 4.2, a broad overview of this literature is offered in Section 4.3, which draws additionally on the smaller body of literature related specifically to projects in the language classroom. Section 4.4 introduces seven frameworks for focused interventions as put forward by Dörnyei, Henry and Muir (2016), guidelines designed specifically to aid the purposeful facilitation of group DMCs within diverse L2 classroom contexts. Section 4.5 begins the conclusion of these literature review chapters and looks at the body of DMC research as a whole, in doing so suggesting pertinent avenues for further research. It finishes by introducing the aims of the current thesis, and submits clear arguments for the relevance and specific contributions of the two studies presented to the continuation of the DMC research agenda. The chapter concludes in Section 4.6.

4.1 Why the emphasis on intensive group projects?

Projects work is currently experiencing a renaissance in educational contexts worldwide. This is evidenced through independent school initiatives such as that of High Tech High,[1] a collection of highly successful schools in the US using projects as their primary method of instruction, catering for students from kindergarten to graduate level. Project titles include: 'Kinder Gardeners', a project for kindergarten students aimed at building knowledge in engineering, humanities, maths and science, in which students are tasked with designing and

[1] http://www.hightechhigh.org/

rebuilding a new school garden, and 'Viva Le Revolucion!', a project for high school students aimed at building content knowledge in art, humanities, maths and science through the study of historical and modern revolutions. Such individual initiatives as this are also reflected at a higher level of governance, for example the 'REAL Projects'[2] research programme run by the UK based Innovation Unit, investigating means of introducing projects such as those found at High Tech High into UK secondary schools.

The renewed recognition of the value of projects is reflected likewise within EFL contexts: the Israeli national curriculum for EFL is just one which not only acknowledges the benefits of the use of projects, but proactively encourages their inclusion (Jakar, 2006), acting as support for the contention that projects in L2 classrooms are not only able to constitute a key part in a sound curriculum (Chamness Miller, 2006) but are equally able to function in tandem and as complementary to existing teaching methodologies (Haines, 1989).

There are many advantages specific to the use of projects within educational contexts. The ambition of the High Tech High schools is reflected in the fact that their intake each year is via lottery, meaning that they cater to students with varied learning styles and differing levels of prior academic achievement. They aim in particular to inspire women, minority groups and others who may be educationally disadvantaged to engage with maths and engineering, and the claim that projects are able to bring out unseen and previously 'untapped' potential has been likewise corroborated by other studies investigating similar hypotheses. Project Insights, funded by the US Department of Education (reported on in Gallagher & Gallagher, 2013), was designed in part to investigate whether Problem-Based Learning – a specific branch of project based learning in which projects are built around a specific 'problem' to be solved (see further Section 4.2) – could be used to draw out previously unseen academic potential in low-income students, as a way of tackling the problem seen whereby children identified as gifted at a young age are not identified as high achievers in later years. It is suggested that, although Problem-Based Learning is able to 'pique the interest' of all students, it is particularly effective when partnered with the inquiry-oriented learning style often seen in academically able students (Gallagher, 2008; Sak, 2004).

The popularity and the level of inclusion of projects in educational contexts has waxed and waned significantly over time (see further Section 4.2), and research into the field of adult education and adult engagement with projects is able to offer a possible explanation for the effectiveness and continual return to the use of projects as an educational tool. Allen

[2] http://www.real-projects.org/

Tough and colleagues (e.g. Tough, 1979; 1978) have argued that projects are valuable not only because it is within the very core of our nature as human beings to undertake projects within the natural course of our lives, but that this has resulted in a great wealth of experience in project work that is currently being unrealised and underexploited in education. Referring to this covert project expertise, Mohan and Lee (2006) argue that it can sometimes be difficult to identify specific experiences with projects precisely because they are such an integrated part of daily living, and this intimate level of experience means that they do not stand out as unique. Livingstone (2001) describes this as the "iceberg of adult learning" (p. 22), referring to our lack of understanding about the nature and significance of this avenue of knowledge acquisition.

4.1.1 The significance of projects for group DMCs

There are significant links between projects and the emerging DMC literature. Descriptions of 'learning projects' – to use Tough's terminology and analogy – for example, likewise describe individuals being 'swept up' in the enthusiasm of an experience, and while the projects that Tough describes may not contain within them the same intense energy as DMCs, the highly focused characteristic of such experiences nevertheless enables individuals to "detect and resist" (Tough, 1979, p. 6) those forces which would otherwise influence an individual's actions and distract their focus. This is highly reflective of DMCs, which likewise have "the capacity to align the diverse factors that are simultaneously at work in a complex system" (Dörnyei et al., 2015, p. 96). The significance of this cannot be understated within the context of the L2 classroom, where everyday distractions pose a strong barrier to sustained periods of motivated learning.

The autonomy offered to students during focused project sequences is manifested through an increased sense of agency in students which is recognisable even to the students themselves, and is a key foundation of the value of projects in classroom contexts; situations which are more commonly characterised by reduced agency where direction and accountability is most often delegated by and under the control of the teacher (Mohan & Lee, 2006). Not only within adult education but also within the classrooms of younger learners do descriptions of school project experiences describe what equally might be interpreted as group DMCs (see Dörnyei et al., 2016, Chapter 1 for examples), and it is for exactly this

reason that Dörnyei et al. (2016) argue that within educational contexts, group DMCs can be understood as manifesting themselves as intensive group projects.

4.2 Defining 'projects'

The wide array of educational contexts in which projects are found is reflected in the number of terms used to describe the many diverse approaches to teaching the label encompasses. Stoller (2006, p. 21) demonstrates just how wide the phenomenon is by listing just some of the different headings under which it can be found in various literatures:

- Experiential and negotiated language learning (e.g. Eyring, 2001; Legutke & Thomas, 1991; Padgett, 1994)
- Investigative research (e.g. Kenny, 1993)
- Problem-based learning (e.g. Savoie & Hughes, 1994; Wood & Head, 2004)
- Project approach or project-based approach (e.g. Ho, 2003; Levis & Levis, 2003; Papandreou, 1994)
- Project work (e.g. Fried-Booth, 2002; Haines, 1989; Henry, 1994; Lee, Li & Lee, 1999; Phillips, Burwood & Dunford, 1999).

For the purposes of this chapter I will not explicitly separate these approaches because the foundations of each are highly comparable – each describes an extended learning activity encompassing multiple tasks and learning goals, through which students are supported in the completion of a final product, event or other defined outcome – and each strand is equally able to offer valuable contributions to the understanding of how to best implement projects in educational settings and, more specifically, in the L2 classroom.

In the context of language teaching and learning, projects have variously been defined as "multi-skill activities focusing on topics or themes rather than on specific language targets … provid[ing] students with opportunities to recycle known language and skills in a relatively natural context" (Haines, 1989, p. 1), and as "student-centred and driven by the need to create an end-product" (Fried-Booth, 2002, p. 6). In expanding her definition, Fried-Booth goes on to emphasise the importance of the journey to this end-product as the source behind the true value of project work; from the opportunities it creates for collaboration with peers and the development of confidence and independence, further to linguistic abilities.

Other definitions focus on projects as functioning as freestanding components of a larger curriculum; Tremblay, Duplantie and Hout (1990) describe a project as "A unit of work involving constructive thought and action in connection with learning, including a goal, a series of actions (activities or tasks) and a pre-defined sequence" (pp. 58-59), and others still focus on the separate stages which might be included:

> …a project is defined as a long-term (several weeks) activity that involves a variety of individual or cooperative tasks such as developing a research plan and questions, and implementing the plan through empirical or document research that includes collecting, analyzing, and reporting data orally and/or in writing. (Beckett, 2002, p. 54)

Other authors, such as Jane Henry (1994), stress that there is no one accepted definition of 'projects', but instead that definitions might be built from a recognition of what must be in place for a project to be successful. This practical reasoning is one which makes intuitive sense, particularly in light of the fact that projects are so highly dependent on the context in which they are implemented. Stoller (2006) offers one such 'definition':

> …a definition is attempted by specifying the numerous conditions that should be present for effective project-based learning to take place: Project-based learning should (a) have a process and product orientation; (b) be defined, at least in part, by students, to encourage student ownership in the project; (c) extend over a period of time (rather than a single class session); (d) encourage the natural integration of skills; (e) make a dual commitment to language and content learning; (f) oblige students to work in groups and on their own; (g) require students to take some responsibility for their own learning through the gathering, processing, and reporting of information from target language resources; (h) require teachers and students to assume new roles and responsibilities (Levy, 1997); (i) result in a tangible final product; and (j) conclude with student reflections on both the process and the product. (pp. 23-24)

4.2.1 Projects in the L2 classroom

Projects in the L2 classroom can be found under many different guises. Jakar (2006) highlights two illustrations: the 'Bread Project' in which students researched the different types of bread enjoyed by the different cultures found within the class, where the focus was on form and language structure in recipes, posters and narratives; and the 'Peacefolks Project', which culminated in students penning a short vignette from the perspective of one of a multicultural group of residents residing in a 'Forest of Peace'. Here, the project began with a focus on various types of written narratives, interviews skills and by emphasising different speaking styles and narratives, with a particular focus on question formation. These two examples are, however, far from sufficient to do justice to the full range of forms projects in L2 classrooms may take; from organising an event or other performance, to designing and creating displays, working with varied media programmes and outlets and, of course, to taking advantage of the social dimension of language teaching and teaming with partner classrooms and groups across the world for various joint collaborations.

What the specific examples from Jakar (2006) demonstrate, however, is that when effectively implemented, L2 projects can effectively develop both written and spoken language skills, and do not by definition negate nor downplay the important role of direct teaching within L2 project sequences (Doherty & Eyring, 2006; Lee, 2002), and nor do such gains come at the expense of the highly positive experiential aspect characteristic of DMCs as described in the previous chapter (see further Section 4.3.4 for description of the 'contagious delight' Jakar (2006) describes of these students). Due to the inherent uncontrollability of all aspects of project work, a further reported benefit specific to L2 classrooms is that they create situations where unexpected learning can take place: Beckett (1999) and Hilton-Jones (1988) report one such unexpected gain being that students better understood their needs as language learners with regards their strengths and weaknesses, and Tessema (2005) likewise reports that students demanded far greater levels of clarification and feedback for accuracy in the production of their written work.

Beckett (2002) argues that projects were first introduced into L2 classrooms as a "response to perceived inadequacies in Krashen's (1981) input hypothesis" (p. 53), and further explains how Swain's (1985) demonstration of the equal importance of comprehensible output for language acquisition led to the inclusion of project based sequences in what were becoming increasingly more communicative classrooms. Accordingly, the initial goal of project based instruction in L2 classrooms was largely based

on the facilitation of increased opportunities for the development of communicative competencies, by creating opportunities for communication and interaction between students (e.g. Fried-Booth, 2002; Haines, 1989). A further key advantage of projects particularly pertinent within the L2 classroom is that they offer a way to reintegrate language by bringing together its constituent parts (Haines, 1989) and in doing so place the resulting whole in a real context for communication.

In contrast to the long history of project work in the L2 classroom, Beckett (2002, 2005) argues that there is a scarcity of reliable empirical research examining successful project implementation, and it is likewise argued that much of the project literature which does have its roots in EFL contexts tends to be focused on more anecdotal reports of how teachers implement project work in their language classrooms (Guo, 2006). While such insights are available from multiple sources and offer valuable contributions to understanding (overviewed briefly below), Stoller (2006) suggests that even now there remains little on which to base a strong theoretical foundation, positing an explanation as to why much of the research into projects in L2 contexts draws heavily from findings in the related field of general education. Beckett (2002, 2006a) shores up the recognition that project based instruction receives far more discussion within the general education literature than within SLA literature, and argues convincingly that the possibilities of project based learning are not yet being fully realised. She suggests that to move the field forwards, the goals of using project work in L2 contexts predominantly as a vehicle for comprehensible output (as suggested by Eyring (1989) and Fried-Booth (2002)) need revision, and that such goals might be augmented through the inclusion of more of those as listed in the general education literature, such as critical thinking, problem solving and decision making, and skills involved with working both individually and collaboratively. These views are also reflected in those of Chamness Miller (2006).

The publication in 2006 of Beckett and Chamness Miller's anthology was a significant step forward in this regard, and looked directly to establish a theoretical foundation for projects in the L2 classroom. The volume brings together perspectives from leaders in the field, offering "original work on theoretical, research, and practical aspects of project-based learning and instruction in L2 and FL" (Beckett, 2006a, p. 13). Although limited in number, noteworthy papers published prior to 2006 include Beckett's (1999) study focussing on the implementation of project work as found within Canadian secondary school ESL classes and Eyring's (1989) paper looking at teacher and student experiences of project based learning. Coleman (1992) reports on a video project required of second year university

students, with Gardner (1995) also looking at the possibilities of using video based projects to teach academic English to first year students at the University of Hong Kong. Hilton-Jones' (1988) study reports on the experience of German teenagers taught via a project-based approach while attending summer ESL courses in England, focusing on exploiting the immersive possibilities of being in an English speaking environment, and Turnbull (1999) looked at the different implementation methods of projects in the classrooms of four teachers of French as a second language.

A focus was also evident on the discrete elements of project work within L2 classrooms: Kobayashi (2003) investigated the importance of peer support through a case study of three Japanese students studying for one year at a Canadian university on a content based ESL course, and Leki (2001) examined a context outside that of 'pure' L2 classrooms, looking at non-native English speakers' experience of project based learning at an English speaking university. Significant full length publications of note include Fried-Booth (1986) and Haines (1989). Neither of these offer empirical investigation, but focus instead on practical issues connected to the implementation of projects in ESL classrooms, offering adaptable project ideas.

4.2.2 Problems with projects: a brief critique

The highly variable way in which projects are researched, understood and implemented within language teaching contexts has led to widely differing experiences being reported from teachers and students when asked to evaluate the success and effectiveness of project based learning (Beckett, 2002), and as a direct consequence of this teachers and students are often hesitant to embrace the approach. As van Lier (2006) argues, two key points are worthy of consideration: firstly, due to its expansive history and development, project-based learning cannot be considered as merely another trend in educational thinking, and secondly, in light of this history, before moving forwards it is crucial to understand why project work has not succeeded in becoming a more mainstream pedagogical approach (p. xii).

For many years the success of project work as reported in the literature was from the view of the teacher/observer, so creating a positively skewed result which sometimes shaded the reality that student evaluations of project work in the L2 classroom were far more variable (Beckett, 2002). Two of the first rigorous empirical studies of projects within L2 classroom settings were Eyring (1989) and Beckett (1999), and results suggested that

although achievement from project work was high in both instances – and so from a teacher perspective regarded as a success – students reported on many aspects of their experiences negatively. Although Beckett does go on to suggest that this may in part be explained by differences in the sample groups – the Western students reported on in many general education studies being more used to such interactive learning experiences compared with the students in ESL classes who are oftentimes less used to a communicative and student-centred approach (Beckett, 2002) – it is clear that high student achievement cannot be considered as synonymous with positive student evaluation of such learning sequences.

Specific student and teacher concerns

A reading of the literature highlights two common complaints voiced by students. The first is a perception that projects are simply not relevant to language learning, and even that they can sometimes get in the way of 'real learning' taking place thanks to the necessary duality of projects in terms of having both language and content goals. As Beckett and Slater (2005) describe, dissatisfaction with projects stemmed – as is often also reported anecdotally – from the fact students "did not seem to think that these tasks were worthwhile pursuits in ESL classes", and further, that "the activity distracted them from learning what they felt they needed to know to advance their education, particularly English grammar and vocabulary" (p. 109). Such student views are not unique, with Haines (1989) suggesting that students can have difficulty perceiving projects as "real work" (p. 8), and Moulton and Holmes (2000) going so far as to report student resentment at being required to complete non-linguistic tasks. This is exacerbated by the acknowledgement that projects are often tagged on at the end of a course, which not only leads to them being viewed less seriously and more as fun 'end of term' activities than a vehicle for real language acquisition to take place (Haines, 1989), but which also requires students to invest additional time at an already busy time of year. That "Project work can produce project fatigue" (Hilton-Jones, 1988) further shores up the fact that the placement of a project within a curriculum is a key variable for a project's success, as multiple projects running concurrently in different subjects may impact on both negatively.

A secondary common complaint charged by students against project work is the additional workload required for success, when compared to that which is required in more traditional classroom setups (Dupuy, 2006). Significantly, however, in her study Dupuy reported this disappointment stemming not from the workload itself, but rather from a

perceived feeling of not being able to devote sufficient time to the project in order to gain from it all students believed they could. Such a critique also stems from the fact that students are often asked to complete project work in their own time, seemingly corroborating the notion that it is not viewed sufficiently as 'real' teaching to be given devoted class time (see also Beckett & Slater, 2005).

Several key concerns are also voiced by language teachers themselves (although it is of note that there is a scarcity of empirical studies focusing on the teacher experience of implementing project work (Doherty & Eyring, 2006); for many years the only ones being Eyring, 1989, 1997). The first of these likewise links to the anticipated additional workload required of projects. While many teachers appreciate the possible benefits, notoriously busy schedules do not allow for adequate preparation, meaning either that projects are simply passed over, or that they are implemented in a necessarily 'half-baked' fashion, whereby potential benefits are often lost to miscommunications with regards to specific language and project goals. Such "hybrid" methods of teaching – in which teachers ask students to collaborate on a project but themselves continue to carry out the same role they would in a traditional teacher-fronted classroom (Mitchell, Foulger, Wetzel, & Rathkey, 2009) – is exacerbated by the issue of project assessment. It is clear that when project aims are unclear, such outcomes will be discarded in favour of more relatable language goals, something particularly evident in contexts with a prominent emphasis on successful exam achievement (for example in China e.g. Fang & Warschauer, 2004; Guo, 2006). The issue of assessment is key to shoring up the position of projects within language classrooms, in particular in challenging the reality that projects have historically been – and often still are – only used in instances where subject content is not examined (van Lier, 2006). (The issue of project assessment remains highly contentious; see Slater, Beckett & Aufderhaar (2006) for further discussion).

On a related issue, there is also evidence that teachers feel they lack sufficient training to be able to successfully carry out effective project work within their classrooms. Guo (2006), for example, reports the Chinese professors in her study as feeling their training focused primarily on English proficiency levels, and not on other practical aspects such as teaching philosophies or methodology. As a result of this, they were left feeling concerned that they would not have the necessary knowledge required to support their students were they to implement a project based approach. This is exacerbated again by the fact that in many instances, to adopt a project based way of teaching would mean breaking from the norms of the 'traditional teaching' often expected both from colleagues and demanded by the

wider cultural context (Amador, Miles & Peters, 2006; Fang & Warschauer, 2004). This makes it a decision, if taken, which would have inevitable consequences. Looking further at the effectiveness of teacher training, Turnbull (1999) investigated the way in which four teachers of French as a second language in Canadian secondary schools implemented the same project-based curriculum within their classrooms, after having attended the same training course. Results showed clear differences in how each teacher approached the course, which resulted in statistically significant differences in students' test scores: while the advantages of projects are clear, it must likewise be acknowledged that such advantages remain unreliably translated to teacher and student experience and achievement in the classroom.

Moving forwards

As van Lier (2006) has argued, it is key that before taking further steps to developing our understanding of successful project implementation, it is first necessary to understand why project work has historically been unable to retain for significant periods of time the positive evaluations of teachers and educators. Although it is less than a decade since the publication of this chapter, tentative conclusions can already be reached. The body of research in the context of L2 education described above, although small, is steadily growing and our understanding of projects from both the perspective of teachers and students has a key role to play in furthering this understanding. The considerable and continuing developments within the field of information technology, the increased level of opportunity to access information via the internet and, in many teaching contexts, the increase of the technological and other practical resources available for use has had a dramatic impact on the scope, range and possibilities for projects within L2 classrooms (Patton, 2012). With the rising popularity of project work, so too has there also been a spike in practical manuals dedicated to offering practical implementation advice for teachers (see e.g. NYC DofE, 2009; Patton, 2012; NAF, n.d.).

It is significant, also, that current research paradigms are adopting a more qualitative, situated approach to research (see further Section 2.4), more fully able to capture the lived teacher and student experiences of classroom projects. This is especially important because as it has been demonstrated, high achievement cannot simply be correlated with highly motivated behaviour and positive student evaluation. Current research in other areas such as

complexity theory and group dynamics are also likewise able to contribute significantly to the development of our understanding of successful project implementation (see further Section 4.3.1).

As Dörnyei et al. (2016) argue, "There is a convergence of accounts in the literature suggesting that successful group projects are capable of energizing and empowering groups in a way seldom otherwise possible in a classroom context" (p. 151), and it is exactly for this reason that projects deserve continued consideration. Quite simply, projects are capable of doing something special, and as our understanding of project implementation develops in tandem with our understanding of DMC theory – and of group DMCs in particular – so do the practical possibilities of being able to confidently employ projects in L2 classrooms for reliable – and quite possibly outstanding – results.

4.3 Successful project implementation

The successful implementation of projects in the language classroom is able to create the foundation for diverse and effective learning opportunities, and is capable of overriding many of the base causes for negative student and teacher evaluations. The resurgence of project literature published both within the fields of second language and general education in the last 10 years offers a wealth of practical advice for best practice in both project design and project implementation. The following subsections draw on this growing body of literature, and overview the five most important elements for success: the basic classroom conditions required for successful learning, designing goals for group projects, *creating a 'trigger' for* learning, project structure, and transformed teacher roles and mindset.

4.3.1 Basic classroom conditions

Although projects differ in many key aspects when compared to more traditional classroom teaching, a key foundation for both is the importance of the existence of a basic set of classroom conditions conducive to learning. Two of the most important factors in this respect are the existence of appropriate classroom dynamics, and adequate support structures and facilities.

Appropriate classroom dynamics

The issue of how to build strong group dynamics remains largely on the periphery of language teacher training, however, with the continued rise of more communicative and collaborative means of language education the recognition and importance of the field for language teachers steadily continues to increase, and there exists a growing body of research (Ehrman & Dörnyei, 1998; Dörnyei & Malderez, 1997; Dörnyei & Murphey, 2003; Hadfield, 1992/2013; Schmuck & Schmuck, 2001). Over and above hardworking students, teachers overwhelmingly judge good classes to be those in which students form "single, unified, classroom groups" (Senior, 1997, p. 3), so it is unsurprising that – even if unknowingly – teachers are highly experienced in their ability to foster group cohesiveness and a strong group dynamic, such as through the use of ice breakers and warmers (Senior, 1997, 2002). A strong group dynamic reduces anxiety within students (Senior, 1997), can have a positive effect on both the quality and quantity of group interaction, and can form the basis of environments highly conducive to productive learning (Hadfield, 1997/2013; Clément, Dörnyei & Noels, 1994).

In their 2003 book on the topic, Dörnyei and Murphey explore key issues of a group dynamics-oriented teaching practice and identify four key aspects of particular relevance to the facilitation of successful projects. The first aspect identified is the importance of a group reaching a sufficient level of group maturity – that is, readiness for self-organisation and autonomous work – to be able to function effectively together, and to create a base for high levels of motivation and for deep learning. Groups typically traverse four developmental stages; formation, transition, performing and dissolution (Dörnyei & Murphey, 2003; from Tuckman's (1965; Tuckman & Jensen, 1977) forming, storming, norming, performing & adjourning). From a practical standpoint, successful growth can generally be fostered through an initially more autocratic teaching style, giving way to more autonomy-inviting forms of leadership when the group begins performing (Dörnyei & Murphey, 2003). Effective leadership styles are therefore intimately related to a group's success (see further Section 4.3.5). A general point of note is that effective group leadership for projects tends to be through facilitation rather than teaching in the traditional sense; the three main attributes of an effective facilitator being empathy, acceptance, and congruence (Rogers, 1961). A further way group maturity might be understood in the case of younger classrooms is in terms of mental and cognitive maturity, and – more generally – in terms of a group's level of experience in discrete aspects of project work, such as cooperative learning (Haines, 1989).

Group cohesiveness is a second key aspect which is required for successful project work (Dörnyei & Murphey, 2003), and practical advice exists describing techniques and approaches which can build cohesiveness within a classroom context (see e.g. Hadfield, 1992/2013). Awareness of this is particularly important during the initial stages of group formation and, while acknowledging that human nature denotes the inevitable fluctuation of emotional distance and closeness between group members, as a group matures this will naturally decrease and task effort stabilise.

The final two important issues related to group dynamics highlighted by Dörnyei and Murphey (2003) are those of group roles and group norms. Group roles describe what students are required to do. They might be either informal/naturally emergent or purposefully assigned by a teacher, yet both ultimately function in the same way – provided they are accepted by all group members and that students are equipped to function successfully within them – and are critical in the life and productivity of a group (Dörnyei & Murphey, 2003). Group norms highlight the 'rules of conduct' required for successful group learning in classroom contexts. Positive group norms create a stable basis for group functioning due to their powerful ability to unconsciously inforce positive working practices (Chang, 2007; Dörnyei & Malderez, 1997; Markus & Kitayama, 1994). For them to be maximally effective they need to be introduced early on in the life of a group, and simple norms can make a tangible difference to project outcomes, for example the norm of "Be Kind, Be Specific, Be Helpful" (Patton, 2012, p. 74), suggested in relation to the issue of peer critique.

Adequate support structures and facilities

Further to the existence of appropriate classroom dynamics, equally important to the basic classroom conditions required for successful project work are the existence of adequate support structures and facilities. True engagement in any project experience requires a basic set of structures in place to support students as they navigate the process, and this might come from both teachers and peers. With regards to the former, regular meetings both with project groups and individual students are important both to assess progress and offer regular feedback, but to also assess further support needs. Regular and varied opportunities for affirmative feedback such as this (see further Section 3.2.3) are key in order for students to form accurate perceptions of progress, and to provide regular bursts of motivation. With regards to the latter, providing there exists an appropriate base of group dynamics (see

above), within a supportive group, peers are also able to "serve as models and supportive partners" (NYC DofE, 2009, p. 10).

The facilities available to students both in and out of the classroom are a final, key consideration for the basic classroom conditions required for effective learning through projects, primarily because of the fact that many of the resources needed for various project sequences will not be readily available within normal classroom environments, such as internet access, reference or other research books, or relevant 'experts' in fields connected to the specific aims of the project. For students to get 'caught up' in the current of an intensive group project – as in a group DMC – a basic requirement is that they feel confident that they will be successfully able to access the resources and facilities they require. Further to this, recent research has also indicated the importance of the more general physical environment in which students are studying. Providing the right kind of space has been found to be a major factor in creating optimal learning environments, that is, ones which not only offer sufficient scope for focused autonomous work, but which are also rich with objects of exploration (Shernoff & Anderson, 2014). This principle is supported by the accepted notion in group dynamics which postulates a strong interplay between the social dynamics of a group and their physical environment (see Dörnyei & Murphey, 2003, Chapter 5).

4.3.2 Designing goals for group projects

A key starting concern for successful project implementation is the creation of a goal capable of capturing student interest and stimulating deep involvement. However, it is sometimes unclear the exact language or other goals teachers have for their use of L2 classroom projects (Beckett, 2006b): these have ranged from being able to "foster ESL students' lifelong learning and "language socialize" them into Canadian school and social cultures" (Beckett, 2006b, p. 60), develop creativity, independence, critical thinking and intergroup cooperation – goals more commonly found within the general education literature – to those more common to L2 contexts, where the focus more often lies in the development of communicative competence through increased opportunities for communicative output. L2 projects rarely include content matter goals (Jakar, 2006).

Schmidt and Moust offer a helpful depiction in defining project goals as based on four separate knowledge types:

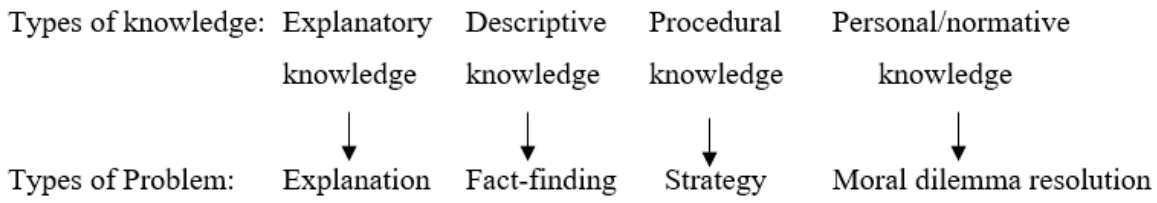


Figure 2: Four example problem types (adapted from Schmidt & Moust, 2010, p. 36)

Their chapter characterises goals "in terms of the nature of the knowledge addressed by them" (p. 31), and offers a useful starting point in project goal design: an explanatory question for advanced learners of English in Scotland might, for example, see students involved in a project looking at why the Scottish populace felt so passionate about a possible split from the UK. A fact-finding project might ask pre-intermediate L2 learners in a newly formed multi-cultural school group to work with others from the same country to find out as much information as they can about an important issue from their home country to present to the rest of their class. A strategy goal might require a group to design and undertake a charity fundraising event for a local charity, and a moral dilemma problem may be based around issues of immigration or guidelines for acceptance or rejection to a particular organisation or group. The type of goal will directly affect the level of difficulty experienced by students both in terms of the project goal itself and the language knowledge required for its completion. Three issues in particular carry a high level of importance: relevant *and 'real'* goal content, tangible outcomes and clear success criteria.

Relevance

Ensuring instructional content is relevant has been long accepted as effective in creating links between the mundane realities of learning a language and the experience of its use in authentic communication. Projects are able to clarify the relevance of the subject matter to what students would like to do with it (Hafler, 1997), and in the case of L2 classrooms these links can be considered as between language knowledge and true communication through a students' core identity. Projects are not only able to make abstract knowledge relevant to students' lives, but this high level of relevance in accordance with an individual's transportable identity also functions to drive motivation (Zimmerman, 1998; see also Section 3.2.4). The nature of a project's goal clearly denotes how students engage with it, and

relevance is one means to save from students feeling – to use Savin-Baden and Howell Major's (2004, p. 69) turn of phrase – "manipulated into learning". Such an example is typified in an L2 context by Samant (2002), who describes a project in which students authored a petition to the police against illegal liquor sales, an issue highly relevant and important to their personal context.

Creative materials design in this way is a further means by which relevance might be achieved, through the formation of links to students' lives outside of the immediate classroom. The "Learners' Lives as Curriculum" approach (Weinstein, 1999) is built around texts of diverse genres, such as stories, folktales, interviews and reports of personal experiences written by students, which are then used as impetuses for discussion and as the basis for the development of relevant language competencies. Weinstein (2006) offers several examples where this approach has been successfully employed: Mien hill tribe women creating a book for their children in the US, full of details and pictures of village life (Agard, 1999); students creating online content for their school website (Hovanesian, 1999); and the investigation of local neighbourhood issues pertinent to students' lives (Rivera, 1999). Other examples include a 'service learning approach' (Kinsley & McPherson, 1995) – in which students volunteer with local groups and keep diaries and scrapbooks of their experiences, which are reworked and presented at its close – and 'Global simulations', where Dupuy (2006) reported students being required to 'move into' a Paris apartment building and create for themselves temporary identities relevant to life in the French capital. (It is of note, however, that directly importing popular culture and elements of students' lives outside of the classroom being a wholly beneficial venture is not one that is unchallenged; see Henry (2013) for further discussion).

"Making teaching materials relevant for the learners" is a core component in Dörnyei's (2001b) collection of motivational strategies, and the need to relate subject content to learners' background and everyday lived realities is likewise featured highly in vision-building. Dörnyei and Kubanyiova (2014) list "Understanding students' current identity concerns and lived experiences" first in this respect, and define it as knowing "who they are and what unique life experiences, dreams, and worries they bring into the classroom" (p. 157). Following on from this argument, Dörnyei et al. (2016) argue that true relevance for a project goal can be considered as relevant and realistic only if it complies with the following two standards: firstly, if it forms links in a real and tangible way to life outside of the classroom, and secondly, if it allows students to be true to themselves in how they engage

with the project, so allowing them opportunity to communicate realistically in terms of who they really are.

An interesting narrative on the issue of relevance is offered by Henry (2013) in his analysis of the growing authenticity gap between the inside and outside of the language classroom. Drawing on the recent reformulation of L2 motivation from a self perspective (see Section 2.5), Henry highlights the important motivating function of self-authenticity (Gecas, 1991; Vannini, 2006; Vannini & Burgess, 2009; see also Section 3.2.4) and brings in Gee's (2005; Hayes & Gee, 2010) work on affinity spaces to argue that "teachers of English need to create learning opportunities whereby students can experience the types of creative and self-relevant interaction commonplace in digital gaming" (p. 133, emphasis mine) – the specific context discussed in his paper. The importance Henry (2013) stresses on proactively addressing this authenticity gap by, for example, providing students "with greater opportunities for creativity and meaningful self-expression" (p. 151) undoubtedly is also of consequence in the design of self-relevant project goals.

Tangible outcomes

The principles of external appraisal and accountability are key to the creation of tangible project outcomes, ensuring that within all projects there is equally something to work on and to work for, and such principles are likewise stressed in relation to the generation of group flow (Shernoff et al., 2014; Shernoff & Czikszentmihalyi, 2009). A tangible outcome, especially when visible such as through the incremental development of preparedness of a final performance or product, provides students with a continual reference point which, when teamed with clearly defined subgoals, can function as tangible progress markers (see further Section 3.2.3 for discussion of the importance of such markers for DMCs). Tangible outcomes can also be effectively created where the end product is not as visible in the same way – for example where the goal might be a solution to a complex issue – through the inclusion of a final presentation or 'exhibition day' (Patton, 2012), where students are given a platform to showcase their achievements and are required to physically stand by and defend their work. This likewise underlines the joint responsibility of all participants for successful goal achievement (Savin-Baden & Howell Major, 2004).

The impact of tangible outcomes is therefore increased through the inclusion of individuals external to the immediate classroom context who will 'judge' the final product, or

for whom it will be for. Gu (2001) reports on a project which paired Chinese and US classrooms, and through which each were tasked with introducing each other to opportunities in their home cities (see also Cates & Jacobs (2006) for discussion of a similarly structured project in which success was contingent on effective collaboration). Cates and Jacobs (2006) argue that ensuring end products will be enjoyed and valued outside the confines of the immediate classroom context pushes to "expand students' reach" (pp. 175-6), and the motivating element such challenges create is acutely experienced (e.g. Gu, 2001).

A tangible connection with a real audience likewise compels students to take their "formal accuracy more seriously" (Skehan, 1998, p. 274), something especially relevant in an L2 context where the traditional focus of project work has been on more communicative goals. Without such public platforms students may experience feelings of satisfaction with a final result regardless of its quality (Eyring, 1989), and may also lead to a sub-standard product which is wholly unable to articulate the depth of learning which had taken place to achieve it (Doherty & Eyring, 2006).

Clarity

Clarity is of particular importance within the context of projects in instructional contexts because successful outcomes are most often judged externally, so clear assessment rubrics available to students from the outset are a vital condition for success. As Savin-Baden and Howell Major (2004) explain: "Traditional paths of success have been changed; students know, how to win the old game, but the new game has new rules" (p. 81). It is therefore important to be clear what is understood to count as 'high achievement'. One means by which this might be demonstrated is through the use of 'examples of excellence' (Patton, 2012), where students are presented with examples of past project solutions or details of previous events. Such examples are not presented as templates to be replicated, but as a basis for a discussion about why they were successful, to help make explicit to students what is required of them, and to help them map out similar pathways to success for their own ideas. Such physical demonstrations also serve to help students visualise their own success, so adding a further sensory element to the final goal, and offering a possible starting step to the creation of a visionary aspect to the abstract goal (see further Section 2.5 for the importance of this). In supporting students to push the boundaries of what they believe they are capable of, the inclusion of outside 'experts' can be a valuable means by which students can be helped to

clarify what it is they wish to achieve and how they might be able to successfully bring it into being (Patton, 2012).

4.3.3 *Creating a 'trigger' for learning*

The introduction of a challenging and engaging goal is the starting point of any successful project. It acts as the "driving force behind students' learning" (Dolmans & Schmidt, 2010, p.13) and, critically, provides a "trigger" for learning to take place (Mauffette, Kandlbinder & Soucisse, 2004, p. 14). Indeed, not only the depth but also the quality of learning and the interaction between students are thought to be affected by the quality of the goal (Schmidt & Moust, 2010). Gijselaers and Schmidt (1990) demonstrated that the quality of the problem has not only a greater effect on student learning than either the tutor or the tutorial process, but that it also had an effect on the 'group functioning' of the tutorial group, 'time spent on individual study' and 'interest in the subject matter'. This point is of particular importance in inspiring group DMCs because – as outlined in Section 3.3.1 – a project goal within instructional settings must not only focus action, but also act as a catalysing force to trigger the initiation of motivated energy.

In order to be effective, a trigger must be both relevant to the project itself and also to students' lives and lived experiences outside of the classroom. Once such a stream of motivation is activated, however, it is capable of forming a solid motivational basis able to overriding multiple distractions and other disruptions to the flow of the classroom. As Amador, Miles, and Peters (2006) describe:

> One clear sign that students are interested in a problem [or project] is that their perception of class time changes. Students engaged in solving a problem frequently show up to class early to start discussing the information they gathered since the last meeting. And they often stay – inadvertently – after class has finished. You don't hear the slamming of books and shuffling of backpacks 10 minutes before the end of class: the sounds of students anxious to get away. (p. 114)

Such a spark of motivation will only take hold, however, if the basic classroom conditions and general environment are primed for such an event (see Section 4.3.1). Yet, even with these in place, a trigger may nevertheless require a period of 'germination' within a

group before motivation truly takes hold and a group DMC takes off. It is noted in the literature that in the first few weeks of a project many students report being unsure about what they are being asked to complete, and it taking several weeks not only for their "understanding and appreciation" to increase, but also for teachers to be reassured as to the potential success of the project (Doherty & Eyring, 2006). Case (2006), for example, reports that it was not until week three that classes settled into an acceptable set of routines and structures. Although this initial stage is a crucial prerequisite necessary for success, an explicit goal/subgoal pathway, clearly defined group roles and norms and a strong base group dynamic can work in tandem to ensure that students stay focused, and that time at this stage is used as productively as possible.

4.3.4 Project structure

The longitudinal structure of any classroom based project is key to its success. This is challenging in L2 contexts in particular because – as is also the case with L2 communicative activities more generally – projects exist along two dimensions: the first centred on developing L2 competence, and the second on a content or other goal connected to the project. As such, poorly structured projects are at the root of many of the frustrations of project work (see further Section 4.2.2). The Project Framework was proposed in 2005 by Gulbahar H. Beckett and Tammy Slater, and was created specifically in response to this challenge, aiming to help students understand "the language, content, and skill development which occurs through project work" (2005, p. 110). Built around Mohan's Knowledge Framework (Mohan, 1986), it was proposed following the work of Beckett (1999) and Wilhelm (1999), who both argued for the necessity of an increase in students' understanding of the value and the advantages the approach. Structurally, the framework is made up of six components:

(1) The first of these, the goal, requires that students decide on a personalised topic around which the project will be based. (It is of note that the goal described in this instance would be improved by taking into account the considerations discussed in Section 4.3.2, to offer more clarity and a more tangible outcome than simply to 'learn more' about a chosen topic).

(2) The second component, the planning graphic, provides students with a clear visual representation of the various competencies in focus relating to three main aspects: (a) language (forms, functions), (b) content, and (c) skills. Students are required in the initial days of the project to personalise this template to create individualised planning graphics pinpointing specific goals in all three areas, so providing a visual record and a basis for tangible personal goal setting throughout the project.
(3) The third component is a project diary, to be completed by students on a weekly basis. The diary template provides students with guided reflection on what has been achieved during the week, and also requires that students set specific goals for the following week.
(4) At the end of week three students were required to submit a project proposal for formal feedback, including copies of their planning graphic and project diaries.
(5) Formal feedback was given to students on a regular basis with progress checks carried out by the teacher, oral feedback was given in class on a weekly basis and formal written feedback on portfolios once a month.
(6) The final structural component – student portfolios – include the planning graphic, the project diary, notes created throughout the project and draft/final reports, which are together submitted for assessment.

Beckett and Slater's (2005) framework is one of the most comprehensive L2 project structures available (others include Jakar, 2006; Sheppard & Stoller, 1995; Stoller, 1997; Tessema, 2005), and there is much to commend it: in particular its demonstrated ability to push students to achieve more than they believed they could (Beckett & Slater, 2005), demonstrative again of the clear links to DMCs. The only two issues of note are that of the final goal (as noted above), which likewise does not allow for any public celebration of the final product nor appraisal by individuals other than the teacher, and that the implementation described – whereby students were required to complete all work outside of class time – led to around 20% of students evaluating the experience and the increased workload negatively. Both concerns can, however, be easily resolved, and even though the structure omits mention of any explicit behavioural routines (see further Section 3.2.3 for discussion of their importance to DMCs) it is highly likely that these also naturally manifested themselves through regular meeting times between students.

Lesson structure

Managing multiple projects, or managing several teams working on different elements of a project within a single class group, poses clear challenges. Beginning and ending lessons with the a class as a whole creates opportunities for 'briefing' and 'debriefing' sessions (Dupuy, 2006) – the former designed to activate students' prior knowledge and reorient them to the task at hand, and the latter a period of reflection and critique – and can likewise create regular opportunities for affirmative feedback and reflection on the relative successes (or anticipated successes) of past and future goals (see further Section 3.2.3). Such periods of 'whole class' discussion can likewise be valuable at points other than just the start and end of lessons (Haines, 1989) and are argued to be of particular importance where students are under high levels of pressure elsewhere in their studies (Amador et al., 2006). Requiring groups to give a short 'elevator speech' at the start of each lesson (Doherty & Eyring, 2006) in this way can also provide an additional layer of accountability throughout the project and is an effective way to create opportunities for regular peer in addition to teacher led feedback.

Managing the end stages of group projects

Not only are the latter stages of a project structure highly important, in many instances – for example where there is an 'exhibition day' showcasing student work (Patton, 2012) or a final performance or event – it also serves to mark the close of the entire project process. The emotional tenor at such closing events can therefore be highly charged: Jakar (2006) reports on one such event in Israel attended by parents and grandparents of children in the class. She writes that students were "'high' on self-esteem" and describes how there was "obvious joy" in the classroom, even that students' "delight in their achievements was contagious" (p. 187). Such experiences have likewise been described elsewhere as being "really quite euphoric" (Dörnyei et al., 2016, p. 158). From a DMC perspective, such closing stages can elicit a wealth of both positive and negative emotions, and where negative experiences dominate this can have a lasting effect on an individual's overall motivation within the class, or, in extreme cases, even to continue with the language altogether (see further Section 3.2.5). An emphasis on the importance of the successful management of these stages is clearly required.

Research into group dynamics likewise shows that the closing stages of a group's life are important in terms of how the experience is remembered, and that students benefit greatly from appropriate closure (see Dörnyei & Murphy, 2003). The final stages of a group project

can have both instructional and motivational functions, both of which Dörnyei et al. (2016) suggest can be exploited to ensure smooth transitions out of an intense group project experience. From an instructional standpoint, the end of a project is a key time to draw attention towards recognition and confirmation of the knowledge and skills acquired, and how these might be further developed moving forwards. Certain behavioural routines might, for example, be realistically maintained and built into a student's normal working habits and routines (see further Section 3.2.5). This instructional function has clear implications for the effectiveness of the latter, motivational function: positive lasting impressions are key for an openness to future project experiences.

4.3.5 Transformed teacher roles and mindset

Noted briefly above in Section 4.3.1, appropriate teacher leadership is a key element of facilitating student success with projects, yet the radically transformed classroom dynamics means that the teacher's role within a project based classroom is transformed, which correspondingly requires a transformed teacher mindset. This section overviews several key issues highlighted in this regard by Dörnyei et al. (2016).

Project based teaching requires a fundamental rethinking of the teacher-student relationship. Teaching through projects is starkly different to that found within a more traditional teacher fronted classroom, and, as such, roles and expectations are changed. This necessarily demands an alteration of the standard professional teaching role, manifested by a move away from traditional teacher fronted classrooms to teachers taking on roles more akin to coach, coordinator and facilitator. From an L2 perspective, a key concern in this respect is with regards the optimal level of scaffolding which should be extended to learners to support student autonomy, yet still push them to achieve more than they would be able to relying solely on their own resources, both in terms of language and also more general project goals: "Scaffolding techniques are critical for English Language Learners, but all students benefit from effective scaffolding that offers a balance between continuous support and independence" (NYC DofE, 2009, p. 19).

An embrace of the ethos of co-construction as required within this newly redrawn teacher-student relationship requires careful management, in which students require sufficient autonomy to co-construct their learning experience as joint partners, collaborating in decisions such as the construction of subgoals, timeframes and deadlines, assessment

procedures and means of project presentation and exhibition (Patton, 2012). A criticism often found in the general project literature is that the high level of autonomy expected from students within projects can engender accusations of teachers "shirking teaching responsibilities" (Amador et al., 2006, p. x), and a juncture where this can be felt particularly keenly within the context of L2 education is in the provision of initial teaching materials and resources. Papandreou (1994) rightly argues that it is the teacher's responsibility to help students identify the relevant resources that will be required throughout a project, yet Haines (1989) counters that the collection of resources can be an integral part of the process and should be viewed as a joint responsibility of both teachers and students. A related issue raised by Guo (2006) is that while the internet can offer instant access to 'authentic' materials, the plethora of texts using "inaccurate English" was a concern which led teachers to question their value in the L2 classroom (p. 151). Brown (2006) describes this lack of a core course text as a primary problem in the adoption of a project based approach, although softens this by noting that the ever increasing availability of information over the internet meant that for some more contemporary projects internet research may actually be more appropriate than more cumbersome library searches.

Haines (1989) suggests that teacher commitment to projects is "the largest single factor in successful project work" (p. 4). The first time this is felt by teachers is in the initial stages of planning and preparation before a project is introduced to students. Current teaching materials can, however, provide a basis for project design, by looking at desired final outcomes and considering how students might be guided to work to reach the same ends on their own (Amador et al., 2006). "Backward planning" (Patton, 2012, p. 42) in this way can likewise be an effective way of designing projects which teachers can be sure will cater to the required aims of the curriculum, and can ensure the project will be sufficiently rigorous and will push students to develop proficiency in the desired places. The importance in a teacher's mindset of being prepared to go over and above relates not only to the issue of preparation and project planning, but likewise to a teacher's personal level of involvement throughout the project. Patton (2012) highlights three key questions designed to offer opportunity for teacher reflection prior to its beginning. Two of these centre on anticipated levels of student engagement and possibilities for meaningful development, yet the third asks of the teacher: "Will this project engage me?" (p. 36). In order to aid students in transferring the passion and enjoyment promised from the success of the overall journey, an important aspect of a teacher's role is demonstrating this to students:

> The important thing is that somebody is very excited about the idea, and that person's excitement is infectious. Of course, there is much more to projects than excitement, but if you don't start with something that you feel passionate about, the project won't be much fun, and the quality of the work will suffer. (Patton, 2012, p. 34)

The existence of a strong vision of the goal a project is aiming towards can be an important way of building such excitement and commitment within the group, and it is key a teacher provides a clear example to the group in this regard. 'Pulling out all the stops', as is undoubtedly required with a project approach, in managing the processes of inquiry and supporting students' individual learning must begin with the teacher: "In a PBL environment where teachers ask students to engage fully in their own learning and exhibit their work beyond the classroom, teachers must reciprocate and model an elevated level of commitment in return" (NAF, n.d., p. 8).

As highlighted above, the inclusion of key outside 'experts' and looking outside of the confines of the immediate classroom setting can be highly valuable to students in terms of increasing the relevance of the work being undertaken, helping to make clear the parameters and possibilities for success, and in creating an audience which will view and appraise the final product (see also Section 4.3.2). A key role of teachers which is specific to project work is, therefore, "to find opportunities for meaningful, personalized contact between students and adults committed to their learning and growth" (NAF, n.d., p. 9). Between-teacher collaboration behind the scenes can be equally important, and L2 projects likewise provide a natural opportunity for collaboration across disciplines: "With or without teacher teaming, PBL benefits from quality collaboration between teachers. The ability to share project ideas, strategies, resources, and results can make a tremendous difference for educators" (NAF, n.d., p. 9).

As a final note, it is important to acknowledge that as with any ambitious enterprise, many factors exist which might ultimately contribute to it being considered a failure, for example where a project might turn out as less than engaging or which might create disappointing final products. However, the following advice should be kept in mind: "Like pretty much everything in life, projects get better with practice" (Patton, 2012, p. 67).

4.4 DMCs through projects: Seven frameworks for focused interventions

As already described, group DMCs in the L2 classroom can most effectively be thought of as manifesting themselves as intensive group projects (Dörnyei et al., 2016). An idealised version of the project template will include all the key components of the DMC framework: a clearly defined target perceived as both relevant and real to students, which allows them to act in ways authentic to their true selves; a robust structure with regular subgoals, capable of acting as progress markers and providing opportunities for regular feedback, and a solid base group dynamic manifesting as a mature and cohesive group. The existence of all such aspects in any given learning situation is, however, not always a realistic aim, and reflective of this Dörnyei, Henry and Muir (2016) highlight seven frameworks for focused interventions. Each framework can be considered a variant of the common core project structure described above, whereby within each framework variant a different signature component bears the principal responsibility for sustaining motivated action. Table 2 offers a brief overview of these seven frameworks, before the following sections further discuss each in turn.

Framework	**Signature component**
All Eyes on the Final Product	An end-goal and accompanying vision which energises the entire project
Step by Step	The energising power of a contingent path
The BIG Issue	A driving question which provokes reactions and energises behaviour
That's Me!	A strong sense of 'connectedness' both between students themselves and between the learner group and the project
Detective Work	An intriguing problem, the solution of which sustains extended periods of concentration and motivated action
Story Sequels	An engaging temporal axis fixed around an unfolding longitudinal structure

Table continues on next page…

Study Abroad	A distal goal which generates initial motivational momentum, subsequently supported by a systematic structure of subgoals

Table 2: Seven frameworks for focused interventions (reproduced from Dörnyei et al., 2016, p. 177)

4.4.1 All Eyes on the Final Product

The All Eyes on the Final Product project variant is arguably the most commonly found in all educational environments, and examples are wide ranging. An All Eyes on the Final Product framework variant might, for example, be manifested through students being tasked with creating a video, blog or other media product, either designed with educational, informative or entertainment purposes in mind; the staging of a theatre or musical performance, where preparation may involve any or all of writing the script, creating the set design, managing the lighting, creating programmes; or the organisation of ambitious social events. The primary energising focus of the All Eyes on the Final Product framework variant is a strong vision to realise a salient end goal, the existence of which will often eclipse the role of any subgoals encountered en route. The ability for progress to be monitored in a more continually observable manner – through the visible incremental development of the end product – creates an atmosphere where further external progress feedback becomes less critical in nature to the successful maintenance of the motivational current. Engaging students with a clear goal in this way can be an effective means by which to engage students in the project as a whole, and the inherent element of a real audience and public appraisal can serve as an effective safeguard both for the achieved motivational momentum and a high level of quality.

Dörnyei et al. (2016) highlight the following as key to the successful classroom implementation of this framework variant, to maximise possibilities for the emergence of a group DMC: a tangible outcome and a real audience, the project goal must be well-defined, widely recognisable and highly salient; it must be both real and authentic, it is the final product which functions to generate and maintain motivational momentum throughout, and so this must be tuned as finely as possible to be experienced by students in this way, for example by ensuring it is relevant or by inviting a special audience to view the final product;

the goal must be linked explicitly to a specific aspect of L2 competence; while regular subgoals are of less importance in terms of the maintenance of a DMC current, their existence are nevertheless important in the L2 classroom from a practical standpoint, where a clear timeline is required in order to ensure that no elements are forgotten or side-lined due to poor planning, and to ensure that the project does not overrun. Project roles and norms are a basic yet key final requirement, to ensure that students are primed to hit the ground running once the project is set and that they are able to quickly resolve any disagreement or other distractions.

4.4.2 Step by Step

The Step by Step project framework variant is built around a project's structure, and utilises this element in order to sustain task-specific action over long periods of time. The basis of this framework variant is a contingent path of goals (see Section 2.6.2). Contingent path theory (Raynor, 1974; Raynor & Entin, 1983) centres on the principle that motivational impetus is created from the linking together of a series of tasks, whereby successful achievement at each stage is required in order to be given the opportunity to undertake the next, so forming a cumulative 'chain reaction'. The Step by Step variant is compatible with the structural aspect of DMC theory because each stage specifies the direction of behaviour, while at the same time also marks progress: motivation for final goal achievement is continually regenerated through successful achievement of each discrete step along the wider goal pathway.

This framework is currently utilised effectively outside of the L2 classroom in nationally coordinated awards schemes such as the UK based Duke of Edinburgh (commonly 'DofE') award scheme[3] and the CREST award scheme[4]. In both schemes, individuals complete tasks to achieve Bronze, Silver and Gold awards, which are then each recognised and celebrated formally within the organisation. The latter of these – the CREST awards scheme – is built specifically around STEM subjects (science, technology, engineering and maths), and the DofE award is a more general programme designed to develop participants in a more rounded way, with requirements for each level of award being listed under the headings of volunteering, physical, skills and expedition. Within such programmes, students

[3] See further: http://www.dofe.org/
[4] See further: http://www.britishscienceassociation.org/crest-awards

work individually to complete all of the requirements at each stage, which can be highly personalised in many ways to take into account individuals' interests, time availability, and – to a certain extent – even the order in which they wish to complete different tasks. Testament to the motivational capacity of such contingent paths – which by definition lack a highly personalised goal/vision, beyond receipt of a nominal certificate – is the number of individuals who successfully complete the programmes each year (850,000 for DofE and 30,000 for CREST) and their exhibited levels of motivation in doing so. The most immediate way such programmes might be translated into L2 classrooms is by linking requirements at each stage to each of the four language skills – reading, writing, listening and speaking – although there is a vast scope for this to be tailored to specific contexts, and alternative strands might include time spent in the L2 context, or successful use of the L2 in academic arenas.

A highly developed structure, highly personalisable content, the ability for the framework to fit around participant's lives and responsibilities, and an ultimate goal which is highly valued are all key characteristic elements of a Step by Step approach. Key from an implementation perspective are the level of prestige associated with the final goal, the existence of a flexible, elaborate structure allowing students to tailor the path they take to their own lives and interests, and its highly inclusive nature, through which students of all abilities might achieve equal success (Dörnyei et al., 2016).

4.4.3 The BIG Issue

The motivating capacity of a BIG Issue framework is built around an issue salient and influential within learners' lives, and so strives to take students' involvement with L2 content past a superficial level of engagement with topics. Similar in emphasis to the Apple Corporation's Challenge Based Learning programme – wherein impetus is created by "a call to action by charging participants with developing a local solution to a global problem" (Challenge Based Learning, 2010, p. 10) – a BIG Issue framework emphasises the need for a driving question which challenges learner reactions and requires thoughtful answers. The following description of what such a question or issue should look like is well described by Larmer and Mergendoller (2010, p. 35):

> A good driving question captures the heart of the project in clear, compelling language, which gives students a sense of purpose and challenge. The question should be provocative, open-ended, complex, and linked to the core of what you want students to learn. It could be abstract (When is war justified?); concrete (Is our water safe to drink?); or focused on solving a problem (How can we improve this website so that more young people will use it?). . . . Without a driving question, students may not understand why they are undertaking a project. They know that the series of assigned activities has some connection with a time period, a place, or a concept. But if you asked, "What is the point of all these activities?" they might only be able to offer, "Because we're making a poster."

As Dörnyei et al. (2016) argue, highly relevant and 'real' topic content and flexible end-goals, which allow students to engage with and develop the project in their own way, are both key elements characteristic of a BIG Issue framework. Key to its successful implementation in an L2 context are thought to be a suitable choice of topic content, a thought-provoking and engaging project launch, a clear project structure – including an explicit goal and goal pathway defined early on in the process – clear documentation of the journey students are undertaking, and an emphasis on peer critique, as a way of keeping focus on the fact that "creating high-quality products and performances is an important purpose of the endeavour (Larmer & Mergendoller, 2010, p. 37).

4.4.4 That's Me!

The *That's* Me! framework variant is built around the principle of the importance of authenticity in student learning – something key for DMCs in particular, see further Section 3.2.4 – and the underlying assumption that "students are more likely to be engaged in their learning if they see a connection to their own world" (NYC DofE, 2009, p. 13), where a high level of concordance exists between a project and students' core characteristics and values. A powerful example of such a project is The Freedom Writers Diary, published in 1999 and written by teacher Erin Gruwell and her students in Long Beach, California. Classed informally as 'unteachables' due to their status as 'at risk' inner city youth, Gruwell pushed her students to begin writing personal journals, a task designed to highlight the importance of their personal voices in the context of the wider world. As they describe:

> We began writing anonymous journal entries about the adversities that we faced in our everyday lives. We wrote about gangs, immigration, drugs, violence, abuse, death, anorexia, dyslexia, teenage love, weight issues, divorce, suicide, and all the other issues we never had the chance to express before. We discovered that writing is a powerful form of self-expression that could help us deal with our past and move forward.[5]

The power of the current of motivation that was created is evidenced by the publication of the book itself, a project goal which emerged organically after the initialisation of the diaries task, and which came to fruition with such success that it went on to become a New York Times bestseller. Due to the direct links with the core identities of each student, the positive impact of the group DMC impacted positively on all other areas of their lives, manifesting through the fact that all 150 of Gruwell's 'unteachable' students in the year group graduated from high school with many continuing on to college, the first in their families to do so. A similar premise has likewise been evidenced within L2 classroom contexts, such as within Weinstein's (1999) Learner's Lives as Curriculum approach (discussed above in Section 4.3.2), albeit in this instance of a less intense nature.

Key characteristic elements of a That's Me! project are the highly personal topic content, the organic emergence of goals as the project progresses, and the important role of group dynamics within the process. Key from an implementation standpoint is the suitability of the topic choice, flexibility in goal setting and pursuit, and the importance of a platform for the final project outcome to be exhibited (Dörnyei et al., 2016). This latter point is of key importance to this framework variant in particular, in that authentic projects:

> seek to create work that fills needs or interests in the broader school, community, or world. And, by wrapping course content around truly relevant issues and challenges, teachers can ensure that learning takes place within a meaningful—and memorable—context" (NAF n.d., p. 15).

[5] http://www.freedomwritersfoundation.org/our-story

4.4.5 Detective Work

The Detective Work project variant is built on the principles of Problem-Based Learning – a specific branch of project work, see further Section 4.2 – and is centred primarily on the principle of inquiry, and on a central problem. Amador, Miles and Peters (2006) describe the approach in the following terms:

> In brief, PBL begins by posing a complex, authentic problem, one which students might encounter in real life. Working in groups, students discuss three questions: What do we know? What else do we need to know? How will we learn it? Students then research the areas they've identified and return to the group for more discussion. They repeat the cycle until they solve or resolve the problem. (p. ix)

Examples of such projects within L2 contexts are as varied as there are language classrooms, but might, for example, challenge international students in an L2 environment to investigate the reasoning for the fact shops close at (the arguably very early time of!) 5pm, or around any other cultural differences between their home countries and the new environments which are relevant to them. Characteristic of the Detective Work framework is a clearly engaging problem, a structure which is formed of 'subquestions' in place of the more traditional role of subgoals, and an increased emphasis on the importance of group roles (Dörnyei, et al., 2016). While the latter of these is important for the success of any project, its inclusion here as a key characteristic of the framework variant stems from the increased level of cooperation required between group members, and the inevitably more explicit division of tasks and responsibilities. Within such a project, relevant task roles might include an information seeker/provider, a coordinator, an evaluator/critic or a secretary/recorder (e.g. Dörnyei & Murphey, 2003).

As Dörnyei et al. (2016) argue, there are several issues key to the implementation of a Detective Work project framework variant in particular. Owing to the starkly different learning behaviours required compared to that of a traditional classroom, the existence of a strong group dynamic takes on an additional level of importance, and it is likely also of value to introduce such projects slowly, beginning first with a simple problem to allow students to mature within their roles, and within their group. The authors also argue that clear real-life L2 links, a *clear timeline and opportunities for regular 'planning summits'* to ensure productivity, a real life audience for the final product and a digital platform or visual display,

with relevant information and able to show and organise progress, are key for its successful implementation in L2 classroom contexts.

4.4.6 Story Sequels

The Story Sequels project variant is created around a gradually unfolding longitudinal structure, which functions to create an engaging temporal axis capable of channelling project based motivational energy. An example of this might be a primary school teacher using the unfolding storyline of a children's novel as the basis for all other content teaching throughout a term, taking advantage of the students engagement in the story and their new identities as 'fans' of the characters in the book (described further in Dörnyei et al., 2016), or through an unfolding news story (e.g. in Amador et al., 2006).

Characteristic elements of a Story Sequels framework are an engaging narrative – whether written, visual or through any other medium – and salient subgoals anchored in the evolving narrative. From an L2 classroom implementation perspective, of key importance are fostering student engagement at the outset, the direct teaching of L2 elements crucial for comprehension of the narrative, and flexibility in preparation of both materials and lesson planning and direction (Dörnyei et al., 2016).

4.4.7 Study Abroad

Although periods of Study Abroad are not typically considered as falling under the various rubrics of projects in general terms, they are capable of transforming students' relationships with a language and are a commonly used instructional tool in a wide variety of contexts, oftentimes leading students to considerable developmental success (e.g. Kinginger, 2013; Paige, Cohen, Kappler, Chi, & Lassegard, 2002a, 2002b). While such experiences are generally purported to constitute an "ideal means of learning a foreign language" (Allen, 2010, p. 27), the potentials of Study Abroad experiences are not always fulfilled; progress in general terms may not be as marked as research has suggested, and the language gains achieved by students are rarely uniform, oftentimes varying significantly between individuals even in the same context (Churchill & DuFon, 2006; Kinginger, 2008).

The motivational processes involved in a period of Study Abroad constitute two parts: an initial period of preparation, and the subsequent stay in the L2 country. The former is

energised by an individual's distal goal, but once arrived in the L2 country the accumulated motivational impetus can easily dissipate if this initial long term vision is not shored up with a systematic structure of subgoals put in place through principled preparation for the visit. Allen (2010) offers a particularly pertinent discussion in this regard, in the analysis of the experiences of six American students completing a six week study abroad course in Nantes, France. She highlights in particular a lack of goal specificity, in the case of linguistic goals in particular, unresolved goal conflict for example between linguistic and other goals for the period abroad, such as travel and sightseeing, and a lack of a clear pathway of subgoals to achievement as roadblocks to meaningful progress. It is interesting to note that in doing so, Allen likewise picks out those features which are also most important for the success of a DMC. For those students able to overcome these issues, Allen's data is suggestive of powerful DMC experiences stemming from their accomplishments: "I now have the self-esteem to know if there is something I want to accomplish, there is nothing holding me back" (2010, p. 43). It is clear, then, that when the initial burst of motivation connected to periods of Study Abroad is effectively capitalised on, it can rise to a level which is able to support DMC experiences throughout the duration of time in the country (the 'executive' period of motivation).

Chiming tunefully with Allen's (2010) recommendations for enhancing Study Abroad experiences, one particularly successful Study Abroad project is that reported on by Roberts, Byram, Barro, Jordan and Street (2001) as a part of the Ealing Ethnography Research Project. Stemming from a research aim directed at understanding whether language teachers could "learn to teach an ethnographic program", the study was concerned with whether the implementation of ethnographic approaches might be used to make a period of study abroad "an active learning experience" (p. 13). The three year programme began (in Year 2 of the students' undergraduate course) with training given to equip students to be able to complete an ethnographic study while abroad (Year 3) about a personally chosen aspect of the host country, to be written up upon return to their home university (Year 4). The high level of structure thus provided an overall purpose for engaging with the target language by creating a motivating intellectual challenge to prepare for, undertake and evaluate, and in doing so likewise provided a clear means by which they might successfully achieve this.

It is of note that in recent years there has been a marked rise in short-term Study Abroad programmes, of between three to eight weeks (Badstübner & Ecke, 2009). This offers exciting possibilities for the practical facilitation of DMC experiences in Study Abroad programmes, over what are arguably more achievable timeframes. By beginning 'with the

end in sight' to a far greater extent than with more traditional year long periods of Study Abroad, this allows for a greater practical emphasis on ensuring students have plausible goals for their time abroad, and the plausibility of these goals can also likely be more easily conceptualised by students at the outset. The shorter timeframes these new programmes offer also provide greater possibilities for the intricate planning of both goals and subgoals in advance of the full Study Abroad programme, and of concrete strategies which will contribute to the successful achievement of each. These considerations are also able to directly combat a commonly reported disconnect on Study Abroad courses between students' actual gains, and those expected prior to the programme (Mendelson, 2004).

4.5 The future of DMC research: Contributions of this thesis

Begun as recently as 2013, both theoretical and empirical investigation within the field of directed motivational currents remain in their infancy. Although the initial conceptual papers (Dörnyei et al. 2015; Dörnyei et al. 2014; Muir & Dörnyei, 2013) have since been followed up by two empirical papers (Henry et al., 2015; Ibrahim, 2016) and, more recently, a book length exploration of the topic (Dörnyei et al., 2016), many questions remain unanswered. This final section highlights some of the current gaps in the research literature and in our understanding of DMCs, and subsequently outlines the specific contributions of this thesis.

4.5.1 Methodological choices

The results of the two empirical papers published to date (Henry et al., 2015; Ibrahim, 2016; see also empirical data presented throughout Dörnyei et al., 2016) very convincingly shore up initial theorising about DMCs. Their data offers support for the existence of all key theoretical dimensions highlighted – goal/vision orientedness, a clear launch and salient facilitative structure and the resultant positive emotionality – and has even begun to focus in on a more detailed understanding of discrete aspects of the DMC framework (for example on the experience of positive affect as in Ibrahim, 2016). The purely qualitative research methodologies employed to date have been used very effectively, yet pose two key challenges to our current understanding.

A sole reliance on retrospective accounts

Research to date has focused exclusively on retrospective accounts of DMC experiences, some of which report on experiences which occur in the significantly distant past (although it should be noted that this critique is less relevant for Henry et al., 2015). It is clearly a testament of the significance of these experiences to individuals that they have retained such vivid recollections, yet as with retrospective research approaches more generally, it is unclear to what extent these experiences are being remembered and retold with 'rose tinted glasses'. To date, no research exists which has caught a DMC 'mid flow', and such a dataset would doubtless be highly informative both in terms of corroborating the findings of current research, and would also be able to offer unique insight into the 'in the moment' experience of DMCs, demonstrating to what extent the described reality of someone's experience relates to their post hoc appraisals (and, furthermore, how these post hoc appraisals of the experience might change over time).

Qualitative versus quantitative research questions

The solely qualitative research tradition followed by empirical research to date leaves several basic questions about the DMC phenomenon unanswered. How many people have experienced DMCs? How many people have experienced DMCs specifically in relation to language learning? In what types of domain are DMCs most commonly experienced? Are there some contexts/professions/cultures etcetera where DMCs can more commonly be identified? It is questions such as these that qualitative research is simply unable to address, and which therefore highlights a clear need for research whose focus is on building a broader, more generalizable understanding of DMC theory.

4.5.2 Educational applications

DMC theory is of little practical use to language teachers unless it is framed around clear, accessible guidelines which pinpoint key themes important in the facilitation of group DMCs specifically in instructional L2 classroom contexts. The beginnings of such a proposal exists (Dörnyei et al., 2016, Chapter 9; see also Section 4.4), yet, to date, these proposed frameworks for focused interventions remain purely theoretical in nature, and are yet to be

borne out in practice in real language classrooms, and with real language learners. While anecdotal evidence is certainly positive, it remains to be empirically demonstrated whether such powerfully flowing currents of motivational energy can be purposefully facilitated in groups of students within instructional contexts, and whether it is possible that such experiences can be externally manipulated to lead to specific, positive educational outcomes.

4.5.3 Specific contributions of this thesis

The two studies presented in this thesis aim to directly address some of these issues, and will be reported on separately in Chapters Six and Seven. Chapter Six reports on a large scale, quantitative online questionnaire study, and aims to offer initial answers to basic questions such as those listed in Section 4.5.1. In order to be able to carry the DMC research agenda forwards, addressing these questions and providing initial answers with regards to the wider relevance of DMCs are of key importance. The online format allowed for the dissemination of this questionnaire on an international scale, and as such the study includes data from a wide variation of countries and contexts. In contrast, Chapter Seven reports on the first ever classroom based DMC intervention study. This study adopts an All Eyes on the Final Product framework variant (Dörnyei et al., 2016; see also Section 4.4.1), and sought to facilitate the emergence of a group DMC through the premise of a charity fundraising event. For the first time, this study aimed to demonstrate that it is possible to purposefully facilitate group DMCs in the language classroom.

The limitations in the possible scope of the work to be presented in this thesis necessarily means that the unearthing of concrete conclusions to these questions is not an appropriate nor an achievable ambition. In light of this, the primary objective of this thesis is to take sound first steps to addressing these gaps currently existing within the research literature. The aim is to lay a foundation from which future investigation and analysis might be able to build, corroborate, challenge, and develop the findings identified from these two studies, each of which follow a novel methodological approach to the empirical investigation of directed motivational currents.

4.6 Conclusion

This chapter has highlighted the practical possibilities for the purposeful facilitation of group DMCs within L2 classroom contexts. It sought to justify the choice of projects as a means to achieving this aim in Sections 4.1 and 4.2, and went on in Section 4.3 to highlight key issues relevant to the successful implementation of projects specifically in the language learning context. Section 4.4 introduced the seven frameworks for focused interventions put forward by Dörnyei et al. (2016) as initial guidelines for teachers for their purposeful facilitation. Section 4.5 considered the future of DMC research and after highlighting key avenues required in order to drive understanding forwards, laid out the specific contributions this thesis aims to offer to the theoretical and practical development of DMCs.

The next chapter, Chapter Five, describes specific methodological details of each of the two studies to be reported on, before the results and analysis of each are discussed separately in Chapters Six and Seven. More detailed rationales and desired research outcomes for each study are outlined at the start of each of the analysis chapters. The thesis finally concludes in Chapter Eight, in which key research findings are presented and avenues for future research are identified.

Chapter Five
Methodology

Chapter Five outlines the technical details of the two studies presented in this thesis, with Sections 5.2 to 5.5 listing systematically the participants, instruments, procedures, and methods of data analysis. Specific research objectives and rationales for each study are described in detail at the start of Chapters Six and Seven. However, in order to offer a brief grounding for the details presented here, this chapter begins in Section 5.1 with a short overview.

5.1 Two complementary studies

The research presented in this thesis comprises two complementary studies. Study One – presented in Chapter Six – is a wide scale online questionnaire study. To date, DMC research has centred exclusively on obtaining detailed qualitative accounts of a limited number of participants: these have been highly valuable in researching specific manifestations and detailing the personal experiential aspect of DMCs, although the nature of this approach to research has meant that these results have been unable to speak to the relevance and applicability of DMCs to the wider world. Study One aimed to reach a broad and diverse body of participants from around the globe, using for the first time a quantitative approach to investigation and a specifically designed online questionnaire tool. The primary research objectives of this study were to investigate how commonly recognised and experienced the DMC phenomenon is, and to look at its manifestations across various demographic factors, most specifically age, gender and nationality.

In contrast to this – yet also designed to address a key issue that has not yet been explored empirically – Study Two is a classroom intervention study. It was conducted at a large language school attached to a prominent university on the east coast of Australia, and run in collaboration with teachers Jessica Florent and David Leach (see Section 5.1.2 for further details of the wider school context). The intervention was based on a similar course

taught by Jessica[6] on a previous occasion (reported on in Dörnyei et al., 2016, Chapter 8) and is designed around an 'All Eyes on the Final Product' project framework (Dörnyei et al., 2016, see also Section 4.4.1), with the final focus being the organisation of a large scale charity fundraising event. The course was structured around the existing school timetable to facilitate the continuation of regular taught components throughout the five weeks, with content designed to develop the specific skills and competencies required at different points throughout the project: the balance of more traditional taught components to time devoted to the project was weighted approximately 40/60, although this fluctuated. The primary aim of Study Two was to address a very simple question, namely, whether it is possible to put into place a framework capable of purposefully facilitating a group DMC within a class of language learners.

5.1 Participants

5.1.1 Study One

The sample in Study One (N = 1563) comprised participants falling into one of the following two groups:

1) Current language teachers or students (of any language); and
2) Current teachers, lecturers or students of any of the following: second language acquisition, applied linguistics, TESOL, CELTA or other teacher training courses, and other related subjects.

A total of 39 responses (2.5%) were identified as unreliable and discarded at the outset. Reasons for exclusion included insufficient levels of English manifested as clear misunderstandings evident within the qualitative responses, or where responses indicated a lack of care – for example where ambiguous qualitative responses were combined with the answering of every question in the same way – or where comments evidenced the questionnaire was not being taken seriously. A further 72 responses (4.5%) were omitted from analysis: 50 (3%) because they did not give consent for their data to be used, and 22 (1.5%) because respondents were under 16 and so unable to give informed consent.

[6] Note that for issues of continuity (because the teachers are included as participants in Study Two and so are referred to by their first names throughout analysis in Chapter Seven), to create a smoother narrative they are likewise referred to by their first names in this chapter also.

The total number of responses taken forward for analysis (N = 1452) comprised 1043 (72%) female, and 409 (28%) male respondents. Respondents were of 71 nationalities, and an additional two nationality groups were made up of participants of dual nationality and another group titled 'Other', which included responses which were unclear (e.g. 'Caucasian' or 'Hispanic'). Tables 3 and 4 offer breakdowns of the number of responses from the top twenty countries in terms of number of respondents, and the numbers of responses broken down by continent (where Russia is included as within Europe, and Armenia, Turkey and Indonesia within Asia). Table 5 gives a breakdown of the ages of participants.

Nationality	**Number**	**Percentage**
British (including English, Scottish and Welsh)	163	11.2
Chinese	129	8.9
Korean	89	6.1
Brazilian	83	5.7
Finnish	82	5.6
Spanish (including Basque and Catalan)	77	5.3
Japanese	70	4.8
Saudi	69	4.8
Thai	68	4.7
American	67	4.6
Croatian	64	4.4
Turkish	54	3.7
Hungarian	35	2.4
Polish	29	2.0
Greek	27	1.9
Dual nationality	26	1.8
Maltese	21	1.4
Canadian	19	1.3
Swedish	17	1.2
Indonesian	13	0.9

Table 3: Number of responses in Study One from the top 20 most well represented countries in terms of number of respondents (See further Appendix A for a breakdown of all 73 categories)

Continent	Number	Percentage
Europe	614	42.3
Asia	574	39.5
South America	105	7.2
North America	86	5.9
Africa	23	1.6
Australasia	13	0.9
Dual	26	1.8
Other	11	0.8

Table 4: Number of responses in Study One broken down by continent

Age	Number	Percentage
16-17 years	86	5.9
18-21 years	340	23.4
22-30 years	452	31.1
31-40 years	261	18.0
41-50 years	159	10.9
51-60 years	124	8.5
61 and over	30	2.1

Table 5: Respondents in Study One broken down by age

5.1.2 Study Two

The teachers

Study Two was conducted in collaboration with two highly experienced language teachers, Jessica Florent and David Leach (see further Muir, Florent & Leach, in preparation). Both teachers have strong personal interests in project based learning, and prior to the study each had independently used it successfully as a methodological tool within their classrooms. They

regularly collaborate and team teach together, and during the current study Jessica taught the course on Monday and Wednesday, and David on Tuesday, Thursday and Friday.

The wider context

The school itself is a large English language school (upward of 700 students) attached to a prominent east coast university in Australia. Classes are typically structured around five week courses, and intake includes students attending a single five week course alongside those who stay for longer periods of time (typically up to one year). Courses are offered for general English, IELTS and other exam preparation courses, CELTA and other teacher training courses, and general preparatory courses for the university.

The students

The students in Study Two comprised a single class of 17 business English language learners. The group was of mixed nationality and was aged between 18-40, although students were predominantly in their twenties. Table 6 offers an overview of all 17 participants by way of nationality and gender.

Nationality	L1	Number	Male	Female
Japanese	Japanese	9	4	5
Colombian	Spanish	2	0	2
Brazilian	Portuguese	1	1	0
Ecuadorian	Spanish	1	1	0
Peruvian	Spanish	1	0	1
Thai	Thai	1	0	1
Italian	Italian	1	1	0
German/Italian	German	1	1	0

Table 6: Overview of participants in Study Two

In terms of participant mortality, one Japanese female student left the course in the second week choosing instead to continue her studies in the school following a non-project

based class. In a brief Skype interview on her departure she described her feelings of homesickness and general anxiety, and also her discomfort in being asked to share her opinion openly with her Japanese peers who were slightly older. Her feelings for leaving were primarily linked to her personal situation and to her general feelings of unease living in the host country and, as such, her departure is not believed to be an overtly negative reflection of the course itself. She continued to stay in touch with its developments of the project and enjoyed attending the day of the event itself. This left a total cohort of 16 students.

Student plans after the course were varied, including continuing on to another five week course at the university, returning to home countries to continue with work or study, beginning an internship/volunteer work in Australia and, in the case of recent graduates, searching for a job. Students reported choosing this particular institution for reasons including its location, its attachment to a major university campus and its good reputation.

5.2 Instruments

5.2.1 Study One

A new online questionnaire instrument was developed specifically for the purpose of this study. As it was first of its kind there were no previous surveys from which questions might be taken, so, as is often standard practice in such situations (DeVellis, 2003; Sudman & Bradburn, 1983), an item pool of possible questions was drawn up based on the existing body of DMC interview data. Questions were designed to tap into key aspects of DMCs, for example its goal/vision orientedness or the unique affective experience. An additional aim was to create a single attitudinal scale capable of accurately representing the DMC construct. As Dörnyei (2010) advises, effort was taken to ensure statements were as representative as possible of the way in which DMCs have been described in the words of past interview participants, although minor alterations were made where necessary to ensure intelligibility.

The primary challenge in the design of the questionnaire was that – unlike normal questionnaires which strive to tap into people's existing feelings and beliefs about a certain topic – it needed to find a way to ask about something that participants may or may not have been wholly familiar with. The questionnaire therefore was required to consist of two separate parts: before questions could be asked to learn about participants' feelings and

beliefs in relation to DMCs, a foundational element had to be included prior to this in order to describe the essence of a DMC, so that participants would understand what it was they were to be asked about and so they could think about their answers in terms of this experience. Although it initially appeared an unsurmountable challenge, the overall quality of the responses and the multiple corresponding cross checks completed during analysis (see further Chapter Six) all point to the conclusion that a suitable solution was reached.

The questionnaire comprises three main sections (see Appendix B for the full final version):

- Section One describes DMCs by offering five sentences which are representative of the DMC experience (e.g. *'I think about this proje*ct day and night – *I feel like it's taken over my life!'*), and asks participants to indicate whether they recognise this type of intense motivation, whether they have personally experienced it and – where answers are affirmative – follows this up with basic questions related to specific durations and triggers.
- The main body of the questionnaire comprises a series of 12 statements requiring responses along a five point Likert scale reading Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree and Strongly Agree. Statements include 'During this time I was able to work more productively than I usually can' and 'When looking back now, I have very good memories of this time'. This section also includes questions asking whether participants would like to experience this type of intense motivation again, and whether they have witnessed such periods of heightened motivation in people around them.
- The final section collects relevant personal data, for example gender, age and nationality, and also requires participants to state whether they give ethical consent for their data to be used anonymously for research purposes.

In addition to the collection of quantitative data, three questions throughout the questionnaire also invited qualitative responses:

1) Would you mind writing a few sentences about how this intense period of motivation began? Thank you!
2) Would you mind telling us briefly why [you would/would not like to experience this type of intense motivation again]? Thank you!

3) If YES [you have seen this type of intense motivation in other people], please think of one memorable example and write a few short sentences about what happened. Thank you!

The first of these is asked in Section One, and questions two and three are asked in the main body of the questionnaire in Section Two.

The questionnaire was created through Google's online questionnaire tool, and an identical secondary version was also created using Survey Monkey, specifically for use in mainland China where Google services are not accessible. The development and testing of this new instrument was subjected to a process of 'ongoing piloting' (Dörnyei, 2010), whereby it was continually discussed and debated with colleagues. However, two formal pilot studies were also conducted.

Pilot Study One

The aim of the first pilot study (N = 7) was to gather basic feedback on both the layout and user-friendliness of the online format as it appeared on a range of electronic devices, including computers, tablets and smartphones. It consisted a convenience sample of friends and colleagues, and was completed using a 'talk aloud' methodology in order to gain greater insight. The changes made to the questionnaire after this initial pilot were primarily related to the physical layout, although they also included changes to the wording of questions where necessary to eradicate ambiguity or misunderstanding.

The one key change made at this point was in the options for possible answers to the question 'How often do you think you have experienced a project of this kind of motivational intensity?'. The first version asked participants to choose from three options – never, once or several times – yet participants reported difficulty in responding to this with regards the 'black and white' nature of these possibilities. Additional options were included, bringing in a further variable related to the level of intensity the project was experienced at: to a similar level of intensity or not quite as intense. This created five possible response items to this question ranging from 'I have NEVER experienced this type of motivation' and 'I have experienced this type of motivation ONCE, but NOT QUITE AS INTENSE as above', to 'I have experienced this type of motivation SEVERAL TIMES to a SIMILAR LEVEL OF INTENSITY as above'.

Pilot Study Two

The second pilot study (N = 81) was conducted with three class groups, two in Japan and one in Hungary, and looked to test the robustness of the online questionnaire format, the length of time required for completion, and to provide initial data for item analysis. The latter was of particular importance due to the fact that this questionnaire represents the first time DMC theory had been translated to a quantitative questionnaire format. Initial analysis provided encouraging results, and the Likert scale statements which make up the main body of the questionnaire created an overall scale with strong internal consistency.

The only alteration made at this stage was the addition of two further questions to the main body of the questionnaire. Two additional Likert scale statements were included which tapped the experience of high levels of motivation fuelled by highly disciplined self-regulated behaviour – from which the same ends might be achieved as if it were a DMC, but without the same sense of 'effortless effort' and eudaimonic enjoyment which underpin DMC experiences. This was done in order to be able to more accurately identify true DMC experiences, separated from those which were successful primarily due to highly developed self-determined strategies and continued perseverance. The two additional statements included at this stage read 'Many times it felt like a real struggle to keep going' and 'It was a really enjoyable experience'.

Ethical considerations

Compliant with the ethical approval received for the study, before participants were able to complete the questionnaire they were asked to confirm their age, and any respondents under the age of 16 were routed to a page thanking them for their time and apologising that they could not be invited to continue. The final question of the questionnaire asked participants to confirm whether they were happy for their data to be used anonymously for research purposes: participants were unable to finish the questionnaire without confirming an answer and, as stated in Section 5.1.1, participants who did not give their consent (N = 50) were excluded from analysis. (See Appendix C for evidence of ethical approval received for the study from the School of English at the University of Nottingham).

5.2.2 Study Two

The primary objective of data collection in Study Two was to attain a network of datasets capable of providing a means of effectively capturing and recording any evidence of DMCs which might or might not emerge throughout the course, where each dataset could be used to triangulate and confirm the findings and conclusions observable in the others. Data was collected from two primary perspectives – teachers and students – and via two primary means: Skype interviews and personal diaries. All data collection tools were designed in collaboration with the class teachers to ensure that they were suitable for the context and that they were in the most practical formats.

Student diaries

Students were asked to complete structured diary entries on Wednesday and Friday of each week, beginning on the Wednesday of Week One and ending the Wednesday of Week Five, giving a possible total of nine diary entries per student (see Appendix D for the final version of the student diary template, and an example completed page). A total of 129 student diary entries were completed throughout the course: students completed between a five and nine entries each, and most students completed a total of eight. (Four additional diary entries were completed by the student who left the course, but were omitted from analysis). Students completed the diaries with Jessica on Wednesday and David on Friday: this was effective as it also reflected the last time each teacher would meet formally with the group during the week. The student diaries were based on those designed by Beckett and Slater (2005), and functioned similarly as a tool and impetus for the setting and keeping track of personalised language and project goals throughout the course, and thus created time for personal reflections of progress throughout the project: as far as possible they were designed to be of practical use to students, rather than overtly as solely a means of data collection. A hard copy diary was created for each student with pre-printed pages for each day, and these were collected in and kept by the teachers for safekeeping between sessions.

Student Skype interviews

Skype interviews were conducted with students on a daily basis from Monday to Thursday, immediately after the end of the final class of the day (the only exception to this was on Wednesday of Week Five, when sessions were conducted both before and after the school day in order to accommodate all who wanted to participate in a final interview). Students were told these interviews were entirely voluntary and were invited to sign up to these sessions at the start of the course. In practice, however, there was a considerable amount of change and flexibility to this initial schedule. Interviews lasted approximately 10-12 minutes, and typically two to three were conducted each day. Interviews began on Wednesday of Week Two and ended Wednesday of Week Five, and in total 33 interviews were conducted (note that one of these interviews was with the student who ultimately left the course, and was excluded from analysis). All 16 students were interviewed at least once and many chose to return for follow up interviews; nine students were interviewed twice, two were interviewed three times and one student was interviewed four times. These interviews were well received by students, primarily because they were keen to take advantage of and increase their one to one contact time with a native English speaker, but also because they were keen to share their ideas and feeling about their experiences throughout the course.

The student Skype interviews aimed to capture students' immediate feelings from each day to be able to monitor the day to day experience of the project in a more nuanced and detailed manner than possible via the student diaries. They were loosely structured to allow students to direct conversation towards important issues pertinent to each day. Sample questions include:

- Have you had a good day? What have you done today?
- What have you enjoyed most/least about today?
- How is everything coming along for the 'big day'?
- In what ways do you feel this course is affecting your English learning
- Is there anything that you would change about the course if you could?

Teacher journals

At the end of each teaching day either Jessica or David – dependent on the day of the week and who was teaching – completed a structured journal entry, beginning the Tuesday of

Week One and finishing the Monday of Week Five (see Appendix E for the finalised template and a sample completed entry). On the day the project was launched and additionally on the day of the project itself both teachers were present, and both completed diary entries. A total of 22 teacher journal entries were completed: 10 by Jessica and 12 by David. As with the student diaries, these were printed out and collated into a paper booklet prior to the start of the course, and completed each day by hand. These journals were divided broadly into two sections: Evaluation (of teamwork, language development and project progress) and Description/Documentation (of language/content/skills covered, specific project tasks completed, highlights & lowlights, and of any DMC-like behaviour observed). Although these prompts were given, they were designed primarily to guide thinking and only completed each day when appropriate. Space was also allowed for more general impressions and comments about the day.

Teacher Skype interviews

Two Skype interviews were conducted with Jessica and David throughout the duration of the course, the first on Tuesday of Week Three and the second on Thursday of Week Four (the day of the project itself). Both were joint interviews with both teachers, and – like with the student Skype interviews – these took place after the end of the teaching day, in both instances after the student interviews had concluded. These followed a similarly semi-structured format to allow focus to be directed to the most important issues which had arisen, and questions asked were similar to those asked to students (see 'Student Skype interviews' section above).

Additional sources

Additional secondary data was also collected throughout the course, including the recording of one to one feedback sessions and a focus group interview with some students at the end of the course (conducted in person by Jessica), at which time students were also asked to complete a general personal information sheet requesting basic information such as their reasons for choosing the school and future plans. Individual student presentations are recorded as standard as part of course assessment at the school, and were used in part to make assessments with regards individual student progress. Ultimately, however, none of these

were used formally in analysis: although the recorded presentations provided good insight into student language development throughout the course, without any base measures taken at the outset these largely had only anecdotal relevance, and unfortunately the interviews completed by Jessica at the end of the course were seriously impacted on by the time restraints created by the testing required by the school in this final week, meaning that only a limited number of students were included.

Ethical considerations

On the day the project was launched, students watched a short pre-recorded introductory video in which I introduced myself to students personally. They were told about the aims of the study and were assured that it would not impact on their relationship with their teachers or otherwise impact on their learning in any way. Student participation in the study was entirely voluntary, and it was emphasised by Jessica and David also that there would be no negative consequence had any students not wished to participate. Students were asked to review and sign an informed consent form to confirm they were happy for their data to be used anonymously for research purposes, in line with the requirements stipulated in the ethical approval given for the study. (See Appendix F for evidence of the ethical approval received for the study from the School of English at the University of Nottingham, including the template of the informed consent form signed by students).

5.3 Procedures

5.3.1 Study One

Shortcut links to the questionnaire were created (bit.ly/motivate-2015 and www.surveymonkey.com/r/motivate-2015) and were sent out extensively to colleagues and contacts around the world. Participants were asked to complete the questionnaire themselves and/or to ask their students to do the same, and were told that this could be done either during class time or set as a short homework assignment. Participants were also asked to forward the link on to people they believed might be willing to participate in the same way: participants were reached through a combination of both convenience and snowball sampling. All

important information was included on the first introductory page of the questionnaire, and as such no specific implementation procedures were stipulated.

Due to the sampling means relied upon, the issue of participant self-selection – that is, the phenomenon seen whereby those participants more willing to complete a questionnaire are likely to represent the more enthusiastic of respondents towards the topic (Brown, 2001) – was an important consideration. It is of note also that a further issue with online questionnaire research means that there is that there is a greater likelihood that the sample may be far more heterogeneous than found with more traditional convenience sampling methods (Dörnyei, 2010). In order to address this, the questionnaire was sent out as widely as possible across borders and continents to try to reach as diverse and numerous a participant body as possible, and opportunities were taken wherever possible within questions to allow participants to respond in a way which would most aptly describe their feelings. The dataset is believed to be able to offer convincing testimony with regards the specific research questions addressed, however, further issues related to this and the resulting limitations on the conclusions which might be drawn are discussed in more depth in Chapters Six and Eight.

5.3.2 Study Two

Students were tested and assigned groups on the Monday of Week One, in line with standard school practice. The project was presented to students and approval was gained on the Tuesday, and because this business English course is not ordinarily project based school management stipulated that consensus must be achieved from students in order to go ahead: this was unanimous. The project was launched in full on the Wednesday morning, when students met with school management and were officially presented with their 'client brief'. In order to accelerate my relationship with students, they were shown a short pre-recorded introductory video – as noted above – in which I introduced the study and thanked them for taking part. This video additionally strove to build interest and confidence, and to encourage students to sign up for Skype interviews.

The day of the event itself fell on the Thursday of Week Four, and during the final week of the course – Week Five – attention necessarily focused on assessment tasks required by the school. As far as possible these were re-written to connect with the project itself and the specific language skills and competencies it developed. From the view of the study, however, the primary aim of Week Five was on reflection and the celebration of personal and

group achievements, to facilitate adequate group dissolution prior to disbanding, and therefore student assessment during this week largely fell outside of the scope of the study.

Course structure

The day to day teaching of the course included both structured taught components – typical of a more traditional classroom – and also periods which were freer and in which students were supported to take control of the lesson's direction in planning their event. The traditional school timetable was largely maintained, and throughout the project dedicated lessons were continued, for example, to accommodate direct grammar teaching or listening practice as relevant to each stage of the project: the content of these lessons was tailored as far as possible to reflect the skills, content and vocabulary that students would need to be successful. Appendix G includes the traditional timetable of the course, and brief lesson plans for Week 1 of the project. The split between the more structured taught lessons and a focus on the project naturally fluctuated over the five weeks as the project went through different phases, and was balanced approximately 40/60.

A dedicated course booklet was collated prior to the start of the course, and a copy was given to each student at the outset. This booklet included multiple texts and activities typical of those that would be found in more traditional language classrooms. It was used as a basis both for classwork and for homework assignments, and formed a key foundation of the course to assure students that even though they would be putting their knowledge into practice and that tasks may be presented to them in a different way, that they would nevertheless be receiving structured language tuition. At the start of the course students also received a copy of the Project Framework (based on Beckett & Slater, 2005; see Appendix H and Section 4.3.4). This was tailored specifically for the current course, and students were encouraged to refer back to it as the project progressed, to tick off what they had already completed and as a prompt for future goal setting.

5.4 Data analysis

5.4.1 Study One

Data collected via the two questionnaire formats were immediately combined: 1530 (98%) responses were collected via Google's online questionnaire tool and 33 responses (2%) through Survey Monkey. Data was cleaned and responses removed where necessary (see further Section 5.5.1), before they were coded ready for analysis. Quantitative data analysis was completed using SPSS version 22. Commensurate with the aims of the study and the nature of the sample group, the analysis centred on the collation of detailed descriptive statistics to describe the occurrence patterns of DMCs across different contexts and subsamples, and relied heavily on standard statistical procedures such as chi-square analyses, t-tests and analyses of variance (ANOVA).

Analysis of the qualitative questions began with the entire dataset being read several times in order to build familiarity. Key themes emerging in the responses to each question were then identified, and responses were coded into non-overlapping, mutually exclusive categories. These categories were then clustered together, as appropriate, into wider umbrella groups to highlight the emerging overarching themes (Creswell, 2007; Kumar, 2011). Finally, responses falling within each of these wider groups were looked at as a whole to ensure homogeneity and consistency in the relationships between the categories included within each. Analysis subsequent to this was primarily quantitative in nature, and focused on a comparison of the number of responses in each category given by respondents in different subgroups.

5.4.2 Study Two

All Skype interviews – both student Skype interviews and the two joint Skype interviews with Jessica and David – were transcribed immediately after they were recorded to try to ensure that no unspoken details were forgotten and to allow, if necessary, for any difficulties in transcription to be clarified immediately with the interviewee. Immediate transcription also ensured that full transcripts were available, had any students requested them. As the focus for this study was on a content rather than a linguistic analysis, minor editing was carried out to remove distracting surface phenomena, such as 'uming and erring'. This created a full

interview corpus of around 51,400 words (approx. 44,800 for student interviews, and 6,600 for interviews with Jessica and David). The student diaries and teacher journals were also transcribed into Microsoft Excel in order to create soft copies of each. This was to allow for a far greater level of flexibility in navigating around the data, and to create more varied and ordered opportunities for note taking and marking up during analysis. The total corpus created from the student diaries and teacher journals comprised around 11,500 words (approx. 7,700 in student diaries and 3,700 in teacher journals).

At this point the data collected was split into two datasets, one comprising the student diaries and student Skype interviews, and the second of the teacher journals and teacher Skype interviews. Initially, these student and teacher datasets were analysed separately. Analysis began with each dataset being read several times by the author to build familiarity, and key themes were identified, categorised, and clustered into wider umbrella groups, in the same process as described in Section 5.4.1. Key themes were identified based on three primary categories: their relevance to the assessment of the success or failure of the project in general terms, their relevance to the assessment of students' relative L2 progress or perceived L2 progress, and, most importantly, on their relevance in providing evidence for or against the emergence of a group DMC. The themes of the two datasets – teachers and students – were finally analysed together.

Chapter Six
DMC online questionnaire study: Analysis and discussion

Chapter Six offers analysis and discussion of the first of the two studies to be presented in this thesis. Using an online questionnaire format, the primary aim of Study One was to find initial answers to basic questions surrounding DMCs that have not been addressed in the existing body of literature. These questions include how many people have experienced DMCs, whether some individuals demonstrate a greater propensity to experience DMCs over others, from what participants' DMCs were inspired, and typical durations they lasted. Although of interest for their own merit, the particular significance of these questions becomes clear when considering the educational implications of DMC research for language classrooms. If it were to become apparent that DMCs are significantly more prevalent within men or women, within different age ranges or in different cultural or situational contexts, this would naturally have considerable practical implications for the facilitation of DMC experiences and their purposeful application by practicing language teachers.

A secondary aim of the study was to validate the DMC construct on a more general level by striving to create a single multi-item DMC scale based on the key DMC features identified in the theoretical discussion to date, and to create a blueprint of a successful questionnaire format that might be used as a basis for future research. The instrument collected two bodies of data; a primary quantitative dataset – where the main focus of this chapter lies – and an additional secondary qualitative dataset. These will be reviewed separately in Sections 6.1 to 6.6 and Sections 6.7 to 6.9 respectively. The chapter concludes in Section 6.10.

6.1 Identifying DMCs in the dataset

The first task of analysis was to identify a clear 'DMC group' within the dataset, of which it could confidently be claimed that the respondents were reporting on true DMC experiences. This was of patent and paramount importance to any subsequent analysis, and commensurate to this, several questions were included which sought to identify DMCs from different angles.

Before looking at these in Sections 6.1.1 to 6.1.4, let us first begin by turning quickly to some more general statistics. As described in the previous chapter (see Section 5.2.1), the format of the questionnaire adopted a necessarily novel approach: before participants could be asked about their experiences, an initial step was first required to describe to participants what it was they were going to be asked about. The type of intense motivation characteristic of DMCs was described to respondents through the presentation of five bullet points, each of which described a key identifying feature. Each bullet point was representative of and drawn from the way past interview participants had described their DMC experiences, and each was chosen specifically to represent the unique and extraordinary experience described by individuals in their personal descriptions of this time (see also Appendix B). That is, these statements specifically highlighted those aspects which most clearly distinguish DMCs from long-term motivation in general; the uniquely positive emotionality of the experience underpinning the maintenance of such intense levels of motivation and effort. This step was also key to ensure that participants' individual reflections on their DMC-like states had a common baseline among all respondents. After having read this bullet pointed description, participants were asked to indicate along a five point Likert scale – where 1 = Strongly Disagree and 5 = Strongly Agree – whether they recognised this type of intense motivation (M = 3.78, SD = 1.09, N = 1452), and whether they had personally experienced this type of intense motivation while doing a project (M = 3.66, SD = 1.18, n = 1452; see further Table 7).

	"I recognise this type of intense motivation"	**"I have personally experienced this type of intense motivation while doing a project"**
Strongly Disagree	62 (4.3%)	91 (6.3%)
Disagree	121 (8.3%)	175 (12.1%)
Neither Agree nor Disagree	328 (22.6%)	283 (19.5%)
Agree	508 (35.0%)	496 (34.2%)
Strongly Agree	433 (29.8%)	407 (28%)

Table 7: Summary of responses to initial questions regarding *participants' recognition and* experience of this type of intense motivation

A substantial proportion of the respondents – 64.8% (N = 941 responded either Agree or Strongly Agree) – report recognition of this type of motivation, and a similarly high percentage – 62.2% (N = 903) – answered in the same way as to whether they had personally experienced it. Although limited conclusions can be drawn from this metaphorical dipping of a toe into the water such as these numbers represent (as individuals invariably differed from each other in their understanding of what it meant to recognise this type of motivation, and what level of intensity was sufficient for them to report personal experience of it) they nevertheless offer an encouraging start: in constituting such a considerable proportion of the sample they offer tentative support to the hypothesis that the DMC phenomenon is widely recognisable, and not representative simply of exceptional occasions identifiable only in the lucky few individuals reported on in previous qualitative studies. But, how many respondents within the current dataset actually experienced DMCs?

6.1.1 First steps to identifying true DMC experiences

The first step in analysis and in the isolation of a true 'DMC group' within the respondents was to probe deeper into participants' appraisals of whether their experience matched the intensity and the levels of positive emotionality portrayed in the given bullet pointed statements. Consistent with the explanation in the first part of this thesis, if one were to imagine a linear scale of motivational intensity, DMCs embody only the most extreme tip – representing a 'perfect' form of long-term approach motivation – and consistently manifest with an equally significant positive emotional counterpart. In isolating a true DMC group it was therefore critical to first create an opportunity for participants to be able to 'speak up' if their experience was not comparable in intensity to that expressed in the descriptive quotes. In order to achieve this, participants were asked whether they had experienced this type of motivation to 'a similar level of intensity' or to a level 'not quite as intense'. Participants who indicated that they had experienced this type of motivation (to either level of intensity) were also asked to indicate how many times they had experienced it; once, or several times (see Table 8 for results).

	Never	**Once**, less intense	**Several times**, less intense	**Once**, similar intensity	**Several times**, similar intensity
Number	134 (9.2%)	158 (10.9%)	590 (40.6%)	213 (14.7%)	357 (24.6%)
Total	134 (9.2%)	748 (51.1%)		570 (39.3%)	

Table 8: *Summary of responses to the question: "*How often do you think you have experienced a project to this *kind of motivational intensity?"*

The result that only 9.2% of the sample report never having experienced this type of intense motivation lends support to the above tentative conclusion that DMCs are not only recognisable, but are a relatively common phenomenon among the respondents (for further analysis of the 'Never' subgroup see Section 6.4.2). It is of note that this figure (i.e. 134) is practically half the initial statistic reported in Section 6.1 (N = 266) in which participants were also asked to indicate their personal experience of this type of motivation. However, it is likely this can be simply explained through the inclusion of the 'not quite as intense' option which drew participants away from marking that they had never experienced it by allowing for a slightly more nuanced response than the previous 'all or nothing' options allowed. The step of isolating participants who had experienced this type of motivation to a similar level of intensity was a key to distilling true DMC experiences, and participants who self-selected as to a similar level of intensity were earmarked for inclusion in the DMC group. Respondents who reported their experience to be not quite as intense were understood either to have experienced partial manifestations of DMCs, or to have experienced something akin to a more generalised form of long-term motivation resulting from a form of highly regulated self-determined behaviour. The initial basis of the DMC group was therefore formed, comprising participants reporting experiencing this type of motivation to a similar level of intensity, either on one occasion or several times (N = 570).

It is of note that the analysis of the qualitative dataset (discussed in Sections 6.7 to 6.9) indicates that not an insignificant proportion of the respondents who marked their experience as 'not quite as intense' do have clear hallmarks and are indicative of true DMC experiences. However, with insufficient information available to justify the 'upgrade' of any of these responses – and to ensure that the final DMC group contained only true DMC cases and was not over-exaggerated – for the purposes of the current analysis these responses were not altered for inclusion.

6.1.2 Levels of motivational intensity reported throughout this experience

Initial justification of the isolation of the responses earmarked for the DMC group was provided through participants' appraisal of how intense their motivation felt throughout this period. Participants were asked to indicate on a Likert scale from 1 to 5 how intense their motivation felt throughout this period, where 1 equalled 'Not very intense' and 5 equalled 'Very intense'. An independent samples t-test was carried out to compare the intensity scores reported by the DMC group (N = 570) and the general long-term motivation group (N = 748). There was a significant difference in scores between the former (M = 4.29, SD = .63) and the latter (M = 3.59, SD = .76), $t(1183) = 17.4$, $p < .05$, and the magnitude of the effect size was large (eta squared = .2; Pallant, 2011). Assuming that the DMC group does comprise true DMC experiences this result is exactly as would be expected, and it therefore provides initial support and assurance for the accuracy of the isolation of these responses in this way.

6.1.3 Further distil*lation of the DMC group: "Would you like to experience this type of intense motivation again?"*

In order to further distil the DMC group to identify responses truly representative of DMC experiences, after respondents had been asked to reflect upon their experience in greater detail, at a later point in the questionnaire they were asked to indicate whether they would like to experience this type of motivation again in the future. Due to the extraordinary levels of eudaimonic well-being and satisfaction experienced by individuals throughout DMC experiences, and the high levels of positive emotionality experienced both during and which regularly become hallmarks of reported memories of this time – and indeed which are a distinguishing feature of the DMC phenomenon in general – individuals who have experienced DMCs tend to readily report wanting to experience this type of motivation again. A chi-square test for independence (see Table 9) indicated a significant relationship between the group to which respondents had been assigned (the DMC group or the general long-term motivation group) and their response with regards whether they desired to repeat the experience, x^2 (1, n = 1318) = 9.87, $p < .002$, with the expected frequencies indicating that the proportion of 'yes' responses was higher than expected in the DMC group, the opposite true of the general long-term motivation group. This clear tendency is exactly what would be

expected assuming that the DMC group is truly representative of DMC experiences, and also offers support for the assertion that respondents' understanding and experience of DMCs converges with how it has been defined in the literature. (See Section 6.9 for discussion and qualitative data evidence for why some participants in this group reported they did not want to repeat the experience).

			Do you want to experience this again?		**Total**
			Yes	No	
Level of intensity	Not quite as intense	Count	655	93	748
		Expected Count	672.5	75.5	748.0
	Similar intensity	Count	530	40	570
		Expected Count	512.5	57.5	570.0
Total		Count	1185	133	1318
		Expected Count	1185.0	133.0	1318.0

Table 9: Chi-square results: level of intensity x whether participants would like to repeat the experience

6.1.4 The final DMC group

The juxtaposition of these findings together forms a stricter criteria capable of more accurately separating and supporting the isolation of a DMC group from the wider dataset. While it is clear that exact understandings of terminology may vary from participant to participant, it is nevertheless conclusive that a significant proportion of respondents claim not only to have personally experienced such intense periods of motivation but, even more significantly, that they demonstrate the same positive attitude towards the experience in reporting wanting to experience it again. After removing the 40 respondents who reported experiencing it to similar levels of intensity but who did not wish to experience it again, the final DMC group taken forward for analysis comprised a total of 530 of the 1452 respondents, 36.5% of the sample group as a whole.

6.2 Creating a composite 'DMC Disposition' scale

The next step required to facilitate a more detailed analysis was to create a composite DMC Disposition scale from the main body of the questionnaire, which comprised 12 Likert scale items to which participants were asked to indicate their responses on a five point scale, from Strongly Disagree (= 1) to Strongly Agree (= 5). Each of these statements was designed to tap into a different attitudinal facet of the DMC construct, and because this was the first study of its kind, the first step of analysis was to conduct an exploratory factor analysis to assess the underlying factor structure of the construct in order to check the legitimacy of considering all 12 items as belonging to a single attitudinal scale. Maximum likelihood extraction with direct oblimin rotation produced a three factor solution (see Table 10), however, because Factor 1 was made up of only two variables – one of which was significantly stronger than the other – a two factor solution was tested (see Table 11). This solution merged Factors 1 and 2, and because the outstanding two items – '*It didn't feel like hard work at the time* – I was just caught up in the flow' ('EASYFLOW') and 'Many times it felt like a real struggle to keep going' ('STRUGGLE') – did not have high factor loadings, it was decided that the construct underlying the dataset did contain only one salient dimension.

	Factor		
	1	**2**	**3**
I remember thinking about my goal all the time	1.061		
I often imagined myself achieving my final goal	.516		
I surprised myself with how much I was able to do		.740	
I think something special happened to me during this experience – it was an amazing time		.709	
When looking back now, I have very good memories of this time		.643	
This experience helped me to achieve all I had wanted to and more		.601	
During this time I was able to work more productively than I usually can		.563	
The people around me could see that I was experiencing something special		.497	
At the time, this project became a central part of my life		.353	
It didn't feel like hard work at the time – I was just caught up in the flow			.562
Many times it felt like a real struggle to keep going			.498
It was a really enjoyable experience		.478	.491

Table 10: Results of the exploratory factor analysis. (Extraction method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization)

	Factor	
	1	**2**
I think something special happened to me during this experience – it was an amazing time	.670	
I surprised myself with how much I was able to do	.633	
The people around me could see that I was experiencing something special	.618	
This experience helped me to achieve all I had wanted to and more	.606	
I remember thinking about my goal all the time	.595	
When looking back now, I have very good memories of this time	.553	.375
During this time I was able to work more productively than I usually can	.531	
I often imagined myself achieving my final goal	.528	
At the time, this project became a central part of my life	.525	
It didn't feel like hard work at the time – I was just caught up in the flow		.552
It was a really enjoyable experience	.445	.537
Many times it felt like a real struggle to keep going		.463

Table 11: Results of the exploratory factor analysis with a forced two factor solution. (Extraction method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization)

A reliability analysis was then conducted, at first including all 12 items. Although the Cronbach's Alpha coefficient reached .80, this increased to .84 with the deletion of the items 'STRUGGLE' and 'EASYFLOW'. Taking this together with the results of the factor analysis, it was decided that these two outstanding variables be deleted in order to keep the composite variable as homogeneous as possible. Thus, the resulting DMC Disposition scale comprised 10 Likert scale items, with strong internal consistency (Cronbach's Alpha = .84). The reliability analysis was also conducted separately for the DMC group (N = 530) and the general long-term motivation group (comprised of respondents who reported experiencing this type of motivation to a lesser intensity, but who also reported wanting to experience it again; N = 655), the Cronbach's Alpha coefficients of these two groups reached levels of .85 and .79 respectively.

6.3 Investigating the DMC group: How does this compare to the general long-term motivation group?

Using the newly formed DMC Disposition scale, an independent-samples t-test was carried out to compare scores on this attitudinal measure between the DMC group and the general long-term motivation group. There was a significant difference between the scores for the DMC group (M = 4.16, SD = .29) and the general long-term motivation group (M = 3.77, SD = .54), $t(1183) = 12.0$, $p < .001$, with the magnitude of the difference reaching a reasonably large effect size (eta squared = .11), thereby validating again the isolation of the DMC group. To probe this in greater detail, these two groups were each split in half on the basis of whether the respondents reported experience of this once or several times (see Table 12 for descriptive statistics of these four groups). A one-way analysis of variance indicated that there was a significant difference in DMC Disposition scores between the groups, $F (3, 1181) = 62.12$, $p < .001$, and that the effect size was large (eta squared = .14). S-N-K post hoc analysis showed that each of the groups differed significantly from the others ($p < .05$), with the sequence of means following the expected order, in the sense that 'several times' was higher than 'once' and 'similar intensity' was higher than 'not quite as intense'. It is of interest to note that, further to Section 6.1.2, a one-way analysis of variance comparing the intensity levels reported by individuals falling into each of these four groups highlights a significant difference, $F (3, 1181) = 119.65$, $p < .000$, and that S-N-K post hoc analysis shows that each group differs significantly from each of the others, and the sequence of means appear in accordance with this same expected order. The effect size is large at .23 (see Table 13 for descriptive statistics).

	Number	**Mean**	**Standard deviation**
Once, not quite as intense	128	3.57	.58
Several times, not quite as intense	527	3.82	.52
Once, similar intensity	191	4.03	.60
Several times, similar intensity	339	4.24	.57

Table 12: Descriptive statistics for the four response groups submitted to ANOVA to compare scores on the DMC Disposition scale

	Number	Mean	Standard deviation
Once, not quite as intense	128	3.32	.90
Several times, not quite as intense	527	3.66	.71
Once, similar intensity	191	4.08	.63
Several times, similar intensity	339	4.42	.59

Table 13: Descriptive statistics for the four response groups submitted to ANOVA to compare scores in the level of intensity reported

6.3.1 The effect of gender and age on responses on the DMC Disposition scale

An independent-samples t-test was carried out to compare responses on the DMC Disposition scale from men and women, both in the DMC group and the general long-term motivation group. In the DMC group there was no significant difference in the scores of men (M = 4.14, SD = .55) and women (M = 4.17, SD = .60), t (528) = -.607, p = .54, and this non-significant result was replicated when making the same comparison between men (M = 3.70, SD = .57) and women (M = 3.79, SD = .52) in the general long-term motivation group, t (653) = -1.86, p = .06. This result is highly encouraging in terms of the practical application of DMCs, providing initial evidence that they are experienced and appraised in the same way by both sexes.

Within the general long-term motivation group, comparing responses on the DMC scale from participants within the seven different age brackets gave a very clear picture. A one-way analysis of variance indicated that there was no significant difference in attitudes on the DMC Disposition scale among the seven age groups, F (6, 648) = 1.13, p = .34 (see Table 14 for descriptive statistics).

	Number	Mean	Standard Deviation
16-17 years	47	3.68	.74
18-21 years	163	3.69	.59
22-30 years	227	3.80	.49
31-40 years	90	3.80	.55
41-50 years	68	3.83	.48
51-60 years	52	3.81	.40
61 years and over	8	3.74	.47

Table 14: Descriptive statistics of responses on the DMC Disposition scale in the general long-term motivation group for each of the seven age groups

In comparing responses on the DMC Disposition scale between the different age ranges in the DMC group a one-way analysis of variance did, however, highlight significant differences, $F\ (6, 523) = 3.39$, $p < .003$, although various post-hoc analyses painted an ambiguous picture because of the proximity of some of the results to the .05 significance threshold. The analysis was therefore rerun having merged several of the data categories to create four age groups (see Table 15 for descriptive statistics). A one-way analysis of variance indicated a significant difference in DMC Disposition scores amongst these new groups, $F\ (3, 526) = 6.08$, $p < .000$, but the effect size was relatively small (eta squared = .033). S-N-K post hoc analysis showed that the group aged 16-21 years was statistically different from the groups aged 31-50 years and 51 years and over ($p < .05$), but that the group 22-30 years did not differ significantly from either the 17-21 group, or the groups aged 31-50 years or 51 years and over: in other words, younger participants tended to answer less emphatically on the DMC Disposition scale than their older counterparts. The small effect size, however, indicates that even in the DMC group age differences do not play a decisive role and may simply be attributable to older respondents' increased opportunities due to their longer lifespan.

	Number	Mean	Standard Deviation
16-21 years	125	4.00	.65
22-30 years	144	4.14	.48
31-50 years	188	4.28	.54
51 years and over	73	4.19	.58

Table 15: Descriptive statistics of responses on the DMC Disposition scale from participants in the DMC group for each of the four regrouped age categories

6.3.2 Comparing the lengths of the experiences reported by the DMC group and the general long-term motivation group

The analysis next turned to look at the duration over which each period of intense motivation lasted. Figure 3 provides a visual representation of these results. A 2 x 3 chi-square test revealed a significant relationship between the type of experience an individual reported (i.e. between the DMC group and the general long-term motivation group) and the duration of this experience, x^2 (4, 1185) = 87.47, $p < .000$. As can be seen in Table 16, within the DMC group more participants than expected reported longer experiences, and fewer participants than expected reported shorter experiences. In contrast, the inverse is true of the general long-term motivation group. Considering the intensity of the directional motivated energy contained in DMCs and the drive this can create – as evidenced in previous studies – this result is consistent with the characteristics of a true DMC group.

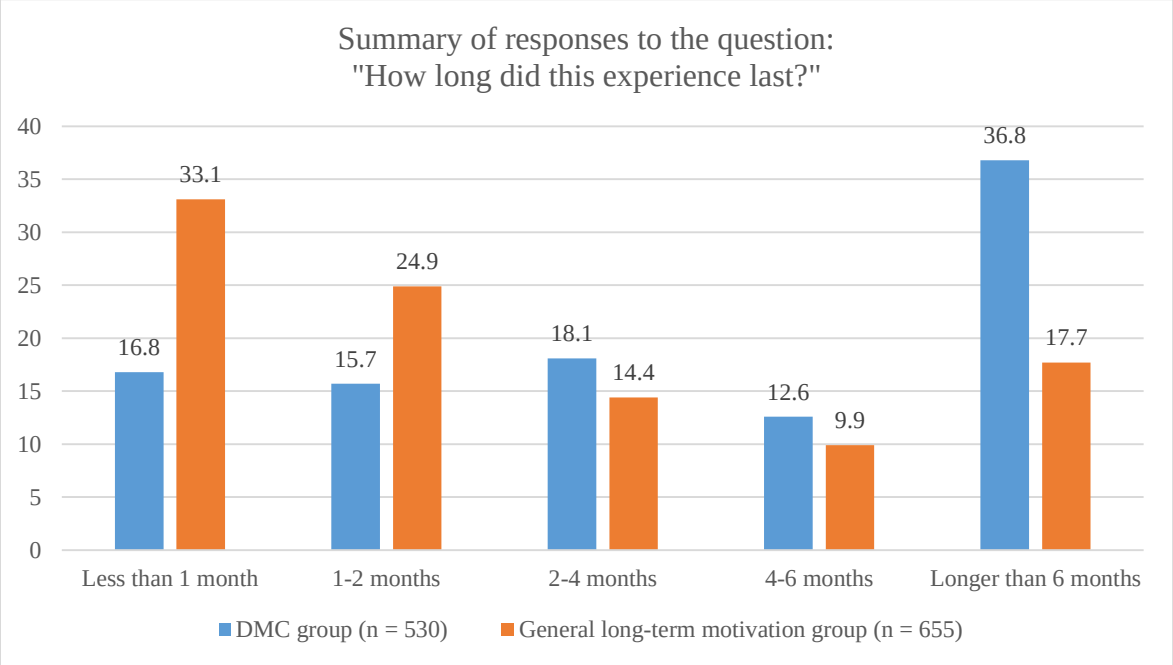


Figure 3: Duration of the experience for the DMC and general long-term motivation groups (figures given are percentages to allow for direct comparison)

		Duration (in months)					Total
		Less than 1	1-2	2-4	4-6	Longer than 6	
DMC group	Count	89	83	96	67	195	530
	Expected count	136.9	110.0	85.0	59.0	139.1	530.0
Long-term motivation group	Count	217	163	94	65	116	655.0
	Expected count	169.1	136.0	105.0	73.0	171.9	
Total	Count	306	246	190	132	311	1185
	Expected count	306.0	246.0	190.0	132.0	311.0	1185.0

Table 16: Chi-square analysis comparing the DMC and general long-term motivation groups by way of the duration of the experience

A one-way analysis of variance also demonstrated significant results when examining how long participants' experiences lasted and the reported level of intensity of these experiences. In running this analysis first with the DMC group and the general long-term

motivation group pooled together, results indicated that there was a significant difference in the level of intensity reported by individuals whose experiences lasted varying lengths of time (see Table 17 for descriptive statistics), $F(4, 1180) = 22.73$, $p < .000$, with a moderate effect size (eta squared = .072). S-N-K post hoc analysis showed that individuals in the top two groups, where experiences lasted longer than four months, reported levels of intensity significantly greater than those whose experiences lasted either one-two or two-four months, whose reported level of intensity was in turn also significantly greater than individuals for whom this experience lasted less than one month: in short, the longer the experience, the greater the level of intensity of the experience reported, as might be expected. Although each did reach levels of significance, these neat post-hoc results are not replicated, however, when running the same analysis for the DMC group and the general long-term motivation group separately.

	Number	**Mean**	**Standard deviation**
Less than 1 month	306	3.65	.86
1-2 months	246	3.80	.75
2-4 months	190	3.87	.73
4-6 months	132	4.16	.60
Longer than 6 months	311	4.17	.73

Table 17: Descriptive statistics of the five groups put forward for ANOVA: both the DMC group and the general long-term motivation group together (N = 1185; 1 = Not very intense, 5 = Very intense)

A one-way analysis of variance indicated that there was a significant difference in the intensity scores of individuals in the general long-term motivation group whose experiences lasted different durations (for descriptive statistics see Table 18), $F(4, 650) = 7.538$, $p < .000$. The effect size was small (eta squared = .044). S-N-K post hoc analysis showed that while there was no significant difference between participants whose experience lasted from four-six and longer than six months, the intensity scores of individuals whose experience lasted from four-six months was significantly different from those whose experience lasted from two-four months, and the intensity scores of individuals whose experience lasted over six months were significantly different from individuals in the three groups whose

experiences lasted less than four months: in short, levels of intensity increased up to four-six months, but dropped off for individuals whose experiences lasted over six months. This is arguably what would be expected from the general long-term motivation group, in which the level of intensity required to provide continual motivational impetus becomes more important – and intense – the longer a current of motivation is required to be maintained.

	Number	**Mean**	**Standard deviation**
Less than 1 month	217	3.43	.83
1-2 months	163	3.55	.69
2-4 months	94	3.61	.74
4-6 months	65	3.91	.55
Longer than 6 months	116	3.78	.78

Table 18: Descriptive statistics of the five groups put forward for ANOVA: the general long-term motivation group (N = 655)

In looking at the results for the DMC group, a one-way analysis of variance likewise indicated a significant difference between the intensity scores of individuals whose experiences lasted different durations (see Table 19 for descriptive statistics), $F(4, 525) = 4.189$, $p < .002$. However, the effect size was small (eta squared = .031). S-N-K post hoc analysis showed that although the three groups whose experiences were under four months did not differ from each other significantly in terms of their intensity scores, and that – excluding the group whose experience lasted two-four months – neither did any other groups differ significantly from each other, and that the intensity scores of those whose experiences lasted from two-four months did differ significantly from those in one of the two groups whose experiences lasted over four months. A clear pattern for the DMC group is harder to discern, and the relatively small effect size likewise indicates that the difference in intensity scores of individuals who experienced DMCs for different lengths of time are relatively less meaningful overall. This is what might be expected of a DMC group: the intensity of DMC experiences are not linked to the lengths of time over which they are experienced, but instead rather by the content of the experience itself and its relevance to an individual's personal goals and deeper understanding of self.

	Number	Mean	Standard deviation
Less than 1 month	89	4.19	.69
1-2 months	83	4.30	.62
2-4 months	96	4.13	.64
4-6 months	67	4.40	.55
Longer than 6 months	195	4.39	.60

Table 19: Descriptive statistics of the five groups put forward for ANOVA: the DMC group (N = 530)

6.3.3 Witnessing DMCs in others

	Whole sample	DMC group	Not experienced a DMC (rest of sample)
Yes	728 (50.1%)	326 (61.5%)	402 (43.6%)
No	172 (11.8%)	40 (7.5%)	132 (14.3%)
Not sure	552 (38.0%)	164 (30.9%)	388 (42.1%)
Total	1452	530	922

Table 20: Summary of responses to the question: *"*Have you seen this type of intense m*otivation in people around you?"*

The nature of DMCs means that it is possible to recognise their occurrence in others, both in close acquaintances and in individuals less well known, such as classmates or colleagues. Participants were therefore asked whether they had witnessed this type of intense motivation in those around them. As shown in Table 20, almost exactly half of respondents reported having witnessed DMCs in people around them, yet this ratio is not mirrored in the breakdown of the answers of participants who had and who had not experienced DMCs personally. A 2 x 3 chi-square test for independence revealed a significant relationship within the sampled participants between an individual's experience of DMCs and whether they report having witnessed DMCs in others, x^2 (2, n = 1452) = 45.5, p < .000. As can be seen in

the expected counts in Table 21, having experienced a DMC means that not only are individuals more likely to recognise and report having witnessed DMCs in others more than expected, but they are also less likely than expected to report that they are unsure of whether they have witnessed DMCs in those around them or not. The inverse is true of those who have not experienced DMCs; they report not only that they have not or that they are not sure whether they have seen this type of experience in others more than expected, but fewer than expected report having witnessed it around them. This means, then, that for those that have experienced DMCs, they are not only significantly more likely to recognise when others are going through similar experiences, but also show less uncertainty over whether they have or have not witnessed this.

			DMC experience?		**Total**
			DMC group	Rest of sample	
Witnessed in others?	Yes	Count	326	402	728
		Expected Count	265.7	462.3	728.0
	No	Count	40	132	172
		Expected Count	62.8	109.2	172.0
	Not sure	Count	164	388	552
		Expected Count	201.5	350.5	552.0
Total		Count	530	922	1452
		Expected Count	530.0	922.0	1452.0

Table 21: 2 x 3 Chi-square analysis between participants' own experience of DMCs and whether they have witnessed DMCs in others

6.3.4 Interim summary

The previous analyses have supported the conclusion that the so-labelled 'DMC group' does comprise individuals who are reporting on DMC experiences, and that descriptions of their reported DMC experiences were not only consistent with their own and others' understanding of the experience, but also with how the concept has been operationally defined in the literature. This provides strong validation for the construct. Furthermore, the DMC group has

been seen to be significantly different from the long-term motivation group in terms of participants' DMC Disposition scores as well as in the longevity, frequency and intensity of their experiences, all of which gives support to the assertion that DMCs are correctly understood as a type of 'perfect' version of long-term approach motivation, and that they are well-recognisable and widely experienced. Two key questions, however, remain unanswered: who is it exactly that is included the DMC group? And how does the make-up of this subgroup correspond to the participant make-up of the sample as a whole? It is to these questions that analysis now turns.

6.4 A closer look at the DMC group: Who experienced DMCs?

Although it has already been established (in Section 6.3.1) that DMC experiences are not gender-specific and that there is only moderate evidence that they are linked to an individual's age, the impact of demographic factors such as gender, age and nationality are such an important consideration in terms of the practical application of DMC theory in language classrooms that further analyses were conducted to investigate how these characteristics of the DMC group compared to the sample as a whole.

6.4.1 The DMC group versus the whole sample

Perhaps the most basic characteristic to explore was the sex of the respondents. A straightforward categorisation makes clear the similarity between the male/female split within the DMC group (N = 154/376, equal to 29.1%/70.9% of the subsample) and the sample group as a whole (N = 409/1043, equal to 28.2%/71.8%). As expected when looking at these figures, a 2 x 2 Chi-square test for independence revealed no significant relationship between participants' gender and their reports of DMC experiences, x^2 (1, n = 1452) = .26, p = .61. This important result substantiates the earlier finding that DMCs are gender-neutral, confirming that neither sex has a significant dispositional advantage or ability to experience DMCs over the other.

The next basic characteristic considered was the ages of participants in the DMC group versus the sample as a whole. Plotted as a bar graph in Figure 4, the results reveal a similar visual pattern to that presented earlier, namely that there is a visible split at the age of

around 30. Participants under the age of 30 appear to be marginally less well represented in the DMC group than they are within the sample as a whole, and this is reversed over the age of 30. For the purposes of statistical analysis, the age groups were merged together as in Section 6.3.1, and a 2 x 4 chi-square analysis was conducted to examine the ages of participants in the DMC group relative to the sample as a whole (see Table 22). This revealed a significant relationship, x^2 (3, 1452) = 33.88, p < .000, with participants over the age of 30 overrepresented in the DMC group compared to the whole sample, and participants under this age underrepresented in the DMC group compared to what would be expected. These findings are thus parallel to the ones reported earlier (see Section 6.3.1) and again a possible explanation is that individuals over the age of 30 are more likely to experience DMCs than those who are younger; however, the residuals are small in relation to the size of the sample and it may be that this result could simply be attributed to older participants' increased lifespans and opportunity.

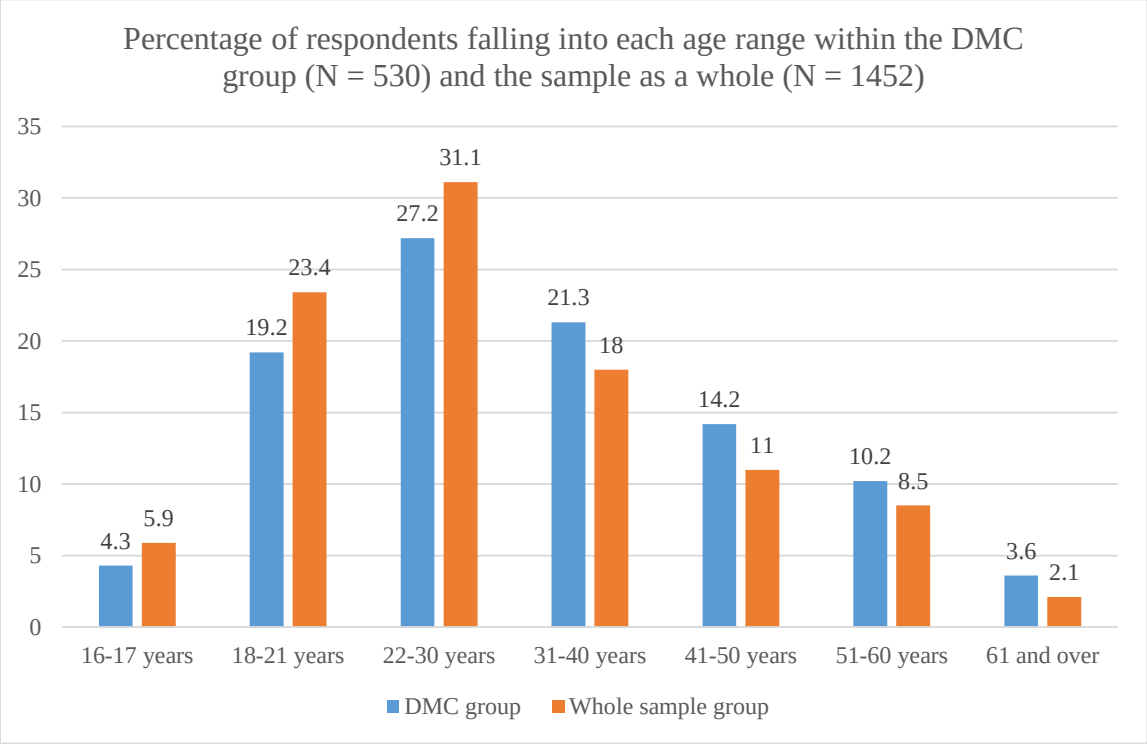


Figure 4: Ages of respondents within the DMC versus the sample as a whole (figures given are percentages to allow for direct comparison)

			Age range				Total
			16-21	22-30	31-50	51+	
Group	DMC	Count	125	144	188	73	530
		Expected Count	155.5	165.0	153.3	56.2	530.0
	Rest of sample	Count	301	308	232	81	922
		Expected Count	270.5	287.0	266.7	97.8	922.0
Total		Count	426	452	420	154	1452
		Expected Count	426.0	452.0	420.0	154.0	1452.0

Table 22: Chi-square analysis comparing the DMC group and the rest of the sample by way of the ages of participants

The final basic demographic characteristic of participants within the DMC group that was investigated was the respondent's nationality. Table 23 lists the number of respondents within the top 15 most populous nationality groups within both the DMC group and the sample as a whole, the percentage makeup of each nationality group, and the percentage difference between these two groups. This 'top-15' list applies equally to the DMC group and the whole sample, and, as is clearly evidenced in the table, their contributions show only marginal differences. Accordingly, it can be concluded that in the current dataset the DMC subsample did not deviate from the overall sample of respondents in this respect, and therefore that DMC experiences appear to be equally common across all nationalities represented in the sample.

Nationality	DMC group (n = 530) (%age of DMC group)	Whole sample (n = 1452) (%age of whole sample)	Percentage difference
British	57 (10.8%)	163 (11.2%)	-0.4
Chinese	40 (7.5%)	129 (8.9%)	-1.4
Spanish	36 (6.8%)	77 (5.3%)	+1.5
Brazilian	33 (6.2%)	83 (5.7%)	+0.5
Korean	30 (5.7%)	89 (6.1%)	-0.4
American	26 (4.9%)	67 (4.6%)	+0.3
Croatian	24 (4.5%)	64 (4.4%)	+0.1
Saudi	23 (4.3%)	69 (4.8%)	-0.5
Japanese	20 (3.8%)	70 (4.8%)	-1.0
Finnish	18 (3.4%)	82 (5.6%)	-2.2
Hungarian	17 (3.2%)	35 (2.4%)	+0.8
Thai	17 (3.2%)	68 (4.7%)	-1.5
Dual	16 (3.0%)	26 (1.8%)	+1.2
Greek	13 (2.5%)	27 (1.9%)	+0.6
Turkish	12 (2.3%)	54 (3.7%)	-1.4

Table 23: Nationality makeup of the DMC group and the sample group as a whole for the top 15 most populous nationalities represented

6.4.2 The 'Never' group versus the whole sample

To corroborate the above findings, it is of value also to consider briefly the group of participants within the 'Never' group; if it stands that DMCs are largely neutral in terms of the participants' gender, age and nationality, this should likewise be reflected here. The percentage breakdown of the male/female split within the Never group (N = 41/93, equal to 30.6%/69.4%) is again remarkably similar to the split within sample group as a whole (N = 409/1043, equal to 28.2%/71.8%), and a 2 x 2 chi-square analysis revealed no significant relationship between the genders of the group of respondents reporting never having experienced this type of motivation and the rest of the sample x^2 (1, n = 1452) = .308, p = .58.

The pattern in Figure 5 concerning the ages of those in the Never group again does not reveal any strong discrepancy, and indeed, after regrouping the age categories as previously, a 2 x 4 Chi-square analysis revealed that there was no significant relationship between the age of respondents in the Never group and the rest of the sample as a whole, x^2 (3, 1452) = 2.57, p = .46, as would be expected.

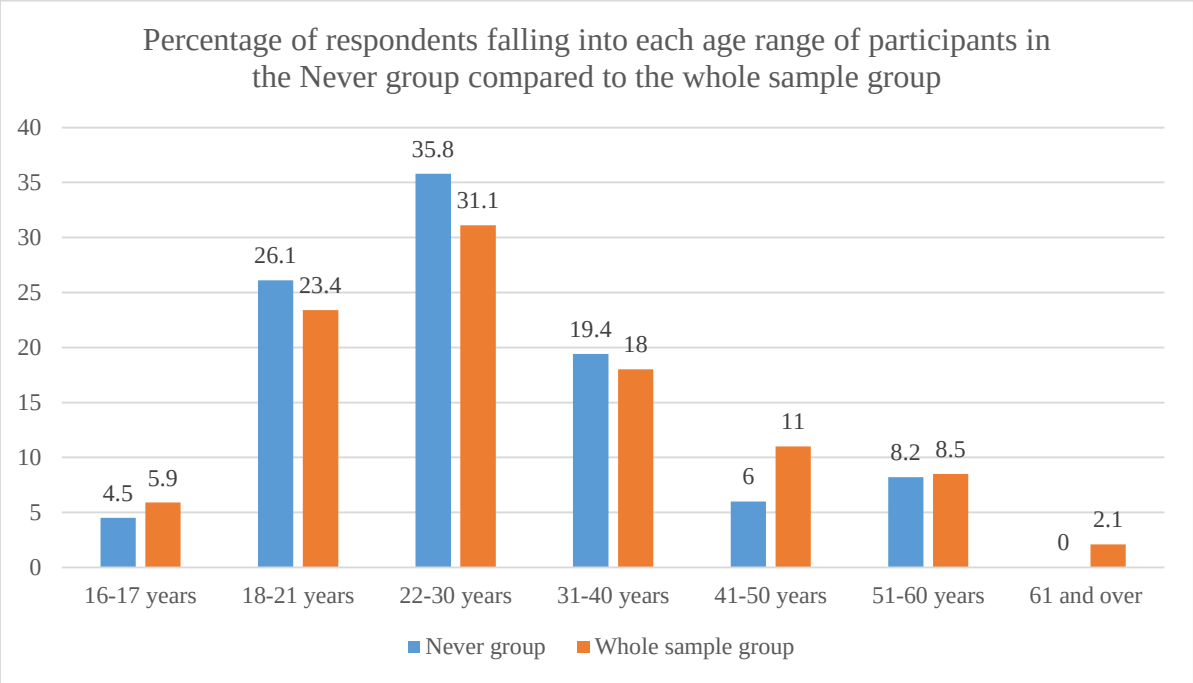


Figure 5: Age range of respondents in the Never group compared to the sample group as a whole (figures given are percentages to allow for direct comparison)

Table 24 presents the top 15 most populous nationalities in the Never group and in the sample as a whole, and there is only one category where a two-digit percentage occurs: Saudi respondents are overly represented within this group. However, this might be explained by the fact that a significant proportion of the Saudi sample was excluded from analysis due to insufficient levels of English comprehension (primarily as judged through their qualitative answers, for further explanation see Section 5.1.1), and it may be the case that the responses of even those remaining skewed the results of this analysis due to language proficiency issues. This conclusion is given additional credence in this case in the light of the fact that all other nationalities show little discrepancy.

Nationality	NEVER group (n = 134)		Whole sample (n = 1452)		Percentage difference
	Number	Percentage	Number	Percentage	
Saudi *	29	21.6	69	4.8	+16.8
British *	18	13.4	163	11.2	+2.2
Chinese *	9	6.7	129	8.9	-2.2
Turkish *	8	6.0	54	3.7	+2.3
Finnish *	8	6.0	82	5.6	+0.4
Korean *	7	5.2	89	6.1	-0.9
Croatian *	7	5.2	64	4.4	+0.8
Japanese *	6	4.5	70	4.8	-0.3
American *	4	3.0	67	4.6	-1.6
Brazilian *	4	3.0	83	5.7	-2.7
Thai *	4	3.0	68	4.7	-1.7
Maltese	4	3.0	21	1.4	+1.6
Indonesian	3	2.2	13	0.9	+1.3
Greek *	3	2.2	27	1.9	+0.3
Vietnamese	2	1.5	10	0.7	+0.8

Table 24: Nationality breakdown of the top 15 most populous nationalities in the Never group compared to the sample as a whole (* = Nationality also occurs in the top 15 nationalities in the DMC group)

6.4.3 Interim summary

The demographic results fully confirm the earlier findings presented in relation to the DMC Disposition scale, namely that DMCs appear to be a universal element of the human experience which transcends boundaries such as gender, age and nationality. From a pedagogical perspective this is highly promising, and suggests that the purposeful facilitation of DMC experiences might be a very real possibility in disparate classrooms and in varied contexts across the world.

6.5 DMCs and language learning

Although the focus of this study was not centred on DMCs in language learning specifically, several questions were included which gave respondents opportunity to provide basic information about any DMCs they had experienced while learning a language. Respondents were asked to indicate whether they had experienced this type of intense motivation in a language learning context, and were asked to respond by marking a single response on a five point Likert scale from 1 = 'Strongly Disagree' to 5 = 'Strongly Agree' (M = 3.38, SD = 1.17, n = 1452). Table 25 gives the breakdown of these responses.

	Number	**Percent of 1452 total**
Strongly Disagree	105	7.2
Disagree	228	15.7
Neither Agree nor Disagree	409	28.2
Agree	433	29.8
Strongly Agree	277	19.1

Table 25*: Summary of responses to the statement: "*I have personally experienced this type of intense motivation specifi*cally while learning a language"*

As evidenced, a considerable proportion of participants reported having experienced periods of DMC-like motivation similar to this during their language learning (N = 710 answered 'Agree' or 'Strongly Agree'). Due to the fact that in this instance there are no further means of identifying how many of this number are referring to true DMCs, to avoid the risk of over exaggeration the following analysis includes only those who answered most emphatically (N = 277).

The two key questions specific to the context of language learning that were addressed included the respondent's language level at the time they experienced this, and the context in which it occurred. Figure 6 displays the proficiency-based distribution of the 'Strongly agree' group: as can be seen, each proficiency band is represented and the range is quite narrow (43-61). Therefore, although these figures come from a relatively small subsample, they do not indicate any strong proficiency-related variation. In terms of the context of their language studies (see Figure 7) it is highly reassuring that a significant proportion of the respondents reported language learning DMCs taking place within the

setting of formal instructional contexts – at school, university and in private language schools – which goes against an argument that DMCs are only capable of emerging within environments in which participants have greater levels of personal freedom. It is perhaps unsurprising that relatively few DMCs occurred during periods of study abroad when considering that such courses are rarely optimally designed (for further see Section 4.4.7), and it would be interesting to see whether this figure would rise if, for example, students who had partaken in the Ealing Ethnography Research Project (Roberts et al., 2001; discussed in Section 4.4.7) could be polled on this question. That only a limited number of respondents indicated that they had experienced this type of motivation when acting in the role of teacher/lecturer can perhaps be explained partly by their relatively small representation in the sample, and partly by the limitations caused by factors such as required curriculums, timetables, and exams.

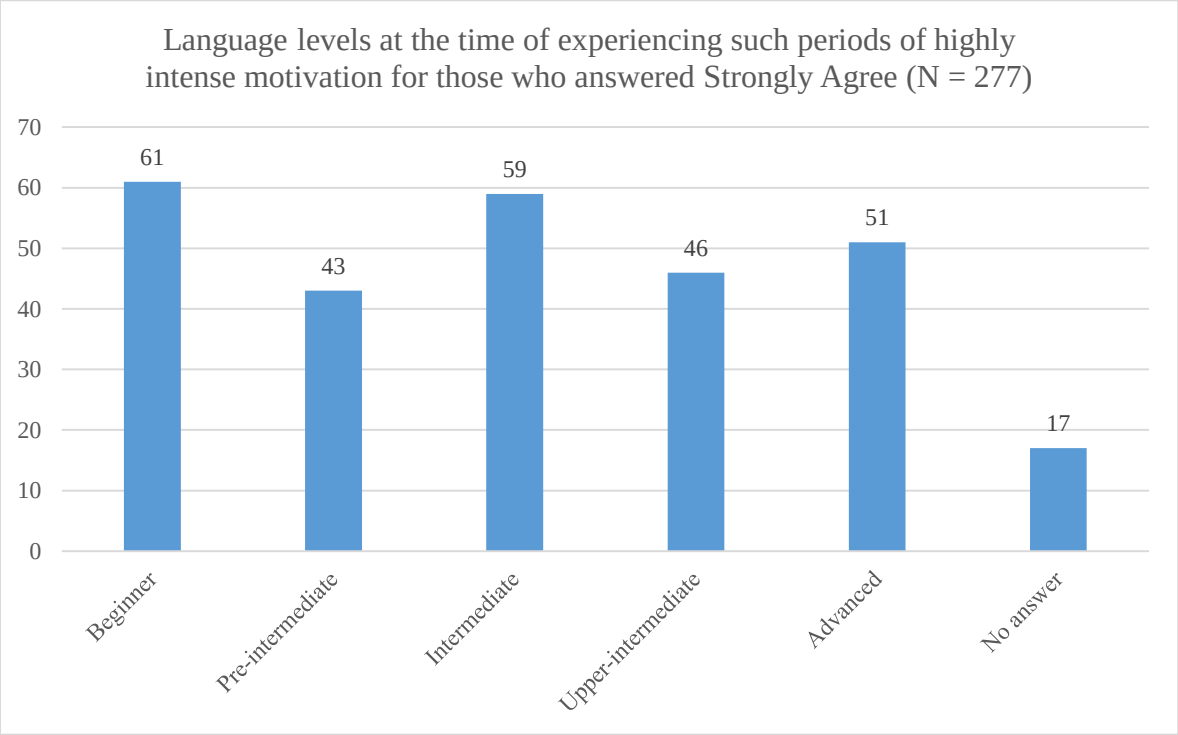


Figure 6: Language levels at the time participants experienced this type of motivation in the *context of language learning, of those who answered 'Strongly agree' (N = 277)*

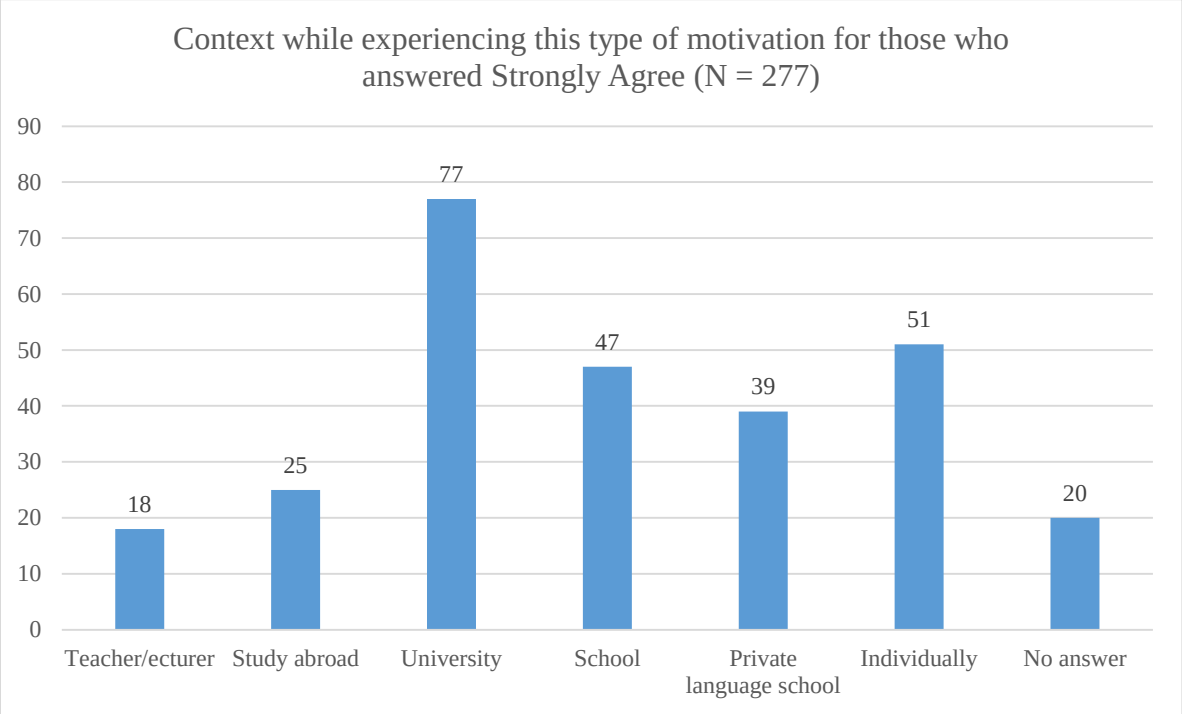


Figure 7: Contexts in which DMCs were reportedly experienced in the context of language *learning, of those who answered 'Strongly agree' (N = 277)*

6.6 Mid-point summary: What has the data told us so far?

Before going on to present the qualitative data obtained from the open-ended questions of the instrument, let us take stock of the quantitative findings presented so far. The nature of the data collected has not lent itself to conducting complex statistical analyses, yet the validity of the conclusions has been strengthened by multiple cross checks and cross comparisons. These have uniformly supported the claim that the DMC group does comprise participants who are reporting on true DMC experiences, and respondents' similar awareness of the DMC construct to how it has been defined in the literature again supports the validity of this categorisation, and equally supports the conclusions of previous theorising on the subject. The fact that the cross checks and cross comparisons between various subgroups provided results which were consistent throughout is also testament to the fact that participants interpreted the initial bullet pointed descriptions given of DMCs in the way that they were intended. It is not possible from this dataset – which was obtained from a self-selected sample – to propose exact estimates as to how many people have experienced DMCs or to generalise further in other ways regarding the wider population. However, these initial findings offer

robust support for the notion that DMCs represent something more than a rare and unique phenomenon experienced only by a selected few. The large number of responses received over a relatively short period from diverse contexts all contributes strong evidence to corroborate the claim that DMCs are a well-recognisable and widely experienced motivational phenomenon.

6.7 A brief overview of the qualitative dataset

Qualitative data was collected from respondents at three points throughout the questionnaire, in answer to three separate questions: the first asked participants how this period of intense motivation began; the second why they would or would not like to experience it again; and finally – if participants reported having witnessed DMCs in those around them – the questionnaire asked for a few details of what it was that they saw. Although a detailed content analysis of all responses falls largely outside the scope of the current chapter, as analysis progressed it became clear that the qualitative dataset was able to offer far more than had been anticipated. The following sections present an overview of this dataset, the primary aim being to shore up the conclusions of the quantitative dataset presented above, with a secondary aim also being to elaborate on the findings of existing literature. Analysis focuses on the first two of the three qualitative questions asked: how this period of intense motivation began, and whether participants would, or would not, like to experience it again (the decision was made to exclude discussion of the third question from this chapter chiefly because of its limited ability to contribute to answering the aims of the current study). Sections 6.8 and 6.9 consider each of these two questions separately.

As a preliminary note, the themes identified within the DMC group and the general long-term motivation groups were highly similar. This is in accordance with the overall stance, namely that DMCs represent a subset of long-term motivation whereby various factors are aligned in an optimal manner. Categorisation of the qualitative dataset was therefore completed looking at both groups together, and for the purposes of this overview both are presented in tandem. The quotes taken from the DMC group are identifiable by an asterisk.

6.8 Specific triggers for such periods of intense long-term motivation: "How did it begin?"

At the outset of the questionnaire participants were asked to identify a single instance in which they experienced a period of intense motivation while completing a project that stands out in their memory particularly strongly, and to write a few sentences about how it began. Analysis of these answers began by following a three step coding process (for further details see Section 5.4.1). Each participant response was assigned a primary category – representing the most salient reason given which caused their period of heightened motivation to begin – and, where appropriate, a secondary category was also assigned. The following analysis focuses solely on the primary category assigned to each response. The 16 categories identified in the responses to this question were then arranged into five wider umbrella groups: this created four 'trigger' groups, with the fifth group comprised of responses where either no reason was given, or where the reason given was unclear or ambiguous. The five groups into which each of the 16 categories were sorted include:

1) Trigger linked to external influences (positive connotation). Categories in this group were linked to reasons for beginning that were connected to influences external to the individual, but which acted as a positive force on their lives.
2) Trigger linked to external influences (negative connotation). Here, reasons for beginning were also linked to external influences, yet their impact on individuals' lives was experienced in a more negative manner.
3) Trigger outcome led. This group includes categories which are explicitly goal/vision led, or which are otherwise focused primarily on achievement or outcome.
4) Trigger connected to intrapersonal reasons. This group focuses on reasons connected more intimately to the core of an individual's being/sense of self, and are more personal in nature.
5) No reason given. This group includes responses in which no reasons were given, or where the reason given was unclear or was ambiguous.

The following Tables 26 to 29 elaborate on Groups 1 to 4: in each table is listed the discrete categories included in each group, and data examples are given which are representative of participant responses for each category. (N.B. Quotes taken from individuals in the DMC group are marked with an asterisk).

(1) Linked to external influences (positive)	
(1a) External influence/pressure (positive connotation)	*"I feel the starting motivation came from an external source* (I HAD to be ready on a given date) but because at some point I started to be motivated and excited by the subject I was writing about I was gripped by the "flow". And it felt *awesome!"* *"I suppose it all started when the deadline was set and I had* certain amount of time to complete *the project"** *"I had a lot of tasks to do, and I knew I had to do them all in a short period of time, so it helped me concentrate"*
(1b) Something external fell into place (positive connotation) e.g. a good teacher/curriculum, motivating class group, an unplanned/unexpected opportunity	*"It started with an opportunity to write my final paper with a* wonderful professor. I felt great about being accepted as her *advisee"* *"I believe it began when I was introduced to a* textbook/curriculum that directly aligned with my goals in learning the language. It also coincided with studying one-on-one with an instructor who was very flexible and *recognized my goals"** *"I'm a quilter and it usually starts when I see a fabric that I* love or a design I want to reproduce. The motivation lasts until the project - quilt - *is complete"*
(1c) Element of competition (positive connotation)	*"I have wanted to win a language competition to which we had to do research and make a presentation"* *"It was very good because I'm very competitiv*e and it and *good for min so much like those motivations"**

Table 26*: Responses to the question "How did this period of intense motivation begin?"* Group 1: Trigger linked to external influences (positive connotation)

(2) Linked to external influences (negative connotation)	
(2a) External pressure/influence (negative influence)	*"Parents pressure over success. Personal fear of failure"** *"i fell burdened about this project. at least i have an* experience how to manage the project. at the end of the *project, "i fell oh god, everything still under control.""**
(2b) A form of reactance, need to save face	*"Generally, if people around me say that you cannot do it, I* try motivate myself and succeed *it" / "some of my friend said* to me that, you can't achieve your goal. this intense period of *motivation began with this sentence"* *"It was an absolute deliberated period of very intense* motivation after a period of bad results in my bachelor degree in Economics. The motivation leaded me to pass 25 *subjects in my two last years of degree with good marks"**

Table 27: *Responses to the question "How did this period of intense motivation begin?"* Group 2: Trigger linked to external influences (negative connotation)

(3) Outcome led	
(3a) Single and explicit goal/vision	*"it happened when I prepared for the postgraduate entrance examination"** *"I decided in November of year 11 that I wanted to do* Spanish for A-Level so I had until June to learn Spanish. I was engrossed in learning the language for those six months *... so that I could get the GCSE and move on to A-Level"** *"when my vision of the finished project or product is clear I can become unstoppable in trying to make that vision real"*
(3b) Several periods of intense motivation while working towards a longer term goal	*"My motivation usually begins with a feel of a growing vision* within me. Usually I can't even put it into words or express what the vision will even entail but the feeling grows until certain conversation, words, readings or varying insights *come together suddenly and the vision is born ...*

Table continues on next page…

(Continued… (3b) Several periods of intense motivation while working towards a longer term goal)	*…* It keeps me going throughout the project. At times, motivation wanes if I feel the project to be too difficult or less feasible than it originally seemed but the motivation comes *back every time"** *"It began when I started my phD, and it never stopped.* However, it is worth noting that I went through a period which I would regard as being less intense, but this intense *motivation was resumed after a while"** *"My motivation throughout my PhD studies seemed to wax* and wane. When I was motivated, I was *very* motivated. *When I wasn't... well … But even* during the low times, I was aware that my motivation would come back, and it always *did"*
(3c) The potential possibilities from a rewarding outcome	*"I could clearly see what the project would bring to me and* my career. Whenever my motivation decreased, I would stop *and think for a while about the final result and outcome"* *"that intense period of motivation began when I started* thinking about "great things" I can do after I finish the *project"* *"It began when I thought about the fancy results"*

Table 28: *Responses to the question "How did this period of intense motivation begin?"* Group 3: Trigger outcome led

(4) Intrapersonal reasons	
(4a) Saw was good at/could do something which inspired confidence	*"I think it began when I started* achieving things. I felt like I was actually able to do what I was trying to do, so it was very *motivating and exciting to try to do more"*

Table continues on next page…

(Continued… (4a) Saw was good at/could do something which inspired confidence)	*"*I remember that when I arrived to Cuba, I wasn't able to maintain a spontaneous flow of conversation and, when this changed after a month, it was like the wind in the sails; it gave me even more will to take advantage of every opportunity to use and learn *the language"** *"I do remember being very motivated by receiving a few A* grades for the first time for a subject I loved in my final year at university for some papers I wrote. It was hugely *empowering … I think that gave me a lot of quiet confidence* in mys*elf"**
(4b) Started doing something they got caught up in and which snowballed	*"It started out with a little research and one thing led to another. It was a bit like falling down a rabbit hole"** *"… In this case the experience was like a train that slowly* started chugging out of the station and gradually picked up speed until suddenly it was going full throttle and nothing *could stop it"** *"When I was preparing to perform a piano concerto with the* state orchestra, I wasn't initially very motivated to practice or improve my technique for that piece. However, after about a month of practicing, I found myself at a deeper level of understanding of the piece itself, which contributed immensely to my almost obsessive drive I felt to develop an awe-inspiring performa*nce"**
(4c) Finding a passion/interest for something and immediately getting hooked by it	*"When I took the first course of Mandarin Chinese I felt a* "wow"-feeling: I finally found something what I really wanted to learn! Two years after the first "connection" I took the exam to get to university and I made it: I majored in East-*Asian Studies and specially China and Chinese language" "I suddenly found exciting ways to teach EFL that "turned on a light" for me about teaching in general … I couldn't get* enough*!"**

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(Continued… (4c) Finding a passion/interest for something and immediately getting hooked by it)	*"… I just got hooked on a particular subject and ran with it. I* barely slept or ate and had little to no social interaction while I was working on it. But, it was invigorating. I barely *noticed the time and lack of food or sleep"**
(4d) Believing the work was significant/had real value	*"I was given an assignment to do something I really enjoyed* and felt like the contribution I was making with this project wa*s significant"** *"It all began when I was asked to translate a book about* children with attachment disorders. Since the author is a great specialist in this field of psychology, I felt quite proud and, therefore, motivated to complete the task set before *me"**
(4e) Connected to a big life decision/change, something they always wanted to do	*"Because I feel that the project I was am working on is part of my overall purpose in life…"* *"My curiosity was on peak. I was nervous,* excited and very motivated to learn everything it was to learn about this. It was something that was really close to my emotional state *and been my dream since I first heard the word"** *"I decided that I wanted to do something big with my life at* an important turning point in my life. That's when I took the *decision to study an MA"** / *"It all began when I realised that I was doing something I had always wanted to do"**

Table 29: *Responses to the question "How did this period of intense motivation begin?"* Group 4: Trigger connected to intrapersonal reasons

Looking at the interview extracts in Tables 26-29, immediately apparent is the passion and the drive instantly identifiable in many respondents' descriptions. This is highly reminiscent of DMC experiences as they have been reported on in previous qualitative studies and shores up the validity of the quantitative responses, in that the nature of these qualitative answers is consistent with the same levels of intensity and engagement. Table 30 gives a brief overview of the number of overall occurrences of each category, and also the breakdown of these categories in the DMC group and in the general long-term motivation

group. It is interesting to first turn to the difference in the percentage of responses categorised in Group 5 – no reason given – where the number of responses of this nature in the DMC group is nearly half that found in the general long-term motivation group, at 13.4% to 23.5%. It is probable that this can be explained by the fact that individuals who have experienced true DMCs are more likely to be willing to take time to explain and share their experiences, and this conclusion is supported by the fact that participants for previous studies have even been found after they have spontaneously made contact, where individuals have identified so strongly with the published writing on DMCs that they have felt compelled to share their stories.

With respect to the four primary categories identified, that which sees the largest difference between the DMC group and the general long-term motivation group is Group 3 – the Outcome led group – with 31.7% of the DMC group reasons for beginning being categorised this way compared to 24.1% of the general long-term motivation group. As described in the initial literature review (see Section 3.2.1), a core feature of DMCs is that they are goal/vision oriented, and so it is perhaps unsurprising that it is this which differs most notably from the general long-term motivation group. However, periods of long-term motivation more generally are also goal-oriented, and so this difference should not be overstated. A further point of note is that for both groups, the most common reasons given for triggering such periods of motivation were found in the Group 4, Intrapersonal reasons. This is most marked within the DMC group, with it comprising nearly 40% of responses. This result is commensurate with the understanding and recognition that the notion of DMCs is intimately connected to that of self-concordant goals and to an individual's core sense of self, such as these categories represent. The high percentage this group comprises in the general long-term motivation group (34% of responses), supports the earlier supposition that a proportion of individuals categorised within this group may instead be reporting on true DMC experiences.

It should be remembered, however, that these results are based, in the vast majority of cases, on a maximum of two to three sentences given by each respondent, and that such comparisons as the above should not be given more credence than is warranted. What these qualitative responses are fully able to do, however, is to provide qualitative examples of DMCs in the current dataset, and thus provide strong additional support for the above quantitative conclusions with regards the isolation of the DMC group. These qualitative responses are additionally able to contribute to the more general development of

understanding with regards how and for what reasons DMCs begin or occur naturally, providing a more detailed framework and starting point for further research.

			DMC group				General long-term motivation group			
		Both groups	**No. each category**	**%age of category**	**No. in each group**	**%age each group**	**No. each category**	**%age of category**	**No. in each group**	**%age each group**
No reason given	(10) No clear reason for beginning given	187	63	11.89	71.00	13.40	124	18.93	154.00	23.51
	(11) Reason given unclear	38	8	1.51			30	4.58		
Linked to external influences (positive)	(6) Something external fell into place	128	63	11.89	69.00	13.02	65	9.92	87.00	13.28
	(7) Element of competition (positive connotation)	6	2	0.38			4	0.61		
	(15) External pressure/influence (positive connotation)	22	4	0.75			18	2.75		
Linked to external influences (negative)	(4) External pressure/influence (negative connotation)	25	10	1.89	13.00	2.45	15	2.29	33.00	5.04
	(12) A form of reactance	21	3	0.57			18	2.75		
Outcome led	(1) single and explicit goal/vision	272	150	28.30	168.00	31.70	122	18.63	158.00	24.12
	(2) Several DMCs while studying longer term	24	14	2.64			10	1.53		
	(13) The potential possibilities from a rewarding outcome	30	4	0.75			26	3.97		

Table continues on next page…

Intra-personal reasons	(3) Saw was good at sth./ that they could do sth. which gave them confidence	73	38	7.17	209.00	39.43	35	5.34	222.00	33.89
	(8) Started doing something that snowballed	49	18	3.40			31	4.73		
	(5) Finding a passion/ interest for sth. Becoming 'hooked'	227	115	21.70			112	17.10		
	(16) Believing the work was significant/had real value	20	7	1.32			13	1.98		
	(9) Connected to a big life decision/change, sth. always wanted to do	62	31	5.85			31	4.73		

Table 30: Summary *of responses to the question: "H*ow did this period of inten*se motivation begin?"*

6.9 Reasons for or against wanting to repeat the experience

The second qualitative question that will be summarised in this section relates to whether an individual would like to repeat their experience of this type of motivation. It provided two sets of answers; those who would like to experience this type of intense motivation again, and those who would not. (It is of note that some of the qualitative responses of those who answered positively also included some negative assessment of their experience, see further the end of Section 6.9.1: Negative responses within the positives). Categorisation of these responses was achieved through the same methods as used above. However, because respondents commonly identified more than one reason in their answer – which could not always easily be categorised into primary and secondary reasons – each answer was assigned a maximum of two response categories. Where respondents listed more than two reasons, the first two reasons mentioned were used, unless there was discernible indication in the answer which implied that a different solution were more appropriate. There are more responses to this question, therefore, than there are respondents.

6.9.1 Summary of analysis for response 1: "I would like to experience this again"

The 19 categories identified in the analysis of this question were clustered together to form five wider umbrella groups. This created three primary groups, one group with general/other reasons, and a final group comprised of responses where either no reason was given, or where the reason given was unclear or ambiguous. The three primary groups comprised of (1) Outcome-based reasons – reasons linked to overall achievement or to goal-directedness – (2) Process-based reasons – reasons linked to the day to day experience of this period of motivation throughout its duration – and (3) More intrapersonal reasons – reasons with deeper connections to an individual's sense of self, and to the intimate personal experience of this time.

The first three tables below – Tables 31 to 33 – list the categories included within each of these three primary groups identified (Outcome-based, Process-based, and More intrapersonal reasons), and give data examples of representative responses from each category. As above, quotes marked with an asterisk were taken from the DMC group.

(1) Outcome-based reasons	
(1a) Because of the positive outcome and the pleasure of achievement/making clearly defined progress	*"Because it helps you achieve your goals"* *"It yields results and feels like an accomplishment"** *"Because of the sense of achievement" / "To feel the satisfaction of achievement"* *"Because it gets the job done"**
(1b) Because it enabled them to achieve more than they had expected/believed possible	*"It wa*s amazing to see how I exceeded all my wildest *expectations"** *"Because you surpass your limits, both mental and physical"* *"Because the experience helped me achieve what I had thought impossible to achieve"** *"I seemed to have a special power/energy, which* helped me *to achieve the impossible"**
(1c) Because it pushed me to maximise my potential/be the best version of myself	*"Because I felt as though I was reaching my full potential"** *"Feeling… like I am, or at least could be, the best version of myself"* *"it* makes you feel like you've achieved something important in your life and really done good job to the very highest of *your skills for once"** *"It feels like I'm maximizing my potential, putting it all out there"**
(1d) Because it provided direction/meaning to life, it broadens horizons and feels truly worthwhile	*"It somehow gave me a purpose of life"* / "My life made sense finally"* *"I felt like I was really on to something* - I felt like I was about to grasp a key to something that would give life greater meaning. And even in the grasping, life was given greater *meaning for me. It was magical"** *"You have a very strong 'raison d'être'"**

Table 31: Why participants would like to experience this type of motivation again. Group 1: Outcome-based reasons

(2) Process-based reasons	
(2a) Because it was generally a nice, enjoyable, rewarding experience	*"It just feels great!"* / "I like feeling like that!"** *"In a nutshell, it was fun!"* *"It feels good to be motivated that much"** *"In spite of all the hard work, I felt HAPPY"** *"Because it felt good to be so interested, enthusiastic, and engaged in the activity"**
(2b) Because it made everything feel easy	*"... the whole process was effortless" / "It felt really easy"* *"Even when it's hard it's st*ill easy. Because back-sets doesn't feel like failure or struggle, more like a challenge and I felt motivated by that the feeling after conquering it will be *awesome. It's hard work without feeling like a burden"**
(2c) Because it was a very productive/satisfying experience which was very fulfilling	*"It greatly increases my work output without making me feel overloaded"** *"Because I get *a lot* done"* / "It (or I) got things done"* *"Because this was the most efficient time that I have ever experienced" / "Because of the crazy productivity levels"** *"It really was an exceptional time and I felt extremely, and* increasingly productive, having reached levels of *productiveness I usually have a hard time reaching"**
(2d) Because of the heightened level of clarity/focus experienced	*"I was very focused and motivated at that time. I know very clearly what I was doing and what my goal was"* *"Because I felt so focused. It was a very happy feeling, that* my mind wasn´t wandering about, but stayed at the topic and only dived d*eeper and deeper into it"** *"I was so intensely focused on one thing for an extended* period of time that it was as if the layers of gauze in my brain that usually cloud me from meaningful insights were blown away, like stripping the insulation off a power cord and exposing the bare wire beneath. The electric sparks of ideas *and connections were readily accessible"**

Table continues on next page…

(2e) Because it pushed/helped me to keep going, even when I was tired or felt I wasn't doing well	*"It makes me keep going" / "It keep us going without perceiving"* *"Because this kind of intense motivation provides you with a lot of stamina. Nothing seems impossible to you then"* *"It made it seem worthwhile and when it got tough, gave me* reason to carry on with it*"**
(2f) Because of the experience of putting everything into trying to achieve it	*"It is a really nice feeling to be FULLY absorbed in a task I really like"** *"It's great to feel like that you feel like you have offered so much" / "because I like the level* of immersion that results *from it"** *"Because you try to use all your potentialities and power to succeed" / "It's a period that allows you to involve all yourself"*

Table 32: Why participants would like to experience this type of motivation again. Group 2: Process-based reasons

(3) More intrapersonal reasons	
(3a) Because it inspired lasting feelings of confidence, competence, courage, pride	*"I felt it had boosted my confidence and my whole global* self-*worth"** *"It was also a turn*ing point in my career and after that I *'knew' I could make a good researcher"** *"It makes me proud and boost my self-confidence"* *"it gives me more courage to do what I want to do. It makes me become more confident. I love the feelings"**
(3b) Because I grew and learned more about myself as a person, it was life-changing	*"A great transformation was happening inside of me"** *"I learned immensely about myself as a person" / "to know how much we don't know about ourselves"* *"My previous experience was a life*-changing one. I'm hoping *it will be the same in the future (if it happens again)"**

Table continues on next page…

(3c) Because it also energised/had a positive effect on other areas of life too	*"it helps you with having a positive perspective on things* and actually good things start happening because of your overall *positive attitude"** *"each time I experience this kind of motivation it flows* through everything that I do. So experiencing this kind of *motivation makes me more motivated overall"* *"the effec*ts can also be felt in my personal life in the form of *general enthusiasm"* / "Because working on a project with* intense motivation energizes me in other areas of my life as *well"** *"It spilled over into all aspects of my life, not just the* studying, and I *felt I was firing on all cylinders!"*
(3d) Because it was something more than just a 'nice' experience, it meant something more and was truly special/unique	*"Because I felt exhilarated by the creative injection it gave to* my blood stream. It made me feel *alive!"** *"It's a high, a natural dopamine rush in which your mind is* high-jacked by a meaningful task that is greater than you and *worthy of following"* / "It's like a natural 'high'!!"** *"In those days I just knew where I was and what I wanted...* an incred*ible feeling of "wholeness""* / "Because it is an energy that change me completely"** *"It makes me feel like I am a precious person" / "I felt like I 'shone' during that period"**
(3e) Because it really challenged me	*"It's an alternative form of joy ... I* think happiness is about having purpose, a reason to get up and create. It isn't about easiness, it's about challenge - not so hard you can't do it - hard enough that you have to puzzle it out, tease it into *something new"** *"It encourage me to challenge my*self next time and achieve anther difficult goals, which is the most important part of my *whole life"**

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(Continued… (3e) Because it really challenged me)	*"To challenge myself" / "Challenge myself!"* / "My life* needs chal*lenges"**
(3f) Because of the positive health benefits	*"During this experience my psychological situation improved, and I used to feel happier"* *"Because it felt physically (and emotionally) good"** *"It makes you pumped for life and ready for action, and it* shows not only in your work but in other aspects of your life too. You suddenly sleep better and take care of yourself and *exercise, because that type of motivation is contagious"**

Table 33: Why participants would like to experience this type of motivation again. Group 2: More intrapersonal reasons

The fourth General/other group for this question included three categories: (a) general beliefs that this type of motivation is important for achievement; (b) that it is the way an individual 'normally' engages with such extended projects; and, finally, (c) a category with responses from individuals currently experiencing such level of motivation (see Table 34 for data examples for each category).

(4) General/other reasons	
(4a) Because this type of motivation is important for achievement	*"I feel I'm not doing my best wit*hout such intense *motivation"* *"Only with such intense motivation can I achieve something new on a higher level"* *"I need this kind of inspiration to keep me innovat*ive and do *things successfully"*
(4b) It's simply who I am/the way I engage with projects normally	*"I try to do it every year. This is just my way of relaxing" / "I actively try to work in this way"* *"I cannot say that I "would like" to experience it. I always* do. Whenever I find a goal I want to achieve I experience it in full without thinking if I want to experience a strong motivation *or not"**

Table continues on next page…

(Continued… (4b) It's simply who I am/the way I engage with projects normally)	*"it is the only way I know of working, I do not question* myself I like the experience or if I want to experience it *again"**
(4c) Because the goal has still not been achieved/there is more to be achieved with it	*"Well technically I am still in the middle o*f it but hope I will *have this much passion for something again in the future"** *"Because I am still working hard to reach my goal"**

Table 34: Why participants would like to experience this type of motivation again. Group 4: General/other reasons

The number of mentions in each category and in each Group were totalled, and these totals were also calculated for the DMC group and the long-term motivation group separately (see Table 35). Group 4 – General/other reasons – shows very little difference between the DMC and general long-term motivation groups and as might be expected, the number of responses within Group 1 – Outcome based reasons – were similarly balanced: whether fuelled by a DMC or by highly developed means of self-regulation, projects completed over significant periods of time are invariably directional, with clear goals marking out explicit aims and end points.

The biggest difference in the reasons given by the two groups for wanting to repeat the experience comes from Group 2 – Process based reasons. This group also contains the category with the biggest difference in the number of responses; there are 42 more mentions within the general long-term motivation group than the DMC group with regards wanting to repeat the experience from the category 'Because it was generally a nice, enjoyable, rewarding experience'. On the surface, because the enjoyment of the process is such a foundational characteristic of the DMC experience, this may appear counter initiative. However, it is arguable that without the overwhelming positive emotionality which comes from a DMC which is able to override negative emotion stemming from the monotony of boring tasks along the way, the importance of the enjoyment of the everyday experience becomes heightened in keeping up the continuance of motivated action: it is arguable that had the process not been so enjoyable, that these participants from the general long-term motivation group would not have kept going with their project, and so may instead have found themselves members of the Never group. For those in the DMC group, however, it

appears a different group of motives was more instructive in understanding their desire to repeat the experience.

Group 3 – More intrapersonal reasons – taps into something deeper within an individual than the simple day to day enjoyment of the experience as it progresses, including categories relating to significant personal change (Cat. 3a: 'Because it inspired lasting feelings…') or connected to deeper issues linked with individual's learning more about their true self (Cat. 3b). Category 3d takes to the level of a DMC the reasons discussed above (because it was a generally nice feeling), with respondents report wanting to experience it again not because the experience was good, nice, or fun, but because of superlatives, because it was *"uplifting"*, *"invigorating"*, *"amazing"* and *"worth getting out of bed for"*: to them, it represented something with a far deeper level of significance. This, again, is exactly what would be expected assuming the DMC group does comprise individuals reporting on true DMC experiences.

It is important to emphasise, however, that as above such comparative analysis has limited wider significance. This is not only because, as has been noted already, many of the qualitative responses from respondents in the general long-term motivation group are highly reminiscent of DMC experiences and because they are expressed only in very limited terms, but because compared to the sample size some of the differences identified could be argued to be relatively minor. The significance of this broad overview comes from its ability to offer a more detailed insight into respondents' experience of DMCs than has been achieved to date, and its ability, therefore, to complement and develop current understanding and form the basis for further investigation of these issues, through both qualitative and quantitative investigation. A final key aspect of its significance is highlighted in the following sections.

Group	Category	Total no. of mentions	DMC group	Sum of mentions in each group	Long-term mot. group	Sum of mentions in each group	Difference between no. of mentions in each category	Difference between no. of mentions in each group
(1) Outcome-based reasons	(1a) Because of the positive outcome and the pleasure of achievement/making progress	121	53	130	68	138	-15	-8
	(1b) Because it is enabling – it enabled them to achieve more than they expected/believed possible	50	23		27		-4	
	(1c) Because it pushed me to maximise my potential/be the best version of myself	43	22		21		1	
	(1d) Because it provides meaning/direction/pleasure to life, it broadens horizons and feels truly worthwhile	54	32		22		10	
(2) Process-based reasons	(2a) Because it was generally a nice, enjoyable, rewarding experience	174	66	195	108	256	-42	-61
	(2b) Because it made everything feel easy	30	14		16		-2	
	(2c) It was a very productive/satisfying experience which was very fulfilling	109	49		60		-11	
	(2d) Because of the heightened level of clarity/focus	59	27		32		-5	

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(Cont… (2) Process-based reasons)	(2e) Because it pushed/helped me to keep going, even when I was tired or felt I wasn't doing well	60	29		31	-2	
	(2f) Because of the experience of putting everything into trying to achieve it	19	10		9	1	
(3) Intra-personal reasons	(3a) Because it inspired lasting feelings of confidence, competence, courage, pride	87	47	180	40	7	+31
	(3b) Because I grew and learned more about myself as a person, it was life-changing	60	32		28	4	
	(3c) Because it also energised/had a positive effect on other areas of life too	37	19		18	1	
	(3d) Because it was something more than just a 'nice' experience, it was truly special	117	65		52	13	
	(3e) Because it really challenged me	20	13		7	6	
	(3f) Because of the positive health benefits	8	4		4	0	
(4) General reasons	(4a) Because this type of motivation is important for achievement	25	10	21	15	-5	+1
	(4b) It's simply who I am/the way I engage with projects normally	8	5		3	2	
	(4c) Because the goal has still not been achieved/there is more to be achieved with it	8	6		2	4	
	TOTAL	1089	526		563	-37	

Table 35: Summary of responses as to why individuals reported wanting to repeat the experience

Negative responses within the positives

In describing why they would like to experience this type of motivation again, participants identified a plethora of informative and enlightening reasons, clearly highlighting the depth of the importance of the experience to them. However, an important theme also evident within this dataset was that even some of these respondents who wished to experience this type of motivation again, likewise expressed negative emotion about it. Across both groups a total of 33 negative comments were identified, split almost equally through a ratio of 16/17 between the DMC group and the general long-term motivation group. This finding highlights an important area of research for future agendas, as it undoubtedly represents an important aspect of the lived experiences of some individuals. This aspect of DMCs is of particular importance in considering possible applications of DMC theory to educational contexts, where a greater understanding of the genesis and impact of such negative emotion demands more detailed investigation. The primary body of knowledge gained from the current study in this respect is presented in Section 6.9.2, and broadly reflects those comments made by the above participants.

6.9.2 Summary of *analysis for response 2: "I would* <u>not</u> like to experience this *again"*

The negative effects of DMCs (see also previous section) forms a limited part of the current study, yet these findings are critical to the development of DMC theory as a whole and – because of their significant impact on individuals' mental and physical health – furthering understanding is essential to the development of DMC theory for its application in language classrooms. The most significant conclusion of the following responses given by individuals – particularly those initially earmarked for inclusion in the DMC group – is arguably that they exist at all. Since DMCs have been both conceptualised and observed in real-life situations as being largely positive experiences, one would not expect strong objections against re-living them. Because of this, the views of the following participants function as a true eye-opener and suggest future directions for research. A total of 133 participants reported that they did not want to experience it again, 40 taken from the DMC group and 93 from the general long-term motivation group (7.02% and 12.43% of each group respectively). Data analysis followed the same methods as above, and the nine categories identified from

participants' explanations of why they would not like to experience this again were clustered together and formed two broader umbrella groups: Group 1 comprises personal emotional/health reasons, and Group 2 project specific/other reasons (see further Tables 36 and 37 for individual categories and specific data examples. As above, quotes taken from individuals from the DMC group are marked with an asterisk).

(1) Personal emotional/health reasons	
(1a) Because it requires too much personal investment (often at the expense of other areas in life)	*"Because it was so tiring and I couldn't spend any time to my family, friends and myself"* *"I want a work life balance. I have children and a wife. I* don't need to get satisfaction from doing a work or study project, as they often distract from me spending quality time *with friends, family, and so on"* *"Because I prioritised the project and neglected other areas of my life, notably people who needed my time and attention"*
(1b) Because of the significantly increased levels of stress/feelings of pressure	*"This is simply because it was a compulsive period. I felt more pressure than I ever felt in my life"* *"I'm not the type that can handle much pressure with work"* *"It made me so stressful. Being nervous make me tired "* / "It was exhausting!"*
(1c) Because of other health conditions e.g. anxiety, depression	*"It is time consuming and at times it causes depression, anxiety, sleeplessness and other disorders"* *"Because later on it led to intense stress and panic attacks"* *"I can't sleep well in these situation*s. I can't think about *anything more. It isn't a healthy situation" / "I had a negative affect on my health"**
(1d) Generally not a good experience/feeling	*"I think it's a bad memory and I don't want to realize it again"* *"I don't like this kind of struggling feeling" / "It wasn't a good moment"* *"it was not completely a pleasant experience"**

Table 36: Why participants would not like to experience this type of motivation again. Group 1: Personal emotional/health reasons

(2) Project specific/other reasons	
(2a) Because it's better to be able to work at a more steady pace	*"Ideally I'd be able to have enough time to do at more measured speed"** *"I actually continue to do this in a more moderate way. The* main difference is that I simply can't commit such a large part of my life now to language learning as I was able to do *back then"* *"Japanese should take more break. Only "sound body, sound mind" ensures sound outputs"*
(2b) Because it was externally imposed/I wasn't really interested in the project	*"It was my responsibility to do this project, but I was not really interested in it"* *"I don't like being forced to prepare a project on topic I'm not interested in"*
(2c) Because this intense level of motivation is required/isn't worth it	*"It d*idn't really effect me much so why bother be motivated *again"* *"I dun think this is something I need" / "I think I could have managed with less type of motivation"**
(2d) Other/miscellaneous	*"I do not know whether I have this courage again or not"* *"Simply* because of the lack of experience, metacognition, at that time I was really unable to plan, organize. Now I feel more comfortable so it is not about motivation itself but the *conditions around"** *"I think I have had enough those intense motivation* activitie*s, it's the time to utilize them"*

Table 37: Why participants would not like to experience this type of motivation again. Group 2: Project specific/other reasons

As shown in Table 38, the most prominent difference in responses within the DMC and the general long-term motivation groups is that nearly three times as many mentions in the DMC group highlight the fact that it required too much personal investment at the expense of others, and twice as many mentions from the general long-term motivation group

highlight the significantly increased feelings of stress and pressure. The former may be explained by the overwhelming nature of DMCs which capture people in a whirlwind of energy compared to high levels of motivation within general long-term periods of motivated action which often remain experienced in a more controlled manner, and the latter arguably because general periods of long-term motivation lack the unique positive emotionality of DMC experiences, perhaps explaining participants' increased feelings of stress and pressure. However, the limited size of this subgroup and the fact that categories were assigned to such a limited data sample of sentences written by each participant means that these conclusions, again, should not be overstated. The most significant conclusion of note which is of most value is the categories themselves: the investigation of the negative effects of DMCs has not previously been explored in the literature, and this stands as a key area for future research and a baseline from which it might begin.

		Total both groups	DMC group	%age of total	sum of of group	%age	long-term mot group	%age of total	sum of long term mot group	%age
(1) Personal emotional/ health reasons	(1a) Requires too much personal investment (often at the expense of other areas in life)	17	9	21.43	20	47.62	8	8.33	43	44.79
	(1b) Significantly increased stress levels/feelings of pressure	27	5	11.90			22	22.91		
	(1c) Other health implications (aside from stress) e.g. anxiety, depression	9	2	4.76			7	7.29		
	(1d) Generally just not a good experience/feeling	10	4	9.52			6	6.25		
(2) Project/ other reasons	(2a) Better to be able to complete it at a more steady pace	8	4	9.52	7	16.67	4	4.17	17	17.71
	(2b) Externally imposed/wasn't really interested in the project	7	2	4.76			5	5.21		
	(2c) Don't believe this intense level of motivation is required/isn't worth it	2	0	0			2	2.08		
	(2d) Other/miscellaneous	7	1	2.38			6	6.25		
	(1) no reason given	51	15	35.71			36	37.5		
	TOTAL	138	42				96			

Table 38: Summary responses as to why individuals reported not wanting to repeat the experience

6.10 Conclusion

This study was the first to look at DMCs by taking on a quantitative approach to research methodology, and as such results are able to provide novel conclusions and new answers to questions which had previously not been sufficiently addressed. In this final section I summarise the primary conclusions drawn.

The most significant finding of this study pertains to the proportion of respondents who reported personal experience of strong DMC-like periods of motivation. Although the nature of the dataset does not allow for generalisation of this to the wider population, the fact that over a third of participants (N = 530, 36.5%) are represented in the narrowly defined DMC group is a significant finding. Indeed, when initially asked at the outset of the questionnaire, as many as 62.2% answered positively (N = 903 answered Agree or Strongly agree) in response to whether they have experienced this type of motivation. This corroborates previous claims that DMCs are not only well-recognisable across contexts and borders, but that they are widely experienced by diverse individuals, to the point where it might even be argued that they are a relatively common motivational phenomenon. The figures presented are especially remarkable owing to the fact that they represent a conservative estimate of DMCs within the dataset, it should be remembered that the qualitative responses of many participants excluded from the DMC group did indicate clear DMC-like characteristics.

Evidence has also been presented attesting to the universality of DMCs: the current dataset has shown them to largely transcend gender, age and nationality boundaries, with respondents' attitudes to DMCs as judged by their responses on the DMC Disposition scale likewise demonstrating the universality of DMC experiences in these terms. It is important to note that some (weak) variation in participants' age and their experience of DMCs was identified – participants over the age of 30 reported more frequent and more positive experiences of DMCs – yet, only further research will be able to elaborate on the meaningfulness of this finding. On a more general level, the obtained data has validated the overall DMC framework, as the respondents' attitudes towards DMCs, together with their qualitative responses, correspond closely to the description of the DMC construct presented in the literature.

In methodological terms, the study represents an important step forwards for DMC research. Without demonstrating the feasibility of researching DMCs from a quantitative

standpoint, the generalisability of the concept could not be determined in a rigorous manner, and key questions holding up the DMC research agenda could not be addressed. Although the study presented here used a self-selected sample, the number of responses obtained as well as the consistency of the results overall attests to the meaningfulness of the findings presented. The questionnaire tool designed for this study also stands as a blueprint of a successful DMC questionnaire format, from which future quantitative studies might be designed in order to obtain more finely tuned data, and to corroborate the findings presented here.

Finally, the findings presented have highly encouraging implications for the application of DMC theory to the language classroom, offering promising affirmation that DMCs might successfully be integrated into instructed SLA. This important theme is discussed more comprehensively in the following chapters.

This study does not claim to be exhaustive or to offer definitive answers, yet, by demonstrating that the DMC phenomenon is not only intriguing from a theoretical perspective but that it is also recognised and endorsed by the wider population, it has put DMCs firmly on the research agenda within second language motivation research. Csikszentmihalyi's principle of flow – the theoretical concept most similar to DMCs – grew in acceptance when it became apparent that it tapped into an experience that many people held as precious, and it is arguable that the current study has begun to demonstrate the same wide applicability of directed motivational currents. By looking at DMCs for the first time on a wider scale, this study offers a solid foundation and springboard for further exploration, thereby laying the groundwork both for more comprehensive quantitative studies, and for deeper exploration into discrete aspects of the DMC phenomenon brought to light through participants' qualitative responses.

Chapter 7
DMC classroom intervention study: Analysis and discussion

This chapter offers analysis and discussion of the second of the two studies to be presented in this thesis. The primary aim of this qualitative study was to test the hypothesis that DMCs can be purposefully facilitated in groups of students studying in structured L2 taught environments. Secondary aims included evaluation of the benefits – and any possible negative aspects – of such an intervention, and of the key elements required for success. The data presented in this chapter is from multiple datasets collected throughout the five weeks of the course, yet can be broadly categorised into two discrete groupings; teacher data and student data. A strong focus was given to both throughout the study. The primary objective of this was to enable triangulation of conclusions, and also to identify and highlight any areas in which the experiences of each differed, therefore directly addressing the need of such project based studies to straddle both viewpoints in drawing conclusions. In the narrative of the following sections this data is presented together, and key points of difference are highlighted where appropriate. Although the accumulated dataset would allow a detailed comparison between individuals and of discrete aspects of the course, such as the changing group dynamic throughout, space limitations and the specific aims of the current chapter prevent a full exploration of these variances. The focus of analysis instead looks to understand the bigger picture, with focus being on the possible emergence of a group DMC as a whole.

The chapter begins in Section 7.1 by addressing the most important question of analysis, namely, whether there is any evidence in the dataset of a group DMC having emerged. The strong evidence presented in support of this is then used as a basis to discuss the success of the project from an educational standpoint, with Sections 7.3 and 7.4 looking specifically at the bearing of the course on students' language achievement, and on the accomplishment of non-language related outcomes. After a short summary in Section 7.5, Section 7.6 goes on to consider how this was achieved in practical terms. In considering the key elements for success – as put forward by Dörnyei et al. (2016) – assessment is made of the manner in which they were implemented, how effectively they functioned within the

context, and their impact on the resulting current of motivation. Suggestions are also made with regards refinements for future studies, and the chapter concludes in Section 7.7.

7.1 Was the intervention successful in facilitating a group DMC?

Before looking at how the course was designed and any possible benefits to students, let us first consider the success of the intervention in basic terms, namely, whether it succeeded in facilitating a strong group DMC experience. Each of the following subsections considers this question from a different angle, with each addressing a key marker of success and a hallmark of the DMC experience. Evidence for all of these must be present to support any positive assessment of the data in DMC terms. This analysis begins in Section 7.1.1 by considering whether, and in what ways, students surpassed their expectations, Sections 7.1.2 to 7.1.4 go on to look at the time and effort students invested in the course, to what extent the goal was on their minds, and whether they experienced it as something special. Section 7.1.5 looks at whether students would like to repeat the experience, before Section 7.1.6 goes on to consider evidence of teacher DMCs throughout the project.

7.1.1 Surpassing expectations

> *"I think that the event exceeded all my expectations, it was a success ... it exceeded all my expectations"* (Matheus, W5D3pm)[7]

A key basic indicator of a DMC is that individuals or groups are empowered to surpass their expectations, oftentimes achieving more than they had ever believed possible at the outset. As such, this factor is able to form a strong initial point of departure in looking for evidence of DMCs in the dataset. Put into words by Matheus, such feeling among students is immediately perceptible: "I think that the event exceeded all my expectations, it was a *success ... it exceeded all my expectations*" (Matheus, W5D3pm), and a more detailed look

[7] References to interview extracts are presented in the following way throughout: e.g. Matheus, W5D3pm. W5 refers to the fifth (and final) week of the course, D3 to the third day of the week (i.e. Wednesday). Only W5D3 has an am/pm marker as two sets of interviews were conducted on the last day to accommodate all students who wished to participate. On all other days (i.e. where there is no am/pm marker) interviews took place in the afternoon, immediately after the last lesson of the day. All student names used throughout this chapter are pseudonyms

demonstrates that this is not only perceptible in general terms but also in relation to discrete aspects of the course. Three areas of achievement in particular stand out in student and teacher accounts as to where they believe this occurred: the sum of money raised, the levels of support they received from peers and colleagues, and – key from the perspective of the current study in this educational context – in students' personal language development.

One of the most immediate impressions from a reading of the data portrays students' pride and surprise with regards the amount of money raised – a total of $3,558.20 – which made them among the most successful student fundraisers in the country. This was put into words particularly well by Paula. Interviewed briefly during celebrations after the event her first impression is clear "I think that all of us are surprised because we raised more than 3000 dollars!" (Paula W4D4), yet she explains her feelings with a little more reflection the following week:

> I think that all of us were really, how to say, we are really … impressed, that we fundraised 3,500 dollars. Because we never expected to achieve that goal … So, yes! But now it's like ok yes we did it! [laughter] … I guess that everyone here expect [to raise] like less than 2000. Because 3 thousand and a half is like a lot, that's like too much! But, actually, no! … After we see the, we saw the results, we were so proud of ourselves. … Because at the beginning we underestimated [that we have] the capacity and our skills to organise this event. … So, when we saw the result, the final result, I think that after that I realised that we underestimate our abilities at the beginning. (Paula, W5D3pm)

Further analysis supports Paula's speaking for her peers in her stating "we underestimated our abilities at the beginning", as similar sentiments expressed by other students likewise portray the pride and surprise at what they were able to achieve, "I think we pull it off!! So glad that we could collect $3538.20" (Ayumu, W4D5d);[8] "The project final results went best than we could imagine" (Matheus, W4D5d); and, quite simply, *"$3558.20!!!!*" (Masuyo, W4D5d). As would be expected, this depth of feeling was also reported by their teachers, "am*azing, they're over the moon with that*" (Jessica W4D4).

[8] References followed by a 'd' as in this instance are taken from teacher/student diaries rather than Skype interviews

Such an event as this does not become so successful without collaboration with individuals outside of the immediate classroom environment, and to this end students received more support than they had dared hope for. Worries about ticket sales were soon quelled – "ticket sales for 1st day were amazing! People very interested and queues for tickets at break!!" (David, W3D5d); "We could sell more than 70 tickets today! I think this is a good start :)" (Atsuko, W3D5d) – and practical support in terms of helpers for the event, sponsorship and even the giving of raffle prizes was also received in abundance. As part of the catering for the event, students asked teachers to bake muffins to bring along to sell, and as Daniela explains: "*we have like, I don't know, like 70 people who are going to make muffins for us! So it's amazing! Really I thought oh, so hard to get all those people but now* we have like 70 people!" (Daniela, W4D2). It was only on the day of the event itself that the scale of this became apparent: Jessica (W4D4) surmised as many as 1000 cupcakes, and, as David comments "We had so many cupcakes we were giving them away to university students *today … We were wandering around the campus saying for God's sake please take these we've got too many you know!*" (David, W4D4). As Eva succinctly summarises: "I think we had more muffins than we expected!" (Eva, W5D1).

In terms of language learning also students reported surpassing their expectations. This is most acutely understood when looked at in comparison with students' worries and fears at the outset, Prija describes the enormity of the project in terms of its language requirements, and admits she felt incredibly daunted by the task:

> Actually I was thinking about changing my class, at the first! Because we had a, I'm not sure that I can do it or not because it's like a big, really a massive project! … but at the end I asked myself that maybe I can learn enough … so I decide to continue with it. … Yeah! I think that, I feel really good that I didn't change the class. (Prija, W5D3am)

Atsuko described similar feelings of uncertainty at the start of the course, yet exhibited a similar transformation by the end, "*I'm not afraid of speaking English to them, b*ecause of them" (W5D1), attributing her success to the support and encouragement of those around her. These initial feelings of a lack of confidence and belief that they could raise their abilities to match the project were likewise expressed by other students, who also reacted positively to the impetus the course created in requiring communication both between peers and outside

individuals, and which formed highly positive learning opportunities requiring students to push the boundaries of where they believed the limits of their abilities lay.

> And I, I feel my English is improved than before, because, for example, when I feel like really impressed or really stressful, I really wanted to talk the others or I really wanted to tell my feelings, so that time I needed, I needed to speak English or I desired to use a range of English so, that makes me, how can I say – that makes me, wanting to study English more, and yeah, so I can say I, that session makes me yeah really improve my English. (Sakura, W5D3pm)

This drove some students to seemingly reach an epiphany in their learning milestones. One student, Matheus, described the experience of the course as unique because "for me it was the first time that I speak in English! [laughter]" (Matheus, W5D3pm). Although an outwardly confident and accomplished L2 English speaker, he went on to describe the impact of the course as having a significant effect on his relationship and confidence in using the language: "Something like, I discover that I can, yeah I know that *it's not good but I can speak a little bit of English, and before the course, I didn't know about it*" (Matheus, W5D3pm). (See Section 7.3 for further discussion of specific language gains).

Regardless of the high expectations David and Jessica held prior to the course they were nevertheless likewise taken aback by students' progress early on – "their progress has been phenomenal ... *Absolutely impressed by their participation and commitment*" (David, W1D5d) – and students went on also to surpass the expectations of other staff, sponsors and stakeholders witnessing the project unfold:

> The comments from everyone were, were amazing – it was very impressive – the whole event was very impressive. To all of our stakeholders … And they were amazed at how much was offered – the activities, the entertainment, the face painting, the photo booth… (Jessica, W4D4)

7.1.2 Investing considerable levels of effort and time

> *"*N*ormally I wasn't, I didn't think about school things after I went back home – but now…!* [laughter]*" (*Sakura, W3D3)

To achieve such an outcome necessarily required the investment of considerably higher levels of time and effort than is demanded from more traditional language classes, yet this core feature of a DMC – evidence of students enjoying doing so – is likewise found in abundance within the dataset. Students described their effort levels in comparison to more traditionally taught sessions, and the difference was considerable: "Ah yes, much more, much more [laughter] *It's hard to compare!* [laughter]" (Matheus, W5D3pm); "No! Really, really different!" (Sakura, W3D3). For other students, this manifested through the nature of their effort changing:

> Ah, actually I try, I always try to do my best, so…! … But, it's a different kind of effort [laughter]. I can't explain very well but, the last session I was just studying for the words, for business words, business information, so, that was also very useful, but, now I have to use my brain more, much more! [laughter] How can I say!? … it's different kind of effort. (Masuyo, W3D3)

Rather than the passive learning of given material, students were pushed to become actively involved in their learning and to invest more of themselves in it. Masuyo goes on to suggest that she enjoyed this type of engagement more because it pushed her to 'try harder': "Ahhh, I *think this one. Because I, it's first time I experienced like, real business. But I have to do, I* have to try to my best more, much more than before – *I think so! ... Yes, I enjoy it very* much!" (Masuyo, W3D3). Another student reported on his experience of the effort required of the course in a different way, as David explained in a brief diary comment one day, "Asked them to think of 3 good things/or things that they realised about themselves through doing the project. One student said in (Brazil) we just repeat what the teacher says, but I found myself having to think in English!" (David, W4D5d).

As would be expected, hand in hand with students' increased levels of effort was the amount of time they devoted to study and to the project throughout the course, something again they did to a far greater extent than they did in more traditional classes:

> Normally I wasn't, I didn't think about school things after I went back home – but now…! [laughter] I'm like keeping thinking about the project, yeah! And also even I'm hanging out with my friends who is my classmates! We are talking about the project! [laughter] After school! (Sakura, W3D3)

Similar responses were also given by other students as to whether it is normal that they spent so much additional time after class thinking about the their work, "No, no! [Normally] *We're* just going home after class! [laughter] … *definitely in this session I'm spending more time* than before, than in any last sessions" (Ayumu, W5D3am/W3D1); "For example yesterday, we went to go eat something and after that we went to see a movie with classmate, 5 or 6 classmate. So, half of time we talk about this project! … No! [It's not normal!]" (Atsuko, W3D2).

The increase in time spent working outside of the classroom was likewise noticed by Jessica and David: "Using lunch break and morning tea to revisit sponsors, make phone calls and draft emails" (Jessica, W3D1d); "Large group of students worked on ticket numbering until 5pm (1.5 hours over)" (David, W3D3d), and time within the classroom passed quickly without the early packing up of books in anticipation of the next break as Jessica recalls "Me: 'Okay, it's lunchtime'. Them: 'Really? Now?'" (Jessica, W2D1d). While it is clear that this in itself created numerous additional opportunities for communication in the target language, this also translated into students putting more time and effort into working collaboratively and supporting each other:

> you know Hatsuo, Japanese guy? … he contacted me via Facebook and asked, have you thought about, do you need, does your friend need a [system to hold audio service (for the singers)] or anything? And I just, like ah I forgot to think about this … And this is my first time that I contact with my classmate about the lesson. (Prija, W5D3am)

The course demanded that students invest more of their time and effort to achieve success, yet as the data overwhelmingly supports that this was received highly positively by students who rose and surpassed expectations all around – as Jessica describes, students were "Working hard and smiling harder" (Jessica, W4D4d).

7.1.3 Goal constantly on students' minds

"[laughter] A lot! Yeah a lot, I think in that a lot" (Daniela, W4D2)

A further DMC marker that would be expected had a group DMC emerged is for the goal to constantly be on students' minds and their attention continually triggered back to it, even by seemingly unrelated activities. There is certainly evidence of the fact that students thought about it frequently in their free time, as Daniela explains, "Yeah of course, yeah! [laughter] A lot! Yeah a lot, I think in that a lot. And also I have talked with my parents, with my brother with my boyfriend with friends about all this, about the project" (Daniela, W4D2). Not only was the goal constantly on students' minds, but even when they weren't explicitly thinking about it students reported their attention being continually triggered back to it in an involuntary manner.

> Actually, I wanted to forget! [laughter] At the weekend! Because, until the weekdays, from Monday to Friday I'm exhausted, I'm exhausted. But, we have a Facebook group, you know … So, I want to forget, but I have to think about it! Every day! (Masuyo, W3D3)

> Sometimes I see, when I was walking on the street I can see an event and try to find something that we, try to find some idea to use on the project. But I try to be, I try not to think it – it's my time to relax. I'm on vacations now! (Matheus, W3D4)

It is important to note that this is not the way students typically engaged with their English classes: "Oh no no no – *in the last session I didn't think about studying!*" (Hotaka W4D1), a sentiment likewise corroborated by others in the class: "We have a Facebook group, so I check this every night, *after class … normally I don't!* [laughter] After the class, *different things…!*" (Namika, W3D2).

7.1.4 Experienced as something special

"They <u>were</u> the project - they weren't 'doing' one" (Jessica, W4D3d)

At the core of a DMC experience is an appreciation that it is something unique or special, that it is something fantastic happening that is different to the way in which an individual usually engages with a topic or with the world around them, and that this pushes them to achieve something unexpected and extraordinary: "So this session I really feel, I can experience very

special things being here, so I'm very excited" (Masuyo, W3D3). Hotaka described the experience in the following way, "Yeah, I was surprised. And this experience becomes, nutrition of my life, in the future ... and this course made, made my life complete!" (Hotaka W5D3am), with other students also describing it in similarly exaggerated terms: "Yeah, yeah, it was worth it, for my life I think! Yeah!" (Sakura, W5D3pm). Although the truth of such comments might be interpreted with more hesitation in the context of more traditional taught courses – and clearly they rightly should be here too – yet they are exactly the nature of the sentiment that would be expected had students experienced a DMC: "*I didn't find words to* describe how much I enjoyed" (Ayumu, W5D3am). Other students likewise described their experience in similar terms of growing up, finding themselves and maturing: "Through this project I learned lots of things and I think I grew up" (Hotaka, W5D2am); "First, I think I am more mature" (Prija, W5D3am). Matheus describes the event itself as being "our time", describing the intensity and extraordinary nature of the course in his eyes:

> Yeah, I'd give 10. 10 [out of 10]. Yeah, it will be our time, to put in practice everything that we have projected until now until this week. So it's the time to see what, what we can do. To see if our work, if we did, if we did our tasks, if we did our job properly. It will be our time. (Matheus, W3D4)

In addition to the course generally being described in superlatives by students, there is a tangible feeling running through the data that this course was special because of the 'real' experience students had of working with different nationalities and cultures within the class:

> For me it was really interesting the opportunity to work with people from different countries. Thinking specifically about it, it was an amazing experience to see people from different cultures, like, learn with them … it was an amazing experience because, yeah, few people have this opportunity to work with people from different countries, yeah it was amazing. (Matheus, W5D3pm)

This point is particularly interesting because in such language learning contexts students very often have the opportunity to study in mixed nationality groups, yet it appears that something unique happened in this instance which pushed them to work more closely together and collaborate in a way that is not normally achieved within traditional language classrooms, a point Jessica and David themselves likewise noted:

J: It's not like they haven't been presented with that information before. Because how many times in an English language textbook are you given 'and these cultures do this and these cultures do that'. So they surely have been exposed to those stereotypes – if you like – enough times … it's like you can't learn from that at all.

D: The most of them have experienced that in their classes too … It's only when you come to the situation when you're forced to do something, that suddenly you click! And realise, ah these people are different and they think in a different way, they approach things differently, and this is a real experience. (W4D4)

It was this unique experience created throughout the course of this project which created the extraordinary environment which allowed students to engage so deeply with their classmates. As Jessica describes "They <u>were</u> the project - they weren't 'doing' one" (Jessica, W4D3d).

A final important theme on this note which emerged is that the course was also experienced as special because students felt deeply that they would not have had the chance to experience it elsewhere: "*I have experienced the thing that I can't experience if I was in* Japan" (Ayumu, W5D3am); "It was an opportunity that you only have, doing this kind of thing, you never see it in your country [Portugal]*, it's impossible, so for me it was amazing,* thank you" (Matheus, W5D3pm).

7.1.5 Wanting to repeat the experience

"*to be honest I don't want to take th*e normal class anymore! [laughter]"
(Sakura, W5D3pm)

A key marker of a DMC is whether individuals would like to repeat the experience again: where similarly extraordinary results are achieved in situations not fuelled by a DMC, the considerable levels of effort demanded from the pressure of the situation can cause a highly detrimental impact on individuals who are not supported by the positive emotionality which underpins DMC experiences. The overwhelming feeling from the group is that they would like to experience a similar course again – "Yes yes, definitely" (Paula, W5D3pm); "Yeah – I want to do, if they do the same thing next course, I want to do it again" (Ayumu, W5D3am) –

with justifications ranging from their increased learning opportunities to the deepened relationships they formed with their classmates. "*Yeah! I think I want to do it again … after* this session I learn more and I want to, like I want to use this in the next project that – and I *want to see that, I can do it or not, can I do it …*" (Prija, W5D3am). In her answer, Sakura goes one step further:

> I have one more session in this school, and to be honest I don't want to take the normal class anymore! [laughter] Because I, I think it's really different between here and the other class, and here is much more, like, active and people having really enthusiasm and the, most of students, most of the classmates having confidence with themselves to speak English, so I wanted to involve with them to improve my English more. So, yeah, maybe I want to take this class again, if I can yeah. (Sakura, W5D3pm)

She describes the confidence built up in students throughout the course as being contagious, that it drew her in and pushed her to strive for the same levels of confidence and achievement as she witnessed her peers striving for. The sentiment that students took so much from this course is likewise echoed by Jessica and David in their reflections on the significance of the course for students:

> The scary thing when you do something like this is you think – how many weeks of students' lives have we wasted by not giving them a project? … Do you know what I mean?! How, we've had these poor students sitting in classrooms, sitting in classrooms – not taking them outside, not giving them real people or real situations, for 25 hours a week! It's almost not fair! It's almost rude to take their money and not offer them that! (Jessica, W4D4)

Although the feeling of wanting to complete the class again was almost wholly positive (see further Section 7.6.5 for discussion of the single student who did not wish to do so), it is important to acknowledge that notes of caution were sounded against the possibility of jumping straight into another course of the same. "Again? Maybe a year later! [laughter] I need to rest!" (Hotaka, W5D3am). However, as such courses are not advocated as replacements to traditional teaching nor to be run consecutively for this very reason, this is not believed to be a negative reflection of the experience itself.

7.1.6 Evidence of teacher DMCs

"*…but we're happy, we're happy look at us, look at us suckers!*
We worked double and we're still happy
– so *let's just call that a DMC, so we don't sound* insane!!"
(Jessica, W3D2)

Although the aim of the course was to facilitate a group DMC in students, to inspire such an intense current of motivation it is hypothesised that equivalent levels of drive would need to be modelled by those leading the class. As is evident in the following extract from an interview mid-way through the course, Jessica and David clearly exhibit all the DMC markers discussed so far: surpassing expectations, investing significant levels of time and effort, the goal being constantly on their minds and their experiencing it as something special:

> D: I woke up this morning one o'clock heart pounding! Thinking, Jesus Christ, we've got so much to do! Yesterday Jess was spun out her head was exploding, and I was going ah it's ok relax we've got it, and then I come to work this morning sending Jess a text, my head's exploding! And she's going it's ok, you've got it…!!
> J: I feel like our colleagues kind of go oop! There they go…! … The adrenaline, it's the adrenaline – it's pumping
> D: … We're exciting ourselves! We're here early in the morning we're leaving late at night – we've only been home once in daylight in 3 weeks!!
> J: But we're happy, we're happy look at us, look at us suckers! We worked double and we're still happy – so let's just call that a DMC, so we don't sound insane!! (W3D2)

The final DMC marker discussed above – wanting to repeat the experience – they likewise express: "*Definitely, definitely … We have already been talking about 'the next one'!*" (Jessica, W4D4). (Indeed, this intervention was already based around a similar course run by Jessica previously – see further Dörnyei et al., 2016, Chapter 8).

As would be expected, the behemoth level of motivation and engagement Jessica and David gave to the project did not go unnoticed: "The enthusiasm of the teachers, they really could help to keep the best from each person of the class" (Danilo, W1D3d);

> they have too much energy, and they are always willing to help you and listen to you and yes, I think they are awesome! … sometimes when I feel like a, I want to give up, I don't want to do more project anymore, I really really want to say thanks to David and Jessica. Because they encouraged all of us every day. (Eva, W3D1/W5D1)

7.1.7 A group DMC successfully facilitated

The above subsections offer strong support for the contention that the course was successful in its aim to facilitate a group DMC experience in students (and teachers!), and final support is found in the fact that there also is an identifiable beginning when the current of motivation took off, as it has been argued in the literature would be expected:

> I've got a funny feeling that between yesterday and today there was a bit of a handover. In that we – I definitely pushed yesterday, you [David] definitely pushed today, and I just saw them all hovering, they're downstairs now, there's like 8 of them hovering – you know this is half an hour after, now nearly an hour after class. Oh no longer, an hour and a half, and they're still down there ... they've got a real idea of what they're doing now I think, I think we'll see a difference now, I have a funny feeling. (Jessica, W3D2)

It is interesting that at the same time this sentiment was voiced by students also – "Our project has just started!!" (Rokurou) – after which point students took control of what they were doing in a far more tangible way "they are more focused and now know where they are going and have a better idea of how to reach their goal" (David, W3D4d); "Moving *forward at a rapid pace. Great culmination of the week! ... Great to see all the work this* week reaching the stage where the project starts!" (David, W3D5d). The DMC began, therefore, in all its intensity in Week Three of the five week course, so the period of the DMC 'high' experienced by students lasted from the beginning of the third to approximately the

end of the fourth week, with the time before and after seeing motivation gradually build pace and wind down.

Considered as a whole, the dataset offers strong evidence that the course was successful in facilitating a group DMC experience within students. On an individual level it is clear that some students inevitably experienced and engaged with the current of motivation more deeply than others, and although the body of data collected is able to look at this and some of the interplay between different characters and experiences in more detail, space limitations and the aims of the current chapter do not allow for a full exploration of this here. The aim of this chapter is one step back from this; to investigate the claim made that group DMCs in fact can be purposefully facilitated in classroom contexts, and that doing so brings with it relevant and worthwhile gains to students. The first of these questions is answered above. The second is considered in the following sections.

7.2 Why DMCs in the language classroom?

The primary focus of this study was to assess the motivational possibilities of implementing this project framework in a language classroom, and its success in facilitating a group DMC in this context is a significant step forward in the progression of DMC research. For the first time, it attests to the claim that DMCs can indeed be purposefully facilitated within groups of students in structured educational classroom contexts. Before going on to consider in more detail how this was achieved, this discussion first requires justification through an assessment of the benefits on offer to students from such experiences: there is little value in inspiring such motivated periods of study if this comes at the expense of students' language learning. Although specific assessment of language gains was not a primary focus of the study – and, accordingly, the perceived language learning gains which are reported are not able to be shored up with empirical evidence from the current dataset – the regularity and consistency with which they were described, and the fact that similar gains were perceived by multiple individuals (students, teachers, and also those external to the process) supports the tentative conclusions drawn. The following analysis is therefore believed to be able to form a basis from which future studies might build, to investigate more directly language gains possible from a group DMC facilitated by such a project.

The data indicates multiple and varied positive outcomes of the group's DMC experience during the course of this teaching session, both in relation to language learning

specifically, and also in relation to other professional skills. In Sections 7.3 and 7.4 each of these perceived gains to students' skillsets are discussed separately, first in relation to students' language learning specifically, and subsequently in relation to other positive outcomes.

7.3 Benefits to language learning

Perhaps the best way to begin assessing the various ways the course appeared to benefit students' language learning is to listen first to students themselves. As Matheus describes:

> We're learning lots of, lots of vocabulary, business vocabulary. So, many words that I, I've never heard in my life we are learning now. But, not only these vocabulary, just when you are listening the teacher speaking we are learning something new, you are learning something different. You are practicing your listening. And when you have to work in a group, obviously you have to speak and you don't have much time to think about you are, what you are thinking and so you have to be fast and you have to speak quickly. So, you don't see but you, you lose, you lose your fear at the first moment because you have this pressure. (Matheus, W3D4)

In his thoughts Matheus sums up all the primary language gains both students and teachers reported; increased vocabulary knowledge, developed listening skills, increased competence in speaking and portraying ideas, and significant groundswells of confidence in personal abilities. The two areas which were reported on most frequently were appreciably developed verbal communication skills and a deepened vocabulary knowledge, each of which are addressed separately in the following two subsections. Section 7.3.3 then goes on to consider briefly a related language gain evident in the dataset, before Section 7.3.4 takes a brief look at student explanations for these developments.

7.3.1 Verbal communication skills: Speaking and listening

As would be expected from the nature of the project, one area of language development where progress appeared particularly marked was students' speaking skills: "*the speaking I'm*

really happy – I think my speaking much, improved much, and I am more comfortable to speak with other people ... I feel more safe speaking in front of more people" (Dieter, W5D1); "Negotiating with sponsors good opportunity to talk to native speakers" (Hotaka, W2D5d). As Rokurou explains, the impetus that was put on them to collaborate and collectively market their event required them to find words and ways to describe their ideas and to ensure comprehension by manipulating their language far more than they had needed to in the past, "*we explained in the presentation. But, maybe people don't understand it. So* maybe, we have to explain it many times" (Rokurou, W4D1); "when we want to express our f*eelings we need to speak English and we have to make sure what we're saying, and what* others feel it – *or if others could get what I'm thinking. So, it's really good for my English I* think" (Sakura, W3D3). As David explains:

> Output and opportunities to discuss, negotiate, compromise, change tack, understand each other use appropriate language [underline in original] for situations: they have huge opportunities for this. Great example of language being changed to suit situation: Student 1: We don't know what you want! Seemed blunt, Student 2 listening to this said 'what you need' (much softer), and Student 1 changed the wording. (David, W1D5d)

The change in students' willingness to communicate and their general confidence levels in their language abilities throughout the course seemed remarkable, and this in turn impacted on their speaking abilities:

> At the beginning you are so afraid maybe that no one is going to understand you, maybe for your accent or maybe because you are not pronouncing the right way … it's a good practice for, for lose that, like that feeling to be afraid of doing that. (Paula, W5D3pm)

> For me it's really useful, because, because you, you lose your fear? I was usually afraid to talk to other people, and now we are under pressure you have to, you have to answer you have to listen you have to speak … for me it's a good experience. (Matheus, W3D4)

For one student, Rokurou, this development is evident throughout his diary entries: "Listening - my biggest problem - so I can't follow the class. / My listening is gradually getting better. I could share my idea with my group / *It's really going well!! In Week 1 and 2* I didn't feel comfortable with my project but it's really fun now" (W2D3d/W2D5d/W3D3d) By the end of the course any initial inhibitions had gone, and students instead were actively reaching out for language to be able to fulfil the communicative encounters they were proactively creating for themselves. As Jessica describes, the course pushed students to interact in a way we wish all students would:

> I have never seen students grabbing hold of language, you know, like it was their saviour – say it one more time Jessica say it one more time! And you know I'm giving them all these phrases – More! More phrases! And I'm giving them more giving them more, and they were like little sponges, just sucking it up, because they needed it then – then for that purpose!! (Jessica, W4D4)

Significantly, students were also confident they would be able to maintain these gains when they returned to their home countries, or when they found themselves in other situations where verbal communication was required:

> I think that, speaking first, because you know – before I came here I, I'm not good about, I'm not good at English! And whenever I speak to other people, even the Thai people – because sometimes in my company in the meeting we have to speak in English and, I am afraid to speak English! And I only sit on, the chair and listen other people. That's the reason why I came here, and I want to improve many things about English … Yeah I think – I'm, yeah, I do! I succeed, but not like 100% I have to work more on this, after I go back to my country … Yeah! I think that, it's because, I have more confidence. (Prija, W5D3am)

Presentation skills

One aspect which reports suggest the course impacted on particularly strongly was students' presentation skills. The practical nature of the course allowed them far more diverse and numerous stages to develop these abilities: "we are, how can I say, used to, give a

pr*esentation in front of many students. And yes it's, became easier*" (Masuyo, W4D3); "[laughter] *before I really really didn't like presentation! And I afraid of that! But in this* class we have a lot of opportunity to presentation" (Atsuko, W5D1); "last session we learned *about how to make a presentation or about how to make a pitch, but we didn't really do a lot* of presentation. But this time we doing a lot more than last time" (Sakura, W3D3); "I think I can improve my English and my, my ability. To, to pitch – to pitch ideas" (Rokurou, W4D1). Students were not just learning about these skills in abstract contexts, rather they were doing them in real situations (see further Section 7.6.1). That students' confidence and fluency was developed in this arena too is supported by David, and in the reports of other teachers at the school and elsewhere: "Speeches bett*er, more connected and flowing …* Highlights: Much better presentations/feedback from other teachers all positive and full of praise of appropriateness of delivery to level of ability" (David, W3D5d); "A Australian guy said to me "your English is pretty good" :) I feel improved!" (Atsuko, W4D3d).

7.3.2 Vocabulary

The second key aspect of language development evident in student accounts is related to perceived gains in vocabulary knowledge and use:

> More vocabulary, because now we have more, much more vocabulary than before. For example me, I have learned a lot of words that I didn't know, and I know now – or maybe I heard the words before, but I didn't know how to use it? So now I know how to use it … I think it's the best idea that they could have, like to really practice and learn a lot more English. (Daniela, W3D1);

"I learned a lot about the vocabulary with this project. Vocabulary about organisation and fundraising" (Prija, W5D3am). The sentiment was not that simply that the course expanded students' vocabulary, but that it also solidified students' existing knowledge and productive ability to use the vocabulary they already had in their possession in appropriate contexts: "I *didn't know how to use vocabulary, and create sentence, in normal conversation. …* I knew *the vocabulary, the meaning of vocabulary, but I didn't know how to use it. So, it helped me,* to use it" (Hotaka, W5D3am).

Students felt particularly aware their language skills were challenged and developed in this respect in terms of better using their vocabulary to form more effective arguments and to better achieve their communicative aims. As the following two interview extracts describe, the course pushed them to do this both in the wider context of the university – "*they've got to start convincing people that you know, that it's a good idea to buy the tickets*" (David, W3D2) – and within the class group itself, where in order to find ways to get their ideas heard students were forced to consider the vocabulary and the language they were using, where additional language features such as tone and register additionally impacted on their ability to be successful in securing the information and resources they were looking for:

> So first I try to listen to them [Latin students], and understand what they are talking about, and then, if I think they are wrong, or I've got better idea, I try to speak more persuasively than usual. … I'm really enjoying speaking more persuasively and which language I think about, which language should I choose, should I you know, pick – to be more persuasive. (Ayumu, W3D1)

> We asked the students or the executives [/marketing managers at the school] to do something, for example I would like to use the Facebook account of [the school], but, in this case, if I say 'I want to' – a little bit rude for English people. And especially David, will be angry if I use 'I want'! [laughter] I don't, I didn't – use 'would you' or 'could you.' (Hotaka, W5D3am)

7.3.3 Looking at language tasks differently

An interesting additional theme which emerged from analysis was that it appeared that students actually began to look at their language learning in a different light. Daniela, for example, describes the grammar exercises that were given throughout the course as of a different kind and more useful that on traditional courses – even though the exercises themselves were not ostensibly different – because she was more able to relate them to specific practical uses:

D: We now have a lot of grammar homework that is not like the grammar we have learned. I think it's different, because it's more – maybe more, we have to think more. It's not just fill like a word and that's it, you have to think and to read better the sentence to know how should you do it, and I think it's really good, thing to learn.
Interviewer: So, do you think, are the grammar exercises different or do you just look at them differently?
D: Oh, I don't know! [laughter] I don't know, I don't know maybe. Yeah, maybe I'm looking different? Maybe? I don't know. I don't know! But for me, it's different!" (W3D1)

There were also indications that students believed that this work was different because it was more useful to them: "Yeah so good, it was so good grammar, this grammar homework *is also useful phrase or useful word, so I think that's good*" (Atsuko, W5D1). Although much of the taught content was highly comparable to the traditional business course run by Jessica and David, the reality of the context meant that language was always considered in terms of its practical application (See further Section 7.6.2 for discussion of the significance of it being a real event):

This is more useful I think, because real situation to organise event, in the other course we learned grammar or speaking or writing, but that is on textbook, or with textbook or, some print or something like that. But in this course we organised our event in English, so I think, more useful English I learned, in this course. (Atsuko, W5D1)

7.3.4 How did these benefits come about?

Section 7.6 overviews in more detail the specific measures that were put in place to facilitate the emerging group DMC. However, there are several issues of note which students' themselves identify as having had a key bearing on their language gains throughout the course: (1) the considerable amount of speaking demanded of the course, (2) the fact students' were required to go into unplanned/uncontrollable situations and contexts with multiple different speakers, and (3), the deep bonds they formed with their classmates.

(1) Sheer volume of speaking and communicative interaction required

The design of the course created a strong emphasis on developing students' speaking abilities, and there is evidence that students not only believed this created more communicative opportunities in the L2 than in their more traditional classes, but they felt this had a notable positive impact on their language development: "*I'm using only English, all* day. An*d, my English is also improving. It's really nice ... Completely different yes,* completely different [to normal classes]" (Rokurou, W4D1); "you are talking from the moment when you arrive in the class to the moment when you are going back to your home. So ye*ah, it was like 7 hours, 8 hours talking and talking. Yeah, maybe you can't see it in one* day, but after five weeks, yeah of course you can see the difference" (Matheus, W5D3pm). The claim that these changes could come about in just a few weeks was likewise corroborated by Rokurou:

> I was a General English student, before this session … and it was really different for me, because my teacher speaking very … very fast. And my classmates also … But recently, I can understand what they say, so, yeah, I think I can improve my English so, in this class … I think yeah, it make a, you know … very big, a very big difference. (Rokurou, W2D4)

(2) Unexpected situations and with different people

The course demanded that students interact with varied people at multiple stages throughout, and students also describe this as having had a significant bearing on their language achievements. Students reported learning a lot, and being able to use these opportunities to continually test their own abilities: "*Because you're not* prepared for this situation, and you *need to go there and speak. And is other, other challenge for us. That is very good and I'm, is* good to test our learning and how much do we know about the language too" (Guillermo, W2D3);

> Yes, [I am enjoying the project] a lot, a lot. Because I think it's really good because we have a chance to speak a lot, with a lot of people here at the university, to do jobs / the chance to speak much more with all the people, with the sponsors, with you, with Jessica. And it's not just discussing things about the vocabulary or grammar, it's like a looot of things. (Daniela, W3D1/W4D2)

(3) Relationship with classmates

A final element to which students attributed their successes was the deep bonds they formed with their classmates: "Honestly, in my last session, classmate is just classmate [laughter] just classmate! But in this class, I spent lunchtime with them or I spent weekend with them, so, yeah I gained a good relationship, and because of good relationship my English improves dramatically I think" (Atsuko, W5D1); "When I studied in last session, I studied alone. But now, if there is one problem, we are going to fix it together, and we can, we can share the opinions. Yeah. And if I say, if I tell the opinion to other teammates, they give us their feedback and we can improve, and I can improve my opinion" (Hotaka, W4D1). "Feel closer with the others by working together through the project. They push me to get involved in every discussion" (Prija, W1D5d). In considering Atsuko's development in particular, this was attested to in meetings before and during the course with her sponsor, with whom she was due to complete an internship after the session:

> Last Monday I went to the company which is my host company, yeah and I talk with my host manager, and she said your English has completely improved than last time. … before this class I had an interview for my internship with my host manager, so she said compared that time, my English was very improved … So I'm so happy about this! … only 5 week, only 4 weeks, so I feel big achievement on my English. … now I have a confidence, and I want to do internship as soon as possible! But because, that is because of my friends in this class I think, they always cheering me up and always help me, so I really really thanks of all the classmates. (Atsuko, W5D1)

7.4 Other positive outcomes

The main language related outcomes listed above were accompanied by a host of non-language related positive outcomes, and these are, of course, too numerous to be examined here in detail in this chapter. Although not comprehensive, this section aims to highlight key areas which garnered consensus from students as evidenced in the dataset, and which represent key benefits students gained from the course. Section 7.4.1 begins by highlighting gains to general collaborative and teamwork skills, before Sections 7.4.2 and 7.4.3 go on to highlight positive outcomes related to communication and organisation skills. This first half of the chapter then concludes in Section 7.5.

7.4.1 Collaborative/teamwork skills

Students ascribed a lot of what they had learned in terms of their understanding and ability to work as a productive member of a team to their working so closely together throughout the course, and their enjoyment at having achieved so much in this way was clearly evident: "Every idea and every personality let me the opportunity to learn and improve things in my life" (Danila, W5D3d); "When I was confused what to say, classmates helped us" (Hatsuo, W2D5d); "When I stopped, they helped me" (Hotaka, W2D5d); "When I couldn't understand explanation, classmate taught me" (Atsuko, W1D3d); "I realised that how important to have a good team player like this class. I've gain confidence to be leader sometime. After everything I think I listen to other people's opinion more than before" (Prija, W5D3d). Even for students who had previous professional experience in the workplace, the course nevertheless pushed them to develop these skills. Prija, for example, already had a modest professional background yet she describes this as her first encounter of a 'real project':

> I think I learned more to work how with other people … this is my first time to do a real project. Before I came here I used to work in a big – now I already finished my Bachelor's degree – and before I came here I used to work in the company a little, 6 months. And I don't know, I … I learned a little these things, I didn't even know the, how to work in a real team as a project, and I think this is very important to me. (Prija, W5D3am) / "I think I know what teamwork is because this project" (Prija, W5D3d)

There was also a real appreciation perceptible of the importance of the course and the recognition that students were able to achieve far more together than they would have been able to do alone, "For example, Paula has a good skill to design something, like poster or *ticket, and I don't have any skill. However, if I cooperate with Paula …* she can create what I *imagine, in my head. So if I worked alone, I couldn't. Th*is is the advantage" (Hotaka, W5D3am), as Paula describes "everyone helped a lot. In a different way but everyone helps" (Paula, W5D3pm).

Working in multicultural teams

Linked to the above, students were keen to stress how much they learned not only from working collaboratively, but more specifically from collaborating in a multicultural team: "I can talk with people having different background, different thinking. I can talk them in a *different environment, different from Japan's working*" (Hatsuo, W3D4);

> We are also international students, from Colombia, Ecuador, Japan, Brazil, Germany and Italy. So, I can get the ability to discuss with international students. Yes. So they have also strong, strong opinions, in each person – so we have to, how to say, mix ideas, and discuss about it, very deeply. And this was very challenging for me, but yeah, it's gonna be useful for me, I think. (Rokurou, W4D1)

Students were also able to pinpoint more specifically their feelings and what they had learned from collaborating with so many different nationalities. For Daniela, for example, of her Japanese classmates she particularly admired how hard-working, respectful and kind they were:

> I've just worked in marketing in Colombia, so I worked with people from Colombia, and now we are a lot of people from different countries so the difference of how the people work it's, yeah, it's so different. So I have like, the opportunity to know for example Japanese people, how they work. And I think, I admire them. Because we're so different from him, from them. We're so different. … To have that experience is, has been really good. (Daniela, W4D2)

7.4.2 Communication skills

Directly related to the gains in students' verbal communication skills (as discussed in Section 7.3.1) and their ability to work collaboratively as described above, students also discussed the importance of the project in improving their communication skills more generally. As Atsuko described, "Normal course I learn just grammar or just English ... from this course, good communication skills, and cooperate, negotiate" (W3D2). She later explained her thoughts further:

> Through this course I learned, of course English, and I think the English skills is very very important, but, I learned communication skills – it's more important than English skills … even if my English is not so good but, if I gonna try to show my opinion or, and try to talk with them, I think this attitude is most important than, is more important than English skills … So, yeah at first I couldn't speak anything! So, when I changed my attitude more positively, my feeling in this class changed so, I think initiative and communication is so important. (Atsuko, W5D1)

Students were also aware of the importance of communicating with individuals outside of their immediate environment or comfort zone, and the centrality of networking to successful business communication and effective working.

> It's good the opportunity for me, because I'm an engineer, my work is engineer, so I don't have chance to talk, talk with our customers directly … In Japan I only talk with same categories engineer guy. So now, many different background, people have many different background. It's good opportunity … I can't experiencing this in Japan my job, it's good opportunity for me. (Hatsuo, W3D4)

> I think that in this, in this project I think the connection is very important, because I think we couldn't have finished our project without Frances and Rebecca. Because both of them are, both of them have the connections with the [university] union and the store and the homestay, and – and they helped us a lot, and the connection is very important, you know, in the business world. (Prija, W5D3am)

7.4.3 Organisation skills

There was a mix within the class group of students who did and who did not have experience in completing such a project. And for those who didn't in particular it was their organisation skills and their awareness of the big picture that the project impacted upon: "I think I learn more to, how to be more organised and pla*n everything, because it's better when you have a* path, and you follow it step by step" (Prija, W3D3), Prija later elaborated:

> Normally I am the kind of the person who, not organised and, a little bit messy! And after this, this project I realised that, how important that we have a goal and a plan at the beginning. I think at the next time, the next project, the next assignment, I'm gonna plan – I'm gonna organise. I'm gonna do the organise first, and then do the next step. (Prija, W5D3am)

7.5 Mid-point summary

The data presented up to this point has demonstrated the emergence of a powerful DMC experience within the group, and further, has offered initial confirmation that the resulting current of motivation facilitated specific language and other learning gains. This latter finding is critical; not only is it possible to intentionally facilitate a powerful current of motivation within a group of language students, but even through the whirlwind of activity created it appears it may be entirely possible for teachers to externally direct this flow to ensure students achieve specific language and other learning aims and outcomes.

Moving forwards, the following section evaluates the intervention in practical terms, and asks specifically how this was achieved. Up until this point, the focus of the chapter has centred on the positive outcomes of the intervention, however, as with any classroom exercise there always exists opportunities which can be built on in future. In looking at the key foundations which were laid, evaluation is also made of ways elements could be further refined for future interventions. The chapter concludes in Section 7.7.

7.6 Creating the right foundations: Key criteria for success

In the frameworks for focused interventions introduced by Dörnyei et al. (2016), the authors set out key guidelines for each variant, designed as cornerstones for successful implementation. The base of the current study was built around an 'All Eyes on the Final Product' framework variant (see further Section 4.4), the signature component of which is an "end goal and accompanying vision which energises the entire project" (Dörnyei et al., 2016, p. 177). The authors suggest that the following are key to successful classroom implementation:

- A project goal which is well-defined, widely recognisable and highly salient,
- Content which is both real and authentic,
- A tangible outcome and real audience,
- Highly developed project roles and norms,
- Regular subgoals, and
- Explicit links to specific aspects of L2 competence.

From this starting point, the following sections will look at each of these separately. Assessment will be made of how each was achieved in the current context, how effectively they functioned, and their overall impact on the resulting current of motivation. Suggestions will also be made as to how the implementation of each might be further refined in future studies. Other factors for success in facilitating a group DMC will be included and these subheadings elaborated on where necessary, to ensure all key themes emerging from the current dataset are fully represented.

7.6.1 A project goal which is well-defined, widely recognisable and highly salient

Ensuring that a project is well-defined from the outset has been hypothesised as a key contributor for success. To achieve this – and commensurate with the aims of the business English course in this study – on the second day of the course students were taken to a formal meeting room within the university and were met by representatives of the school who presented them with a formal 'client brief'. The formal nature of the setting not only contributed to the 'real' nature of the project (see further Section 7.6.2), but also created a forum within which the goal could be very specifically laid out. Students were told the school

was looking for "An Event Management and Marketing firm to manage and promote an Institute-wide event that:

- Supports our brand and market positioning strategy
- Delivers an exceptional 'value-add' experience for our students
- Creates social media engagement
- Achieves promotional returns within the [university] community and through targeted media channels (public relations)
- Gives back and makes a real contribution to a real world problem."

Although, as Jessica describes, "the client brief left them temporarily speechless" (W1D3d), it was highly successful in laying out the challenge and making expectations and requirements for success clear, as well as giving students initial input and advice as to how to approach achieving each of these objectives. Further, it also served to stress the relevance of the project to the aims of the course – i.e. business English – which gave it increased authority beyond being simply a 'fun' exercise students were required to complete in tandem with their studies. This offered reassurance, therefore, that the project would directly improve their business English skills: this project was how they would study.

At the start of the course students were also each given a copy of the Project Framework (see Appendix H), designed specifically to help students understand what would be covered throughout the course. This highlighted three discrete areas of study: language, content and skills, and acted to further underline the academic focus of the project. The fact that a proportion of formal teaching was retained throughout the course to give specific language input – and additionally to give students a break from the intensity of the project to allow them to take stock of what they were learning – gave it additional credibility. (It is of note, however, that even with this in place it was several weeks before the aims of the course were fully appreciated and assimilated by students: see further Section 7.6.3).

With regards the goal being well-recognisable and highly salient, the nature of the goal itself meant that this was achieved by default; even before the teaser and full marketing campaigns began, individuals outside of the class group were able to clearly recognise the uniqueness of the course through the additional time and effort being invested by students, and through their transforming personal relationships and personal routines and schedules (a further key DMC marker) "I want to hang out with friends. Yeah! And I have a girlfriend, but she complains about it! That I d*on't hang out with her! But, it's good*" (Hotaka, W4D1).

Students visualisations

An additional visualised element of the goal was also recognisable in some students. As would be expected, natural individual differences between students meant that some held more vivid depictions of the goal they were working towards than others, yet there is evidence that at least some students were able to describe in detail a clear visualisation of the goal they were working towards. These included both imagined personal emotional depictions of the event:

> I imagine everyone with a lot of work, like really tired at the end of everything, but really happy like, oh my God we finally do it, and everyone is so happy! [laughter] Yeah, maybe like that. And, also, like I think that the people is going to be so happy – all the people, all the guests are going to be so happy. Yeah I imagine everyone laughing a lot like with the activities, everyone enjoys the muffins, everyone taking photos of everything! (Daniela, W4D2)

> I imagine that day a really good day, and, and I think that we, that our students – or our class – will feel happy, because of the project, because, as I told you before we worked hard, so, we, we just, we just have to, how can I say – see the results, the good results of the hard working. (Danilo, W3D4)

And also visualisations of more practical aspects related to the running of the day itself:

> Imagine… like, we organise the event on the grass, it means, outside. So, it's really relaxing but fun and so many people are coming, and we – they enjoying. And also, they can know about the cancers, and they can know, like about the cancers and the fundraising. They can feel – because they have to pay 5 dollars for the entrance ticket, so they can know the fundraising, they raise money for the Cancer Council … But, it's gonna be busy, but, I can enjoy. Could be enjoy, yeah! (Namika, W3D2)

No specific visualisation training or explicit encouragement was given to students in this respect throughout the course – aside from the detailed planning of the event and the

timetable of the day itself – and for some students this played a greater role than for others, who in contrast were unable to easily describe the goal in anything other than an abstract manner. An interesting addition to future studies would be to investigate to what extent students' DMC experience might have been strengthened through the use of targeted visualisation techniques throughout the course, and whether this might subsequently have had any positive resulting impact on student language achievement.

Lessons learned and considerations for the future

One of the strengths of this course was the detailed manner in which the goal and the required outcomes were laid out to students and the consistency of this message throughout its duration. Even though it took time for the full nature of what they were being asked to do to settle on students' shoulders, the consistency of the defined goal acted as a strong backbone which underpinned the entire process. The nature of the goal itself – a public event designed to be inclusive of all international students at the school which included additional demands of several key stakeholders – meant that its saliency was recognisable from the outset and this strong driver continued to increase in potency as the project progressed.

7.6.2 Content which is both real and authentic

"We gave them what we had promised - a real task" (Jessica, W4D4d). The very nature of the project meant that the content and all project tasks were inherently 'real', in the sense that they had a true communicative purpose and were completed outside of the isolation and relative safety of the classroom. This is something that was acutely felt and students were keen to emphasise the importance of this: "Yes of course [it impacted positively] because it was a real practice. Because sometimes it becomes boring in the other courses just to *practice in hypothetical situations. And it's important to practice your English in a real* situation" (Paula, W5D3pm); "Still *feeling excited but a little bit worried…it's a real* project!" (Matheus, W1D5d). As Dieter elaborates: "yo*u're not just playing a game*" (W5D1), and as Masuyo describes in a diary entry response outlining the highlight of her week, this is likewise exactly what she identified: "Presentation for each classes. It's real presentation!" (W3D5d).

The reality of the situation took on even greater levels of importance for students like Namika, who had little business experience beyond the business English class she had completed with Jessica and David in the previous session. As David states, "*It's a whole different ballgame for a lot of people, they've never been in this situation*" (David, W3D2):

> Actually, I never study about the business, in my life … [laughter] And really don't like – not don't like but, I'm really not good at negotiate, at negotiation, so it's really difficult for me and I don't know the, I cannot imagine about the situation – this is all imagination but I can't imagine that situation about the negotiate. (Namika, W3D2)

In asking Namika to imagine herself in specific business scenarios, the challenge instantly transferred focus to a struggle with the context itself, so immediately taking attention away from the language focus of the activity. The need for students to act authentically in real communicative encounters was manifested through the project at every turn, where even something as mundane as the abundance of leftover muffins after the event created copious opportunities: "they had the opportunity to speak to people, to <u>real</u> people, not just their *fellow students … saying take a muffin please because it's free, because we have got too* many muffins, and students are reacting like, why are you giving me a muffin? What the hell is this?! It*'s free? Is it poisoned!? You know?! It's real!"* (David, W4D4).

A truly authentic context, it also allowed students through their responses to act entirely as themselves rather than being obliged to play a character in a simulated communicative encounter; the onus was put on students to act authentically in accordance with their transportable identity (Zimmerman, 1998), so creating an unspoken additional pressure on students to put forward a positive impression of themselves:

> Before this project we, we practiced that kind of, these kind of things, but it was just practice, like simulation like – yeah, not real, just, let's negotiate about this topic, go ahead and negotiate. And teacher said ok finish, well done, like this. But now, I, yeah this is very real negotiation, so, to sponsorship. So I have to, take more care about my language, like right word, we have to use right word and yes, so, for my English it's also very good experience. (Masuyo, W3D3)

Just enough pressure to work productively under

The degree of pressure created from the fact that it was a real situation reflected the reality of any similar occurrence outside of the classroom, and as such it included a degree of public scrutiny and accountability. The challenge with an educational project is to ensure a balance between productive and overwhelming levels of pressure, as the latter would clearly negate the possibility of any real language development because priority would rather be focused on issues related to the mere practicality of project achievement. The language developments outlined in Section 7.3 suggests that a positive balance was achieved in this respect, and data evidence more specifically related to this issue corroborates this. Ayumu describes the pressure he felt as exactly what he was looking for: "*No I don't think it was too much, because I like, I think I like working hard. That's why I'm here* – I come here in Australia and studying English" (W5D3am). That he was pushed formed a positive ingredient of his experience, and Matheus likewise describes the pressure as functioning as a positive challenge for his English skills:

> Sometimes you need, how can I say, do something real, not work only in hypothetical situations, you need to do something real, you need this, this small pressure, under your head, above your head. You know, because if you only work in hypothetical situations, sometimes you're not … you lose your motivation. So I think that's the big difference when you're doing something real, like this project. (W3D4)

Matheus goes on, "*we know that it's a kind of game, but you have a little bit, a little, a small pressure. So, we know that we won't lose our jobs because of it!*" (W3D4). Although contained, the levels of pressure manufactured were nevertheless sufficient to inspire strong feelings of accountability and responsibility:

> I want to really successful about this project. So, and I can't absent the class … Yeah this is not normal class! So if I absent and, we then have a group, and so in pair, and we have to go do the sponsors and negotiate. So, I can't absent so, we have a responsible – I think. Yeah, every student have a responsible, for us. Yeah! (Namika, W3D2)

> For example, if you're not in a good day, you don't want to work, but here, how is real with a real situation, you can't, you can't do – you must to be well every day because it's important for the group, people are waiting for you, people need to work with you, so you are important in the group. (Matheus, W5D3pm)

The strong dynamic created did not allow students to disappear into the body of the group, and created an atmosphere where everyone was valued, known by name, and where the norm was that everyone contributed and supported their peers (see further Section 7.6.4). The importance of this was likewise appreciated by their teachers: "*it's only when you put* them under pressure – *as we've put them under pressure in this project* – they do begin to realise that they need to work together and they need to understand each other, maybe that understanding of c*ulture just doesn't happen in other situations*" (David, W4D4; see also Sections 7.1.4 and 7.6.3).

It should be noted that the level of pressure students experienced fluctuated throughout, and that at times the pressure was felt relatively acutely:

> It was, [laughter] it was really hard! Like physically and mentally it was, yes, but, mmm, yeah, it was really hard. But it was also fun / I have enjoyed a lot more compared than normal class, and also I can say I got stressed and I feel pressure a lot, than the other class! So I feel, I staying here like 9 months now, but this session was the longest session. (Sakura, W4D3/W5D3pm)

It is of note that it was this pressure to participate as a member of a cohesive group contributed to one student leaving the class in the second week. However, because of the wider context of her leaving – particularly with regards her feelings of homesickness and that she felt unable to share her opinions in the presence of her older Japanese peers, to whom she felt obliged rather to show deference – it is not believed to be a reflection of an overall negative pressure of the course itself. That she kept in touch with her classmates and abreast of news during the planning, and that she enjoyed attending the event itself is testament to the lack of any lasting negative feeling.

Relevance to students: A personalisable goal

The ability for students to act authentically to who they are in the context of a real situation is key for success, yet, this may not be sufficient to inspire a current of motivational energy equivalent to a group DMC if it is not something that students are able to personalise to their own expectations and goals for the future. As Hatsuo neatly sums up, a key difficulty in creating cohesion and ensuring that a goal is relevant to all students in such a large and diverse group is that students each arrive on the first day with different expectations, priorities and foci as to what they want to achieve: "we all have another background, another culture so, for each people, person, has their priorities" (Hatsuo, W2D4). In considering the authenticity and relevance of the goal, this not only encompasses students' ability to act as themselves in, for example, real negotiation situations, but to allow them to tailor the goal to their own aspirations and desires: for a group DMC to emerge it was hypothesised that students would need to be able customise the overall goal of the project to reflect personal goals that they were working towards individually. This is particularly important within this framework variant, as it is the end goal which functions as the backbone underpinning the entire process.

There is ample evidence in the dataset to support the assertion that students were able to effectively achieve a high level of personalisation. In part, this was achieved because the aims of the project were well tailored to the demographic of the group, where students were largely either soon to be graduating or had recently completed undergraduate degrees: "after this project I *have an internship ... so this experience is going to be useful for me*" (Rokurou, W4D1); "this is really good opportunity, before start working" (Hotaka, W4D1); "*I'm really* excited about running a business, so this is a good opportunity to learn business" (Namika, W3D2); "I feel that this project is really challenging and this would be beneficial to me in the future for my working life" (Prija, W3D3). Students reported their levels of effort as directly related to this:

> For me, I am trying to do more than 100%, because I think that this project could be useful for me for my, for my professional life. Because now I am looking for a volunteer in Melbourne. … I think that I am doing more, because I have a second propose [purpose] behind that, and I think that this could be a good. Like, how to say, a good something to show! I already did this one in Australia, I think that will be so useful for me. (Paula, W2D3)

Students also demonstrated the malleability of the overall goal through their ability to gravitate towards particular aspects of the project, to gain discrete skills and specific experience:

> I am an engineer – a software engineer. Normally I work with solving problems, but more with technology … I select to stay in the Marketing because I want to build my relationships with people. I think that is one of my weakness. … I am technical, that is my background. But I know I need to build other skills in my life! … I am in the, in the marketing team because I want to speak with people, I want to encourage people to follow our social media, to go to our event. I want to speak with our sponsor, with other people. And build my confidence to speak with people, to sympathise with people. (Guillermo, W2D3)

> I want to learn, especially speaking. Speaking because we, I, I work in Japan company, I have a chance to read and write documents in English. But I don't have a chance to speak to others! … I have never experienced this, what we meet now. It's good opportunity. (Hatsuo, W2D4)

> Half of my classmates are from Latin. From South America. Their English is, you know, similar to Spanish. Yeah, so, sometimes I can't understand. They, speak very fast so, sometimes I can't follow them. But in the future, maybe I will work with Latin people maybe … So yeah, it's a good opportunity I think. (Rokurou, W2D4)

Lessons learned and considerations for the future

It is clear that the project gave students a real challenge in a relevant context, and at an appropriate level in terms of their professional experience and business and language knowledge. Further, evidence that students were able to personalise this to meet their own goals for the course and their futures was highly encouraging, and the powerful group DMC that subsequently emerged is testament to this success. Although there is evidence of students feeling under pressure throughout the five weeks, this was managed effectively and the reported fluctuations in the balance students felt between 'good pressure' and 'bad pressure'

tipped towards the latter only ever temporarily – usually when deadlines and subgoals were looming – and for the most part the evidence suggests that students thrived under the conditions created. In the context of a group DMC, as in this instance, it is thanks to the position of the teachers as members of the team that they were able to monitor this without issue. That the teachers also had the flexibility to adapt lesson plans as appropriate to cater to the needs of the students spontaneously as they arose was also a significant factor in managing this effectively. This is a critical point of awareness in planning and running such a course in terms of future interventions: although a level of pressure is required to push students to surpass their expectations, careful management is required to ensure students are continually equipped to manage it successfully.

7.6.3 A tangible outcome and real audience

The magnitude of the event and the requirements set out in the client brief ensured details of the required audience were explicit from the outset. However, interestingly, although the outcome was highly tangible, students did not immediately engage with it as such. Testament to the fact that students are so unused to being given a real task and a real audience for their work, several weeks passed before this was fully realised.

> At the beginning … I thought it's like a small project in our class … something just like 50 people? Just invite some people to, to to to, how to say, to watch our, our product. Something like that! … Definitely I think it's better [the actual challenge], but it's also hard, I think yeah. (Prija, W3D3)

It was not until this became clear to students and it truly settled on their shoulders – not until the third week! – that their DMC experience really took flight. This delay was something Jessica and David also witnessed: "I think they are beginning to see finally that *this is 'real' and that they have to invest themselves in the task ... they've come so far this* week that it might be the "tipping point" where total involvement is a given" (David, W3D2d); "*It's become theirs yeah – I mean I think it was theirs in their heads, but it wasn't theirs in their hands? Like they didn't know they had to do it? Even though we said that 60* thousand times!" (Jessica, W3D2). Jessica also intuited that for the Japanese students in the group this was an even greater penny drop, because the project represented even more of

departure from the style of teaching that they were used to receiving: "*It's kind of like* – Oh they really want us *to do it! It's like it's just hit, and oh! I can do that!*" (W3D2).

The tangibility of what students were being asked to do was aided by the speakers who regularly came into the class, who gave students direct input and advice as to how they might be able to take their ideas forward and manifest them at the event. Speakers included Neil who ran a teamwork session in the first week, marked by many students in their diaries as a highlight of the week; Deborah from the Cancer Council, which "had them 'buzzing' with ideas and very, very focused" (David, W1D4d); local businesswoman Jess "on her unconventional business story – *awesome!"* (Jessica W3D3d) who spoke to students about her experience growing a business purely through social media and to whom students responded particularly strongly, and Frances who gave a talk on designing a media release which very effectively focused their energies – "When Frances left they began work on what they knew needed finishing" (David, W4D2d). Even their Skype interviews as a part of the study impacted positively in this way. These diverse opportunities helped students to crystallise their ideas and break down into digestible pieces what and how they were going to achieve their goal, emphasising at every step the reality of who they were creating it for by working with interested partners working professionally in related fields.

Lessons learned and considerations for the future

The regular outside speakers who both presented to and worked with students, and others with whom the group had contact throughout the course, played a significant role in highlighting both the reality of the context – in that these individuals were working professionally in the fields students had also been plunged into – and with it, therefore, the specific audience they were catering to. That it took students time to come to fully realise what they were being challenged did not negatively affect the overall DMC current that was created, yet more external structure in terms of goal setting at these early stages while the group dynamic was developing may have supported the earlier emergence of this (see further Section 7.6.4).

7.6.4 Highly developed project roles and norms

The creation of a strong dynamic is a key element of any successful language class, yet commensurate with the aims of the current study – aiming to purposefully facilitate a group DMC – this took on even greater significance. As highlighted in Section 3.3.1, when compared to individual DMCs, within a group DMC the base prerequisite of an individual's openness to the DMC experienced is substituted by the maturity of the group to be able to work together and collaborate effectively as a team. The strong group dynamic developed throughout the course has been evidenced by the above discussion – indeed, the DMC would not have taken hold at all had this not been present – and although a detailed analysis of the development of this is precluded here due to space limitations, several key transitions warrant emphasis: the assimilation of new students at the outset, the emergence of clear roles and norms within the group, and the ability of the group to work effectively to overcome obstacles.

The challenge to the dynamic the first week came from the fact that several new students joined an existing class group which had already been together for at least one session with Jessica and David. The teambuilding exercise on Wednesday of Week One (see further Section 7.6.3) and with it the explicit emphasis on the importance of the group as a whole was key in beginning this process. Atsuko, a Japanese student new to the group, describes her feelings during these first weeks, and their gradual change as the cohesiveness of the group developed:

> Yeah, I am happy! At first, last week, I really really didn't want go school! Because, last week I'm not good then with other classmates. Because they are, classmates last session, some of them. So they are good, they have a good relationship already, so I couldn't join it. But last weekend we had a BBQ with this class, with these classmates, so, yeah. I can join this community. (Atsuko, W2D3)

> Last week I really fear about these things, last week I become a little bit good friends than first week with them. So I can say my opinion, little bit with them, talk to them. And this week I become a more good friends, because I spend this weekend with my classmate, so it become more easy for me to say my opinion. So, recently I really think that the, how to say, the relationship with team member is very very important for making a project, or, yeah. For running a project. (Atsuko, W3D2)

Once the group was formed, students began to find their feet within it and grow in their roles, learning more every day of what they could contribute. Once the group was 'up and running', Jessica describes "They had the full gamut of team work - delegating, overcoming problems, supporting each other, offering help…" (Jessica, W4D4d). For some students – most notably those slightly older or with prior professional experience – their group roles emerged seemingly effortlessly. Paula, for example, emerged as one of the maternal leaders of the group and a skilled designer, and Hatsuo – an engineer – the practicalities man. This process was more challenging, however, for younger students who were yet to have had a chance to hone their skills outside of the classroom, and so were unable to bring this part of themselves in. Rokurou, a Japanese university student who began the course hesitant in his English abilities in the presence of his more accomplished classmates, worried what personal contributions he would be able to make. In his words:

> Paula can make a poster and design, can design many things. And Guillermo can, Guillermo can be a good leader. And do you know Hatsuo? From Japan? … Hatsuo can make a graph, for getting our project started. And making our project very clear, so. They are very good person I think … That's really nice. But, in other hand, I'm just a university student, in Japan, and actually I don't have any skills … so I was looking for how to say, the things I can do in this project? So, yeah, I noticed there are many things I can do in this project, so yeah, that's really nice. That's a really nice opportunity for me. … Like, you know – I like chatting with many people. And I don't hesitate to, to talk with who is, stranger for me. So, I could do that, I can do that … Yeah, and I really appreciate this. (W4D1)

It is highly encouraging that regardless of any previous experience, all students were relatively quickly able to find their roles within the group, as David comments: "Still progressing well, seems groups are more comfortable and adjusted to working with each *other* ... People have defined roles now and have assumed responsibility for what they are doing" (David, W4D2d). Further evidence of the robustness of the resulting dynamic was evidenced in the final week, where student accounts reported minor conflicts between peers in the days before the event, as students rushed to make all the final arrangements. Testament to the robustness of the group by this point and their ability to resolve conflict, this was resolved so effectively that these minor issues were not even detected in Jessica and David's

accounts: this is the only aspect throughout the course where student and teacher accounts of the course differ.

Lessons learned and considerations for the future

The development of a strong dynamic is a critical base component when considering the purposeful facilitation of a group DMC in educational contexts. Its development in this instance was strengthened by the fact students socialised with each other out of the classroom, and which increased exponentially as students chose to do so increasingly more as the course progressed. It is highly likely that the DMC took off only in the third week because up until this point the group was not ready to take it on, yet this is not believed to be a weakness of the study. These initial weeks during which the project aims and group dynamic were germinating created a sound basis for a wave of motivation to later erupt, something which was possible only spring boarded from this core foundation.

7.6.5 Regular subgoals

Although Dörnyei et al. (2016) posit that the occurrence of regular subgoals is of less importance within this project framework variant than others – because progress is primarily measured by the incremental coming together of the final product – the authors nevertheless stress the importance of their role in generating and maintaining momentum. In the context of the current project, goals emerged organically in response to tasks which required completion at certain stages of the project, and students collaborated well together to make good progress towards their completion – "*sense of progress being made with goals being set … and sense* of achievement for students after talking to potential sponsors. This makes me happy to see *them achieving their goals … Sense of purpose working on common goals for next week*" (David, W2D5d) – and as Namika explains, clarity in this regard was very effective at raising interest and motivation:

> I'm so looking forward to the, organising the event. Yeah, really excited, I'm so excited! … Because I'm thinking, we are thinking about all of the things, like sponsors, activities, and all of the things. And then we are thinking every day, and we can see the – this event, this things, on the day, on the 28th of May. So, yeah, I'm so excited! (Namika, W3D2)

The subgoals which required completion throughout the project can clearly be understood – for example in relation to sponsorship or activities, as mentioned by Namika – yet the size of the group as a whole made these very difficult to concrete at the beginning of the course with consensus from all students, an issue which was exasperated again by the fact that it took students several weeks to fully realise exactly what it was they were being challenged with and for the group DMC to fully take off. As a result of this, at points students voiced frustration with a perceived lack of progress: "We need to stop talking and just do it!" (Paula, W2D3d):

> We decide something today but tomorrow it's another thing. So, we decide something today and everybody say 'ok yeah let's go with that', but tomorrow someone ask, or maybe, couldn't come the day before and now comes and says 'no why don't we do that' and everyone, 'ok ok'! So everything's changing and is changing, and we don't, like, keep the, the main idea, and work with that base. (Daniela, W4D2)

Students also expressed frustration because they were unable to carry all their ideas forwards to fruition – "*all the stuff that we put forward, we didn't have the resources we didn't have* the time for it we are not allowed for it from the security stuff" (Dieter, W5D1) – all of which contributed to a negative impression of the fact that at times, goals set and decisions made early on during the course were routinely changed or amended as planning progressed.

A point of interest directly related to the success of students' working together towards project subgoals regards the configurations of groups in doing so. At the start of the course, students divided themselves up into separate teams responsible for discrete aspects of the project, for example activities, sponsorship or logistics. However, both students and teachers noted that after having done so, students worked notably better during the first few weeks when not in these groups, and it is arguable even, that splitting students up in this way may have stunted the development of the whole group dynamic, as students did not know each other sufficiently well to be able to intuitively share ideas: it may be the case that this

initial separation meant it took longer for students to become acquainted with members of other groups, and one of Jessica's lowlights of the second week was exactly this: "Lowlights: Different groups not attempting to communicate with other groups" (Jessica, W2D1d).

Working in smaller, more fluid groups meant that not only could there be multiple leaders – because, in effect, all students were responsible for all aspects of the project, not only those which their group had taken on – but that interaction immediately increased: "I broke the groups into pairs and made them choose a specific task. They had to write down and sign off on exactly what they were going to do. Much better interaction all round from pair work" (Jessica, W3D1d); "Rather than have them in fixed groups (i.e. project stuff) lots of mix, mingle with new partners giving some who are finding their group dynamics challenging the opportunity to relax and work with others" (David, W2D2d). Working in smaller groups functioned to build the confidence of those naturally more introverted, and students less confident or fluent in their language abilities. As Paula describes:

> If you work in small teams you can have a lot of leaders and not just one. Because if you work in a big team maybe the majority of the people is going to follow just one or two ideas, and there is no a lot of discussion. So I guess, I prefer to work in small groups. And also yes, it works better in the small group. (Paula, W5D3pm)

Lessons learned and considerations for the future

An important point of note is that even though students encountered difficulties in these regards, the momentum and strength of the DMC was not dulled by this; the other measures put in place ensured that the emerging DMC was not derailed, even though it is arguable that it may have started slightly later than it could have. This likewise supports Dörnyei et al.'s (2016) claim that fixed, regular subgoals are of relatively less importance within this framework variant, as it is the final goal acting as the backbone to the project which ultimately supports the emerging motivational current.

Suggested modifications for future courses include the following. Give students a fixed schedule of subgoals with required tasks for completion for (at least) the first several weeks to help reinforce to students the task that they have been set. This being said, however, the very genesis of a DMC demands that a certain level of fluidity and spontaneity is required to allow the emerging current of motivation to come to the fore. In order to overcome this, it

may be more effective to order subgoals so that 'additive goals' – by which I mean goals that do not require an either/or response; for example finding sponsorship for the event, which *can be thought of in terms of 'the more the better'* – are set in the early weeks of the project. This would allow time for students to get to know each other, learn some of each other's strengths and weaknesses, and allow time for the base group dynamic to build while working in fluid and ill-defined groups, while still in the context of successful goal achievement. Only at a later stage might 'exclusive goals' be set – by which I mean goals which require consensus and a concrete answer; for example deciding what activities to run on the day. By this point it is more likely students will have gained a greater level of familiarity with each other and with the task itself, and the developed dynamic will have made them better prepared and able to negotiate together to make good decisions. The additional reality of pushing these decisions until later on in the course would also remove any possibility to backtrack on decisions, yet, having later deadlines for these subgoals would nevertheless not preclude students from collaborating in smaller groups and investigating the feasibility of their ideas prior to 'final' proposals being presented and decisions being made.

7.6.6 Explicit links to specific aspects of L2 competence

The Project Framework (see further Section 7.6.1 and Appendix H) was designed specifically to make explicit to students the links between the project itself and the specific aspects of L2 competence that would be covered throughout the course. As has been described, a taught component was maintained throughout which covered all basic skills – speaking, listening, reading and writing – and as far as possible this content ran in tandem with the skills and vocabulary knowledge students required at each stage of the project. This was not only to ensure that students were 'armed' with appropriate language and business knowledge to be able to successfully complete each stage, but also to stress at each stage the relevance of the project to what they were studying, and the relevance of what they were studying to the practical demands of the project. As David and Jessica describe of this time: "Good to have class time - reading/listening/vocab. In the afternoon - writing proposals" (David, W3D4d); "Intense as always. Teaching (checking homework, testing, checking answers, presentation, language input) felt safer, more concrete than 'project' time" (Jessica, W2D1d).

Although on paper there were numerous explicit links to specific aspects of L2 competence and regular feedback was given, there is evidence of a need for more explicit

feedback on language development as it occurred throughout the course. Student responses to the feedback they received in terms of the project is testament to its importance – the DMC literature likewise stresses the importance of affirmative feedback (see further Section 3.2.3) – and importantly, feedback in this regard can be given by a plethora of individuals outside of the immediate classroom environment: "But *the last 2 week yeah …* we got many feedback from the, many many people – some like are, from the sponsor, from the teacher, who gonna bring the cupcakes something like that and do that. And the last 2 weeks is the best 2 weeks! [laughter]" (Prija, W5D3am). Specific personal development in terms of language – although considerable – was far more difficult for students to discern, and there is evidence that it was not always fully appreciated:

> A: So, honestly I don't feel like [I'm] studying English! [laughter] I'm not really sure which skills I'm improving, so yeah – probably, if I have to say, speaking. Because we are all the time we are speaking about, we are talking about the project. So, I think this is definitely good for my speaking.
> Interviewer: So, you are not quite sure what you are learning, but you are sure that you are learning?!
> A: Yeah! I'm just enjoying it yeah! I'm just here to make this project. … I can't see it myself, so I just, how I achieved, how I improved my English so, I don't know! (Ayumu, W3D1/W5D3)

> Ummm, actually I feel a little bit worried about that … like I don't know if I am not conscious, or maybe, I don't know sometimes it feels we need something more related, like how can I match the course, about the vocabulary and grammar, with our project … So I don't, I don't feel that I improve in the project, sometimes … sometimes for English I don't know, it helps me or no?! [laughter] Yes, because sometimes, yes I don't know if I'm improving and maybe I don't know? But, if I improve or no, yes I am sure. (Eva, W3D1)

Although Eva, like Ayumu, felt she did believe she was improving, she was clearly unable to elaborate on this in any greater detail. For Matheus, although he was sure his language had developed and he was confident he'd been successful in his development throughout the course, it remained subtle: "of course when you are talking you are learning, *you are improving your language, like you can't see, you can't, how can I say, after like 5*

weeks you don't see the difference, but yeah, it's something like subtle you know" (Matheus, W5D3pm). More affirmative feedback with regards the development of students' implicit knowledge would, therefore, have been very valuable. For students who require the feeling of a folder full of completed exercises as a way of representing and reassuring progress, this would have been of particular importance. Two issues are of relevance in considering how to successfully achieve this: an appropriate balance of project versus classwork throughout the course, and the effective management of the period directly after the event.

Managing the balance of project versus classwork

A key factor in meeting the aims of the language focus of the course in the current study was finding the appropriate balance of class time which was devoted to project work and to direct teaching. The inclusion of taught class time functioned as not only a structured escape from the intensity of the current of motivation fuelling the project – as mentioned above – but also as a way to ensure that students received structured language and business content input throughout to support their development and progress. The dataset suggests that the challenge in finding this balance was largely overcome successfully. As students describe: "we can learn not only about the project, but also normal class. So, we could, we can both, we can do both things" (Hotaka, W4D1); "*all the cases and the reading that we have done, it's really important also, because it's not just all about the project … I* am learning a lot of other things" (Daniela, W3D1); "together with the project we also, we do a lot of grammar exercises, business, business stuff" (Danilo, W3D4)

> I didn't have any thoughts, to have a project like this. I thought it, this class was going to, you know, like just a class. Sitting the table, and listening the teacher, and you know … But I, it's not, it's completely different from my image … I think now is better, you know. The best system … a good balance I think. (Rokurou, W2D4)

For some students, however, the balance was skewed too far towards the project, as Eva explains:

> We spend a lot of time planning the project, I think it's good. But also, but sometimes I feel like, sometimes we spend too much time maybe? / I think the project is very nice and is very good and is useful, but I mean that a little bit, for me could be better if could be like a more equilibrium between classes and project. Because yes, the project for me was sometimes too much. (Eva, W3D1/W5D1)

It is interesting to note that the two students who felt most strongly in this regard – Eva and Dieter – both described their reasoning very clearly. Dieter arrived to Australia for a single five week session at the school, but soon after arriving came to the realisation that the other school he had been researching online may have been a better fit for him and, as such, he never engaged fully with the course (it is of note that he is the only student who stated he didn't wish to repeat the experience: "Probably, from my purpose, I would decide to make the *academic course. Because there you write more, and I think for me it's the writing, it's the thing that I wouldn't learn alone – because I'm not a person that stays home and starts* writing, if no one wants me to do it" (Dieter, W5D1); the truthfulness of this was attested to by Jessica and David who noted his lack of completed homework tasks throughout the course).

Eva, quoted above, had already completed several sessions at the school and this course was her final session before returning home, as such she felt very strongly that she needed to use her final weeks to absorb as much knowledge as she could. She described her time at the school as high stakes, owing to the fact she had quit her job prior to leaving Peru and had invested a lot in this period of her education here. It is of note that she tried to change course but had been told alternative classes were unavailable. With this in mind it is indeed remarkable – and testament to the power of the facilitated DMC – that she became as inspired and engaged in the project as she did. Her comments betray a conflict within her: on the one hand was a fear that she was not studying as much grammar as she 'should' be, yet on the other, the acknowledgement that she was learning a lot from the course, and that she would like to experience it again. "*I have project all the day and some, sometimes I feel, like I don't want to come because it's all about the project, and I feel sometimes that I don't learn too much. Because it's too muc*h free," yet later in the same interview, "also I think that was good for example to, to speak with other people who is not in the class. And, and speak with the sponsors, and have that relations with other people. And many many things that is very good, and also I think the project is very nice and is very good and is useful" (Eva, W5D1). More

explicit feedback on her language development throughout the course may have impacted on Eva very positively in this regard.

The accompanying course booklet collated by Jessica and David allowed students to follow up content studied within class time with further related readings and exercises, and was an especially valuable element of the course to students like Eva: "I like the book. Yeah, we have like reading and li*stening and some texts. I think it's, it's good*" (Eva, W3D1). This formed a key basis of the course for both in class and homework teaching tasks: "for example *reading? We can do reading during class time but, we do reading just alone. So we don't* need to *do reading during class time, it's a waste of time I think. So reading, it's good for homework … Yeah I'm happy, really happy*" (Hotaka, W4D1).

Effective management of the period directly after the event

The period of time immediately after the end of such a project where a powerful group DMC current is successfully facilitated is critically important, not only in how the overall experience is remembered, but, more significantly from the educational perspective, in terms of consolidating language knowledge. Although the success of the event itself is far more easily evidenced, as has been discussed specific language gains can be far harder for students to discern. It is important that these are explicitly highlighted to students, especially because perceived and actual levels of achievement may differ significantly.

Due to school requirements, the final week of the course was relatively assessment heavy, and during this time students were required to complete speaking/presentation, writing and general review tests. This created a de facto and relatively immediate change in the dynamic back to the previously existing 'teacher and student' roles, and represents an important change which required careful management. In order to continue and effectively bring to a close the momentum created throughout the course, wherever possible assessment tasks were rewritten to ensure specific relevance to the project, and were interspersed with highly positive project related tasks – such as ensuring sponsors and other students who supported the event were publicly thanked – and time was dedicated to pushing students to consider fully the extent of all their collaborative and personal achievements. Further external speakers this final week – such as Deborah from the Cancer Council who returned to accept the students' donation in person – served to emphasise this again. From an educational standpoint, this final week was invaluable both in terms of consolidating language and project

development throughout the course, and was deliberately included within the schedule; even though organising the event the final week of the course may have created a slightly longer group DMC, the educational value of this would ultimately likely have been lessened.

Lessons learned and considerations for the future

The most significant area for improvement noted is with regards the creation of more structured avenues for affirmative feedback in terms of language development throughout the course. This, in addition to explicit links to specific aspects of L2 competence, might also be emphasised through a greater focus on personal language goal setting. This might be achieved, for example, by requiring students at the start of each week to choose several achievable language goals, and to corroborate these additionally with specific steps as to how they will achieve them. By regularly referring back to these throughout the week and allowing students time at the end of each week for them to evaluate their success, it may function as a way for students to appreciate in a much more tangible way the individual language progress that they are making. Teacher support in the setting and monitoring of these would likely also have a highly positive effect, and such a structure as this may also provide a way in which students might tailor the language goals of the course to their own agendas, as demonstrated in Section 7.6.2 was achieved effectively in terms of the overall project goal. Although students did create specific language goals at the start of the course that they wished to achieve throughout, opportunities were missed to fully exploit these to students' advantage as the weeks progressed.

7.7 Conclusion

This study was the first to test empirically the feasibility of purposefully facilitating a group DMC in a structured L2 taught environment, and the findings presented are very encouraging: not only does the evidence suggest that a group DMC was successfully created in this context, but students also reported feeling that it had a notable positive impact on their language development, and that it served additionally to develop other related professional skills. The importance of this in the development of DMC research as a whole and in the transference of DMC theory to the classroom has true practical relevance. The analysis of the foundations which facilitated this in Section 7.6 offers initial support for the 'All Eyes on the

Final Product' framework variant as put forward by Dörnyei et al. (2016), and paves the way for further research into both this and other means of purposefully facilitating group DMC experiences in the language classroom.

The context of this study was particularly suited for this intervention; both teachers are highly experienced and prior to the course both had previous experience of having successfully facilitated projects with groups of learners, and relevant also is the fact that they had a certain level autonomy over course content and learning objectives within their school environment. The very nature of such situated qualitative studies means that the results obtained are not immediately generalizable, nor might the goal or structure of the project be suitable for direct transference to other contexts without a certain level of tailoring required to ensure a good fit. It is, however, clear that the results of this exploratory study demonstrate the feasibility and possible language gains from facilitating a group DMC experience within a group of language learners. It should be remembered that the findings presented remain a first step to understanding the full gamut of implications stemming from creating such powerful motivational currents in discrete classroom environments, and it is not suggested that this study is comprehensive in the nuances of the conclusions drawn.

The results presented in this chapter similarly have relevance to the DMC research agenda more widely: these preliminary findings presented pose both exciting challenges for the future, and form the impetus for further work examining the practical application of DMC theory and its translation to varied contexts and situations around the world. The next and final chapter, Chapter Eight, brings together findings and conclusions from the two studies presented in this thesis, and concludes by considering the future of DMC research.

Chapter Eight
Conclusion

This thesis has presented two complementary studies, both investigating a key, novel area of DMC theory or application that to date had not been explored in a rigorous empirical manner. In this final chapter I bring together the main findings and conclusions which have been presented. Section 8.1 summarises key findings from each study and highlights the pedagogical implications of these, before the chapter goes on in Section 8.2 to consider the limitations faced by each of the two studies. This thesis concludes in Section 8.3, where the future of DMC research is discussed and suggestions for possible directions of the DMC research agenda are proposed.

8.1 Summary of conclusions

The most significant finding in Study One – and arguably of the thesis as a whole – is confirmation of the DMC phenomenon's broad recognisability and relevance across continents and contexts. In receiving responses from more than 1500 individuals, Study One offers strong support for the notion that DMCs represent more than a unique spectacle only experienced by a lucky minority, and instead gives credence to the argument that DMCs are a well-known and accepted motivational phenomenon in society. In isolating a DMC group within the responses received, as a conservative estimate the study found that as many as 36.5% of participants reported having experienced strong DMC-like periods of intense motivation, either once or on multiple occasions throughout their lifetime.

The validity of the isolation of these responses in the DMC group was demonstrated through multiple means. The DMC group differed significantly from the general long-term motivation group by way of the reported level of intensity of the experience and the duration over which is lasted, where the DMC group reported experiences longer than those in the general long-term motivation group. It is interesting to note too that participants who have experienced DMCs were more likely to report having recognised and witnessed DMC experiences in those around them than participants in the general long-term motivation group. The multi-item DMC Disposition scale – the first of its kind within the field of DMC research

– was able to further demonstrate the precision of the DMC group identified. Differences in the responses on the DMC Disposition scale of the DMC group and the general long-term motivation group were statistically significant, with a medium effect size (eta squared = .11). It was further demonstrated that within both groups, the scores on the DMC Disposition scale and the reported level of intensity of the experience for individuals who experienced this several times were significantly higher than those who had experienced it only once, results again which showed a large effect size (eta squared = .14 and .23 respectively).

Responses on the DMC Disposition scale found that there was no difference between the responses of male and female participants, and that there was only limited variation in responses between different age groups. The variation identified here – that participants over the age of 30 answered more positively on the DMC Disposition scale than those under the age of 30 – was accompanied by a small effect size, and may simply be attributed to older participants' increased lifespan and opportunity. (This conclusion is given additional credence in Study Two, which saw a student body largely under the age of 30 become engaged in a powerful group DMC experience.) The demographic breakdown of the DMC group itself reflects these findings – including the under/over 30 years of age split in terms of the make-up of the DMC group – and also gives support to the claim that propensity to experience DMCs is not affected by an individual's nationality.

With regards language learning, a conservative estimate (representing only those who answered this question most emphatically: Strongly Agree, N = 277) saw over 19% of participants in Study One report having experienced a similar type of intense motivation while learning a language. Results support previous claims that DMCs are bound neither to particular proficiency levels nor to specific contexts, and, more encouragingly still, approaching two thirds of these responses (N = 163, 59%) indicated that their DMC experience occurred in a formal instructional context: at school, university or at a private language school. This is highly encouraging and suggests that even in formal instructional contexts it is possible for students to assert sufficient levels of autonomy to allow a DMC experience to take hold. This conclusion, again, is shored up by the success of Study Two.

The qualitative results presented in Study One provide an insight into how these periods of motivation began, and participants' reasoning as to why they would or would not like to repeat the experience. One of the most noteworthy results identified here relates to the reasons given by participants for not wanting to repeat the experience. In the published literature to date, DMCs have been described as an overwhelmingly positive experience, and little indication or discussion has been given to any possible negative side-effects. These

results suggest essential research in this vein be included in future studies, because it is possible these results may impact considerably on the educational implications of applying DMC research to the language classroom, and to educational contexts more generally (see also Section 8.3).

Study Two investigated whether it was possible to purposefully facilitate a group DMC experience in a class of business English language learners. This study was based on the notion proposed by Dörnyei, Henry and Muir (2016) that in the context of language classrooms, group DMCs might be understood as manifesting through intensive group projects. The study was based on the first project framework variant put forward by the authors – 'All Eyes on the Final Product' – and centred on the organisation of a large scale charity fundraising event at the school. Results of the study indicate that a powerful group DMC was created in both students and teachers, and offer support for the conclusion that it is possible to purposefully facilitate such experiences in language classrooms. This conclusion was drawn from analysis of the qualitative dataset collected through Skype interviews and personal diary entries, which presented clear affirmation of the presence of the induced DMC, and all of the core DMC characteristics which were described in the literature review of this thesis were identifiable in many participants. These included students surpassing their expectations, the goal constantly being on their mind, and their enjoying investing the considerable levels of time and effort the course demanded. Both students and teachers described and experienced the course as being something special, a unique experience that had significant effects on their understandings of themselves and their potential abilities, and all but one student reported wanting to repeat the experience (and it is of note that this decision related more to the focus of the course than to the group DMC experience itself).

Most important from an educational standpoint were the notable language gains perceived throughout the five weeks, as reported by students, teachers and also those external to the immediate process, for example other teachers at the school. These language gains appeared most pronounced in relation to students' verbal communication skills – in speaking and listening – and impacted positively on the students' overall presentation abilities. Vocabulary knowledge was a second area which evidence suggested was considerably improved throughout the project, and not only did students report that their vocabulary knowledge had considerably widened, but that the project had also allowed them to put into active use vocabulary that they had 'known', but had previously been unable to use productively. Of interest also are teachers' reports of the students' magnified desire to proactively seek out new words and phrases to use in communication with their peers and

those outside of the classroom. Hand in hand with students' perceived language gains, the dataset also provided evidence that students made notable strides in the development of related professional skills, such as working as a productive member of a team – and, more specifically, working in multicultural teams – and in their organisation and general communication skills.

The design of the project included all key foundations suggested by Dörnyei et al. (2016) as ones that were believed to be required for the success of such a project: a salient end goal which was both real and authentic and which created a tangible outcome and real audience, specific subgoals related to both the project and specific language competencies, and the creation of well-developed group roles and norms within the class creating a strong group dynamic. Factors stressed by students themselves as key to aiding their language development included the importance of the reality of the situation, the sheer volume of communicative interaction the course demanded in multifarious unexpected and unpredictable contexts with a wide variety of speakers and, finally, the relationships and deep bonds they formed with their classmates.

8.1.2 Pedagogical implications

The cumulative pedagogical implications of these findings for the application of DMC theory to language classrooms seem promising. Group DMCs have been reported on previously through the anecdotal descriptions of intensive group projects in language classrooms, and the results of Study Two provide support for the conclusion that such experiences might be purposefully and deliberately facilitated. Further to this, the results also suggest that these experiences are capable of supporting students to achieve what were perceived to be notable language gains. The results of Study One indicate that DMCs might be experienced by individuals of all demographic backgrounds, suggesting that such interventions might be successful in varied classroom contexts around the world. That the class group in Study Two showed variation along all three of the demographic features investigated – age, gender and nationality – proffers further support for this claim. When viewed in tandem, considering the significant proportion of respondents in Study One who reported having experienced DMC-like periods of motivation in the natural course of their lives, it seems reasonable to conclude that – given the right conditions and support – a significant proportion of students might be

aided to participate in experiencing a group DMC within the context of their language learning.

8.2 Methodological decisions and limitations

The development of the DMC questionnaire and the DMC Disposition scale for Study One represents a step forwards in the field of DMC research, and opens up the door for further studies in this vein by offering a 'tried and tested' questionnaire blueprint. Although the questionnaire reached a considerable number of respondents, the most significant limitation pertaining to this study relates to the self-selected nature of the sample. The aim of the current study was to reach as many participants as possible from as many varied locations around the world as could be reached, and convenience and snowball sampling was deemed most appropriate to achieve this. The result of this, however, is that some degree of a systematic overrepresentation of certain respondents is inevitable: more motivated people and individuals with whom the initial description of DMCs resonated particularly strongly were likely to have completed the questionnaire more often than those with whom it did not resonate quite as meaningfully. Future research with more structured participant sampling methods are therefore required to validate the current findings presented.

It is of note also that the main body of the questionnaire relies heavily on positively worded questionnaire items. In questionnaire theory, best practice suggests that it is important to include both positively and negatively worded items in order to limit the effects of an 'acquiescence bias', referring to "the tendency for people to agree with sentences when they are unsure or ambivalent" (Dörnyei, 2010, p. 9). It was decided that in this instance, however, positively worded items were necessary primarily because of the limitations in place on the length of the questionnaire, a factor which it was very important to keep at a manageable limit to encourage as many responses as possible. The overall results must be considered with this in mind, warranting that future studies expand on the number and type of questions asked.

The results of Study Two provided clear evidence of the emergence of a powerful group DMC, yet, as with any similar qualitative study that is necessarily situated in a single, specific context, the primary limitation of Study Two concerns the generalisability and wider applicability of the findings identified. Although the results point towards highly promising conclusions, it is yet to be demonstrated whether such periods of intense motivation might be

as successfully facilitated in different contexts, with different student groups and where, for example, there are fewer contact hours per week or lower levels of external support available.

An important factor for success was the skill and experience of the two teachers who taught the course, and from this study alone it is unclear to what extent this impacted on its overall success. It might likewise be argued that because the project was focused primarily around communicative language skills, that this might also represent a primary reason explaining why students became so engaged. Only further research will be able to assess the possibilities of generating such powerful currents of motivation with projects where the focus of study is centred on less inherently dynamic language skills: is it possible, for example, to purposefully facilitate a group DMC with similar levels of intensity and impact on students' language development with a project goal centred around students' writing skills? It should be noted, however, that none of these potential concerns are believed to pose unsurmountable barriers to the application of DMC theory to other classroom contexts.

8.3 Suggestions for future research

The aim of both studies was to offer answers to what were essentially very basic research questions: of the sampled participants, what proportion and who report having experienced intense DMC-like periods of motivation, and whether it is possible to deliberately facilitate intense motivational currents in groups of language learners. The conclusions represent important strides forwards in developing our knowledge of these issues at this early juncture in the development and application of DMC theory, yet, in doing so, these studies have also generated further questions and possible research directions.

By demonstrating the feasibility of conducting empirical research in a quantitative manner, the development and success of the DMC questionnaire and the DMC Disposition scale opens up a major new avenue of research. The primary challenge faced by this study – finding an appropriate way to first explain to participants what they were going to be asked about – was successfully achieved through the use of the initial descriptors. It is not assumed, however, that this is the only or the most effective way to do this, but it is believed to offer a successful research design that future research might adopt, thereby serving as a blueprint from which future studies might base developed and further refined questionnaire instruments. Such studies might look in more detail at defined populations in specific contexts, employing sampling techniques which do not rely on participant self-selection.

Research might also look separately at teacher and student experiences of DMCs in the context of language classrooms, perhaps with an aim to try to understand how such periods of motivation in classroom contexts are experienced differently. Comparative studies would be welcome in order to compare different sample groups, both against each other, and with the findings presented in this thesis.

Developing the DMC questionnaire itself – as noted above – and refining it for specific contexts is a further way research in this vein might be continued. The initial bullet pointed description of DMCs was kept broad to accommodate the varied audience to which it was given; however, it is possible that this description might be achieved more effectively in specific contexts by tailoring it to the setting within which the questionnaire is being employed. The development of questionnaires in participants' first language would not only also help to personalise the research tool, but would also eliminate the possibility of language barriers impacting on the accuracy or intelligibility of responses. Furthermore, the removal of this language barrier may even encourage participants to write about their experience in more depth and with greater nuance in their qualitative answers.

An important finding of Study One was the unexpected richness of insights which might be achieved through the collection of qualitative answers by this means of data collection. This was not only able to expand current understanding of the possible triggers responsible for initiating such periods of intense long-term motivation, but opened up a new research direction with the identification of the significance of the negative experiences reported in tandem with DMCs. This latter aspect is a key area for further study, and future research would be welcome through both quantitative and qualitative means. The finding related to the split in responses from participants over and under the age of 30 is a further interesting area of investigation. Research is needed to assess the accuracy of the conclusion presented in this thesis, which has suggested that these variations may simply be attributed to the older participants' longer lifespans and opportunity. Further research is required both to clarify this, and investigate the possibility of any related implications on the facilitation of DMCs in language classrooms.

In considering possible research avenues which might be taken to develop the findings of Study Two, the most obvious first step would be to run confirmatory studies in varied contexts, similar to the outline presented here. Most students in the current study were in their twenties, and the class group was made up of a varied mix of nationalities and cultural backgrounds; although this posed difficulties for students early on, ultimately this mixed demographic strongly impacted on the success of the project. Further research would

be welcome which aimed to facilitate a group DMC by implementing a similar course within a more homogenous group of students with similar language backgrounds: what impact would this have on the time it takes for the group to become fully cohesive, the point at which the DMC takes off, the resulting group dynamic and the overall language gains exhibited?

The current study was based around an 'All Eyes on the Final Product' framework variant (Dörnyei et al., 2016), and future research considering other frameworks put forward by the authors – and indeed other project frameworks more generally – would also carry this research agenda forwards. In an age of computers where the world is seemingly becoming increasingly smaller, it would also be interesting to investigate the possibilities of facilitating group DMCs for students learning a foreign language – that is, students who are learning a language in a context in which it is not widely spoken outside of the classroom – and the ways that the increasing ease of internet access might be exploited to create similar motivational and language gains.

A large element of Study Two was exploratory, and no language specific data was collected throughout the study. Herein lies a clear avenue for future research: following a similar study design, it would be interesting to put in place measures able to capture developments in students' spoken fluency, listening and presentation skills, and to be able to gauge more accurately the extent of students' overall vocabulary acquisition. Such results would also be able to offer empirical support for the findings presented in this thesis. Research in this vein would be particularly interesting in the form of a comparison study using an experimental design, comparing, for example, the gains in specific language skills and competencies in courses with and without the inclusion of an intensive group project. Such a structure would likewise be able to assess the validity of a criticism which might suggest that it was the taught component maintained throughout the current project which bore primary responsibility for students' language gains.

The primary focus of Study Two was on facilitating the emergence of a group DMC within a class of language learners. The sole focus on the development of the group DMC as a collective whole necessarily came at the expense of a more nuanced understanding of the individual motivational and learning trajectories that students experienced, so providing another area where further research would be invaluable in developing our understanding of the practicalities of translating DMC theory to the classroom. Following the motivational trajectories of individual students throughout this experience would not only help to more accurately gauge the success of discrete factors implemented throughout the course, but could

also serve to provide information as to where future interventions might focus effort in proactively addressing known issues before they arise.

Finally, and related to the above, future investigation would also be welcome along a more theoretical vein. The use of intensive group projects in language classrooms and the study of group-level motivation more generally have received very little research attention to date within the field of language learning and teaching. Yet, both offer exciting opportunities for increasing student motivation, and have been demonstrated to be able to create extraordinary learning pathways in students – promising results which have again been realised in this thesis.

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Appendices

Appendix A: Full breakdown of all respondents in Study One with regards nationality

Nationality	Number	Percentage
British (including English, Scottish and Welsh)	163	11.2
Chinese	129	8.9
Korean	89	6.1
Brazilian	83	5.7
Finnish	82	5.6
Spanish (including Basque and Catalan)	77	5.3
Japanese	70	4.8
Saudi	69	4.8
Thai	68	4.7
American	67	4.6
Croatian	64	4.4
Turkish	54	3.7
Hungarian	35	2.4
Polish	29	2.0
Greek	27	1.9
Dual	26	1.8
Maltese	21	1.4
Canadian	19	1.3
Swedish	17	1.2
Indonesian	13	0.9
Iranian	12	0.8
Malaysian	12	0.8
Taiwanese	12	0.8

Table continues on next page…

French	12	0.8
South African	11	0.8
Other (Including e.g. Caucasian, Hispanic)	11	0.8
Vietnamese	10	0.7
Australian	10	0.7
Irish	10	0.7
Danish	9	0.6
German	9	0.6
Italian	9	0.6
Serbian	9	0.6
Chilean	9	0.6
Indian	6	0.4
Omani	6	0.4
Russian	6	0.4
Argentinian	6	0.4
Bangladeshi	5	0.3
Belgian	5	0.3
Czech	5	0.3
Romanian	5	0.3
Algerian	3	0.2
Armenian	3	0.2
Kazakh	3	0.2
New Zealander	3	0.2
Cypriot	3	0.2
Dutch	3	0.2
Slovakian	3	0.2
Ukrainian	3	0.2
Venezuelan	3	0.2
Libyan	2	0.1

Table continues on next page…

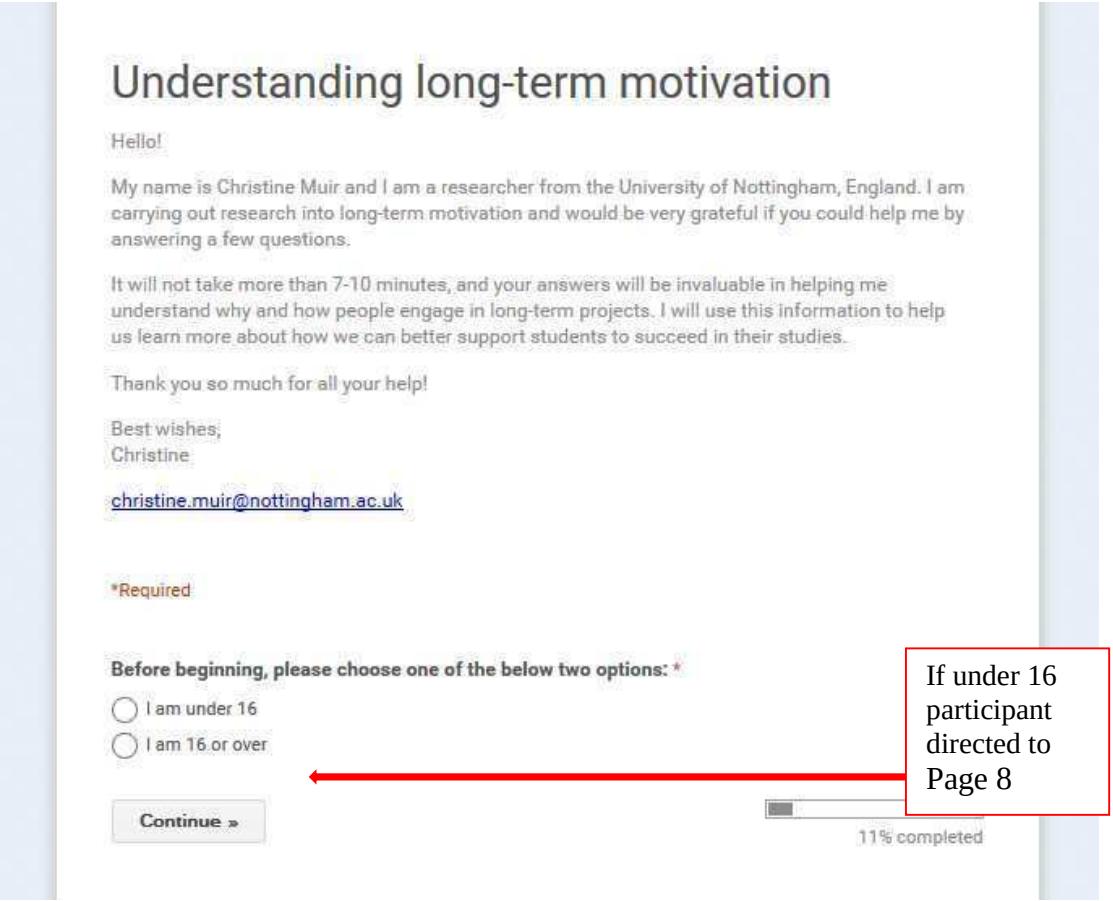
Moroccan	2	0.1
Nigerian	2	0.1
Iraqi	2	0.1
Israeli	2	0.1
Pakistani	2	0.1
Singaporean	2	0.1
Sri Lankan	2	0.1
Bulgarian	2	0.1
Portuguese	2	0.1
Swiss	2	0.1
Mexican	2	0.1
Mauritian	1	0.1
Mozambican	1	0.1
Tunisian	1	0.1
Filipino	1	0.1
Nepali	1	0.1
Uzbek	1	0.1
Macedonian	1	0.1
Norwegian	1	0.1
Colombian	1	0.1
Peruvian	1	0.1

Table 39: Full breakdown of all respondents in Study One with regards nationality

Appendix B: DMC questionnaire (final version)

Unless otherwise stated, completion of each page takes participants directly on to the next.

Page 1 (Front page)



Page 2

Understanding long-term motivation

*Required

We find accounts on the internet of people being totally absorbed in VERY INTENSE PROJECTS which motivate them for weeks or even months at a time.

These people say things like:

- "I think about this project day and night – I feel like it's taken over my life!"
- "I'm amazed I've been able to stay so focused for so long, I'm so enjoying it that putting in all the work feels easy!"
- "I never thought I could achieve so much!"
- "My friends can definitely see that something special is happening to me, they say they've never seen me so motivated!"
- "I wish I could experience this type of motivation while working towards all my goals!"



Please answer the following questions by marking the appropriate answer

I recognise this type of intense motivation *

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

I have personally experienced this type of intense motivation while doing a project *

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

I have personally experienced this type of intense motivation specifically while learning a language *

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

How often do you think you have experienced a project of this kind of motivational intensity

◯ I have NEVER experienced this type of motivation

◯ I have experienced this type of motivation ONCE, but NOT QUITE AS INTENSE as above

◯ I have experienced this type of motivation SEVERAL TIMES, but NOT QUITE AS INTENSE as above

◯ I have experienced this type of motivation ONCE to a SIMILAR LEVEL OF INTENSITY as above

◯ I have experienced this type of motivation SEVERAL TIMES to a SIMILAR LEVEL OF INTENSITY as above

If NEVER, participant directed to Page 6

« Back Continue »

22% completed

Page 3

Understanding long-term motivation

*Required

About your experience of this kind of intense motivation

If you have experienced this more than once, please choose the most memorable time. This can be from ANY context (not only language learning).

(If you need help deciding, please feel free to look again at the quotes below)

How long did this experience last? *

- ◯ Less than 1 month
- ◯ 1-2 months
- ◯ 2-4 months
- ◯ 4-6 months
- ◯ Longer than 6 months

Please mark on the scale below how intense your motivation felt throughout this period *

	1	2	3	4	5	
Not very intense	◯	◯	◯	◯	◯	Very intense

Would you mind writing a few sentences about how this intense period of motivation began? Thank you! *

- "I think about this project day and night – I feel like it's taken over my life!"
- "I'm amazed I've been able to stay so focused for so long, I'm so enjoying it that putting in all the work feels easy!"
- "I never thought I could achieve so much!"
- "My friends can definitely see that something special is happening to me, they say they've never seen me so motivated!"
- "I wish I could experience this type of motivation while working towards all my goals!"



« Back Continue »

33% completed

Page 4

Understanding long-term motivation

*Required

About your intense motivational project

*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
When looking back now, I have very good memories of this time	◯	◯	◯	◯	◯
During this time I was able to work more productively than I usually can	◯	◯	◯	◯	◯
I surprised myself with how much I was able to do	◯	◯	◯	◯	◯
Many times it felt like a real struggle to keep going	◯	◯	◯	◯	◯
This experience helped me to achieve all I had wanted to and more	◯	◯	◯	◯	◯
I think something special happened to me during this experience - it was an amazing time	◯	◯	◯	◯	◯

Would you like to experience this type of intense motivation again? *

◯ Yes

◯ No

Would you mind telling us briefly why? Thank you!

« Back Continue »

44% completed

Page 5

Understanding long-term motivation

*Required

A little more about your intensive project experience...

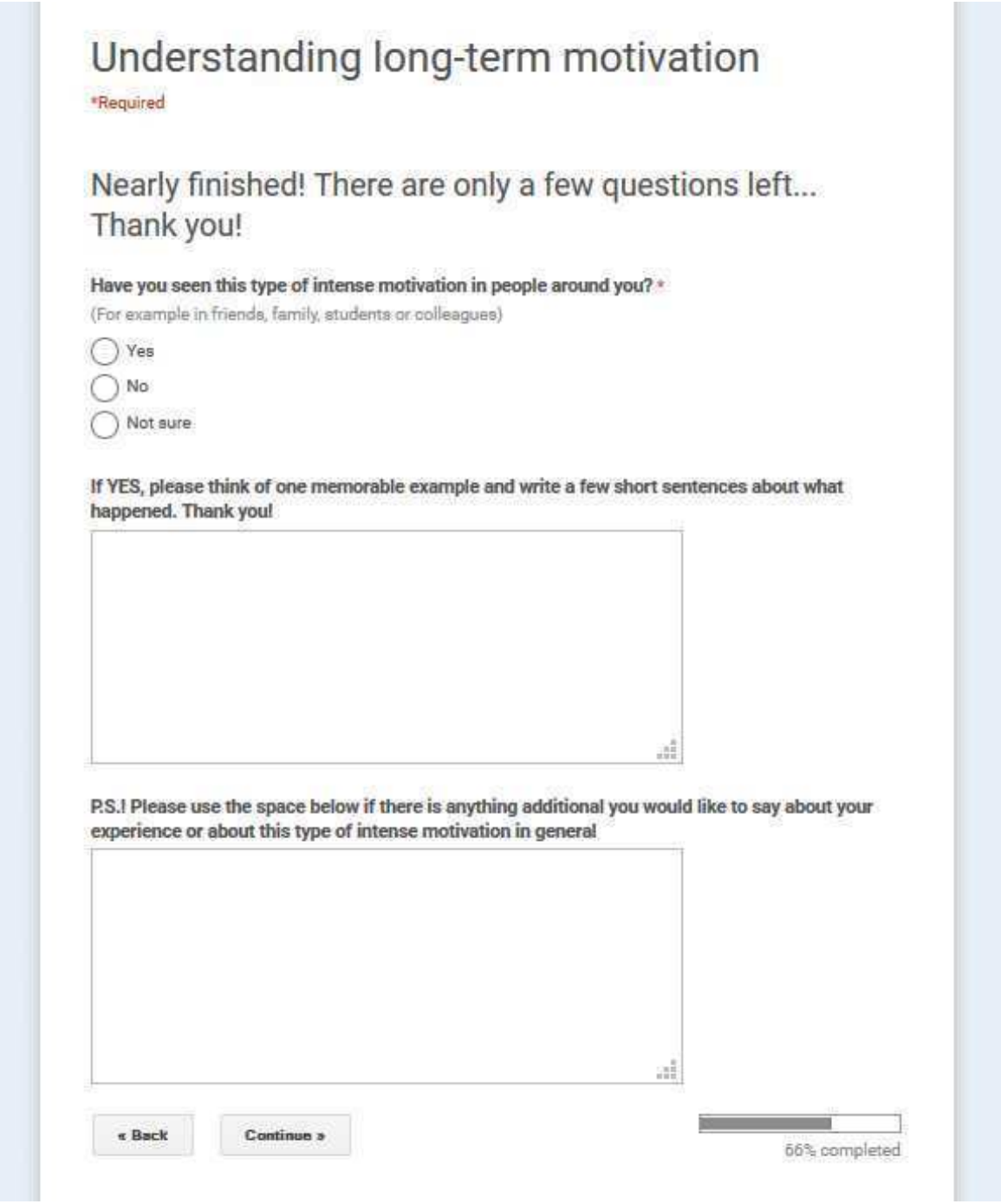
*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
At the time, this project became a central part of my life	○	○	○	○	○
The people around me could see that I was experiencing something special	○	○	○	○	○
It didn't feel like hard work at the time - I was just caught up in the flow!	○	○	○	○	○
I remember thinking about my goal all the time	○	○	○	○	○
I often imagined myself achieving my final goal	○	○	○	○	○
It was a really enjoyable experience	○	○	○	○	○

« Back Continue »

55% completed

Page 6



Understanding long-term motivation

*Required

Nearly finished! There are only a few questions left... Thank you!

Have you seen this type of intense motivation in people around you? *

(For example in friends, family, students or colleagues)

- ◯ Yes
- ◯ No
- ◯ Not sure

If YES, please think of one memorable example and write a few short sentences about what happened. Thank you!

P.S.! Please use the space below if there is anything additional you would like to say about your experience or about this type of intense motivation in general

« Back Continue »

66% completed

Page 7

Understanding long-term motivation

*Required

Before finishing, could you please give us a little background information about yourself – this will be very important to help us understand your previous answers

(Remember: everything is confidential and completely anonymous)

Gender: *

- ◯ Male
- ◯ Female

Age: *

- ◯ 17 years or under
- ◯ 18-21 years
- ◯ 22-30 years
- ◯ 31-40 years
- ◯ 41-50 years
- ◯ 51-60 years
- ◯ 61 years and over

Nationality: *

Profession *

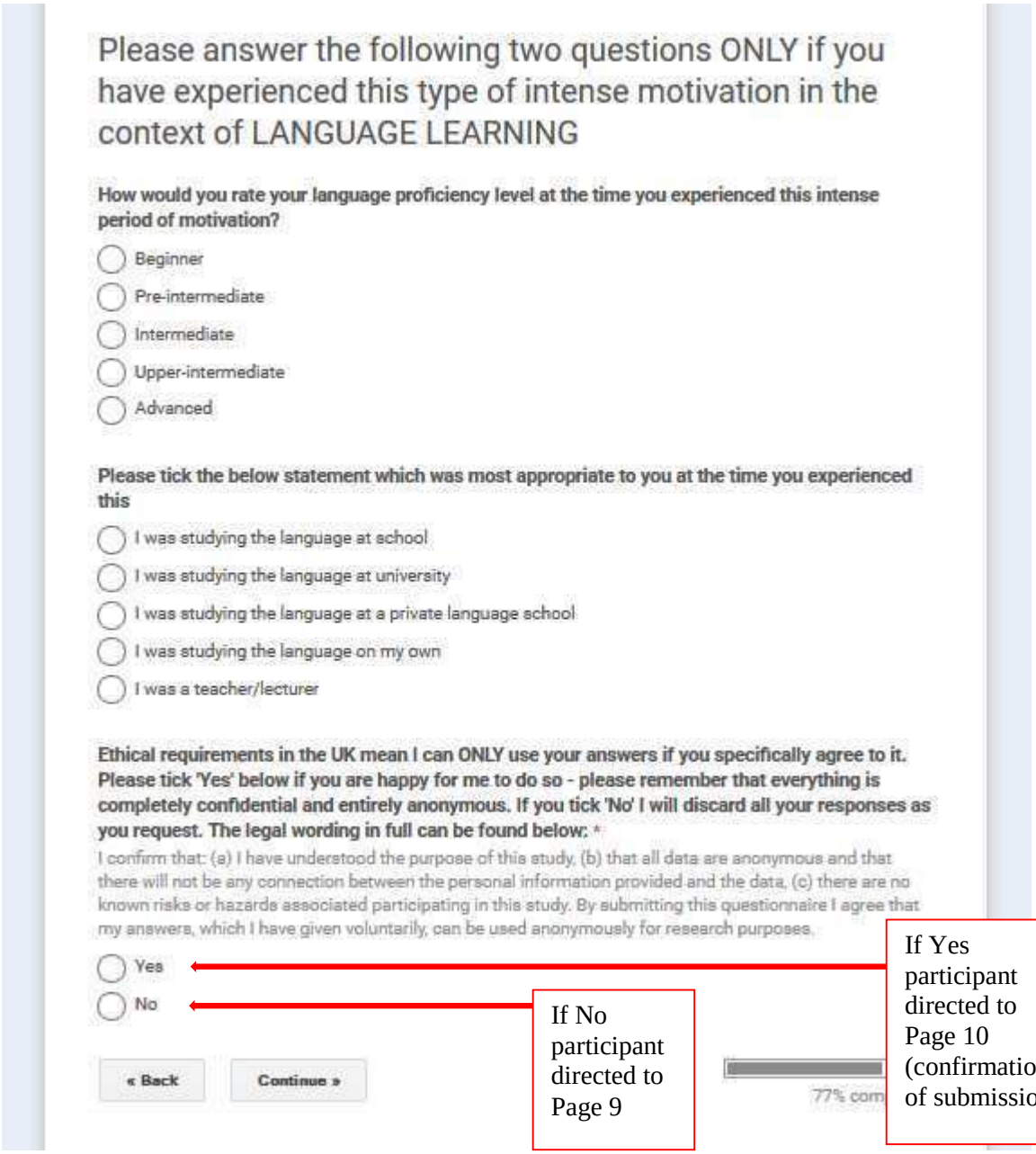
E.g. student, teacher, homemaker, parent, voluntary worker, engineer, etc.

If you would be interested in finding out the results of this study, please write your email address in the box below and I will contact you as soon as the initial research report has been prepared. (This will likely be in the next 4-6 months).

Please remember your email address will be kept confidential and under no circumstances will be passed on to any other parties

[Page 7 continues below]

Page 7 (continued)



Please answer the following two questions ONLY if you have experienced this type of intense motivation in the context of LANGUAGE LEARNING

How would you rate your language proficiency level at the time you experienced this intense period of motivation?

- Beginner
- Pre-intermediate
- Intermediate
- Upper-intermediate
- Advanced

Please tick the below statement which was most appropriate to you at the time you experienced this

- I was studying the language at school
- I was studying the language at university
- I was studying the language at a private language school
- I was studying the language on my own
- I was a teacher/lecturer

Ethical requirements in the UK mean I can ONLY use your answers if you specifically agree to it. Please tick 'Yes' below if you are happy for me to do so - please remember that everything is completely confidential and entirely anonymous. If you tick 'No' I will discard all your responses as you request. The legal wording in full can be found below: *

I confirm that: (a) I have understood the purpose of this study, (b) that all data are anonymous and that there will not be any connection between the personal information provided and the data, (c) there are no known risks or hazards associated participating in this study. By submitting this questionnaire I agree that my answers, which I have given voluntarily, can be used anonymously for research purposes.

- Yes
- No

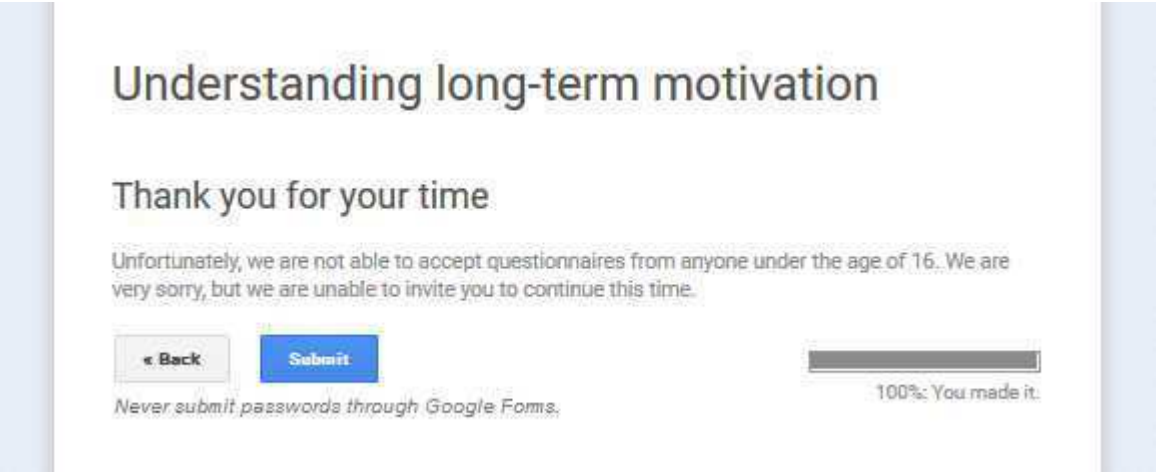
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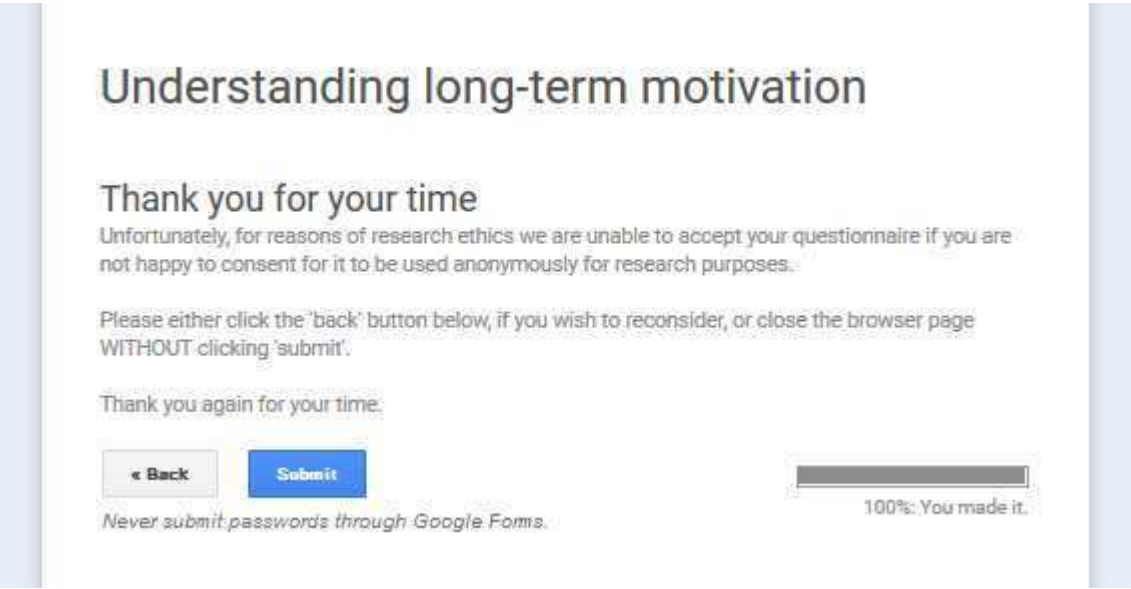
If No participant directed to Page 9

If Yes participant directed to Page 10 (confirmation of submission)

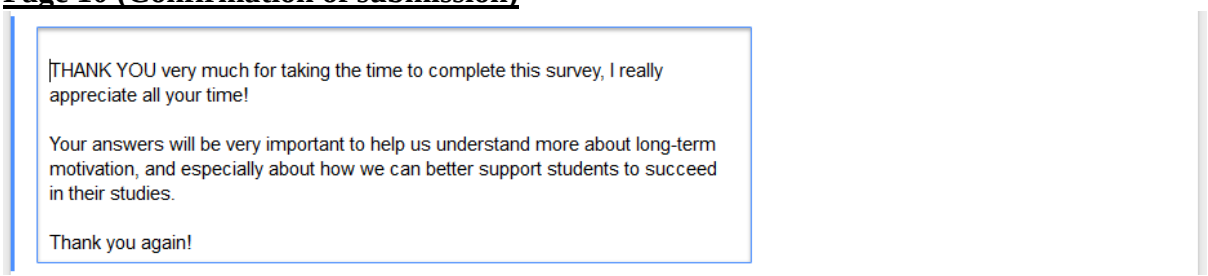
Page 8



Page 9



Page 10 (Confirmation of submission)



Appendix C: Signed ethical approval for Study One of this thesis

Faculty of Arts Ethics Approval Form

Researcher	Christine Muir
School/Division	English/Applied Linguistics
Project title	Motivational Currents in the Language Classroom
Date	15.05.2015
E-mail	christine.muir@nottingham.ac.uk

(1) Researcher Information. Please tick as appropriate.

YES ☐ NO ☐ Member of staff conducting research project

If ticked YES above, is the research funded by a RC that needs proof of ethics approval? And what is the funding body?

YES ☐ funding body _____

NO ☐

YES ☒ NO ☐ Postgraduate Researcher

If ticked YES above, indicate level of studies and supervisor.

PhD ☒ MA ☐ Supervisor __Prof. Zoltán Dörnyei_____

YES ☐ NO ☐ Member of staff obtaining approval for data collected by students on a module.

If ticked YES above, indicate level of studies.

PhD ☐ MA ☐ UG ☐

Module Code and Module Name

_____

If obtaining approval for a module, in the sections below provide an overview of the type of projects the students will do. Attached with your paperwork the guidelines given to the students about the type of data they will collect, as well as the information about the relevant areas of the ethics protocol that they will need to follow. Students

need to provide signed informed consent forms from ALL participants with their submitted work, as well as the tick sheet signed by them.

(2) Provide a brief summary of the research aims/questions [max 500 characters & spaces].

The aim of this study is to build on the initial qualitative research which has been carried out into Directed Motivational Currents (DMCs) (robust long-term 'currents' of motivation) by conducting a large scale online questionnaire study to begin to understand how widespread the DMC phenomenon is. The questionnaire is primarily designed to answer the following basic research question: How many people have experienced DMCs?

The questionnaire has been created online with Google Docs and is designed to be carried out within class time on student's smart phones/tablets. Teachers will be contacted in advance and invited to participate, they will be given the link to the webpage which they will then pass out to students at the appropriate time. It is designed to take approximately 5-8 minutes to complete.

(3) Methods – tick as appropriate and provide an explanation as indicated below.

Part A YES ☐ NO ☒ psychophysiological measures (e.g. response times, eyetracking, ERP, etc.)

YES ☐ NO ☒ prolonged visual and/or auditory stimuli

YES ☐ NO ☒ interviews (focus groups)

YES ☒ NO ☐ questionnaires

The questionnaire is located at the following link: bit.ly/motivate2015. It will first be piloted with a small group of around 10 teachers. Necessary changes will then be made (for example changes to wording to eliminate misunderstanding) before the questionnaire is sent out to the full population.

YES ☐ NO ☒ other:

_____

Part B YES ☐ NO ☒ using data produced by students (e.g. their essays)

YES ☐ NO ☒ using data freely available on-line

YES ☐ NO ☒ using data available on-line only available to members of the group

YES ☒ NO ☐ were the participants aware that work would be used for research purposes

Students will be made fully aware submitted questionnaires and the information given will be used anonymously for research purposes (see below)

Part C YES ☐ NO ☒ procedures likely to change participants' mood, be aversive or stressful

YES ☐ NO ☒ misleading participants about an experiment or withholding information

YES ☐ NO ☒ information-gathering on sensitive issues (e.g. sexual, racial, religious or political attitudes, etc.)

YES ☐ NO ☒ procedures which might be harmful or distressing to people in a specially vulnerable state (e.g. depressed, anxious, bereaved, etc.)

YES ☒ NO ☐ discussion or investigation of personal topics (e.g. relationships, feelings of success and failure) or any other procedure in which participants may have an emotional investment

It will be made clear by teachers before they give the link to students that they do not need to answer any questions that they do not feel comfortable with, and that they are free to simply close their browser page and so decline from completing the questionnaire at any time and with no negative consequence, should they wish to do so. Although the discussion of motivation inevitably includes the discussion of personal feelings, such as those related to success or failure, this study is not interested in highly sensitive personal issues, such as religion or sexuality, and as such no such lines of questioning are included.

Prior to students being given the link to complete the questionnaire, they will be given the opportunity to ask questions related to any part of the process, and will be explicitly told how their data will be treated. Participants will be assured that their data will be stored confidentially and used anonymously, and that I will be the only one who will have access to the data. Online access to the Google Docs account where the questionnaire was created and where results will be received/collated is password protected. All downloaded data will be retained for the duration of the study. At all times all data (including data after being downloaded from Google Docs) will be kept password protected where I am the only person who has access. Upon completion of the study data will be securely archived and kept for the

required period of time (seven years from the date of publication of the results). Following this, data will be destroyed. All data will be kept in line with the University of Nottingham guidelines.

For anything ticked YES, please provide more detailed information. Indicate any potential risks to participants and justify this risk. For interviews, please be clear whether the interviews are *being recorded, how the identities' of participants are being protected, and who will have* access to the data (*e.g. will participants' recordings be presented at conference presentations).*

For Part B, for any data not publically available, indicate how you will obtain permission from participants to use their data.

(4) Location of data collection.

YES ☒ NO ☐ Will the task be performed outside of campus.

Data will be collected online, and will be gathered from various locations throughout the world. Students will be given the link by their teacher within class time.

If data collection is occurring on campus please give the location. If data collection is occurring off campus, please provide information about the location.

(5) Participants, access, and inducements.

YES ☐ NO ☒ participants under 16 (if so, you may need to undergo a CRB check)

YES ☒ NO ☐ participants recruited from special sources (e.g. prisons, hospitals, schools. etc.)

All participants in the study will be currently enrolled in a form of language education (for example school, university or private language school). No participant will be under 16, and all will be made fully aware of both the aims of the study and how their data will be treated.

YES ☐ NO ☒ participants whose capacity to give consent may be in doubt (e.g. learning disability, confusion, etc.)

YES ☐ NO ☒ participants who have received medical, psychiatric, clinical psychological or other similar attention

YES ☐ NO ☒ participants being investigated in connection with a performance deficit (e.g. dyslexia)

For anything ticked YES, please provide more detailed information and justification.

YES ☐ NO ☒ are there any inducements for taking part

Participation and completion of the questionnaire will be entirely voluntary and will not count for any kind of course credit. There will be no negative consequence in terms of their language studies for those who decline to complete the questionnaire.

If YES, please provide more detailed information and justification.

(6) Data storage and anonymity.

YES ☐ NO ☒ is there a possibility of disclosure of confidential information (e.g. to other participants)

YES ☐ NO ☒ is there a possibility of identification of participants (e.g. when reporting results)

If YES, please provide more detailed information and justification.

(7) Awareness of ethical behavior when collecting data.

Researchers must indicate awareness of ethical behavior when collecting data from human participants by submitting the completed Awareness of Ethical Behavior for Data Collection (next pg) with this application. For students on a module, this form must be submitted with their work.

(8) Informed Consent Form

Provide an informed consent form for approval. The final page gives guidelines for producing one.

In line with university guidelines for completing online research using questionnaires, the first page requires participants to tick whether they are under 16, or 16 years or over. Although it is expected that no participants under 16 will be invited to participate (the age limit will be made clear to teachers during initial contact with them), participants who tick under 16 will be directed to a page thanking them for their time and apologizing that I am unable to invite them to continue.

At the end of the questionnaire, the final question is as follows:

"I confirm that: (a) I have understood the purpose of this study, (b) that all data are anonymous and that there will not be any connection between the personal information provided and the data, (c) there are no known risks or hazards associated participating in this study. By submitting this questionnaire I agree that my answers, which I have given voluntarily, can be used anonymously for research purposes"

Participants will be offered a Yes/No option. Participants who tick 'no' are directed to a page thanking them for all their time and apologizing that we are unable to use their answers at this time.

For Office Use Only

YES ☑ The form Awareness of Ethical Behavior for Data Collection has been included and ticked appropriately.

YES ☑ An appropriate consent form has been provided.

Approved By: ___Michael Rodgers_____ Date: _15/05/15__ Agreed By: __Nick Baron Date: 16 May 2015

Awareness of Ethical Behavior for Data Collection

X Data gathering activities involving schools and other organizations will be carried out only with the agreement of the head of school/organization, or an authorised representative, and after adequate notice has been given.

X The purpose and procedures of the project, and the potential benefits and costs of participating (e.g. the amount of their time involved), will be fully explained to prospective participants at the outset.

X My full identity will be revealed to potential participants.

X Prospective participants will be informed that data collected will be treated in the strictest confidence and will only be reported in anonymised form, but that I will be forced to consider disclosure of certain information where there are strong grounds for believing that not doing so will result in harm to research participants or others, or (the continuation of) illegal activity.

X All potential participants will be asked to give their explicit, normally written consent to participating in the research, and, where consent is given, separate copies of this will be retained by both researcher and participant. These consent forms should be submitted as an Appendix, along with this form.

X In addition to the consent of the individuals concerned, the signed consent of a parent, guardian or 'responsible other' will be required to sanction the participation of minors (i.e. persons under 16 years of age) or those whose 'intellectual capability or other vulnerable circumstance may limit the extent to which they can be expected to understand or agree voluntarily'.

X Undue pressure will not be placed on individuals or institutions to participate in project activities.

X The treatment of potential research participants will in no way be prejudiced if they choose not to participate in the project.

X I will provide participants with my contact details (and details of the module convenor) in order that they are able to make contact in relation to any aspect of the project, should they wish to do so.

X Participants will be made aware that they may freely withdraw from the project at any time without risk or prejudice.

X Research will be carried out with regard for mutually convenient times and negotiated in a way that seeks to minimise disruption to schedules and burdens on participants.

X At all times during the conduct of the research I will behave in an appropriate, professional manner and take steps to ensure that neither myself nor research participants are placed at risk.

X The dignity and interests of research participants will be respected at all times, and steps will be taken to ensure that no harm will result from participating in the research.

X The views of all participants in the research will be respected and special efforts will be made to be sensitive to differences relating to age, culture, disability, race, sex, religion and sexual orientation, amongst research participants, when planning, conducting and reporting on the research.

X Data generated by the research will be kept in a safe and secure location and will be used purely for the purposes of the project (including dissemination of findings). No-one other than markers and examiners will have access to any of the data collected.

X Research participants will have the right of access to any data kept on them.

☒ All necessary steps will be taken to protect the privacy and ensure the anonymity and non-traceability of participants – e.g. by the use of pseudonyms, for both individual and institutional participants.

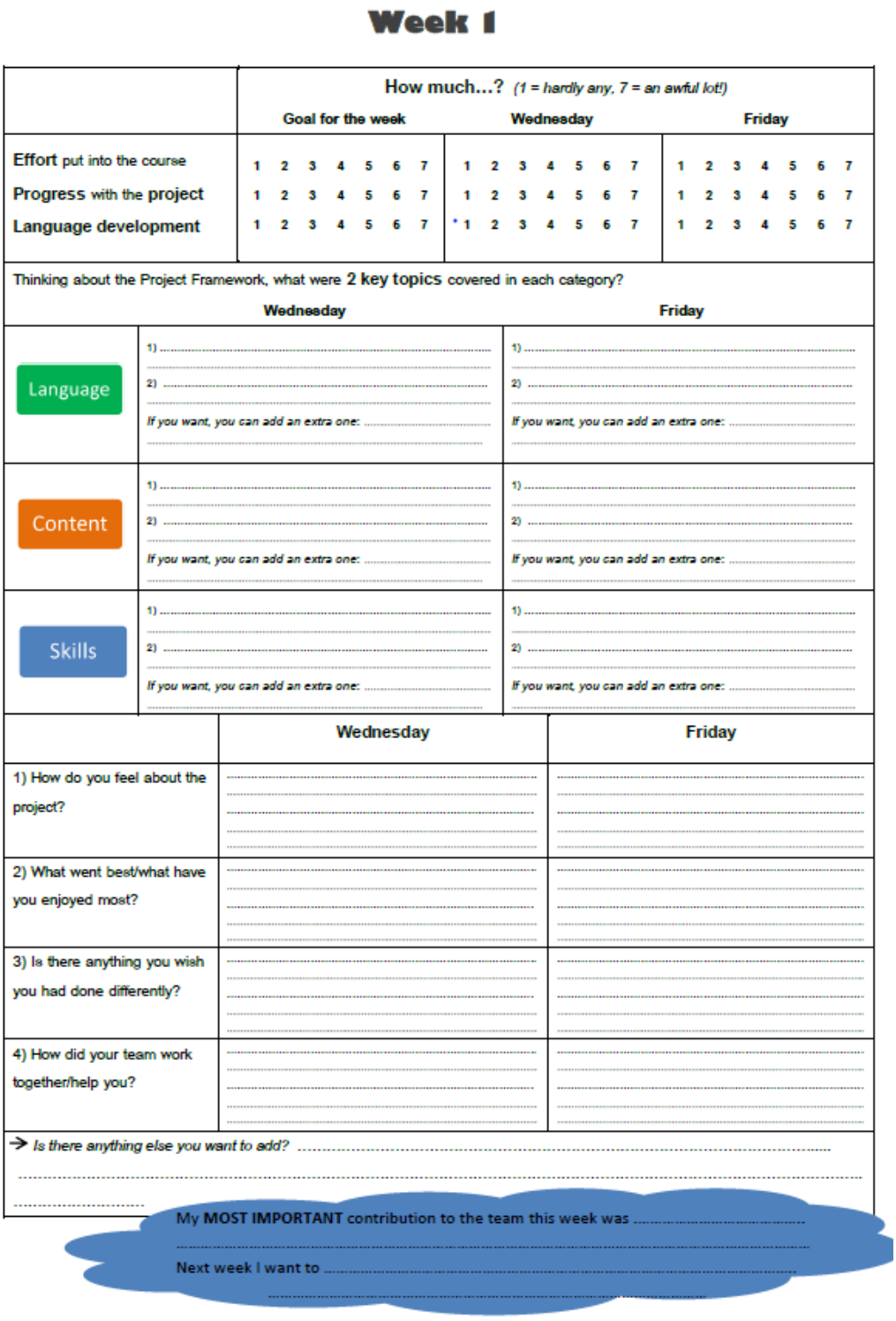
☒ Where possible, participants will be provided with a summary of research findings and an opportunity for debriefing after taking part in the research.

☐ If working with children 16 and under for a prolonged period of time, I have received Advanced Criminal Records Bureau (CRB) disclosure.

Signed___ Christine Muir_____

Date____15.05.2015_____

Appendix D: Student diaries (blank template and example completed version)



Week 1

	How much...? *(1 = hardly any, 7 = an awful lot!)*		
	Goal for the week	**Wednesday**	**Friday**
Effort put into the course	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Progress with the **project**	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Language development	1 2 3 4 5 6 7	* 1 2 3 4 5 6 7	1 2 3 4 5 6 7

Thinking about the Project Framework, what were **2 key topics** covered in each category?

	Wednesday	**Friday**
Language	1) ..... 2) ..... *If you want, you can add an extra one:*	1) ..... 2) ..... *If you want, you can add an extra one:* .....
Content	1) ..... 2) ..... *If you want, you can add an extra one:*	1) ..... 2) ..... *If you want, you can add an extra one:* .....
Skills	1) ..... 2) ..... *If you want, you can add an extra one:*	1) ..... 2) ..... *If you want, you can add an extra one:* .....

	Wednesday	**Friday**
1) How do you feel about the project?	.....	.....
2) What went best/what have you enjoyed most?	.....	.....
3) Is there anything you wish you had done differently?	.....	.....
4) How did your team work together/help you?	.....	.....

→ *Is there anything else you want to add?* .....

My **MOST IMPORTANT** contribution to the team this week was .....

Next week I want to .....

Week 1

	How much...? (1 = hardly any, 7 = a great deal!)		
	Goal for the week	Wednesday	Friday
Effort put into the course	1 2 3 4 5 6 (7)	1 2 3 (4) 5 6 7	1 2 3 4 5 (6) 7
Progress with the **project**	1 2 3 4 5 6 (7)	1 2 (3) 4 5 6 7	1 2 3 4 5 (6) 7
Language development	1 2 3 4 5 6 (7)	1 2 (3) 4 5 6 7	1 2 3 4 5 (6) 7

Thinking about the Project Framework, what were **2 key topics** covered in each category?

	Wednesday	Friday
Language	1) writing / email to David 2) listening / some people's accent *If you want, you can add an extra one:*	1) speaking / saying my opinion & discuss 2) vocabulary / related to manage staffs from reading text *If you want, you can add an extra one:*
Content	1) teamwork – talk with each other 2) Leadership – *If you want, you can add an extra one:*	1) Teamwork / dealing with some conflicts to make presentation 2) Strategy / setting our goal & purpose *If you want, you can add an extra one:*
Skills	1) self study – memories and homework 2) Goal setting – writing personal goal *If you want, you can add an extra one:*	1) self study – grammer & listening 2) pitching ideas – arguments *If you want, you can add an extra one:*

	Wednesday	Friday
1) How do you feel about the project?	excited. I felt so anxious yesterday but I thought it will be so exciting today	so hard
2) What went best/what have you enjoyed most?	Teamwork activities because it's a new student and I felt little bit boredom with continuing students are leave school. I thought	discussion. I couldn't say opinion because it is hard enough to understand other's but interesting
3) Is there anything you wish you had done differently?	It is difficult for me to understand some explanation only one time	saying my opinion reacting
4) How did your team work together/help you?	when I couldn't understand everyone so kind to explain	Team member's opinion was so good.

→ *Is there anything else you want to add?* .....

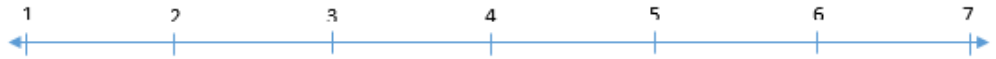
My **MOST IMPORTANT** contribution to the team this week was .....

Next week I want to .....

Appendix E: Teacher journals (blank template and example completed version)

WEEK ____, DAY ____

Did you have a good day?



Awful! *Awesome!*

EVALUATION

General

Did you have a good day today?

Evaluation more specifically with regards to:

Team-work

Language development

Project progress

DESCRIPTION/DOCUMENTATION

Language/content/skills covered

Specific project tasks completed

Highlights & Lowlights

DMC-like behaviour observed

ANY OTHER THOUGHTS/COMMENTS/LESSONS?

WEEK 1, DAY 2 Wednesday

Did you have a good day?

1 2 3 4 5 6 7

Awful *Awesome!*

EVALUATION

General

Did you have a good day today? Yes very intense yet informative in regards to the project - the client brief left them temporarily speechless

Evaluation more specifically with regards to:

Team-work They worked well researching in groups (fundraising, cancer council, CTE-UQ, biggest ingoing tax)

Language development They worked on signposting language in the first class (presentations)

Project progress
They received their brief, researched pertinent topics, brainstormed which departments they needed

---

DESCRIPTION/DOCUMENTATION

Language/content/skills covered Dynamic Presentations (Smooth Structure) signposting probing ideas goal setting (just random)

Specific project tasks completed initial research met key stakeholders - Francis Rebecca.

Highlights & Lowlights ▷ team building workshop that brought out the leaders (Diana + Angelica) ▷ one student said with a sigh hard to stop them talking

DMC-like behaviour observed

ANY OTHER THOUGHTS/COMMENTS/LESSONS?

'Oh we have many problems'
—▷ I asked if he meant 'opportunities'!
—▷ Ah yes maybe' was the answer

Appendix F: Signed ethical approval for Study Two of this thesis (included template of the Informed Consent Form signed by all participating)

Faculty of Arts Ethics Approval Form

Researcher	Christine Muir
School/Division	English/Applied Linguistics
Project title	Motivational Currents in the Language Classroom
Date	20.04.2015
E-mail	christine.muir@nottingham.ac.uk

(1) Researcher Information. Please tick as appropriate.

YES ☐ NO ☐ Member of staff conducting research project

If ticked YES above, is the research funded by a RC that needs proof of ethics approval? And what is the funding body?

YES ☐ funding body _____

NO ☐

YES ☒ NO ☐ Postgraduate Researcher

If ticked YES above, indicate level of studies and supervisor.

PhD ☒ MA ☐ Supervisor __Prof. Zoltán Dörnyei_____

YES ☐ NO ☐ Member of staff obtaining approval for data collected by students on a module.

If ticked YES above, indicate level of studies.

PhD ☐ MA ☐ UG ☐

Module Code and Module Name

_____

If obtaining approval for a module, in the sections below provide an overview of the type of projects the students will do. Attached with your paperwork the guidelines given to the students about the type of data they will collect, as well as the information about the relevant

areas of the ethics protocol that they will need to follow. Students need to provide signed informed consent forms from ALL participants with their submitted work, as well as the tick sheet signed by them.

(2) Provide a brief summary of the research aims/questions [max 500 characters & spaces].

The aim of this study is to investigate possibilities for facilitating DMCs (robust long-term 'currents' of motivation) within the context of classroom language (L2) teaching. Research has indicated that there are strong similarities between the structures which emerge in DMCs and the tenets of project-based learning. This study is to understand whether implementing these features within a project based L2 classroom can facilitate the emergence of group DMCs.

The primary research question therefore is simple: Is it possible to proactively facilitate a group DMC within the context of classroom based L2 tuition?

The study will be carried out in conjunction with two L2 English teachers – Jessica Florent and David Leach – based at the Institute of Continuing & TESOL Education at the University of Queensland (ICTE-UQ) and we will jointly publish the results. Participating students will be on five-week Business English courses. Necessary permissions from this school to complete this study have already been obtained. This course is not usually project based, and ICTE-UQ require a majority vote from the students to change to a project based syllabus.

(3) Methods – tick as appropriate and provide an explanation as indicated below.

Part A YES ☐ NO ☒ psychophysiological measures (e.g. response times, eyetracking, ERP, etc.)

YES ☐ NO ☒ prolonged visual and/or auditory stimuli

YES ☒ NO ☐ interviews (focus groups)

Interviews will function as a secondary data source and will be conducted in two ways. Representatives with from each of the groups (e.g. marketing, finance) will be invited to participate in a Skype interview with Christine each week. We will invite different students to do this each week, to ensure all who would like to do so are able to participate over the course of the project. These will be very short, 5-10 minute interviews in which students will report on how they've got on during that week. Copies of the audio recording and subsequent

transcriptions will be saved within my personal account with the University of Nottingham, which is password protected and to which I am the only one who has access. Completed transcriptions will be sent to Jessica and David after the project has ended for the purposes of data analysis, and will likewise be saved in password protected secure folders.

After the five-week course has ended, students will also be invited to participate in either individual interviews or focus groups. These interviews will be recorded and carried out by Jessica and David in person on school premises. As soon as a recording has been made the file will be transferred to computer, stored in password protected secured files and deleted from the initial recording device. This will be sent to me via email for transcription. Copies of the audio recording and transcription will be saved within my personal account with the University of Nottingham, which is password protected and to which I am the only one who has access. Completed transcriptions will be sent to Jessica and David, and will be saved with the audio recordings in password protected secure folders.

All data will be retained for the duration of the project and upon completion of the project will be securely archived and kept for the required period of time (seven years from the date of publication of the results). Following this, data will be destroyed. All data will be kept in line with the University of Nottingham guidelines. All participants are told explicitly in advance how their data will be treated, and know that they are free to retract any part of the discussion if they do not wish it to be used further, and that they are able to withdraw from the study at any point without consequence. Any transcribed data used in publications or for other research purposes will be kept entirely anonymous: pseudonyms will be used, and where it is necessary to give details of the participant, such as their profession, this will be done in a way that the participant will remain unidentifiable.

Although there will be no set interview schedule (as each interview will be heavily guided by the experience of each participant), below are listed example questions which are representative of the type of questions which will be covered.

- What was the most/least enjoyable part of this course for you?
- How successful/unsuccessful do you feel the project was in terms of your L2 progress?
- What did you feel was particularly effective in promoting & supporting your level of motivation throughout the project?
- Is there something which didn't happen, but you feel would have benefited your L2 development/your motivation to participate?

- Have you ever experienced this type of intense long-term motivation in the past?

YES ☐ NO ☒ questionnaires

YES ☐ NO ☒ other:

_____

Part B YES ☒ NO ☐ using data produced by students (e.g. their essays)

Built into the project structure will be regular student progress checks & reflections. These will be constructed to assist students and to try to facilitate and support their motivated learning. These progress checks will also form the primary data source: they will be analysed after the course has ended and will act as a measure to judge whether we were successful in facilitating a DMC (i.e. whether students exhibit features we know to be characteristic of DMC experiences, such as their achieving more than they had believed possible). Students will be made aware of this at the outset. Data collected will not be reviewed until after the course has ended, and will have no impact on final student assessment.

YES ☒ NO ☐ using data freely available on-line

As a part of the project students will be invited to create a school Instagram account. We may refer to this if it contains information relevant to the aims of the study.

YES ☐ NO ☒ using data available on-line only available to members of the group

YES ☒ NO ☐ were the participants aware that work would be used for research purposes

All participants will be made fully aware that they will be taking part in a formal study and that work produced will be used as data evidence. All will be made aware at the outset of how their data will be handled and used.

Part C YES ☐ NO ☒ procedures likely to change participants' mood, be aversive or stressful

YES ☐ NO ☒ misleading participants about an experiment or withholding information

YES ☐ NO ☒ information-gathering on sensitive issues (e.g. sexual, racial, religious or political attitudes, etc.)

YES ☐ NO ☒ procedures which might be harmful or distressing to people in a specially vulnerable state (e.g. depressed, anxious, bereaved, etc.)

YES ☒ NO ☐ discussion or investigation of personal topics (e.g. relationships, feelings of success and failure) or any other procedure in which participants may have an emotional investment

At the start of all interviews/focus groups, participants will be reminded that they are free to decline to answer any questions that they do not feel comfortable with, and that they may withdraw at any stage, should they wish to do so. Although the discussion of motivation inevitably may include personal feelings, such as those related to success or failure, this research is not interested in highly sensitive personal issues, such as religion or sexuality, and as such, such lines of questioning will not be initiated.

The interviews will be loosely structured to allow participants to tell their own story, and so topics discussed will be only those which the participants have themselves willingly brought up. If any sensitive issues are brought up by the participant in the course of the interview, these will be treated with respect and will only be followed up as a line of questioning if first discussed by the participant, and only if crucial to the understanding of their DMC experience. If not relevant, discussion will be steered away from such issues. Participants will be assured that their data will be stored confidentially (as above) and used anonymously, that no one but myself and the two other co-authors will have access to their data, and that they are free to stop the interview at any point with no negative consequence. Prior to any interviews taking place participants will be given ample opportunity to ask questions related to any part of the process.

For anything ticked YES, please provide more detailed information. Indicate any potential risks to participants and justify this risk. For interviews, please be clear whether the interviews are *being recorded, how the identities' of part*icipants are being protected, and who will have *access to the data (e.g. will participants' recordings be presented at conference presentations).* For Part B, for any data not publically available, indicate how you will obtain permission from participants to use their data.

(4) Location of data collection.

YES ☒ NO ☐ Will the task be performed outside of campus.

Data will primarily be collected in Brisbane by the two teachers running the course. Progress check and goal setting sheets will be completed throughout the duration of the course, within

the context of their L2 lessons. Interviews conducted after the end of the course will also be conducted on school premises. Skype interviews will take place between Brisbane and Nottingham.

If data collection is occurring on campus please give the location. If data collection is occurring off campus, please provide information about the location.

(5) Participants, access, and inducements.

YES ☐ NO ☒ participants under 16 (if so, you may need to undergo a CRB check)

YES ☒ NO ☐ participants recruited from special sources (e.g. prisons, hospitals, schools. etc.)

Participants will be based at a private language school affiliated with the University of Queensland. No participant will be under 18, and all will be made fully aware on the first day of the course of both the aims of the study and how their data will be treated.

YES ☐ NO ☒ participants whose capacity to give consent may be in doubt (e.g. learning disability, confusion, etc.)

YES ☐ NO ☒ participants who have received medical, psychiatric, clinical psychological or other similar attention

YES ☐ NO ☒ participants being investigated in connection with a performance deficit (e.g. dyslexia)

For anything ticked YES, please provide more detailed information and justification.

YES ☒ NO ☐ are there any inducements for taking part

No inducements will be offered for data collected throughout the duration of the project. Students will be invited to participate in interviews/focus groups after the course has finished, and light refreshments will be provided for those who wish to attend.

If YES, please provide more detailed information and justification.

(6) Data storage and anonymity.

YES ☐ NO ☒ is there a possibility of disclosure of confidential information (e.g. to other participants)

YES ☐ NO ☒ is there a possibility of identification of participants (e.g. when reporting results)

If YES, please provide more detailed information and justification.

(7) Awareness of ethical behavior when collecting data.

Researchers must indicate awareness of ethical behavior when collecting data from human participants by submitting the completed Awareness of Ethical Behavior for Data Collection (next pg) with this application. For students on a module, this form must be submitted with their work.

(8) Informed Consent Form

Provide an informed consent form for approval. The final page gives guidelines for producing one.

For Office Use Only

YES ☑ The form Awareness of Ethical Behavior for Data Collection has been included and ticked appropriately.

YES ☑ An appropriate consent form has been provided.

Approved By: __Michael Rodgers_____ Date: __May 6, 2015__ Agreed By: __Jen Birks_____ Date: _06/05/15___

Awareness of Ethical Behavior for Data Collection

☒ Data gathering activities involving schools and other organizations will be carried out only with the agreement of the head of school/organization, or an authorised representative, and after adequate notice has been given.

☒ The purpose and procedures of the project, and the potential benefits and costs of participating (e.g. the amount of their time involved), will be fully explained to prospective participants at the outset.

☒ My full identity will be revealed to potential participants.

[X] Prospective participants will be informed that data collected will be treated in the strictest confidence and will only be reported in anonymised form, but that I will be forced to consider disclosure of certain information where there are strong grounds for believing that not doing so will result in harm to research participants or others, or (the continuation of) illegal activity.

[X] All potential participants will be asked to give their explicit, normally written consent to participating in the research, and, where consent is given, separate copies of this will be retained by both researcher and participant. These consent forms should be submitted as an Appendix, along with this form.

[X] In addition to the consent of the individuals concerned, the signed consent of a parent, guardian or 'responsible other' will be required to sanction the participation of minors (i.e. persons under 16 years of age) or those whose 'intellectual capability or other vulnerable circumstance may limit the extent to which they can be expected to understand or agree voluntarily'.

[X] Undue pressure will not be placed on individuals or institutions to participate in project activities.

[X] The treatment of potential research participants will in no way be prejudiced if they choose not to participate in the project.

[X] I will provide participants with my contact details (and details of the module convenor) in order that they are able to make contact in relation to any aspect of the project, should they wish to do so.

[X] Participants will be made aware that they may freely withdraw from the project at any time without risk or prejudice.

[X] Research will be carried out with regard for mutually convenient times and negotiated in a way that seeks to minimise disruption to schedules and burdens on participants.

[X] At all times during the conduct of the research I will behave in an appropriate, professional manner and take steps to ensure that neither myself nor research participants are placed at risk.

[X] The dignity and interests of research participants will be respected at all times, and steps will be taken to ensure that no harm will result from participating in the research.

[X] The views of all participants in the research will be respected and special efforts will be made to be sensitive to differences relating to age, culture, disability, race, sex, religion

and sexual orientation, amongst research participants, when planning, conducting and reporting on the research.

☒ Data generated by the research will be kept in a safe and secure location and will be used purely for the purposes of the project (including dissemination of findings). No-one other than markers and examiners will have access to any of the data collected.

☒ Research participants will have the right of access to any data kept on them.

☒ All necessary steps will be taken to protect the privacy and ensure the anonymity and non-traceability of participants – e.g. by the use of pseudonyms, for both individual and institutional participants.

☒ Where possible, participants will be provided with a summary of research findings and an opportunity for debriefing after taking part in the research.

☐ If working with children 16 and under for a prolonged period of time, I have received Advanced Criminal Records Bureau (CRB) disclosure.

Signed___ Christine Muir_____

Date____20.04.2015_____

Informed Consent Form

Motivational currents in the language classroom

This study is being jointly conducted by Christine Muir (University of Nottingham), Jessica Florent (ICTE-UQ) and David Leach (ICTE-UQ). If you have any questions either now or at any point throughout the course please feel free to ask Jessica or David, Christine can be contacted via email at the following address: christine.muir@nottingham.ac.uk.

Project aims: A 'Directed Motivational Current' (DMC) is a term used to describe times of highly motivated behavior when moving along a structured pathway towards a well-defined goal. Within the context of language classrooms, we believe we see a lot of this type of motivation through the use of projects.

You have been asked to participate in this study because we are interested in learning more about how we can best support student learning and student motivation by using project work in the language classroom.

We would like permission to review your progress check and other goal setting sheets once the project is over. We would also like to invite you to participate in a Skype interview with Christine during the course, and a final focus group interview with Jessica and David, if you would like to do so. The study will not interfere with the structure of your course, the interaction you have with your teachers or your final assessment in any way.

Please read the following sentences and tick the boxes as appropriate, before signing at the bottom. Please feel free to ask about anything that may be unclear.

YES ☐ NO ☐ I confirm that the purpose of the study has been explained and that I have understood it.

YES ☐ NO ☐ I have had the opportunity to ask questions and they have been successfully answered.

YES ☐ NO ☐ I understand that my participation in this study is voluntary and that I am free to withdraw from the study at any time, without giving a reason and without consequence.

YES ☐ NO ☐ I understand that all data is anonymous and that there will not be any connection between the personal information provided and the data.

YES ☐ NO ☐ I understand that there are no known risks or hazards associated with participating in this study.

YES ☐ NO ☐ I confirm that I have read and understood the above information and that I agree to participate in this study.

YES ☐ NO ☐ I consent to any interview data being transcribed and wish to be referred to anonymously.

YES ☐ NO ☐ I consent to an audio file of my participation to be used, but would like identifying factors (e.g. my name to be removed) from any presentation of my data.

Participant's Name _____
Signature _____

Researchers' Names __ Christine Muir _____ Jessica Florent _____ David Leach _____
Researchers' Signatures _____
Date _____

Appendix G: Sample traditional course timetable & lesson plans for Week 1 of Study Two

Traditional course timetable

	EIBC II	ICTE-UQ Class Timetable	Session 4 - 2015	4 May - 5 June	344/325/326
Class	**MON**	**TUES**	**WED**	**THURS**	**FRI**
L1	Business Presentation Skills: CALL	Integrated Business English Skills	AV	Integrated Business English Skills	Integrated Business English Skills
	Jessica Florent	**David Leach**	**Jessica Florent**	**David Leach**	**David Leach**
Break	**10:30-11:00**				
L2	Business Presentation Skills: CALL	Integrated Business English Skills	Business Apprentice Project: CALL	Integrated Business English Skills	Case Studies
	Jessica Florent	**David Leach**	**Jessica Florent**	**David Leach**	**David Leach**
Break	**12:45-1:45**				**1:00**
L3	Grammar in Business	Corporate Writing 1	Listening Note Taking & Discussion	Corporate Writing 2	*Friday afternoon activities: see Rebecca at the Activities Office on Level 5 and check out facebook.com/icteuq*
	Jessica Florent	**David Leach**	**Jessica Florent**	**David Leach**	
Finish	**3:45**	**3:30**			

Lesson plans for Week 1 of Study Two

(Note that Monday of Week 1 was taken up by testing new students entering the school: the first week of each five week course therefore traditionally begins on the Tuesday)

Class	MON	TUES	WED	THURS	FRI
L1		**Project introduction** - Project idea pitched to students / students watch pre-recorded Christine intro video / details of the study explained and consent forms signed by students / student diaries introduced - Introductory 'get to know you' activities **Language focus** - Key vocabulary / phrases introduced	**Presentations focus** - Presentation language & skills / preparation, practice and feedback / signposting language & pitching ideas **Project focus** - Research in groups (fundraising, cancer council, the university, the 'biggest morning tea')	**Project / presentation focus** - 'Rough' presentation groups formed and areas of focus for presentation defined (to pitch ideas back to management on Friday) / discussion in small groups	**Listening focus** - Reviewed language and structures from listening homework – reviewed vocab spelling from previous work **Presentation / project focus** - Presentations finalised and practiced
	Jessica Florent	David Leach (& Jessica)	Jessica Florent	David Leach	David Leach
Break	10.30-11.00				

Table continues on next page…

L2		**Reading focus** - Reading text & additional vocab on the topics of teamwork and fundraising **Pronunciation/listening focus** - Pair dictation / frequent changes in pair/group combinations to help to establish the class group	**Project focus** - Students attend a formal 'client brief' at the university with the key stakeholders that they will be 'working for' / project goals laid out in explicit terms / advice given as to how to approach the project / Q & A session	**Listening / project focus** - Guest speaker: Talk given by Deborah from the Cancer Council / Q & A session	**Presentation / project focus** - Pitch back to Frances with their ideas & what they want to do / Feedback and Q & A session - Student diary entries completed / goals set on Wednesday reviewed / new goals set for next week / Round up of work and achievements of the week
	Jessica Florent	David Leach	Jessica Florent	David Leach	David Leach
Break	12.45-1.45				1.00
L3		**Writing focus** - Email introductions and various functions of first paragraphs, e.g. apologising, asking for information etc. Students to write David an email formally introducing themselves	**Listening, note taking & discussion focus** - Guest speaker: team building workshop given by expert Neil - First student diary entry completed / goals set for Friday/rest of week	**Reading focus** - Key vocab/strategies from reading homework used in 'ask your partner' questions / frequent partner changes to make sure everybody knows everyone's name **Speaking / project focus** - Teacher-led discussion to get as many ideas on the board as possible inspired by Deborah's talk **Language focus** - Pair dictation / work idioms	Friday afternoon activities
	Jessica Florent	David Leach	Jessica Florent	David Leach	
Finish	3.45	3.30			

Appendix H: Project Framework

