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Slighean gu fileantas: An exploratory study of the nature of proficiency in adult L2 Scottish Gaelic

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Abstract

This thesis explores the measurement of adult second language (L2) oral proficiency in Scottish Gaelic (henceforth Gaelic). Gaelic is a minority language in Scotland, and is currently the object of a major effort to reverse language shift. Adult L2 users of Gaelic have been identified as key agents in this effort, but some weaknesses in adult Gaelic language-in-education policy are making it difficult for adult L2 users to fulfil this role. One such weakness is the absence of an empirically-derived means of assessing proficiency in Gaelic, through which adult L2 users and their teachers can assess their progress.

This project aims to address this weakness. Data from two tasks — an interview and a narrative — performed by adult L2 users of Gaelic are analysed from the perspective of the complexity, accuracy, and fluency framework, as the three main dimensions of proficiency. Data are also analysed for Communicative Adequacy, using raters' judgements. These data provide the first examination of Gaelic L2 proficiency from the perspective of second language acquisition (SLA) research.

Adult L2 users of Gaelic have a wide range of learning experiences and motivations for learning the language. This study also explores these experiences and motivations, and discusses how these relate to proficiency.

Results show that individuals' Gaelic language skills interact in complex and unpredictable ways, depending on the nature of the task being performed. There is some evidence that the interview task encourages complexity and fluency, while the narrative task encourages accuracy at the expense of complexity. Results also show that the Communicative Adequacy rating scale developed for this project is valid and reliable, but that assessments of proficiency are subjective, to a large extent. Finally, the results confirm that adult L2 users of Gaelic draw on a vast range of experiences and are motivated in many different ways to learn the language.

The outcomes of the project contribute to existing scholarship on the experiences and motivations of adult L2 users of Gaelic, confirming previous findings. The results also confirm previous findings in second language

acquisition research that complexity, accuracy, fluency, and Communicative Adequacy in an L2 interact in complex ways, and that these interactions can be mediated by different task conditions. Finally, the outcomes of this exploratory research serve as the basis for future, more large-scale research into the acquisition of Gaelic as a second language by adults.

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Author's Declaration

I declare that this thesis is the result of my own work and that I have referenced sources in cases where ideas are not my own: any omission of an accurate reference is an oversight on my part and will be corrected. This thesis, or any part thereof, has not been submitted for any other degree at the University of Glasgow, or any other institution.

Signature: _____

Printed name: _____

Abbreviations

ACTFL – American Council on the Teaching of Foreign Languages

ALTE – Association of Language Testers in Europe

AMTB – Attitude/Motivation Test Battery

AS-unit – Analysis of Speech unit

BnG – *Bòrd na Gàidhlig* ('the Gaelic language board')

BSPM – Bilingual Speech Production Model

CAF – Complexity, accuracy, and fluency

CEFR – Common European Framework of Reference for Languages

CH – Cognition Hypothesis

CHAT – Codes for the Human Analysis of Transcripts

CHILDES – Child Language Data Exchange System

CLAN – Computerised Language Analysis

CLT – Communicative Language Teaching

CLIL – Content and Language Integrated Learning

CoP – Community of Practice

D – Lexical Diversity

DGPL – *Direcció General de Política Lingüística* ('Directorate General for Language Policy

EFL – English as a Foreign Language

ETH – Extended Trade-off Hypothesis

GIDS – Graded Intergenerational Disruption Scale

GLEP – Gaelic Language-in-Education Policy

GME – Gaelic-Medium Education

IELTS – International English Language Testing System

L1 – First Language

L1A – First Language Acquisition

L2 – Second Language

LACM – Limited Attentional Capacity Model

LEP – Language-in-Education Policy

LLS – Language Learning Strategy

MLC – Mean Length of Clause

MLR – Mean Length of Fluent Run

NPG – National Plan for Gaelic

NP2 – National Gaelic Language Plan

OLA – Official Languages Act 2003

PT – Phonation Time Ratio

RLD – Reference Level Descriptor

RLS – Reversing Language Shift

SLA – Second Language Acquisition

SLATE – Second Language Acquisition and Testing in Europe

SR – Subordination Ratio

TBLT – Task-Based Language Teaching

TEG – *Teastas Eorpach na Gaeilge* ('the European Certificate in Irish')

TH – Trade-off Hypothesis

TL – Target Language

TOEFL – Test of English as a Foreign Language

WfA – Welsh for Adults

WiSP – What is Speaking Proficiency

WLA – Welsh Language Act

WLM – Welsh Language Measure

WPM – Words per Minute

Transcription conventions

All data are transcribed orthographically, according to CHAT transcription conventions (MacWhinney 2000). Additional conventions are adopted from Arche (2008).

xxx	*unintelligible speech not treated as a word*
xx	*unintelligible speech treated as a wor*d
+<	*overlapping speech*
(Number)	*pause*
::	*clause boundary within AS-unit*
<word> [/] word	*material in angle brackets is repeated* ver batim
<word> [//] word	*material in angle brackets is rephrased*
<word> [///] word	*material in angle brackets is completely reformulated*
&=laughs	*laughter*
&=coughs	*coughing*
[^eng: words]	*stretch of discourse produced in English*
[^gle: words]	*stretch of discourse produced in Irish*
@s	*word produced in English*
___	*word omitted*
+…	*speaker trails off*
+/	*speaker is interrupted*

+,	*interrupted utterance is continued*
+//	*self-interruption*
[*]	*inaccurate pronunciation*
word+word	*word is hyphenated in standard Scottish Gaelic orthography*
[word]	*identifying information omitted*
[?]	*best guess*
@n	*invented word*

Glossing conventions

Three examples requiring the use of interlinear glosses are provided in section 4.4.3.3. The glossing conventions used are as follows:

PROG   progressive

PRS   present tense

PRT   particle

SUB   subordinating

1 Introduction

This thesis presents an exploratory study of the measurement of proficiency in adult second language Scottish Gaelic (hereafter Gaelic). It focuses specifically on the assessment of language knowledge and processing in oral production under different task conditions. This assessment is carried out using objective measurements of linguistic proficiency – complexity, accuracy, and fluency – and through raters' assessments of individuals' performances. The aim of this study is to develop a tool for the assessment of Gaelic second language (L2) proficiency, which can be used as the centrepiece of a framework for the learning of Gaelic by adults. Adults' Gaelic learning experiences and motivation for learning Gaelic are also explored in this study, in order to contribute to existing knowledge about these areas and to provide an understanding of who the participants are.

1.1 Gaelic learners and native speakers

McLeod, O'Rourke & Dunmore (2014b) have criticised the use of the term 'Gaelic learner', on the basis that many second language (L2) speakers of Gaelic are no longer actively involved in studying the language. They use the term 'new speaker' to refer to this cohort. McLeod et al. (2014b) also note the existence of 'heritage learners' (see Armstrong 2013 for a discussion of heritage learners of Gaelic), i.e. individuals who were exposed to Gaelic in the home, but did not develop high proficiency. It is accepted that the term 'Gaelic learner' has limitations, and in this study, the term 'adult L2 Gaelic user' will be employed to describe individuals who were not exposed to Gaelic as a child and who use the language regularly, either in daily life or in formal learning environments.

The concept of the 'native speaker' is also problematic (Davies 1991, 2003), especially in the context of a minority language of which all speakers are bilingual, and which has a large population of L2 users. The term 'Gaelic native speaker' is employed in this study, following Davies (2003) as an individual who speaks Gaelic as their first language (L1), and acquired Gaelic in the home as a child.

1.2 Research questions and outline of the current study

There has been no research to date in the field of second language acquisition conducted on the learning of Gaelic by adults. This study takes a first step in rectifying this situation. The study takes a corpus-based approach to examining second language processing and performance in order to describe these phenomena in relation to Gaelic, and also to develop a means of assessing Gaelic L2 proficiency in other contexts.

Three main research questions are addressed:

1. What paths do Gaelic L2 users take when learning the language?

2. How do dimensions of proficiency interact?

3. Is it possible to predict how individuals are rated for Communicative Adequacy?

In responding to these questions, the study aims to contribute to knowledge about the complex nature of language learning motivation, Gaelic second language acquisition, second language production and processing, and how we perceive proficiency.

The thesis is divided into 10 chapters. Chapter 2 sets the context within which this research takes place, describing Gaelic language shift, and language policy directed towards Gaelic.

In chapter 3, previous research into L2 motivation and learning experiences is presented and discussed. This chapter also introduces Dörnyei & Ottò's (1998) Process Model of L2 Motivation, and Dörnyei's (2005, 2009) L2 Motivational Self System as the theoretical frameworks within which participants' motivation and learning experiences are analysed.

Chapter 4 describes and discusses research into the measurement of L2 proficiency, using the CAF (complexity, accuracy, and fluency) framework, as well as perceptions of the ability to communicate in an L2. This chapter also

Chapter 1

presents the operationalisations of CAF and Communicative
Adequacy in this study.

Chapter 5 presents the research questions and specific hypotheses to be tested,
while the methodological approach taken is described in chapter 6.

Chapters 7 to 9 present the results of each research question. In chapter 7,
participants' learning experiences and motivations for learning Gaelic are
presented, analysed, and discussed. Chapter 8 presents and analyses the results
of research question 2, on the nature of Gaelic L2 proficiency. In chapter 9, the
subjective assessment of participants' ability to communicate is presented and
discussed.

Chapter 10 summarises and brings together the findings presented in chapters 7-
9. The implications of this study for language revitalisation and second language
acquisition research are presented. The limitations of the study and directions
for future research are also highlighted.

2 Reversing Gaelic language shift through Language-in-Education policy

2.1 Chapter overview

This study addresses the learning of Gaelic by adults. In this chapter, it is argued that adult learning of Gaelic takes place at the intersection between two policy areas: policy to reverse language shift, and language-in-education policy. This chapter introduces the reader to these policy areas, and explains the context in which this project takes place.

A very short introduction to the history of Gaelic is presented in 2.2, followed by an introduction to theories of language policy and planning in 2.3. In 2.4, language policy specifically relating to minority languages and reversing language shift is addressed: how these issues are manifested in the context of Gaelic is outlined and discussed in 2.5. In 2.6, an additional aspect of language policy, *language-in-education policy* is introduced. How language-in-education policy relates to Gaelic and language revitalisation is presented in 2.7 and 2.8. In 2.9, the justification for the current research project in light of the present-day circumstances of Gaelic is presented. A summary of the chapter is presented in 2.10.

2.2 A brief social history of the Gaelic language

This section provides a very brief overview of the history of Gaelic. For a more comprehensive treatment of this topic, see MacKinnon (1974), Withers (1984), Ó Baoill (2010), and Macleod (2010).

Gaelic, like Irish and Manx, is a member of the Goidelic branch of Celtic languages. A Goidelic language has been spoken in the area that is now Scotland possibly since around 200 AD (MacKinnon 1974). Ó Maolalaigh (2008) argues that there is evidence of a distinct Scottish Gaelic variety from the 12th century, while Ó Buachalla (2002) argues that it is likely that Irish and Scottish Gaelic began to diverge as soon as Gaelic speakers settled in Scotland. By the 11th century, Gaelic was used as the language of court, government, the aristocracy, and the clergy (MacKinnon 1974, McLeod 2004). However, around this time,

Chapter 2

Gaelic also began its decline, which continues to this day. As Norman French and Latin expanded into Scotland, these replaced Gaelic as the language of authority. The spread of feudalism and increased trade with Germanic speakers in the south brought with them socio-economic change, but also language change (McLeod 2004).

By the 14th century, a perceived division of Scotland into the Highlands and Lowlands had taken place, with Gaelic becoming associated with the former, and Scots with the latter. Negative perceptions of those living in the Highlands as backwards and violent had also begun to emerge (McLeod 2009), and it was widely believed that the Gaelic language was "the chief cause of barbarity, ignorance and popery" (MacKinnon 1974: 42) . The use of the Gaelic terms, *Gàidhealtachd* for the Highlands, and *Galldachd* for the Lowlands did not emerge until the 17th or 18th centuries, however (McLeod 2004).[1]

The divide between the *Gàidhealtachd* and Lowlands became more rigid between the 14th and 18th centuries, due in part to the Act of Union in 1707, which brought Scotland and England together under one crown. Those in the Lowlands began to impose the English language and culture on those in the *Gàidhealtachd*, in an effort to 'improve' and 'civilise' the people there (Withers 1984). This took place largely through the establishment of English language schools, through the dismantling of the clan system, and through the prohibition of Highland dress and the playing of the pipes (MacKinnon 1974).

As economic activity developed, particularly in terms of farming and forestry, more and more English speakers were drawn to the area, and the use of English became ever more necessary; as MacKinnon (1974: 43) puts it

> Economic innovation seems always to have been associated with
> intrusive use of English speech in Scotland.

Throughout the 18th and 19th centuries, Gaels were led to believe that their language was no longer suitable for use in the modern world. In addition, the process of forced migration saw huge numbers leaving the *Gàidhealtachd* and moving to English-speaking areas, including Glasgow (see 2.2.1).

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[1] *Gàidhealtachd* will be used throughout this thesis to refer to the Highlands and Islands.

Chapter 2

Throughout the 20th century, Gaelic continued to be displaced by English, especially due to the lack of use of Gaelic at an institutional level (MacKinnon 2010, Macleod 2010). Gaelic had little place in the education system, despite provisions existing — at least in theory — for its use in educational settings in the *Gàidhealtachd*. Industrialisation and further migration to the Lowlands and overseas, as well as the huge loss of life in the First and Second World Wars contributed further to the decline of Gaelic and the shift to English.

Figure 2.1 shows the decline of Gaelic from the 19th century, when the first census results addressing the use of Gaelic became available, to the present day.
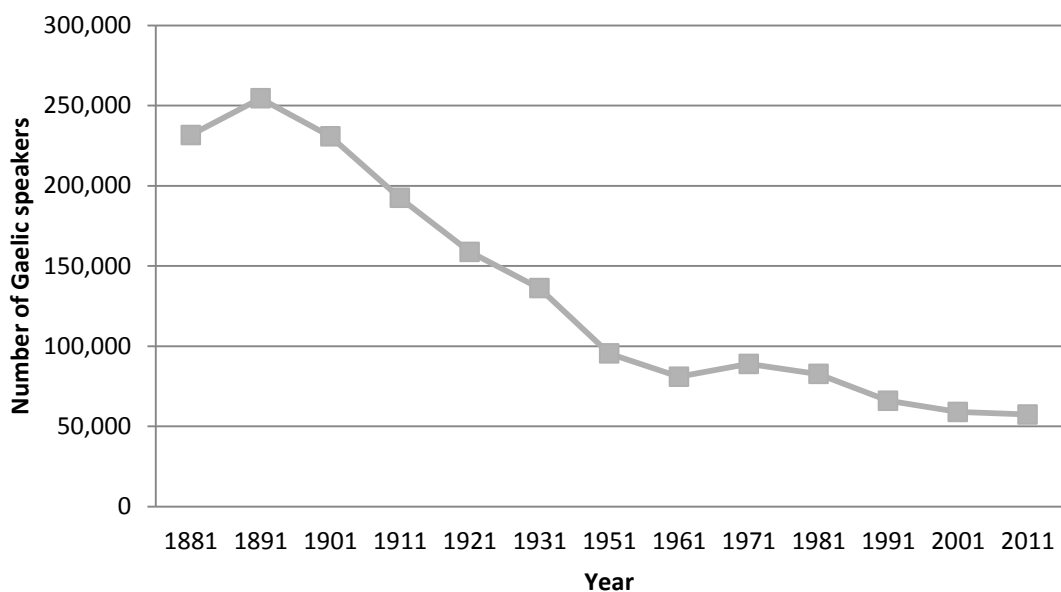
Figure 2.1 - Number of Gaelic speakers in Scotland by year, according to Census results.

Figure 2.1 shows the reduction in numbers of Gaelic speakers since 1891, which appears to have slowed considerably from 1971 onwards. The findings for Scotland as a whole appear similar to those observed in the traditional Gaelic-speaking heartlands of the *Gàidhealtachd,* as demonstrated in figure 2.2.
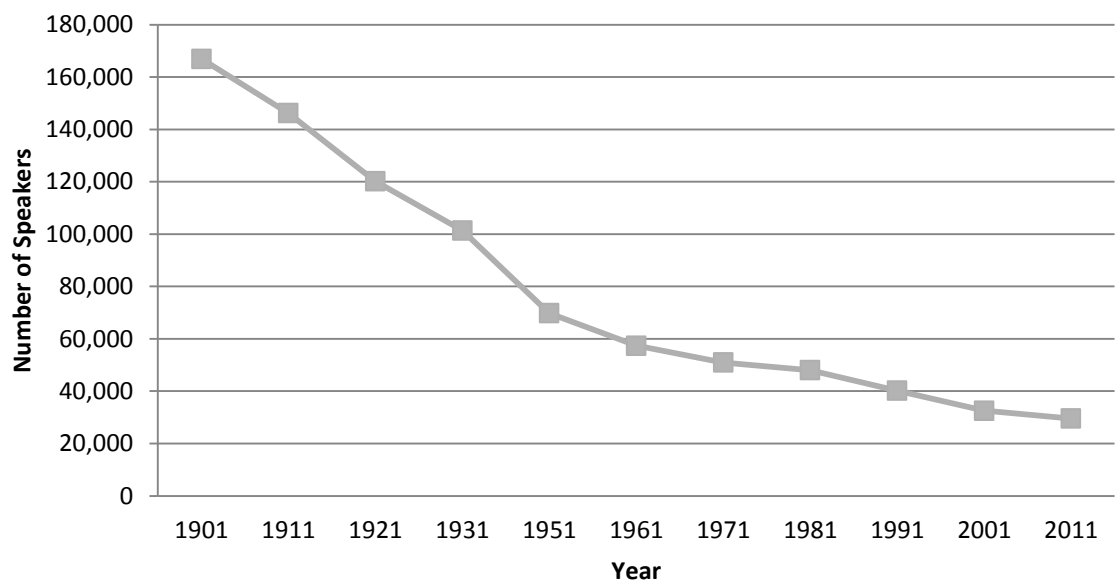
Figure 2.2 - Number of Gaelic speakers in the Gàidhealtachd by year, according to census results. Figure adapted from Birnie (2014).

As for Scotland as a whole, the decline in speaker numbers in the Gàidhealtachd appears to have slowed in recent years. But Birnie (2014), using reaction-diffusion modelling, has shown that the rate of decline has in fact remained steady throughout the course of the 20th century. Birnie (2014) argues that in order for decline to cease entirely, there would need to be an increase of 920 Gaelic speakers per year in this area alone. It is clear from these findings that major steps are needed to reverse the decline in Gaelic speaker numbers.

The data in figures 2.1 and 2.2 represent numbers of people who can speak Gaelic. The data cannot provide any insight into the proficiency of these individuals, or the domains in which they use Gaelic. In their study of Shawbost on the Isle of the Lewis, Mac an Tàilleir, Rothach & Armstrong (2010) established the proficiency and usage of Gaelic speakers in an area considered to be Gaelic-dominant. The researchers found that residents overwhelmingly chose English as the default language of social settings, and the language of the home. Nonetheless, in some situations − e.g. at the bank, at social and leisure activity clubs, and at church − speakers did tend more towards the use of Gaelic (Mac an Tàilleir, Rothach & Armstrong 2010). Residents had positive attitudes towards Gaelic, and 66% reported high proficiency in Gaelic. However, the majority of this 66% were over the age of 50, a finding which has negative implications for intergenerational transmission. Intergenerational transmission of language is the

process through which adult speakers of a language pass that language on to their children, or children in the community in which they live. Less than 25% of children were found to speak fluent Gaelic. Given the position of Shawbost as a Gaelic-dominant community, these findings do not bode well for the future of Gaelic, even in its traditional heartlands.

2.2.1 Gaelic in Glasgow

It is noted in 2.2 that the history of Gaelic has been characterised by high levels of migration from the *Gàidhealtachd* to the Lowlands. Glasgow, known sometimes as *baile mòr nan Gàidheal* ('the city of the Gaels') was a major locus of this migration. Kidd (2007) notes that Glasgow has long been a stronghold for Gaelic-speakers, while Withers (2007: 130) observes that "Glasgow has always been 'the first city' of Gaelic Scotland". Gaelic was established as a subject at the University of Glasgow in 1901, and an estimated 20,000 Gaelic speakers lived in Glasgow at that time (Withers 2007). There is evidence to suggest that those Gaelic speakers who moved to Glasgow represented all walks of life, including members of the middle class, textile and agricultural workers, and unskilled labourers (Withers 1998). Gaelic speakers also contributed widely to life and research at the University of Glasgow, as the *Sgeul na Gàidhlig/Gaelic Story*[2] project based at that university illuminates.

Today, Glasgow is home to the largest concentration of Gaelic speakers outwith the *Gàidhealtachd* (Milligan, Chalmers & Danson 2011, Glasgow City Council 2012). Glasgow was the first large city to develop a Gaelic Language Plan after the establishment of Bòrd na Gàidhlig ('the Gaelic language board' — BnG) (see section 2.4). The plan covered 2009 to 2012 and had a strong concept of how the future of Gaelic in Glasgow should look:

> We have a vision for Gaelic in our city. By 2020, the place of Gaelic in a thriving, multicultural Glasgow will be obvious to all. We'll see it around us — in our buildings, on our streets, in our shops; we'll hear it in conversations, in our schools and in the media; we'll enjoy it in all the arts, especially music, dance and theatre. (Glasgow City Council 2010: 13)

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[2] More information about this project is available at: http://gaelicstoryatgu.wordpress.com/

The plan was considered successful by BnG, particularly in its efforts to increase the visibility of Gaelic in everyday use, encourage the learning of Gaelic, and engage with the wider community (Glasgow City Council 2013). Glasgow City Council's second Gaelic language plan dates between 2013 and 2017, and intends to build on progress made during the first plan.

The first Gaelic-medium primary school opened in Glasgow in 1999, followed in 2006 by a Gaelic-medium secondary school, the only school of its kind. There are plans to open a second Gaelic-medium primary school on the south side of Glasgow in 2015. In 2009, the University of Glasgow became the first university to appoint a Gaelic Language Officer. This position was part of the establishment of the *Gàidhlig @ Oilthigh Ghlaschu* ('Gaelic at the University of Glasgow') initiative, which aims to promote the acquisition and use of Gaelic across the university campus, and indeed, within the wider community. The University of Glasgow was also the first university to launch its own Gaelic language plan, designed to help implement the aims of *Gàidhlig @ Oilthigh Ghlaschu*[3].

Gaelic social and cultural events are popular across the city, with many receiving support and funding from Glasgow City Council, including the regular Gaelic culture event *Ceòl 's Craic* ('music and banter'). Glasgow City Council has also appointed a Gaelic Arts Development Officer to support other Gaelic cultural initiatives. *An Lòchran* ('the lantern') was established in 1999 as an organisation to promoting Gaelic arts and culture in Glasgow, and the Gaelic books council is also based in Glasgow. Furthermore, Glasgow City Council and other institutions offer classes to adults wishing to learn Gaelic, demonstrating a commitment to the Gaelic language as well as the culture.

2.3 Language policy

Section 2.2 gave an overview of the history of Gaelic, in which the decline of the language from the most widely spoken in the country, to one with a minority of speakers is outlined. Since 2003, the Scottish Government has committed to

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[3] For more information about this initiative, see:
    http://www.gla.ac.uk/schools/humanities/gaelic/about/

reversing this decline through its Gaelic language policy. In this section, the concepts of language policy and planning are introduced.

A language policy is a set of laws, regulations, or rules which aims to effect the usage, acquisition, function, and structure of a language (Kaplan & Baldauf Jr. 1997, Johnson 2013). Often the domain of governments or authorities, language policies can be devised and implemented at any level, from the language policy of an institution, to that of a family.

Language policy refers to an organisation's or individual's viewpoint on language use, and usually reflects the aims or goals underlying the language planning process (Van Herk 2012). Spolsky (2004) argues that language policy is comprised of three elements: the actual linguistic practices of the groups or individuals who participate in the relevant speech community or communities; the values members of the speech community place on the language in questions and varieties thereof; and language planning or language management, which involves "conscious and explicit efforts by language managers" to control the linguistic choices made by individual language users (Spolsky 2009: 1). Language policy towards Gaelic in Scotland is currently based around principles of reversing language shift, described in more detail in 2.4.1.

Language planning, on the other hand, is more difficult to define. Haugen's (1966) four-fold model of language planning has been highly influential, and considers language planning as falling into two main categories: status planning, and corpus planning. These categories can be subdivided into the selection and codification of linguistic norms, and the implementation and elaboration of these norms. Status planning refers to the selection of linguistic norms and forms and attempts to spread the adopted form (Haugen 1987). Status planning for Gaelic has involved the passing of the Gaelic Language (Scotland) Act in 2005, which aimed to secure Gaelic as an official language of Scotland, and the spread of Gaelic-medium education. Corpus planning refers to language standardisation and codification, and the elaboration of standards and codes to expand to new functions and fields of use (Haugen 1987). Examples of corpus planning in the Gaelic context are the *Gaelic Orthographic Conventions* (Scottish Qualifications Authority 2009), and *Faclair na Pàrlamaid* (The Scottish

Parliament 2001), a dictionary of terminology relevant to the Scottish Parliament.

Following Haugen (1966, 1987), Cooper (1989) categorises language planning as falling into three categories: status planning, corpus planning, and acquisition planning. He defines status planning as "deliberate efforts to influence the allocation of functions" of a language (1989: 99). Corpus planning is composed of four subcategories:

- graphisation: the development of a writing system;
- standardisation, including the codification of grammar;
- modernisation: the expansion of the uses of a language to new functions and topics;
- renovation: the effort to change an already developed code, e.g. through spelling reform, and the removal of loanwords.

Finally, acquisition planning refers to organised efforts to increase the users and uses of a language, which involves not only language instruction, but also the provision of opportunities and incentives for learning. These categories directly influence the Scottish Government's approach to Gaelic language planning, discussed in section 2.5.

Cooper's definition bears some resemblance to Spolsky's (2009) definition of 'language management' as "conscious and explicit efforts by language managers" to control the linguistic choices made by individual language users. Note that Cooper (1989) refers not only to efforts by government agencies, or official bodies: grass-roots, community-based language planning, for example, can ensure that specific local needs and goals are met. One example of such an organisation in the Gaelic context is *Droitseach* ('a considerable number'), a Glasgow-based group aiming to revive dialects of Gaelic of which very few native speakers survive. Another example is the bilingual *Guthan nan Eilean* — Island Voices, a project developed by *Sabhal Mòr Ostaig*, a college of the University of the Highlands and Islands, and the South Uist community training group *Cothrom* ('opportunity'). *Guthan nan Eilean* was established in order to develop materials for the teaching and learning of Gaelic, based on "slices of life and work in the Hebrides" (Wells 2009). Although the project receives support from

the University of the Highlands and Islands, it is an example of a community-led project, initiated by members of a Gaelic-speaking community.

Language planning at the level of government relates directly to state language policy. But as Spolsky (2012) acknowledges, language policy and language planning do not always align perfectly, with factors such as financial resources, national identity, social class and power, and ethnicity all influencing the practicality and reality of a policy being put into effect. Williams (2012) cautions against over-reliance on language planning at a governmental level. He argues that official language strategies are "political constructs", and while these may be directed towards language revitalisation, they also serve other political agendas. Language plans will be more robust if language activists and communities have a role to play in their development, as they will reflect the needs of language speakers as well as political aspirations (Williams 2012).

2.4 Minority languages

Minority language policy refers to language policy which focuses in particular on minority languages, i.e. languages spoken by a minority of the total population, excluding the languages of migrants (Council of Europe 1992). As outlined in 2.1, numbers of Gaelic users have been declining for centuries. There has also been a major decline in the number of domains (i.e. social or institutional contexts) in which Gaelic is and can be used. Gaelic can therefore be considered a minority language.

By the criteria developed by UNESCO for determining the vitality of a given language (UNESCO Ad Hoc Expert Group on Endangered Languages 2003), Gaelic is considered to be "definitely endangered" (Moseley 2010). This is because intergenerational transmission is low; relative and absolute numbers of speakers are low; Gaelic is used in fewer and fewer domains; and while Gaelic is used in the press, on television, and on the internet, English is used to a much greater extent.

But categorising a language in these terms has been criticised, on the basis that using biological terms like 'endangered' is inappropriate for language (Fishman 1991, MacCaluim 2007), and the term 'minority language' is often preferred. A

minority language can be a language in the position of, say, Gaelic. But the term can also refer to languages that are the majority in some regions and the minority in others. For example, Swedish, while the dominant, majority language in Sweden, is a minority language in Finland, with Swedish speakers accounting for less than 6% of the total population (Official Statistics of Finland 2012). 'Minoritised language' is used to refer to languages which have lost their position in society due to political or historical events, including the reorganisation of political borders: this term captures the social context of speaker numbers declining, or domain restriction. Throughout this thesis, Gaelic will be referred to as a minority language, following traditional conventions in Gaelic scholarship.

2.4.1 Reversing language shift policy

The re-establishment of a language no longer used in the speech community, e.g. Hebrew, or the reversing of a decline in the use of a language, e.g. Irish or Gaelic (Hinton 2001) is known as language revitalisation. Such decline is usually referred to as language shift, i.e. the gradual replacement of one language by another as the main language of communication in a speech community (Van Herk 2012: 205). Following Fishman (1991, 2001a), the term 'reversing language shift' (RLS) will be used throughout this thesis to identify the steps in language policy taken to increase the usage and status of Gaelic.

Fishman's (1991) model of RLS is based around his Graded Intergenerational Disruption Scale (GIDS), reproduced here in table 2.1. Level 1 represents the stage at which the language in question has been revitalised. Level 8 represents the first stage in language revitalisation.

Level	Extent of language use
1	Education, work sphere, mass media and governmental operations at higher and nationwide levels
2	Local-/regional mass media and governmental services
3	The local/regional (i.e. non-neighbourhood) work sphere, both among Xmen and Ymen
4	4b: Public schools for Xish children, offering some instruction via Xish, but substantially under Yish curricular and staffing control 4a: Schools in lieu of compulsory education and substantially under Xish curricular and staffing control

RLS transcends diglossia

Level	Extent of language use
5	Schools for literacy acquisition, for the old and for the young, and not in lieu of compulsory education
6	The intergenerational and demographically concentrated home-family-neighbourhood.-community: the basis of mother-tongue transmission
7	Cultural interaction in Xish primarily involving the community-based older generation
8	Reconstructing Xish and adult acquisition of XSL

Reverse language shift to attain diglossia

Table 2.1 - Fishman's (1991: 395) Graded Intergenerational Disruption Scale. 'X' refers to the language undergoing language shift, while 'Xmen' are the speakers of that language. 'Y' refers to the dominant language in the language shift context, while 'Ymen' are its speakers.

GIDS is a "diagnostic tool" to help those with a stake in RLS establish the stage of decline of the language in question, and to identify the measures that need to be taken to avoid further decline and reverse future shift (Fishman 2001b, MacCaluim 2007: 10). Stages 8-5 are the lower-order spheres, which address intergenerational transmission of the language in question, and the re-establishment of the language in the wider community. Stages 4-1 are the higher-order spheres, and deal with expanding the functions of the language, and extending its use to the wider community. Stage 6 is crucial to RLS success, as without L1 speakers and intergenerational transmission in the home, other measures cannot hope to have widespread success (Fishman 1991).

MacCaluim (2007) argues that in national terms, Gaelic is at stage 7, and that the language is also relatively strong at stage 1; in the traditional heartlands of the *Gàidhealtachd*, MacCaluim (2007) argues that Gaelic is at stages 6-7. But the picture may, in fact, be more blurred than this. Indeed, a language may be identified as being at multiple stages simultaneously, even with the same community or household (McEwan-Fujita 2013). Adult acquisition of Gaelic is a high priority for language planning Scotland (see section 2.7), which may indicate that Gaelic has transcended level 8. There is evidence that levels 6 and 7 have also been transcended, at least in the *Gàidhealtachd* (Munro, Taylor & Armstrong 2011). Stages 5 and 4a have not been addressed in the Gaelic context.   Stage 4b has been reached, however: many schools offering Gaelic-medium education do so via Gaelic "units", i.e. the main language of the school is English, but units are sectioned off for those wishing to be educated through the medium of Gaelic (O'Hanlon, McLeod & Paterson 2010). As McLeod (2003) highlights, this approach to minority language medium education is atypical in most RLS contexts. In parts of the *Gàidhealtachd*, Gaelic may be considered to have transcended stage 3. Gaelic cannot be considered to have reached stage 2, as even in the *Gàidhealtachd*, Gaelic is not used to a wide extent in local government (Maclean 2013). On the other hand, Gaelic has reached stage 1 in parts of Scotland, with a number of industries — most notably education and publishing — having a strong Gaelic presence, as well as the move to Freeview by the Gaelic language television channel BBC Alba. But while Gaelic is visible in government (e.g. in publications, and on government signage), it is not widely used there.

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The example of Gaelic shows that it is difficult to classify any language as being at one particular stage on GIDS. Although Fishman (1991) encourages addressing the lower-order spheres first, in the case of Scotland and Gaelic language policy, there has been less of an emphasis on addressing change in the lower-order spheres than higher-order spheres. This could have very serious implications for language revitalisation, as without a strong speaker-base, institutional efforts may not succeed.

McEwan-Fujita's (2013) Nova Scotia Gaelic Expanded Graded Intergenerational Disruption Scale is modelled on GIDS and the Expanded GIDS, developed by Lewis & Simons (2010). The Nova Scotia Gaelic EGIDS is tailored specifically for application to the state of Gaelic in Nova Scotia. Although McEwan-Fujita's (2013) scale is not intended for use in the Scottish context per se, many aspects of it are applicable to Gaelic in Scotland. Unlike GIDS and the Expanded GIDS, it also specifies the goals associated with each stage, means of achieving these goals, and the challenges that may be faced to this end. Table 2.2 reproduces stage 6 of McEwan-Fujita's scale.

II. STARTING POINT	III. GOAL	IV. HOW TO ACHIEVE	V. MAIN CHALLENGES
Reawakened: A cohort that includes teenagers, younger adults and parents of young children is using Gaelic as a second language with each other and older people	*Re-established and Revitalised:* **Children are raised in Gaelic in the home and/or daycare, by parents, grandparents and/or other caregivers.** **In this way, a new cohort of first-language**	Encourage and support Gaelic speakers who become parents to use Gaelic in the home when raising children Train young adults and older adults to be Gaelic-medium daycare	Most new Gaelic users' lack of language skills, registers and confidence to speak Gaelic to children Some new Gaelic users' possible transmission of a hybridised, anglicised

	Gaelic speakers is created. Gaelic speakers are demographically concentrated in multigeneration al communities, or at least gather regularly face-to-face Gaelic-speaking communities are reinforced by the support of local institutions	providers Create Gaelic-medium daycare and preschools to support families Develop other "family-friendly" Gaelic institutions and events	Gaelic to children Children raised speaking Gaelic become socially isolated from other Gaelic speakers Support of Gaelic by one parent only Other challenges continue as at Stage 7

Table 2.2 - The Nova Scotia Gaelic Expanded Graded Intergenerational Disruption Scale (McEwan-Fujita 2013: 172). Emphasis in original.

Stage 6 of McEwan-Fujita's (2013) scale seems to be the best representation of the general state of Gaelic in Glasgow at present, although as noted above, different communities of practice (see section 3.4.1) may be at different levels on any scale. Initiatives such as *An Gealbhan*, a community-led, Gaelic-medium social group and the establishment of Gaelic-medium preschools (*croileagan*) are increasing the usage and status of Gaelic, but it remains the case that there are few fully Gaelic households in Glasgow (anecdotally, at least), and the variety of Gaelic developing in Glasgow is influenced by English (Nance 2013).

In an evaluation of seven language policies across Europe, Williams (2013) found that successful minority language policies had clear, identifiable targets and were credible and realistic. There was a strong capacity for implementation of the policy, and a mid-term assessment ensured that implementation was carried

out effectively. Successful policies were also holistic, in that they included strategies for changing habits and opinions regarding the minority language. In the following sections, language policy in Scotland in relation to Gaelic is discussed and evaluated, with consideration given to whether language policy might be considered effective according to Williams's (2013) evaluation. As Gaelic language policy is modelled on policies for Catalan, Welsh, and Irish, an overview of language policy in these contexts is presented first, followed by a discussion of Gaelic language policy in Scotland.

2.4.2 Language planning in Catalonia

Regional languages in Spain, including Catalan, were minoritised under Franco's regime. After 1975, steps were taken to re-establish Catalan as the normal language of communication in Catalonia. Although this is not a direct example of RLS, Catalan is presented here as an example of minority language planning which has had influence on the Welsh and Scottish situations.

Since the introduction of the Language Normalisation Act for Catalonia in 1980, language planning in that region has been the responsibility of the *Direcció General de Política Lingüística* ('Directorate General for Language Policy'). It is clear that language policy in Catalonia takes as its starting point Cooper's (1989) model of language planning: the DGPL is responsible for status, usage, corpus, and acquisition planning: Status and usage planning address the obligatory use of Catalan by public authorities. Corpus, acquisition and usage planning are the aspects of policy which regulate the use of Catalan in schools and at undergraduate levels at university, where it is compulsory and the normal language of education. The use of Catalan in the media is strongly encouraged, and its use by companies that provide public services – be the companies themselves public or not – is required. The DGPL also monitors and evaluates the policies implemented, a crucial feature of successful language planning, according to Williams (2013).

In 1995, the *Pla general de normalització lingüística* (General Plan of Language Normalisation) was put into practice, which aimed to make Catalan "the usual language of all public and private institutions" (Departament de Cultura 1995, cited in Bauzá Sastre 2000). This plan, while avoiding the use of the word

official, clearly demarks Catalan as the official language of the region, although legally, Catalan and Castilian have been co-official in Catalonia since 1932. The major thrust of the plan relates closely to status and usage planning.

Corpus planning is managed by the *Institut d'Estudis Catalans* (Institute of Catalan Studies), which has authority over linguistic norms. The corpus planning process for Catalan began in 1913, and was about more than linguistic reform:

> The goal of the process of linguistic codification was clear: to give Catalan a single set of stable norms…; to give back to the Catalans their pride and dignity in belonging to a differentiated national community, possessing a national language…(Argenter 2002: 15-16, in Pradilla Cardona 2011: 32)

The success of the Catalan movement in Catalonia has been associated with Catalan identity, an argument which may explain the relative lack of success of the movement in the Balearic Islands and Valencia (Bauzá Sastre 2000, Ferrer 2010).

O'Rourke (2011: 19) argues that

> the strength of a minority language can be predicted by the degree to which speakers value their language as a symbol of group or ethnic identity.

Aside from having a communicative value, Catalan also has a strong emblematic value, in that it can be used for making political statements of identity. However, O'Rourke (2011) goes on to note that language status is also relevant here: if the minority language is seen as being only a marker of identity, its chances for sustained use and maintenance are slim. Languages with only an emblematic value risk becoming postvernacular, i.e. not widely used for communication, but viewed as a cultural symbol or object of discourse (Shandler 2006). Although Irish is still used as the daily language of communication in some parts of Ireland, its status has become postvernacular in most parts of the country (Carty 2010). It is important then to strike the correct balance between functionality and symbolism. Although there is some belief that Gaelic forms part of a general sense of 'Scottishness', Gaelic is not an essential part of Scottish identity (Williams 2008). As such, relying on the symbolic value of

Gaelic as a means of increasing Gaelic usage would be unwise indeed. This issue is discussed further in 2.4.3.

2.4.3 Language planning in Wales

May (2001) argues that the Education Reform Act (1988) and the Welsh Language Act (1993) (WLA) have had a very important influence on Welsh revitalization. Under these acts, the use and instruction of Welsh was enshrined in law, and began to be associated with human rights specific to people living in Wales, such as the right to use Welsh in court. This position is an example of legislation supporting linguistic human rights, which give individuals and groups the right to choose the language(s) through which they wish to communicate, in any sphere (see, e.g. Skutnabb-Kangas & Phillipson 1995, Skutnabb-Kangas 2000).

An important aspect of Welsh official language policy is the requirement on public organisations to employ enough Welsh-speaking staff so that business can be conducted entirely through the medium of Welsh if necessary or desired. Of course, without widespread public support, it may not have been possible for the Welsh Assembly to introduce these measures; on the other hand, their introduction has undoubtedly contributed to an increase in adults learning Welsh and to an increase in language use.

Until April 2012, *Bwrdd yr Iaith Gymraeg* — the Welsh Language Board — was the body responsible for enforcing the WLA. Since the introduction of the Welsh Language Measure (WLM) in 2011, however, the board has been abolished. Its responsibilities are now divided between a Welsh Language Commissioner and the Welsh Government. The Commissioner's duties include promoting and facilitating the use of Welsh and ensuring equal treatment for both English and Welsh. The WLM gave official status to Welsh, and provides for the roles of the Language Commissioner and the standardisation of the language. Again we see here that the WLM covers the categories of status, corpus, and acquisition.

There is a strong emphasis on Welsh language learning, both at the stage of formal education and at the level of adult learning. Coupled with encouragement to use the language, this undoubtedly contributes to a strong presence for Welsh.

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The Welsh model of language planning is widely heralded as a success in terms of language maintenance and revitalization. Indeed, BnG's own language planning policies are modelled very closely on those in Wales, indicating the esteem in which language planning there is held. Between 1891 and 1981, there was a steady decline in numbers of Welsh speakers. The 1991 census, however, indicated an increase in speaker numbers which continued until the 2001 census (Jones 2012). The results of the 2011 census indicated a decline in absolute and relative numbers of speakers. Due to the levels of migration to and from Wales, this decline was not altogether unexpected and does not – as some media reports claimed – represent a crisis or turnaround for the language (Williams 2012). We may therefore still look to Wales as an example of a country where language revitalisation has been a success.

But in modelling Gaelic RLS on Welsh RLS, it may be helpful to take into account the differences in the relationship between language and identity in both contexts. As noted in 2.3.2, there is not a strong relationship between the Gaelic language and Scottish identity. Efforts to extend ownership of Gaelic to those outwith its traditional heartlands have led to an increased uptake of Gaelic education services, both at school and adult levels, and the reinterpretation of Gaelic as a cultural asset. Dunmore (2011) argues that changes in the discourse surrounding Gaelic have led to a growing association between the language and national identity, although there remains, however, an association between Gaelic and Highland, rather than national, identity (Oliver 2006; Glaser 2006). Although this is certainly positive for the position of Gaelic as a marker of local identity, it has the potential to cause problems for the revitalisation of Gaelic across Scotland as a whole.

Relating to their policies on status, a Scottish Government statement in 2002 stressed the idea of ownership of Gaelic, arguing for a "comprehensive awareness-raising campaign…to give the wider Scottish population ownership of Gaelic" (Ministerial Advisory Group on Gaelic 2002, in Glaser 2006: 178) (Glaser 2006: 178). The idea of ownership is reiterated in both NPG and NP2:

> The Gaelic language is a unique part of Scotland's national heritage. Gaelic belongs to the people of Scotland…(Bòrd na Gàidhlig 2007: 8)

> Gaelic belongs to Scotland. It is a valuable and enduring part of both Scotland's heritage and current cultural life… (Alasdair Allan, Minister for Learning, Science and Scotland's Languages, in Foreword to Bòrd na Gàidhlig 2012: 4)

As Glaser (2006) observes, the increase in numbers of Gaelic L2 users and the growing presence of virtual *Gàidhealtachdan* (Gaelic heartlands) suggests that ownership of Gaelic is spreading away from those residing in the traditional heartlands. Furthermore, Paterson et al. (2014) report a relationship between support for Scottish autonomy in the 2014 independence referendum and support for Gaelic. These findings suggest that the status of Gaelic as a part of Scottish identity is growing. More widespread ownership of the language, however, does not entail increased use.

In a nationwide study commissioned by the Scottish Government, published in 2011, it was found that 40% of those interviewed (N = 1,009) agreed that Gaelic was an important part of their national identity. Almost the same amount (38%) disagreed, with 21% stating no opinion (West & Graham 2011). A little over half of respondents in this study were in favour of Gaelic usage in Scotland. 9% were against the use of Gaelic. However, a large minority of respondents (38%) had no opinion regarding the use of Gaelic (West & Graham 2011). Cotter et al. (2010) also report very high levels of support for the status of Gaelic from staff and students at the University of Glasgow.

These findings are positive on the whole, and reflect government statements on Gaelic to a certain extent. However, other findings from the same study by West & Graham (2011) were not as heartening. 63% of respondents believed that Gaelic was only relevant in certain parts of Scotland, such as the *Gàidhealtachd*. Furthermore, the authors point out that respondents were not overly in favour of increased use of Gaelic, despite over half stating that they would be in favour of increased visibility of the language. A large proportion of the population are not engaging with Gaelic as a valuable, working language, and even those who are do not display great enthusiasm for continuing to promote its use. While the public may support a high status for the language, this support will not necessarily translate into language use if it is believed that the language itself is irrelevant to the majority of the population.

In a survey of a similar size, Welsh people were asked if they felt there was a need to strengthen the status of Welsh. 59% responded that there was, 35% responded that there was not, while 6% had no opinion (Beaufort Research 2012). Although these questions are not identical, it is clear that there is similar support in Wales and Scotland for the visibility and status of minority languages.

However, the case is somewhat different in terms of language use. Although there are limitations in terms of where Welsh can be used, and with whom, the majority of fluent speakers (87%) have the opportunity to use the language on a daily basis (Welsh Language Unit 2012). This is compared to the 41% of fluent speakers of Gaelic who claimed to use Gaelic "a lot" (West & Graham 2011). Furthermore, 58% of adults who speak Welsh claim to do so fluently, compared to only 15% of adults speaking Gaelic (West & Graham 2011, Welsh Language Unit 2012). Milligan et al. (2011) also reported that Gaelic L2 users in Glasgow do not believe they have enough opportunities to use Gaelic conversationally, indicating that usage on a regular basis may be low. This issue is also prominent in Ireland, where, it was found that widespread support for Irish in the *Gaeltacht* regions did not translate into actual commitment to use or preserve the language (Ó Giollagáin 2012).

While the Scottish and Welsh Governments have similar policy commitments, the community priorities and practices behind these are not identical. This will have an impact on the success of those policies, as even with the best intentions, policies lacking community support are unlikely to succeed (Williams 2012). While Gaelic does have an amount of community support, in practice this does not translate into language use. Given the extent to which Scottish language policies are modelled on those developed for Welsh, it is important to highlight and address any differences in the social context in which they are being implemented.

2.4.4 Language planning in Ireland

The Irish language revival began in the nineteenth century, after centuries of language shift in Ireland from Irish to English (for a comprehensive overview of the history of the decline of the Irish language, see O'Rourke 2011, Ó Giollagáin 2014). O'Rourke (2011) describes language policy and planning in Ireland from

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1922 onwards as being based around the two principles of preservation and restoration. The language was to be preserved in the *Gaeltacht* — the Irish speaking regions — and restored to common use in all other parts of the country, through the education system, and use in the public sector (see also Ó Riagáin 1997).

Corpus planning for Irish was addressed through the publication of an official standard, *An Caighdeán Oifigiúil*, in 1958. This has since become the prestige variety of Irish used in written forms (Ó hIfearnáin 2008, cited in O'Rourke 2011). Irish was established as the main language of instruction in primary schools in the *Gaeltacht*, while being made a compulsory part of the curriculum in all other regions. O'Rourke (2011) argues that this not only made Irish available for acquisition to many more people, but was also an exercise in enhancing the status of the language. Despite calls being made by the opposition party, *Fine Gael*, in 2010 for the removal of compulsory Irish, Irish remains a compulsory part of the curriculum for primary and secondary school.

Two significant Irish language policy schemes have been launched in the 21st century: The Official Languages Act 2003 (OLA), and the *20 Year Strategy for the Irish Language*. The office of *An Coimisinéir Teanga* ('the language commissioner') was established as the means of monitoring the compliance of public bodies with the provisions of the OLA. Two important provisions are the requirement of public bodies to develop language plans, and the requirement for public bodies and government departments to begin to offer all services bilingually, in Irish and English. The resemblance of the OLA to the functions of *Bòrd na Gàidhlig* in the Gaelic context, to be discussed in 2.4, is quite clear.

In 2010, the *20-Year Strategy for the Irish Language: 2010-2030* (Government of Ireland 2010) was launched, with the primary objective of increasing numbers of Irish speakers. Although more long-term than BnG's National Plans for Gaelic, the resemblance between Irish and Scottish language policy is again clear. This strategy supposedly demonstrates the long-term commitment of the Irish Government to the future of Irish (Government of Ireland 2010).

However, Ó Giollagáin (2014) has been extremely critical of Irish language policy, stating that the revitalisation approach has in fact been detrimental to the vitality and status of the language. He argues that

> the underlying intent of [contemporary] legislation is to give institutional support for the marginalization of any remaining collective identity framed in the Irish language in the Irish State and to discourage meaningful interventions from State organs to reverse the sociocultural collapse of its remaining speaker communities in the Gaeltacht. (Ó Giollagáin 2014: 20)

Ó Giollagáin (2014: 25) goes on to suggest that language policy in Ireland is failing the language because of an absence of integration of language planning efforts for L1 and L2 Irish speakers; a lack of focus on improving the socio-economic status of L1 Irish areas; a "deference" to L2 speakers at the expense of L1 speakers; and the assumption and acceptance that English will eventually become the dominant language in L2 and existing L1 communities. This position echoes those reported in Ó Giollagáin et al. (2007), in which the authors call for greater intervention in L1 communities, rather than such a strong focus on L2 communities. This argument relates to Fishman's (1991, 2001b) position that prioritising intergenerational transmission, particularly in L1 communities, is crucial to RLS and should be emphasised over the expansion of the minority language to other domains and communities.

Ó Giollagáin's (2014) position is supported by a number of events in 2014, following a review of the OLA and the subsequent publication of the Official Languages (Amendment) Bill (2014). The review followed a number of public demonstrations across Ireland in 2014, triggered by the decision of the then Language Commissioner, Seán Ó Cuirreáin, to resign for reasons including: the marginalisation of the Irish language in the civil service and government; the inadequate implementation, and low standard of, the language plans of public bodies; and insufficient resources being made available to the Language Commissioner's office for the fulfilment of its duties (Ó Caollaí 2013). A demonstration was also held in protest at the appointment of a new Minister of State for the Gaeltacht who was not proficient in Irish (Conradh na Gaeilge 2014), on the basis that this appointment did a disservice to the Irish language. The Language Commissioner's resignation also sparked criticism by Michael D

Higgins, the Irish President, of the Irish Government's approach to the Irish language. Higgins stated:

> As President of Ireland, I wish to state that, not only am I dismayed, but that I am greatly concerned at the apparent low level of ability to fulfil the rights of citizens who wish to interact through Irish with the State and its agencies. (Michael D Higgins, quoted in Ó Caollaí 2014)

These events have serious implications for Scottish RLS policy regarding Gaelic, and highlight the importance of establishing credible language plans which can facilitate usage in L1 communities. Despite efforts to encourage the development and implementation of Gaelic language plans in public bodies, there is evidence that these are not consistently or effectively implemented (Maclean 2013). The Irish public's response to these events demonstrates that token gestures are insufficient, and reiterate the importance of putting into place language plans that are realistic and achievable (Williams 2012). Indeed, the events in Ireland in 2014 are a clear consequence of Williams's (2013) depiction of a 'mask of piety' approach to language planning, in which strong language policy does not entail any level of implementation.

2.5 Reversing Gaelic language shift

The decline of Gaelic is outlined in section 2.2. In this section, strategies to reverse this decline are presented and discussed, with reference to the theories and examples presented in sections 2.3 and 2.4.

Official language policy towards Gaelic has been supportive since the United Kingdom's ratification of the European Charter for Regional or Minority Languages in 2001. This granted a certain amount of prestige and protection to Gaelic, along with Welsh, Irish, Cornish, Manx, and Scots. Questions have been raised over the actual efficacy of the charter (Dunbar 2003). Nevertheless, its recognition of Gaelic indicated a positive attitude from the UK government towards the language, and most probably played a role in later developments in language policy by the Scottish government.

Gaelic RLS policy began to be implemented under the Gaelic Language (Scotland) Act of 2005. This was the first piece of legislation to formally recognise Gaelic as a language of Scotland, and as a result, a small number of

public authorities are now required to publish Gaelic language plans, ensuring increased visibility and status for the language. This requirement has also seen the development of new terminology to reflect the needs of diverse fields, e.g. the development of *Faclair na Pàrlamaid*, noted in 2.3.

A further result was the establishment of BnG, which has among its obligations the development of National Plans for Gaelic, and the funding of organisations which deliver Gaelic arts and services.

RLS policy in Scotland is based around Cooper's (1989) model of language planning (see section 2.3), and draws on Fishman's (1991) theory of RLS to some extent. RLS policy in Scotland also draws on Strubell's (1998) Catherine Wheel model of language acquisition and use. The Catherine Wheel is a self-perpetuating cyclical model, in which more use of the language in question leads to greater perceived interest in the language, which in turn brings about higher numbers of learners of the language. This, ultimately, leads to even more language use. The Catherine Wheel model, based on the notion of the individual as social being, is presented in figure 2.3.
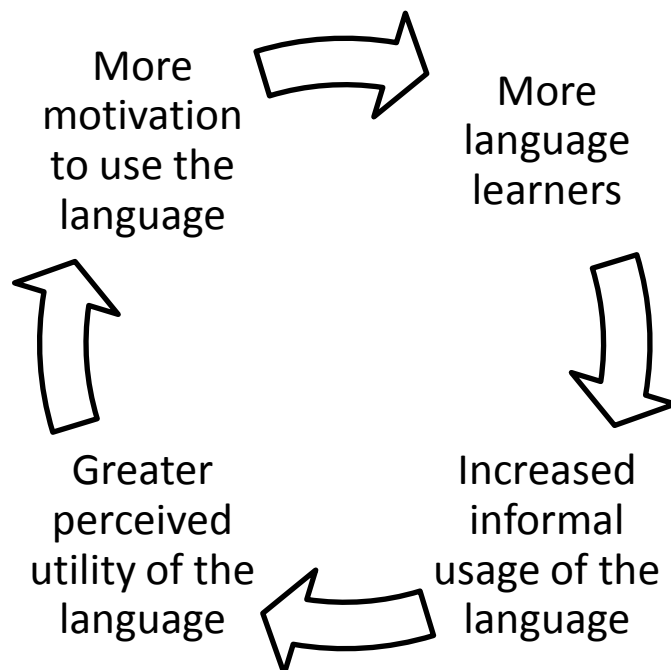
Figure 2.3 - The Catherine Wheel representing the individual L2 language user as a social being, adapted from Strubell (1999: 21)

Similar models exist for the individual as consumer, and the individual as worker (Strubell 1999). Strubell (1998) argues that although the Catherine Wheel is, in theory, self-perpetuating, in practice, it requires regular intervention at every stage in order to function correctly. Walsh & McLeod (2008) and Carty (forthcoming) argue that the model is nonetheless very useful in terms of RLS planning, provided it is adequately supported by authorities.

2.5.1 The National Plan for Gaelic, 2007-2012

A major result of the establishment of BnG was the development of the first National Plan for Gaelic (NPG) in 2007. This was intended as "a blueprint for stabilising and then ultimately increasing the number of Gaelic speakers in Scotland" (Bòrd na Gàidhlig 2007: 9). NPG represented possibly the most concerted government effort at Gaelic revitalisation, with significant funding being devoted to its implementation.

The plan is divided into four sections:

a) Acquisition:

- this refers to both informal first language acquisition (L1A) through intergenerational transmission in the home and formal second language acquisition (SLA)

b) Usage

- NPG states that there is a desire for increased usage of Gaelic in the home, the private sector, the public sector, the media, and the arts

c) Status

- this refers to increasing the prestige and visibility of Gaelic

d) Corpus

- this refers to the development of a Gaelic Language Academy, and an increase in the consistency and accessibility of the Gaelic language

Many public bodies are required by law to develop Gaelic language plans corresponding to each of these four areas. Acquisition is identified as the most important aspect of the revitalisation process.

NPG was heavily modelled on the Welsh national plans for language revitalisation, itself based on the Catalan model, both discussed in 2.4. It is also clear how the NPG relates to Cooper's (1989) and Fishman's (1991) model, as outlined in 1.1.

2.5.2 The National Gaelic Language Plan, 2012-2017

BnG's second plan for Gaelic, the National Gaelic Language Plan (NP2), subtitled "Growth and Improvement" was launched in 2012. The four priority areas of Acquisition, Usage, Status, and Corpus are implicitly carried over into NP2, although this particular structure is no longer used. There is a greater emphasis on acquisition — especially child L1A and SLA — over other priority areas in NP2 than in NPG, and the previous reference to a Gaelic language academy has been completely removed, indicating that there has been a change in policy towards corpus planning.

2.5.3 Have the national plans been successful?

As observed in 2.2, the most recent census results suggest that the decline in speaker numbers of Scottish Gaelic has slowed, and that there has been an increase in the number of speakers under 20. McLeod (2013) argues that the planned increase in numbers of Gaelic speakers expressed in NP2 to 58,652 in 2021 is achievable and that the national plans are slowly fulfilling their purpose.

This success is likely due, at least in part, to the implementation of policies on acquisition. There has been a large increase in provision of Gaelic-medium education (GME), from two primary schools in 1985, to 60 primary schools and one secondary school in 2012 (O'Hanlon, Paterson & McLeod 2013). At the start of 2013, the Scottish Government announced it would provide four million

pounds to "support Gaelic and improve Gaelic schools across Scotland" (The Scottish Government 2013). Three million pounds have been set aside for the development of Gaelic in the area around the Gaelic-medium college, Sabhal Mòr Ostaig. The remaining one million pounds has been allocated to support GME. The Universities of Glasgow, Edinburgh, and Aberdeen have all recently appointed Gaelic Language Officers, responsible for developing and implementing language policy at those institutions. These universities have also published Gaelic language plans, demonstrating their commitment to securing the status, usage, and acquisition of Gaelic on campus. In 2014, BnG and the Scottish Funding Council also committed to investing in the development of a framework for the teaching of Gaelic to adults, to be based on research carried out for this PhD project.

Plans for corpus and status have been implemented with the launch in 2009 of the national research network for Gaelic, Soillse. Soillse is intended to build capacity for academic research on the maintenance and revitalisation of the Gaelic language. The *Dlùth is Inneach* ('warp and woof') project based at the University of Glasgow has investigated the future of Gaelic corpus planning, by working with Gaelic speakers to establish their views on Gaelic language change and development. The results of this project are due to be published in 2014.

Status planning has also been implemented through the development of Gaelic Language Plans by public bodies. This is a legal requirement on public bodies, enforced by BnG. An example of such a plan is the University of Glasgow's Gaelic Language Plan, which aims to improve the visibility of Gaelic throughout the university campus, and facilitate Gaelic acquisition and use across a range of disciplines. The Gaelic Language Plan also intends to impact the wider community, through enabling an increase in adult L2 users from outwith the university, and organising annual information sessions for parents considering Gaelic-medium education for their children.

Despite the potential of the NPG, and the success of the plans in Wales and Catalonia, an over-reliance on strategies previously employed in other contexts, without due consideration of the peculiarities of the Scottish context is likely to cause problems in the implementation of the current and any future plans for Gaelic. These contextual differences are discussed in 2.4.2 to 2.4.4.

Furthermore, Walsh & McLeod (2008) argue that facilitating usage is crucial if any of the other measures taken towards Gaelic are to be successful in the long term.

There are also issues in terms of the effectiveness of Gaelic-medium education. Anecdotally, children at the Gaelic school in Glasgow do not use Gaelic as frequently as one might hope. There is evidence that the Gaelic spoken by these children differs from the Gaelic spoken by school children in traditional heartlands, in terms of both syntax and phonology (Nance 2013, NicLeòid 2014). Whether this is a cause for concern is debatable, but it is nonetheless the case that relying on the school system to teach children Gaelic brings with it its own specific challenges.

Considering then whether the plans for Gaelic are likely to be successful in Williams's (2013) terms, we may have cause for concern. Targets identified in the national plans are not always clear, nor is it clear who should be responsible for implementing each of the suggested strategies. There is no official provision for mid-term assessment of the plans. Finally, although it is stated that attitudes towards Gaelic will be changed, no clear strategies are outlined for doing so. In light of Birnie's (2014) conclusion that over 600 individuals annually would need to become Gaelic speakers in order for language shift to be reversed, the future of Gaelic seems bleak indeed. For this reason, it is crucial to enhance and improve resources for the implementation of policies in order to improve the chances of reversing language shift.

Although the establishment of BnG represents a positive step towards the normalisation of Gaelic, and indicates governmental commitment towards its revival, the danger of complacency and over-reliance on the board must not be underestimated. Although BnG has the power to place requirements on public bodies regarding Gaelic planning, it cannot wave a magic wand to ensure that these are consistently implemented. Leaving the entire revitalisation movement in the hands of one organisation is unlikely to result in widespread societal change, and it is very important that regional authorities and grassroots movements are mobilised for change. Williams (2008) argues that the board should be very careful in its management of public organisations, in order to avoid becoming perpetually responsible for their language plans. An additional

problem is that the promotion of Gaelic outwith traditional heartlands does not entail that Gaelic-speaking communities will develop there.

As such, we should be wary in Scotland of adopting strategies which have been successful elsewhere, without first of all assessing social differences and the likely impact of these policies on actual language use. Differences in terms of language ownership and identity, language prestige, and opportunities for language use will have an impact on the success of plans for any language, including those by BnG.

2.6 Language-in-Education policy

Language-in-Education policy (Language Acquisition Management, or Language Education Policy) is "the process through which the ideals, goals, and contents of a language policy can be realised in education practices" (International Association for Language Education Policy Studies 2013). Following Bratt Paulston & McLaughlin (1994), Language-in-Education policy (LEP) in this study is taken to refer to all aspects of language planning that involve education, and is applicable to formal, school-based language learning, as well as formal and informal learning at any age.

LEP in Scotland is partly the responsibility of the public body Education Scotland. LEP specifically related to Gaelic is also partially the responsibility of BnG, falling under their policies on Acquisition planning. Gaelic LEP lies at the intersection of RLS policy, and education policy.

As outlined in Carty (forthcoming) Baldauf Jr. et al. (2008: 235) divide LEP into eight sub-policy areas[4]:

- Access policy: who studies what languages, at what levels, and for how long;

- Resourcing policy: how to finance LEP;

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[4] As this study focuses on adult L2 users, the discussion which follows will not refer to LEP as it relates to Gaelic-medium education. For further insight into LEP and Gaelic-medium education, see, for example, Milligan Dombrowski et al. (2014) Nicolson & MacIver (2003), and O'Hanlon (2010).

- Curriculum policy: how and by whom curricula are developed;

- Methods and materials policy: what teaching methods and materials are prescribed and implemented;

- Personnel policy: how to manage teacher training;

- Teacher-led policy: the involvement of teachers in decisions about LEP;

- Community policy: the involvement of the community in decisions about LEP; and

- Evaluation policy: the criteria used to measure the impact of LEP

As noted in 2.5.1 and 2.5.2, adult L2 users are considered extremely important in the Gaelic RLS process. To an extent, those responsible for Gaelic LEP have modelled existing practice on practice in Wales and Ireland, discussed in the following sections.

2.6.1 Approaches to the learning and teaching of minority languages for the purposes of language maintenance and RLS

Different approaches to minority language instruction are adopted in different regions: in some, e.g. Scotland, New Zealand and Hawai'i, there is an emphasis on school-based learning. Others focus on adult L2 users. The importance of adult L2 users in language revitalisation efforts has been explored most famously by Fishman (1991, 2001a). Fishman's main arguments on the matter are that as inter-generational transmission decreases, the number of adults learning the language in question must be increased in order to increase the number of speakers overall. This would have the potential additional consequence of encouraging a new wave of inter-generational transmission. The importance of adult L2 users in language revitalisation projects has been highlighted elsewhere by those with an interest in language planning (Baldauf Jr. 2006, Baker 2010). Baker et al. (2011) specifically note the importance of adult L2 users to the revitalisation of languages such as Hebrew, Welsh, Basque, and Maori.

LEP has been implemented as part of RLS policy for other Celtic languages through the development of formal language learning frameworks for adults. With the establishment of Welsh for Adults (WfA) centres in 2006 came a system of certification for language learning, based on the Common European Framework of Reference for languages (CEFR) (cf. section 4.2) and Association of Language Testers in Europe (ALTE) frameworks. *Teastas Eorpach na Gaeilge* (TEG — the European Certificate in Irish) was launched in 2005 and is also based on the CEFR. It has led to the development of specially designed teaching materials for the instruction of Irish and of a certificate in Teaching Irish to Adults, thus ensuring high standards of quality in the field of Irish for adults. In sections 2.6.2 and 2.6.3, these frameworks are presented and discussed.

2.6.2 Welsh for Adults

The WfA programme is responsible for teaching Welsh to an average of 18,000 adults per year (Welsh for Adults Review Group 2013). The programme is built around the WfA framework, which is aligned with the national framework for qualifications in Wales, the ALTE framework and also the CEFR.

The WfA programme is strong in terms of access policy, resourcing policy, curriculum policy, and personnel policy. Solid evaluation policy ensures regular reviews of the programme (e.g. Mac Giolla Chríost et al. 2012, Welsh for Adults Review Group 2013). In addition Mac Giolla Chríost et al. (2012) argue that WfA has been very successful so far, and that this can be attributed to teacher-led and community policies, which ensure that the resources for teaching and learning, and the structure of the programme, are appropriate and well-developed (see also Welsh Assembly Government 2011).

2.6.3 Teastas Eorpach na Gaeilge

In order to improve the implementation of access, curriculum, methods and materials, and personnel policies in relation to the learning of Irish by adults, TEG was launched in 2005.

TEG is also aimed at expanding domains of use of Irish for L1 speakers: L1 speakers can participate in classes which will help them develop their writing skills without requiring them to cover grammar points and vocabulary of which

they already have native knowledge. The Irish model demonstrates that improving LEP and its implementation can serve speakers of all levels.

TEG has so far experienced great success, having been awarded the European Language Label in 2006 for its contribution to improving adult learning opportunities in Irish. The number of test takers at all levels has increased since the first TEG exams in 2005, as table 2.5 shows:

Level/Year	2005	2006	2007	2008	2009	2010	2011	2012
A1	14	57	80	132	144	142	149	133
A2	7	10	121	114	107	85	78	71
B1[5]	n/a	21	34	115	144	184	99	59
B2	n/a	4	19	35	50	65	100	129
Total taking exams	21	92	254	396	445	476	426	392

Table 2.3 – Numbers of individuals taking TEG exams between 2005 and 2012. Data from NUI Maynooth Language Centre (2012a, b, c, d).

Despite an overall decline in participant numbers from 2010, it is important to recognise that since then, the number of participants taking exams at level B2 has increased. This suggests a larger number of more proficient Irish speakers, although similar data from level C1 would be needed to confirm this hypothesis. In any case, it is clear that developing and implementing policies for adult L2 users of minority languages has been a popular strategy in RLS, both among governments, and citizens.

2.7 Gaelic adult LEP

To date, progress in maximising numbers of adult L2 Gaelic users and ensuring high proficiency has been slow. Heavy investment has been made into researching and promoting Gaelic learning at all levels, with a number of studies supported by BnG into provision for L2 users at all life stages (Galloway 2010, McLeod, Pollock & MacCaluim 2010, O'Hanlon, McLeod & Paterson 2010). Funding and resources, however, have tended to be directed towards Gaelic in education, particularly education before tertiary level (McLeod, Pollock &

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[5] In 2005, tests were offered only at levels A1 and A2.

MacCaluim 2010). This is despite strong statements made in both national plans for Gaelic on the value of adult L2 users; in NPG adult acquisition of Gaelic was identified as a priority area:

> adult learning is critical. Not only will adult learning increase the number of people who are fluent and literate in Gaelic, but … it increases the likelihood that more children will begin acquiring the language in the home (Bòrd na Gàidhlig 2007: 21)

Fishman's influence on this policy is very clear. In NP2, adult education is again identified as a priority, although a much larger proportion of NP2 is devoted to Gaelic-medium education. BnG state that by 2017, numbers of adult Gaelic users will have increased by 50%, to 3,000. This increase will be achieved by implementing new policies regarding access and curricula (Bòrd na Gàidhlig 2012). The plan does not specify how these goals will be carried out, or who will be directly responsible for the fulfilment of these goals. By Williams's (2013) standards, the plan may be difficult to implement.

Four important studies have addressed LEP in relation to adult L2 users of Gaelic. The studies themselves are outlined in sections 2.7.1 to 2.7.4. Their implications for this study are discussed in 2.8.

2.7.1 Feumalachdan Luchd-ionnsachaidh

The first major study of provisions for and the needs of Gaelic L2 users, *Feumalachdan Luchd-ionnsachaidh* (The needs of learners — hereafter *Feumalachdan*), was carried out in the early 1990s (Comunn na Gàidhlig & Comunn Luchd Ionnsachaidh 1992).

Gaelic tutors and L2 users who responded to the study expressed concern over methods and materials, and personnel policies, and indicated that a national resource centre for the teaching and learning of Gaelic would be useful in this respect. The report's authors indicated most respondents had not any experience of teaching Gaelic. A significant proportion of tutors suggested that they found the mixed levels of ability in their classes problematic. Tutors further complained of a lack of resources, and agreed that a system of certification for students, particularly in terms of oral ability, would be useful.

When asked their views on how Gaelic learning might be facilitated, respondents to *Feumalachdan* argued that there was a greater need for immersion courses, contact with native speakers, spelling reform, conversation classes, and content classes such as Gaelic music or place-names. Students also indicated that local groups and a national centre for learning would be valuable tools in progressing to fluency. Importantly, *Feumalachdan* reports that most students were satisfied with their progress in Gaelic. Students were also asked to self-assess for their own levels of proficiency. The majority of respondents reported being at beginner level. A "handful" stated that they were fluent (Comunn na Gàidhlig & Comunn Luchd Ionnsachaidh 1992: 5, Section II).

The authors of *Feumalachdan* conclude: "Provision for adult Gaelic learners is fragmented, lacks co-ordination and needs a more structured approach" (Comunn na Gàidhlig & Comunn Luchd Ionnsachaidh 1992: 65, Section II). Recommendations on the findings of *Feumalachdan* were published along with the report in 1992. These recommendations have not all been implemented, and similar problems still exist for tutors. Recommendations that have been implemented since the publication of *Feumalachdan*, as well as the implications of *Feumalachdan* for this study, are outlined in 2.8.

2.7.2 MacCaluim (2007)

MacCaluim's (2007) was the first study to explore the importance of adult L2 users to Gaelic RLS. This study was based on the responses of over 600 participants to a survey asking about their political affiliations, Gaelic learning experiences, opportunities for Gaelic use, and opinions on Gaelic. The survey was distributed to participants in Scotland, and a further 22 countries spanning four continents.

Most participants based in Scotland reported having a basic to intermediate command of Gaelic in terms of the four language skills *speaking, understanding, reading,* and *writing*. These findings are similar to those obtained for *Feumalachdan*, and as with the results from *Feumalachdan*, the interpretation of these results is somewhat problematic. This is because there is no way of ascertaining what the terms *fluent, advanced, intermediate,* and *basic* actually meant to those participating in the survey. However, the results do give some

impression of self-perceived ability in Gaelic, and suggest that most participants did not see themselves as highly proficient. The implications of low proficiency in productive skills in particular are important, as they necessarily affect the extent to which the language is used.

Although a statistical analysis is not available, MacCaluim (2007) reports on observations made by many respondents in Scotland regarding the Gaelic learning process. Students were concerned by the limited range of learning materials, and the fact that those available were more tailored for beginners than other levels. A small number of participants expressed concern with the quality of tutors. A quarter of participants cited a lack of resources, mixed-ability classes, inconsistent Gaelic orthography, and personal reasons such as lack of time to commit to language learning as key problems in their Gaelic learning. These issues are almost identical to those reported in 1992 by respondents to *Feumalachdan*. They also highlight the relationship between LEP and corpus planning.

Discussing his findings in light of Fishman's theory of RLS, MacCaluim argues that although adult L2 users could contribute to RLS due to high levels of motivation and support for the language, the language learning infrastructure was not adequate, and overall levels of proficiency were not satisfactory for the future of the language.

2.7.3 McLeod et al. (2010)

McLeod et al. (2010) expanded on these points in their report on the learning of Gaelic by adults based on a survey of over 200 Gaelic adult L2 Gaelic users. The authors describe in some detail the importance of adult L2 users to the Gaelic revitalisation effort. As does NPG, they highlight that adult L2 Gaelic users will increase speaker numbers and potentially help improve intergenerational transmission. However, they point out a number of additional ways in which adult learners can contribute to language revitalisation. Adult L2 Gaelic users can:

- fill Gaelic-related job vacancies;
- expand the range of skills and roles within the Gaelic employment market;
- increase demand and uptake of Gaelic services; and

- increase numbers of supporters of the language (McLeod, Pollock & MacCaluim 2010).

This highlights the importance of adult L2 users and their relationship to the Catherine Wheel model. It also emphasises the relationship between acquisition, usage, and status.

Of course, these achievements are based on the assumptions that adult L2 Gaelic users become highly proficient. The authors found that only 5% of respondents reported advanced or fluent levels in productive skills. 37% of respondents described themselves as beginners. There was a slight increase on MacCaluim's (2007) figures regarding the goals of adult L2 users, in that 75% of respondents reported aiming to become fluent. However, a higher percentage, 10-15%, also reported satisfaction with basic communication skills.

When asked to identify any obstacles to their learning, over half (54%) of respondents stated that they believed their learning was hindered by a lack of opportunity to interact with other Gaelic speakers. Time commitments, cost, lack of publicity, and the inherent difficulty of Gaelic were also cited as obstacles by many respondents. Respondents were largely positive towards learning resources and the learning infrastructure, although 8% complained about the availability of classes at a suitable level, and the lack of consistency in course structure.

These positive attitudes towards the Gaelic learning infrastructure are obviously extremely important, and McLeod et al. (2010) attribute these to improvements in the range of books such as textbooks and dictionaries for L2 Gaelic users, and developments in online learning resources since 1992. Nonetheless, the authors argue that the strength of Gaelic provision is not up to the same standards as that for Welsh and Irish, and that provision for Gaelic in Scotland "tends to be fragmented, patchy, uncoordinated, poorly promoted, inadequately funded and often lacking in professional rigour" (McLeod, Pollock & MacCaluim 2010: 54). Here, there is another example of how the Welsh and Gaelic contexts differ, and it seems obvious that without the same standard of provision for L2 Gaelic users, we cannot expect to be as successful as those involved in Welsh language

revitalisation. These are serious criticisms, which should be addressed if positive attitudes towards Gaelic learning are to be maintained and enhanced. Furthermore, if the authors are correct in their evaluation that positive attitudes can be attributed to enhanced learning resources, it will be very important to continue to develop and improve existing resources.

Based on their findings, and a BnG statement that centres offering "excellence in Gaelic acquisition opportunities" should be established (Bòrd na Gàidhlig 2010: 11, in McLeod, Pollock & MacCaluim 2010: 54), the authors argue for the establishment of Gaelic for Adults centres modelled on the WfA centres in Wales, and the teaching programmes employed there. They argue that

> Combined with increased funding, improved progression of courses, and upgraded tutor training, such a network of centres could make a real difference to [Gaelic for Adults] provision in Scotland (McLeod, Pollock & MacCaluim 2010: 56).

The report criticises the current state of classes and provisions for adult Gaelic L2 users on the basis that, despite the designation of levels such as 'beginner' and 'intermediate', there is no clearly defined and commonly agreed way of describing and measuring Gaelic L2 proficiency. Furthermore, with no way to establish proficiency, the success of these courses abilities cannot be empirically and objectively assessed. They recommend a system for certification based on TEG.

They go on to report that, despite recommendations since the 1990s that a certification system for Gaelic tutors be developed, no such system yet exists. This reflects findings by MacCaluim (2007) and Pollock (2008), who found that a lack of qualified tutors was of concern to their participants. The development of a learning framework would likely be of significant benefit in tutor training, as it would help provide structure to a course aimed at developing teaching skills. McLeod et al. (2010) also found that 37% of respondents would be motivated to learn Gaelic by the ability to obtain a qualification in the language.

2.7.4 Milligan et al. (2011) – Gaelic in Glasgow

On a local level, Milligan et al. (2011) have investigated adult Gaelic learning specifically in Glasgow. On the basis of survey data, they provide an evaluation

of different course types. A number of different strengths for all course types were identified, which include flexibility in course scheduling (private classes), quality assurance for teaching materials (Ùlpan — see section 2.7), and social networking opportunities (informal conversation classes). However, a number of courses shared common weaknesses, involving a lack of tutor training and a specific language learning pathway. These weaknesses indicate wider problems in LEP. The authors of the report recommend improved communication between tutors so that cohesion between courses led by different individuals can be improved. They also recommend that Glasgow City Council take measures to support learning, through the improved structuring of courses.

93% of the 161 respondents to this questionnaire stated that they wished to learn Gaelic to fluency. These figures are higher than those noted in previous studies, and reflect the continuing trend that adult L2 users are keen to become fluent in Gaelic. However, as in MacCaluim (2007), the numbers of adult Gaelic L2 users who actually reported high levels of ability are disappointing, with only 9% reporting spoken fluency, and 35% each reporting beginner or lower-intermediate skills in speaking. Similar figures were obtained for the other language skills, listening, reading, and writing. Again, these results should be analysed with caution, due to the nature of self-assessment in language ability and the fact that there was no objective measure to describe these abilities to participants in that study.

As in MacCaluim (2007) and McLeod et al. (2010), some adult L2 users criticised the teaching abilities of their tutors, and Milligan et al. (2011) note that many tutors are untrained native speakers, with no awareness of language pedagogy. Although 53% of respondents were happy with their tutors, this leaves a lot of room for improvement. While some native speakers undoubtedly do make good teachers, the absence of any cohesive means of teacher training for classes other than Highers[6] and Ùlpan is problematic.

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[6] The Scottish Highers are a set of qualifications, usually taken by final year high school students, or those wishing to gain entrance to a university. They are available at high schools and Further Education colleges. However, the Highers are general qualifications, and individuals may choose to study them for any purpose, not just those relating to formal education.

Respondents to Milligan et al. (2011) also reported difficulty in finding classes of an appropriate level, and in which there was consistency in the abilities of those participating in the class. Mixed-ability classes were common, which can make instruction difficult, even for the best teachers, and can hamper individuals' learning.

They conclude that despite these shortcomings, the quality of provisions for adult L2 of Gaelic in Glasgow is, in fact, very high. What is needed then is not a complete overhaul of what already exists, but rather a re-assessment of what is, and what is not, suitable.

2.8 Current provision for Gaelic L2 users

The fact that the same issues have been raised time and again for the last 20 years is a major cause for concern. It *suggests* that official commitment to Gaelic has been weak, and statements about the importance of adult L2 Gaelic users have been largely tokenistic. However, there is evidence to suggest the implementation of language-in-education policies towards adult L2 users is improving. This section addresses the implementation of Gaelic LEP for adults.

The biggest effort towards adult learning has focused on Ùlpan. Since its launch in 2007, Ùlpan courses have gained popularity, with over 1,000 participants to date. These courses are operated by a private company, and have enjoyed support from BnG as one of the primary means of teaching Gaelic to adults. Ùlpan is based on the successful Ulpan programme designed in Israel in the 1950s so that immigrants could quickly learn Hebrew, and the popular Welsh model, Wlpan. Ùlpan is particularly strong in terms of access, curriculum, methods and materials, and personnel policies. However, as Ùlpan is run by a private company, BnG has no input or control over any of these policy areas.

But there is as yet no evidence that Ùlpan is successful as a means of Gaelic instruction. Furthermore, a crucial reason for the ongoing success of Ulpan in Israel and Wlpan in Wales is that students have the opportunity to use the language they have learned in natural settings outwith the classroom. Those learning Gaelic do not have the same opportunities, especially in the lowlands.

There is now a move away from Wlpan as the primary means of Welsh instruction (Emyr Davies, Welsh for Adults examinations officer at WJEC, personal communication). Moreover, the need to integrate Wlpan with other teaching methods and more opportunities for language use has been emphasised in a way that has not yet been addressed in Scotland (Morris 2000). As such, emphasising Ùlpan above almost all other means of teaching Gaelic to adults requires serious reflection.

In 2012, a number of public criticisms were made of Ùlpan, which suggested that it was not achieving its ultimate aims and that further spending was to be discouraged (Alexander 2012). In the same year, BnG also admitted that its original goal for Ùlpan, i.e. that 1600 speakers would have completed all units by March 2012 was unrealistic. However, BnG also indicated that 2000 more individuals had taken up Gaelic using the Ùlpan method (Ross 2012). Despite the fact that fewer people had completed all units of Ùlpan than expected, its popularity among adult L2 Gaelic users should be applauded, and BnG's investment in Ùlpan demonstrates its commitment to providing adults with the opportunity to study Gaelic without having to travel to the *Gàidhealtachd*, using methods that have a proven track record elsewhere and which are enjoyable, a feature which may enhance motivation. Finally, the very structured nature of Ùlpan could appeal to those who believe learning could be improved by more consistency in courses and better course organisation. The extent to which Ùlpan has been successful in meeting its goals has been assessed, although the results of this study are not yet available.

These plans for the assessment of Ùlpan have coincided with the publication of a research report investigating the development of a CEFR-style framework for the learning of Gaelic by adults (Munro et al. 2012). Furthermore, as noted in 2.2, BnG has allocated funding for the development of a framework based on research in this thesis which can describe adult L2 proficiency. BnG's investment in these projects indicates their willingness to explore Gaelic provision and assessment from a number of different perspectives. It also demonstrates that Gaelic adult LEP is improving and developing.

2.9 This study

This study recommends the establishment of a framework for the teaching and learning of Gaelic to adults, modelled on the CEFR. A data-driven approach to such a framework is advocated, i.e. the development of a framework based on analysis of corpora of the speech of Gaelic L2 users (cf. Carty forthcoming). This procedure would be in line with models such as the English Profile (see, e.g. Harrison & Barker, forthcoming; www.englishprofile.org), or those suggested by Fulcher (1996).

Carty (forthcoming) argues that a framework for Gaelic should reflect current Gaelic usage patterns, recognise the status of Gaelic as a minority language, and emphasise both communication and formal language. Such a framework may facilitate language learning, and could address the problems identified in previous studies of Gaelic learning by adults, particularly in relation to curriculum, methods and materials, and evaluation policies.

While the studies presented in 2.7 provide some insight into LEP relating to Gaelic RLS, and the experiences and motivations of adult L2 users (McLeod, O'Rourke & Dunmore 2014b - see chapter 3) have been investigated, almost nothing is known about the SLA process as it relates to adult L2 users of Gaelic, nor do there exist empirically validated descriptions of adult L2 proficiency. Furthermore, there has been insufficient research addressing the pedagogic cycle of needs analysis, identification of learning outcomes, materials and assessment development, and applications of proficiency descriptors to language assessment. The practical value of this study then is that a means of measuring and describing adult L2 Gaelic can be developed, and the needs analysis stage of the pedagogic cycle addressed. While contributing to theories of second language acquisition, this study also serves as a pilot for a large scale study examining adult L2 Gaelic. Ultimately, these studies can help resolve the issues identified in adult Gaelic LEP, and potentially contribute to RLS.

2.10 Summary

This chapter has provided an overview of the rise and decline of Gaelic since the fifth century. Theories of language policy and reversing language shift were

presented in sections 2.3 and 2.4. These theories were discussed in relation to Catalan, Welsh, Irish, and Gaelic. Language-in-education policy was introduced in 2.6 as an aspect of language policy also relevant to this study. It was argued that LEP regarding Gaelic is closely related to Gaelic RLS. Studies examining the learning of Gaelic by adults were presented and discussed in relation to Baldauf Jr. et al.'s (2008) taxonomy of LEP. Finally, the intended long-term aims of this project were identified.

3 Differences in adult L2 Gaelic users' learning experiences: the main variables

3.1 Chapter overview

In their survey of adult L2 users of Gaelic in Glasgow, Milligan, Chalmers & Danson (2011: 30) describe the "typical adult learner". This individual

> can be of either gender or any age (although there do tend to be a few more learners aged 25-34). The typical learner is actively involved in Gaelic courses and may use multiple course providers. This person uses Gaelic at home in passive ways, by watching television or listening to the radio, and when on the internet and they may participate in some cultural activities like ceilidhs.

But although individual second language (L2) users may share some common characteristics with the "typical learner", in reality, individuals and their experiences learning Gaelic differ on a number of fronts.

These differences are examined in this study using the following variables:

- motivation for learning Gaelic
- formal learning background
- opportunities for using Gaelic
- beliefs about language learning and learning strategy use
- confidence

This is not an exhaustive list of all potential variables that could be examined in a study such as this. Age, for example, is another important factor in the L2 user experience (see 3.1.1). However, these particular variables have been chosen for this study because it was considered that they could give the clearest insight into the experiences of the 16 participants as L2 users while remaining within the realms of practicality. Practicality refers to the extent to which the available resources can meet the demands of the project or language test being conducted (Bachman & Palmer 1996). This chapter provides a theoretical framework from which to examine the experiences of the Gaelic L2 users in this study.

Chapter 3

Motivation to learn Gaelic is included as a variable in this study for two reasons:

1. adults' reasons for learning Gaelic were established in MacCaluim (2007) and Milligan et al. (2011), and as a result, it is appropriate to establish the motivation of participants in this study;

2. language learning motivation has been very widely investigated, and has been demonstrated to play an important role in SLA: its inclusion as a variable in this study is a reflection of its importance to SLA research as a whole (see section 3.2).

Dörnyei's (2005, 2009) L2 Motivational Self System is adopted as the main theoretical framework for the analysis of motivation in this study. This is because the range of learning experiences among participants lends itself to detailed qualitative analysis useful for testing Dörnyei's model.

The amount and type of exposure participants have had to Gaelic is also investigated. Like most adult L2 users of Gaelic (see chapter 2), the participants in this study have experienced a wide range of classes and learning opportunities. Formal learning background is included in order to demonstrate these experiences, and to compare the experiences of participants in this study with those in, e.g. MacCaluim (2007) and Milligan et al. (2011).

Beliefs about language learning have been found to have an effect on the types of strategies learners employ when studying an L2 (see section 3.5). Because of the problems in the formal learning infrastructure identified by Gaelic L2 users (see chapter 2), it was of interest to establish the techniques participants employ to facilitate their own learning in order to overcome the perceptions of the limitations of formal Gaelic instruction.

Self-perceived ability in Gaelic has been used as a measure of proficiency in three of the four major studies into adult Gaelic SLA: Comunn na Gàidhlig & Comunn Luchd Ionnsachaidh (1992), MacCaluim (2007), and Milligan et al. (2011). It is considered pertinent to examine the self-perceived ability of the participants in this study. The validity of Gaelic L2 users' self-reports of proficiency was also explored by Wells (1997), but has not been examined in any

published study since; this study provides an opportunity to re-examine those findings.

Section 3.2 introduces theories of motivation, including Dörnyei & Ottó's (1998) process model of L2 motivation, and Dörnyei's (2005, 2009) L2 Motivational Self System. In section 3.3, research into different types of learning background is presented and discussed. Section 3.4 introduces work on the opportunities learners have to use their TL, and the idea of language learning as a situated social practice. Section 3.5 addresses beliefs about language learning and the use of learning strategies. Finally, section 3.6 presents research in relation to confidence as an affective variable in second language acquisition (SLA).

3.1.1 A note on age

As explained in chapters 1 and 2, this study focuses exclusively on individuals who started learning Gaelic as adults. Despite the ongoing debate about the nature of maturational constraints in SLA and the importance of this question to much SLA research, these are not investigated in this study: a major issue when examining age effects is the separation of issues caused by age and maturational constraints from those associated with other individual factors (Marinova-Todd, Marshall & Snow 2000, Moyer 2004, Rothman & Guijarro-Fuentes 2010, DeKeyser 2012). Although this issue is important, the potential for complications and inconclusive findings on the basis of age as a variable is such that the inclusion of age as a factor in this study would not be a valuable exercise, given the small number of participants (16), and the broad range of ages of participants (ages 19-75).

3.2 Motivation

Motivation has been argued to be an extremely important aspect of language learning success (e.g. Gardner & Lambert 1972, Gardner 1980, Dörnyei 2005). Gardner's Socio-Educational Model of Second Language Acquisition (Gardner 1985, 2001) was the "dominant motivation model" in SLA research for a number of decades (Dörnyei 2005: 71). Research into this theory is usually based on the Attitude/Motivation Test Battery (AMTB - Gardner & Smythe 1981, Gardner 1985), a questionnaire used for research into motivation in the language

classroom focusing on motivation, integrativeness, attitudes towards the learning situation, language anxiety, and instrumentality. The AMTB remains a popular tool in motivation research, although it has been criticised on theoretical and practical grounds (cf. Ellis 2008 for a thorough overview of such criticisms). One such criticism is by Dörnyei (2005) who argues that the Socio-Educational Model — and, by extension, the AMTB — does not distinguish between the state of feeling motivated, and behaviours that arise from motivation. Dörnyei & Ottó (1998) address this distinction in their Process Model of Motivation, presented in 3.2.1. Furthermore, it has been argued that motivation is not static, and, in fact, changes over time, depending on individuals' circumstances (e.g. Dörnyei & Ottó 1998, McLeod, O'Rourke & Dunmore 2014b).

Integrative motivation has been the most widely researched type of motivation, but its definition and relation to language learning success has not always been clear (Dörnyei 2005, Ellis 2008). Instrumental motivation results from the perceived concrete benefits that L2 learning might result in, e.g. improved employment prospects or high test scores. Integrative motivation relates to the learner's desire to participate in and identify with the target language (TL) community. Moreover, while the AMTB originally presented integrative and instrumental motivation as two separate constructs, it has been argued that it may be more appropriate to consider these as related, particularly in foreign language contexts.

Ellis (2008) following Dörnyei (2005), argues that integrative motivation is in fact composed of three constructs:

a) integrativeness, e.g.
   - desire to integrate with the TL community
   - interest in foreign languages
   - attitudes towards the TL community
b) attitudes towards the learning situation, e.g.
   - attitudes towards the teacher
   - attitudes towards the language course

c) motivation, i.e.

- the effort the learner is prepared to put into language learning

- the desire they have to learn the language

- their attitude towards L2 learning

This conception of integrative motivation is clearly broader than the desire to integrate with a community.

Furthermore, in a minority language context, language and cultural revitalisation may also be important motivating factors (MacCaluim 2007), a position for which the Socio-Educational Model cannot account. Finally, MacCaluim (2007) notes that the most important single motivation for Gaelic learning among his respondents was the desire to keep Gaelic alive, with 25.8% of respondents citing this as their primary motivation, and 92.9% stating that it was an important reason for their learning Gaelic. Similarly, Wright & Kurtoglu-Hooton (2006) report that an interest in the TL community in Turkey is key to language maintenance among a Turkish-speaking community in Birmingham. It is clear from both studies that resisting or reversing language shift are important motivational variables in minority language, or lesser-spoken language, contexts.

These findings can be related to Ushioda's (2006) position on the political dimensions of language learning motivation. Ushioda (2006) observes that the traditional dichotomy of integrative/instrumental motivation has often been applied to the language choices of users of minority languages, with the argument that integrative motivation is behind the decision to use the minority language, while instrumental motivation is behind the decision to use the majority language (usually English). However, Ushioda (2006: 158) states:

> when our concern is with the experience of the individual language learner and user, it is clear that the politics of motivation relate not simply to questions of language choice but also to the day-to-day processes of engagement with language learning, language use and social context. Crucially, these processes of engagement do not just involve the individual L2 learner/user but directly implicate those with whom the L2 learner/user endeavours to interact.

This argument is of clear importance in the Gaelic context, particularly for L2 users based outwith the *Gàidhealtachd*. Participation in an imagined community

— i.e. a community based on a perceived connection with people outwith one's immediate social networks (Pavlenko & Norton 2007) — may be a source of motivation for many, but others may also wish to engage with real communities.

Dörnyei (2005, 2009) criticises the concepts of integrative and instrumental motivation, arguing in particular that integrative motivation "does not have any obvious meaning" in foreign language contexts in which the language learner may not have access to an L1 TL community (Dörnyei 2009: 24). He also claims that in an increasingly globalised world in which there are ever-growing numbers of speakers of World Englishes, a learner might not even have a clear concept of who the TL community is. On the basis of these criticisms of integrative motivation, Dörnyei (2005, 2009) has developed the L2 Motivational Self System, discussed in section 3.2.2.

Anya (2011) argues that Dörnyei's (2009) position on the diminished importance of integrativeness motivation is flawed, as no matter their location or the amount of contact they have with TL speakers, learners still have communities with which they wish to engage, and TLs on which they model their speech. Following Pavlenko & Norton (2007), Anya (2011) concludes that imagined communities should not be overlooked as important sources of motivation for learners (see also section 3.4.2, and imagined communities of practice). This seems of particular relevance to Gaelic, given the high numbers of L2 users who reside outwith traditional Gaelic-speaking areas (see chapter 2). L2 users of Gaelic nonetheless have clear goals with regard to their learning, as is discussed in chapter 9. Similar findings were obtained by McLeod et al. (2014b).

Previous research into adults' motivation for learning Gaelic has shown that the traditional idea of instrumental motivation is not very important for adult L2 users. Milligan et al. (2011) report that only 25% of their respondents agreed with the statement "Learning Gaelic is important for my career". Although 44.7% of MacCaluim's (2007) respondents stated that they believed Gaelic would be useful for employment, only 3.95% of respondents stated that this was their primary motivation for learning Gaelic. 2.9% of MacCaluim's (2007) respondents also stated that their primary motivation for learning Gaelic was that their children were attending Gaelic-medium education (11.25% stated that this was

an important motivation): although this is not an instrumental motivation per se, it reflects these parents' instrumental desires for their children's learning.

3.2.1 The process model of motivation and the L2 Motivational Self System

Dörnyei & Ottó's (1998) process model of motivation was developed in order to describe motivation as a "dynamically evolving and changing entity" (Dörnyei & Ottó 1998: 44), rather than as static and fixed. The authors argue that given that language learning is usually a long process, it is more reasonable to conceive of motivation as flexible and responsive to changes in individuals' circumstances and beliefs. The model contains three phases: the preactional phase, the actional phase, and the postactional phase, each of which is further divided into sub-phases. These are presented in 3.2.1.1. Each phase is motivated by different motivational sources: those discussed here are the sources of motivation identified in Dörnyei's (2005, 2009) L2 Motivational Self System, presented in 3.2.2 and 3.2.3.

3.2.1.1 The process model of motivation: Motivational phases

The preactional phase

The preactional phase refers to the time during which the language learner sets goals for learning, specifies their intentions for learning, and initiates the learning process.

Goal setting may be the result of hopes and/or desires, or may come about due to the opportunity for language learning presenting itself. Dörnyei & Ottó (1998: 49) define 'goals' as "the first concrete mental representations of a desired endstate". A goal may be very broad, e.g. "I would like to learn Gaelic." Specifying goals is followed by the specification of intentions. Learners' intentions differ from their goals in that on specifying intent, they have made a commitment to learning, rather than simply considering the idea of doing so. An example of intention specification might be finding out where and when Gaelic courses are available. Having committed to learning, the learner then develops an "action plan" which will help them realise their goal. The action plan may include activities such as signing up to a class.

The preactional phase can only lead to the actional phase if the learner has the necessary resources for learning and has reached their start condition, e.g. the condition in which the financial or time resources necessary for learning are available.

The actional phase

The actional phase comprises the stages of subtask generation and implementation, an ongoing appraisal process, and the application of action control mechanisms.

Having developed their action plan, the learner then generates and implements subtasks to break down the general goal, e.g. "I would like to learn Gaelic", into more manageable, concrete goals, e.g. "I would like to learn how to introduce myself". During the appraisal process, the learner reflects on their progress and how well their current and possible situations will serve them in fulfilling their goals. The action control sub-phase is used by learners to ensure that distractions or other impediments (e.g. poor performance on a class test) do not negatively impact the fulfilment of their goal.

The postactional phase

After achieving their language learning goal, or taking a break from learning, the learner evaluates their performance on the actional phase and considers future actions. The learner develops causal explanations for why the results were obtained the way they were. At this point, the learner may dismiss the original goal, and form a new one, thus restarting the cycle from the preactional phase.

3.2.2 The process model of motivation: Motivational influences

Dörnyei & Ottó outline a number of "*motivational influences* that fuel the actional sequence" (1998: 51 - italics in original). These motivational influences are influences drawn from other research into language learning motivation. They influence each phase of the actional sequence. They include traditional notions of instrumental and integrative motivation, along with subjective values, i.e. the "collections or internalised perceptions, beliefs, and feelings related to who one is in the social world" (Dörnyei & Ottó 1998: 53); the perceived potency

of the goal, i.e. the learner's perception of how likely it is that their goal will be realised; environmental stimuli, such as opportunities for learning and the expectations of others; degree of self-regulation; distracting influences; and perceived consequences of not taking action. In 3.2.3, the relationship L2 Motivational Self System is introduced as the system of core motivational influences behind language learners' behaviour.

3.2.3 The L2 Motivational Self System

Following Dörnyei & Ottó's (1998) model, Dörnyei (2005) developed the L2 Motivational Self System, made up of three dimensions: the Ideal L2 Self; the Ought-to L2 Self; and the L2 Learning Experience. The L2 Motivational Self System expands Gardener & Lambert's (1972) theories of integrative and instrumental motivation: as outlined in 3.2.1, Dörnyei (2005, 2009), while acknowledging their benefit, is critical of such models on the basis that the concepts within do not adequately reflect motivation, nor are they based on other psychologically-rooted studies of motivation. The L2 Motivational Self System is also partially based on psychological theories of possible selves, which represent

> the individuals' ideas of what they *might* become, what they *would like* to become, and what they are *afraid of* becoming (Dörnyei 2009: 11 - italics in original).

Dörnyei (2009) cites Higgins's (1987, 1996) self-discrepancy theory as the process through which an individual goes about bridging the gap between their actual self and their possible selves.

The L2 Motivational Self System also addresses the impact the language learning environment has on learner motivation, given that

> motivation to learn a language [may come] from successful engagement with the actual language learning process (Dörnyei 2009: 29).

The L2 Motivational Self System model encompasses three dimensions: the Ideal L2 Self, the Ought-to L2 Self, and the L2 learning experience. These are now addressed in turn.

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The Ideal L2 Self

This relates to a learner's preconceived notion of the kind of person they would ideally like to be, and the attributes that they would most like to have associated with themselves. The Ideal L2 Self works as a motivating factor, due to the individual's desire to bridge the gap between their actual self, and their ideal self. This dimension comprises integrative and internalised instrumental types of motivation. Csizér & Dörnyei (2005) report that highly motivated language learners tend to have a very strong sense of their Ideal L2 Self.

The Ought-to L2 Self

This refers to the learner's sense of duties, obligations, and responsibilities, and the attributes they believe they *should* possess to avoid negative outcomes, including a failure to meet one's own and others' expectations. As such, unlike the Ideal L2 Self, the Ought-to L2 Self is rooted in negativity. This dimension comprises external instrumental types of motivation, and extrinsic motivation.

The L2 learning experience

This refers to "situation-specific motives related to the immediate learning environment and experience" (Dörnyei 2005: 106). Learning experiences can influence learners' motivation to continue learning, as well as their self-perceptions. The ideal and ought-to L2 selves should be viewed in relation to the learner's actual self, i.e. the attributes and abilities they believe they currently possess. These types of motivation relate to a process in language learning, through which learners seek to reconcile the difference between their actual selves and their ideal and ought-to selves. However, Dörnyei (2009) notes that the L2 learning experience, while related to the actual self and possible future selves, is conceptualised at a different level: the L2 learning experience may shape the ideal and ought-to selves, or may influence the behaviours in which a learner engages to develop the attributes of these selves.

The Ideal L2 Self and the motivational importance of the L2 Learning Experience have found considerable empirical support. Anya (2011) explores the

relationship between language learning and the L2 Motivational Self System, arguing that

> learners first imagine themselves as target language users and then work towards the realization of this future self as their abilities, interactional possibilities, and perspectives change (Anya 2011: 443).

This position is very clearly related to the concepts of the Ideal L2 Self and the L2 learning experience. The process-oriented approach to motivation, which recognises motivation as a changing concept which is reassessed at different stages of learning is also visible here. Anya (2011) shows a clear relationship in this study between the pre-actional and actional phases in the process model. It is also clear how the L2 Learning Environment impacts on the Ideal L2 Self and the steps taken by learners to reduce the discrepancies between their actual and ideal selves.

Ueki & Takeuchi (2013) report that different learning environments can influence the development of Ideal L2 Selves by Japanese English as a Foreign Language (EFL) students. The authors argue that those students majoring in English who would have the opportunity of studying abroad were likely to have a clear sense of their Ideal L2 Self. Those students not majoring in English, who had fewer opportunities to use the language, were less likely to have specific goals in relation to their English learning. As such, the authors argue that these participants did not have a clear sense of their Ideal L2 Self. Those students in a position to develop a clear vision of their Ideal L2 Self (i.e. those majoring in English) were found to be more motivated to continue learning and to develop practices allowing them to become autonomous learners; those whose learning environment did not facilitate the development of Ideal L2 Selves (i.e. those not majoring in English) were less motivated to continue learning. These findings echo those reported by Csizér & Dörnyei (2005) and Kormos & Csizér (2008).

In one of the few studies drawing conclusive findings about the Ought-to L2 Self, Papi & Abdollahzadeh (2012) observed that Iranian EFL students with low motivation to engage with English learning had a stronger sense of Ought-to L2 Self than those highly motivated to engage with English learning. It appears that while the Ideal L2 Self is an encouraging factor for learners, the Ought-to L2 Self is in fact discouraging. It is possible that the sense of obligation that comes with

the Ought-to L2 Self serves to discourage learners, while the sense of personal fulfilment that comes with the Ideal L2 Self serves to encourage and motivate learners. Papi & Abdollahzadeh (2012) attribute this finding to learner anxiety, arguing that anxiety has previously been found to have a negative correlation with motivation related to the Ideal L2 Self (Noels, Clément & Pelletier, 1999, cited in Papi & Abdollahzadeh, 2012). This finding echoes those reported in Papi (2010).

As noted in 3.2.1, the phases of the process model are influenced by different types of motivation. All three of the dimensions of the L2 Motivational Self System can affect the phases of the process model. The ideal and ought-to L2 selves can have a clear influence on the preactional and actional phases, as learners takes steps to resolve these selves. But the L2 learning experience can also impact the considerations and decisions made, in particular at the appraisal sub-phase of the actional phase, and the postactional phase. As such, there is no one-on-one mapping between L2 selves and the process model: rather, each dimension of the L2 Motivational Self System interacts in complex ways with each phase of the process model.

As noted in 3.1, some researchers conceive of 'motivation' as a fixed variable, rather than a flexible condition that may change over time in relation to learners' goals, experiences, and outcomes. The models outlined in this section have the benefit of reflecting this flexibility, and also do not presuppose any particular learning outcome: rather, they recognise that individuals may change over time, and that a variety of factors may contribute to any one individual's language learning process. Rather than assuming a linear relationship between, say, intrinsic motivation and grammatical accuracy, the models presented in this section recognise that motivation is subject to re-evaluation, and that any outcome is likely to be the result of a range of factors.

In a study of Australian university students' motivation to learn Mandarin, Campbell & Storch (2011) found some support for the L2 Motivational Self System and the Process Model of Motivation. The authors observe that their participants' motivation changed over the course of the academic year. Participants' initial goals were based on the Ideal L2 Self image as a member of an international, multilingual workforce. This goal led them to the actional

phase, in order to realise their Ideal L2 Selves. Positive experiences of the L2 learning environment encouraged participants to continue learning Mandarin: this may be interpreted as the L2 learning environment's impact on the appraisal sub-phase of the actional phase. Interestingly, the authors found that while not all experiences of the learning environment were positive, participants avoided demotivation by distancing themselves from the unsatisfactory experience: in other words, they blamed decreased motivation on the learning environment, and by not accepting this as an attribute of themselves personally, were able to overcome it. The authors also suggest that the steadiness of participants' ideal L2 selves motivated them to continue learning, even when experiences were less than ideal (see Norton 2000 and investment in language learning). This finding seems to be relevant for Gaelic: Milligan et al. (2011) report that although many respondents to their study were dissatisfied with aspects of the Gaelic learning infrastructure, they were also satisfied with their progress and keen to continue learning. This may be because they recognised that slow progress was the result of factors other than their own personal efforts in language learning. Although not explicitly based in the L2 Motivational Self System model or the Process Model of Motivation, Negueruela-Azarola (2011) similarly reports that changes in the Ideal L2 Self and in motivation to learn were strongly related to the L2 Learning Experience of one learner of Spanish.

Kormos & Csizér (2008) observed age-related differences in EFL learners' motivation. The authors relate this to theories of identity at different life stages: the teenage years are important in terms of identity formation, and identity is very fluid and changeable at this life stage; university students have a clearer sense of self, but their identities are still flexible; adults' sense of self, however, is usually fixed, so the Ideal L2 Self "needs to be adjusted to their already crystallised self-image" (Kormos & Csizér 2008: 346). The study lends support to the idea of the Ideal L2 Self, but the authors observed only weak relationships between the Ideal L2 Self and the concept of integrativeness. They recommend that integrativeness be explored as a construct distinct from the Ideal L2 Self. Kormos & Csizér (2008) also argue that participants' beliefs about English as an international language appeared to influence their sense of L2 self, a finding supported by M Lamb (2012). This may be relatable to Gaelic L2 users' beliefs about Gaelic as a minority language, and the desire to reverse language

shift, as noted in 3.2. Such an observation does not surface in Dörnyei's (2005) or Dörnyei & Ottó's (1998) model. Moreover, Kormos & Csizér's (2008) results raise the question of whether learners' L2 learning experiences can really be conceived of as a separate construct to the Ideal L2 Self. However, given that the Motivational L2 Self-System is closely tied up with the process model of motivation, this may not be cause for concern: the L2 learning experience will continually influence the Ideal L2 Self through the ongoing process of appraisal at the actional stage, as confirmed by, e.g. Campbell & Storch (2011). In observing that the Ideal L2 Self and the L2 learning experience are very closely related, Kormos & Csizér (2008) in fact lend support to the Process Model of Motivation.

The Process Model of Motivation and the Motivational L2 Self System are used in this study to analyse the data gathered from participants about their learning experiences and backgrounds. In the following sections, research exploring language learning experiences and backgrounds is presented and discussed.

3.3 Formal learning background

3.3.1 Amount of exposure to Gaelic

While four of this study's participants had spent time living in the *Gàidhealtachd* and making use of Gaelic in their everyday lives, all 16 participants initially learned Gaelic through formal instruction. A number of studies on adult SLA have aimed to discover whether or not the environment in which the TL is learned (i.e. naturalistic or instructed) has an effect on ultimate success. Naturalistic environments are those in which the L2 is normally used in everyday communication settings, e.g. at work, or while shopping. Instructed environments are those in which learners are taught the L2. One of the key studies comparing naturalistic and instructed SLA is Pica (1982, 1983). In comparing the success of adult learners of English (L1 Spanish), she found that while the route of acquisition was identical for learners in both settings, the rate of acquisition differed significantly: learners in a naturalistic setting learned more quickly than their peers in instructed settings. These results suggest that learning environment does not have an effect on an adult's *potential* to master an L2 (see also Howard 2008), but that it can affect the rate of acquisition.

However, issues have been raised regarding the comparability of results of studies focusing on the different results of instructed and naturalistic learning settings (Múñoz 2008), particularly with regard to the amount of exposure to the TL that learners receive in each environment: learners in naturalistic environments will necessarily be exposed to more input than those in non-naturalistic settings. Simon & D'Hulster (2012) observe that exposure and experience in a foreign language environment (i.e. an environment in which the TL is not the normal language of everyday communication, e.g. first language speakers of English learning French in Scotland) are qualitatively different to exposure in a naturalistic environment. Exposure is the amount of contact a learner has with their TL. Simon & D'Hulster (2012: 270) define experience with the TL in foreign language environments as the "amount of formal instruction and (non-)naturalistic exposure". It is this definition of experience that is adopted here.

A great deal of the research into degree of exposure compares child and adult learners, (e.g. Jia et al. 2006, Isurin & Ivanova-Sullivan 2008), or includes bilingual first language acquisition (e.g. Baker & Trofimovich 2005). However, it is not always the case the child language acquisition is included in such studies: Year (2009) found that total amount of exposure was a more important factor than intensity of exposure to the TL for Korean learners of English learning the ditransitive construction. In addition, Siyanova & Schmitt (2007) found that the length of time for which a learner is in a naturalistic TL environment can affect acquisition: in their study, learners of English who had spent over 12 months in an English naturalistic environment used more multi-word verbs than learners who had spent fewer than 12 months in similar settings. They also found no significant differences in results for learners who had spent fewer than 12 months in an immersion setting and those who had only received exposure to English in a formal, foreign language environment. This finding is of particular relevance to this study, as immersion exposure to Gaelic may often take the form of courses of one year or less.

In chapter 2 it is explained that Gaelic language teaching to adults is unregulated and that teachers are not always trained in methods of language instruction. Because of this, it is difficult to assess the effectiveness of L2 instruction in the Gaelic context. As Gaelic L2 users have usually attended a

range of courses and have been taught by a number of different teachers, it is almost impossible to control for type of exposure to the TL. Qualitative analysis of L2 users' learning experiences can nonetheless deepen understanding of the ways in which L2 users relate to different learning settings. Learning experiences are included in this study so as to understand the relationship participants have to language learning, and to explore the relationship between learning environment and participants' success in meeting their Ideal L2 Self.

3.3.2 Methods of language instruction

Despite Pica's (1982, 1983) finding that learners in naturalistic settings learned faster than those in instructed settings, there is also evidence that formal instruction can speed up the rate of SLA (Doughty 2003), depending on factors including the number of hours of exposure provided, and the particular type of instruction.

Language instruction varies from context to context, however. Gaelic language courses are often based around form-focused instruction, i.e. instruction designed to focus attention on some specific formal aspect of the L2 to facilitate its being learned. Form-focused instruction can be further classified as explicit or implicit instruction: explicit instruction draws attention to a linguistic rule, encouraging learners to develop a metalinguistic understanding of that rule (DeKeyser 1995); implicit instruction, meanwhile, is designed in such a way that learners can infer rules without "concurrent awareness of what is being learned" (DeKeyser 1995: 380).

Explicit instruction may be approached through focus on form, i.e. instruction which

> overtly draws students' attention to linguistic elements as they arise
> incidentally in lessons whose overriding focus is on meaning or
> communication. (Long 1991: 45-6)

A further approach to explicit instruction is focus on formS (Long & Robinson 1998), in which particular structures or lexical items are the main content on which classes are based. Implicit methods of teaching may focus on meaning, in

which no explicit emphasis on form or structure takes place: learners are taught to communicate, and learning of structures takes place incidentally.

Long (1988) argues that a focus on form is likely a crucial feature of second language instruction in many instructed settings. This argument seems to have been supported by Norris & Ortega's (2000) meta-analysis of 49 studies of the effectiveness of different methods of L2 instruction. Norris & Ortega (2000) observed that the operationalisation of focus on form and focus on formS in the studies they analysed was not consistent, and that the wide range of effect sizes calculated for the studies suggests that research examining these methods would benefit from replication. They also noted that individual differences among the learners participating in each study, as well as classroom characteristics, could influence the outcome of the studies themselves. They nonetheless conclude that

> the current state of empirical findings indicates that explicit instruction is more effective than implicit instruction and that a focus on form and a focus on forms are equally effective. (Norris & Ortega 2000: 501)

The authors observe, however, that the manner in which many tests in their study were carried out favoured explicit treatment, such that the effectiveness of implicit instruction was not actually tested to the same extent. Similarly, Doughty (2003) has challenged the validity of the measurements of language proficiency in these studies.

Norris & Ortega (2000)nonetheless remains the most comprehensive exploration of the effectiveness of different instructional types. Findings since that time have confirmed that explicit instruction has a beneficial effect on learning (Loewen & Philp 2006, Lewandowski 2007, Akakura 2012), and that explicit focus on formS is an effective means of grammar instruction (Erlam 2003, Toth 2004).

Nevertheless, DeKeyser (2003, 2005) argues that there should be greater focus on how different instruction types affect different elements of language. Spada & Tomito (2010) explore this issue in a meta-analysis of studies investigating the effects of explicit and implicit instruction on the acquisition of simple and complex grammatical features of English. 30 studies were included in the final

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meta-analysis, and the authors conclude that explicit instruction was more beneficial for both simple and complex features. Although they note some issues in the studies they examined in terms of definitions of *simple* and *complex*, they observe that their findings are supported by Robinson (1996), de Graaff (1997), and Housen et al. (2005).

Ellis (2008: 290) argues that

> natural settings are likely to enhance oral fluency and pragmatic ability, (while) educational settings will lead to higher levels of grammatical knowledge.

Focus on form, focus on formS, and focus on meaning instruction can be carried out through a range of different approaches, presented in table 3.1.

Approach	Primary Characteristics	Type
Grammar Translation	• Instruction is carried out in the learner's L1 • Grammar and vocabulary are learned by rote • Emphasis on translation from the L1 to the L2, with little focus on communication	• Explicit, focus on formS
The Direct Method	• (Almost) exclusive use of the L2 in the classroom • Language is taught by using objects, mime, other visual aids, and through the use of authentic texts in the TL • Emphasis on spoken communication and pronunciation	• Implicit, focus on meaning
The Audiolingual Method	• Exclusive use of the L2 in the classroom • Language is learned through the use of drills, repetition, role play, and word replacement activities	• Implicit, focus on meaning

Communicative Language Teaching (CLT)	• Language is learned through classroom interaction, including role play, pair-work, and games	Any combination of: • Explicit, focus on form • Implicit, through the use of input flooding • Implicit, focus on meaning
Task-based Language Teaching (TBLT)	• Often considered to be a sub-category of CLT • Learning takes place through the performance of tasks which require the use of specific language forms • The tasks are supposed to have a non-linguistic outcome, e.g. the expression of an opinion, or the gathering of information	Any combination of: • Explicit, focus on form • Implicit, focus on meaning
Content and Language Integrated Learning (CLIL)	• Learning the L2 takes place through the studying of another subject	• Implicit, focus on meaning

Table 3.1 - Approaches to language teaching, derived from Ellis (2008) and Thornbury (2006)

Gaelic courses currently available often incorporate different aspects of several approaches to language instruction: university Gaelic courses may use elements of Grammar Translation, the Audiolingual approach, CLT, and CLIL; short courses at the Gaelic college — Sabhal Mòr Ostaig — make use of aspects of the Direct Method and TBLT; immersion courses at Sabhal Mòr Ostaig use elements of TBLT and CLIL; Ùlpan classes are taught exclusively through Audiolingual methods.

Considering the effectiveness of different types of instruction, Ellis (2005b, a, Ellis, Erlam & Sakui 2006), has proposed ten principles of instructed language learning. Language instruction should:

1. ensure that learners develop a "repertoire of formulaic expressions and rule-based competence";

2. ensure that learners focus on meaning over form;

3. ensure that learners do focus on form to some extent;

4. develop implicit knowledge of the TL, in part through a focus on explicit language instruction;

5. consider L2 developmental sequences;

6. ensure the learner is exposed to a large amount of high quality input;

7. provide the learner with opportunities for output of what they have learned;

8. provide the learner with opportunities to interact in the TL;

9. take into account individual differences between learners; and

10. examine free as well as controlled instruction in any assessment.

Although these are principles rather than definitive instructions, they are based on extensive literature reviews of research into SLA theory and pedagogic practice, and represent what has been found to be best practice at the time of writing in instructed SLA. However, because Gaelic courses are not regulated or required to adhere to particular standards or learning pathways, little is known about how effective they are, and the extent to which they are based around best practice principles is uncertain.

Furthermore, the reported high numbers of Gaelic teachers for adults who do not have formal training (see chapter 2) means that many teachers are not instructed in different methods of, and approaches to, language teaching. With a lack of exposure to principles of language teaching, Gaelic teachers may instinctively adopt the approach used by teachers of their own in learning other languages, or may employ methods they personally believe to be effective. This puts both teachers and learners at a disadvantage, as best practice and research findings cannot be incorporated into the classroom, unless by chance, through a teacher's professional experience, or through their being trained in teaching another language.

In addition, as observed by Milligan et al. (2011) and MacCaluim (2007), most adult L2 users of Gaelic do not attend only one type of class, and may have experience of a variety of courses, e.g. a university course, Ùlpan, and a short

immersion course. All these courses may contribute differently to any individual's proficiency, as may the interaction of the effects of different course types. This study does not directly address the relationship between learning experiences and proficiency, due to the variety of learner experiences and the small sample size. The study does, however, aim to show that participants adopt a variety of methods in their attempts to meet their Ideal L2 Selves, and to confirm earlier findings that most adult L2 users of Gaelic take more than one approach to learning. For this reason, it is important to include descriptions and qualitative analyses of the types of exposure participants in this study have had to Gaelic.

3.4 Opportunities for using the target language

The effects different learning environments and instructional settings may have on language learning were discussed in section 3.3. This section, however, focuses on the kind of incidental practice that takes place through informal language use, or the use of the TL in the workplace. Given that Gaelic L2 users in the Scottish central belt have limited exposure to Gaelic outwith the classroom, their opportunities for informal language use and informal practice may be especially important. The participants in this study are all based in and around Glasgow, and all report making the effort to engage with other Gaelic users, despite constraints on time and financial resources (see chapter 9). All participants can therefore be said to participate in communities of practice within wider Gaelic social networks. Gaelic social networks are comprised of individuals who share an interest in Gaelic language and culture. Gaelic communities of practice are made up of people within these social networks who make active use of Gaelic on a regular basis.

3.4.1 Language learning as situated social practice

The analysis of language learning rooted in social practice has developed from Lave & Wenger's (1991) approach to learning, in which new knowledge develops from the changing relationships between individuals within a community. Within this framework, members of a community of practice (CoP) can help newcomers become full participants in that CoP through the sharing of knowledge. This takes place through a process of legitimate peripheral participation, a type of

"engagement in social practice that entails learning as an integral constituent" (Lave & Wenger 1991: 35). Norton & Toohey (2001: 310) report that this approach is based on Vygotskyan theories of social context and learning, stating that they

> approach the explanation of the success of good language learners on the basis of their access to a variety of conversations in their communities…

Thus, a learner's participation in a CoP helps them to develop new knowledge which can, in turn, be passed onto and shared with other newcomers.

CoP and SLA has been explored in the classroom context (e.g. Toohey 2000, Leki 2001, Morita 2004, Yashima & Zenuk-Nishide 2008, Soto Gordon 2010) and also the professional sphere (Casanave 1998, Flowerdew 2000, Casanave 2002). These studies have shown that there is a positive correlation between language development and proficiency and integration with a real or imagined CoP. Similarly, Norton & Toohey (2001) argue that successful language learning is dependent to a significant extent on the success with which a learner can engage with the target community, and to how well they can express their identity within that community.   Hourdequin (2012), however, argues that there is a need for further research of this kind in a foreign language setting. Two studies addressing this kind of engagement with the target community are Haneda (1997, cited in Hourdequin 2012) and Yashima & Zenuk-Nishide (2008); these studies both reported benefits to language proficiency of integration with a CoP in a foreign language classroom setting. These studies are particularly important in light of Anya's (2011) argument presented in 3.2, that imagined communities can have a beneficial effect on learners' motivation to meet their Ideal L2 Selves.

3.4.2 Situated social practice and Gaelic learning

Opportunities for Gaelic use outwith the classroom may fall under the category of second language learning as situated social practice, in which L1 and L2 Gaelic users engage with networks of other users: anecdotally, the Gaelic-speaking community in Glasgow is a very important setting in which situated social practice can take place, not only through personal relationships, but also

through the organisation of events specifically for the purposes of using Gaelic, e.g. a monthly Gaelic pub quiz and ceilidhs organised to encourage the use of Gaelic in an informal cultural setting, as noted in chapter 2. The *Gàidhlig @ Oilthigh Ghlaschu* scheme, described in chapter 2, also offers a Gaelic Language Residency Scheme which gives highly proficient Gaelic users the opportunity to live together in a Gaelic environment. The Residency Scheme is a particularly strong example of the development of social networks and communities of practice to encourage regular Gaelic use in informal settings.

In addition, the recognition of, and inclusion in, a CoP such as that of Gaelic speakers in Glasgow may influence L2 Gaelic users' perceptions on ethnolinguistic vitality and language prestige, which could in turn enhance their language use and ability, as predicted by Strubell's (1999) Catherine Wheel model.

It is worth exploring then whether or not the CoPs with which Gaelic L2 users engage have any effect on their language learning experience. Although the participants in this study have learned Gaelic through different methods (see section 3.3 and chapter 9), they all share the common experience of being part of a Glasgow Gaelic CoP.

3.5 Beliefs about language learning

Following Benson & Lor (1999), Ellis (2008) notes that learner beliefs about language learning may be categorised as quantitative/analytic or qualitative/experiential. Quantitative beliefs include the notion that learning a language is based on the learning of grammar rules and vocabulary through translation from the L1 or memorisation; qualitative beliefs include the idea that language learning involves learning to listen and speak in the L2 through paying attention to context and practising with other speakers. It is likely that although learners may lean towards one set of beliefs over the other, both may play a part in their language learning.

Tanaka & Ellis (2003) and Ellis (2008) note, however, that despite a range of studies addressing what learners' beliefs are, where they come from, and how they may change depending on context, few studies have explored the

relationship between learner beliefs and language learning. Those studies that have examined this relationship have not demonstrated that beliefs are related to learning or proficiency. On the relationship between beliefs and proficiency, Ellis (2008: 703) concludes

> If beliefs do impact on learning it is likely that they do so indirectly by influencing the kinds of learning strategies learners employ.

This claim is supported by Zhong (2012) who reports a positive relationship between improvements in L2 competence and changes in use of strategies: the latter were dependent on changes in learners' beliefs about SLA (see also Wen & Johnson 1997).

3.6 Use of language learning strategies[7]

Language learning strategies (LLSs) are defined here as "Activities consciously chosen by learners for the purpose of regulating their own language learning" (Griffiths 2008: 87). Research into the use of LLSs by successful L2 learners has been conducted since the 1970s, with the argument that LLSs used by successful learners should be taught to less successful learners in order to improve the skills of the latter (e.g. Rubin 1975, Stern 1975).

In Tragant, Thompson & Victori (2013), the authors report a factor analysis of a questionnaire previously employed to ascertain the LLSs used by Catalan-speaking learners of English (Tragant & Victori 2012). On the basis of this factor analysis, they divide LLSs into two types:

1. Skills-based deep processing strategies, which include
   - Evaluating language produced to check for errors and to ensure there were no breakdowns in communication
   - Deducing grammatical rules from language produced or received
   - Recognising structural patterns in the input and output
   - Inferring meaning from context when watching television, listening to the radio, and reading

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[7] Dörnyei (2003a, Dörnyei & Skehan 2003) argues that 'learner self-regulation' is a more suitable concept and description of the way learners employ techniques to further their learning. However, because this phrase has not been as widely used or adopted as 'learning strategies', it is not used in this study.

- Monitoring language produced to check for errors and to ensure no breakdowns in communication
- Selective attention
  - Taking notes on grammar
- Studying grammar
- Consulting dictionaries

2. Language study strategies, which include
   - Practice of language studied in class through completing grammar exercises, and repeating lexical items and structures heard
   - Rehearsal of vocabulary by writing it out and memorising it
   - Taking notes on grammar points

Tragant, Thompson & Victori (2013) argue that these categories are the most suitable, at least in their EFL context, for categorising LLSs, and indeed, the fact that their findings are based on a survey of almost 2,000 learners lends credibility to their claim. Furthermore, there is extensive overlap between these categories and the LLSs identified by others, e.g. Oxford (1990), and O'Malley & Chamot (1990). For this reason, these LLSs are also included in this study.

A third category of LLS is also included, following O'Malley & Chamot (1990), Oxford (1990), and Griffiths (2003): social and interactive strategies. These include clarification requests, conscious attempts to relax when speaking, engagement with the TL culture, and practice with other language users with the clear intention of improving language ability. Previous research has not incorporated any analysis of Gaelic L2 users' use of learning strategies, so the inclusion of this analysis here is timely. Moreover, it is shown in chapter 9 that the participants in this study report using social and interactive strategies that do not appear to be included in the taxonomy provided by Tragant et al. (2013).

Learning strategy research has addressed the issue of LLS use by learners at different levels of proficiency, and has identified relationships between LLS use and higher proficiency (e.g. Naiman et al. 1996, Daniel 2003, Griffiths 2003, Gan, Humphreys & Hamp-Lyons 2004, Hong-Nam & Leavell 2006, Magogwe & Oliver 2007). But Bialystok (1981) argues that while LLS may be useful in

language learning, there is no clear evidence that their use affects proficiency. Although this argument was made over 30 years ago, little evidence has come to light since showing a causal relationship between use of learning strategies and overall language proficiency. Similarly, Gan, Humphreys & Hamp-Lyons (2004), caution against over-emphasising the relationship between LLS use and proficiency, arguing that other factors, such as learning environment and affective variables like confidence and motivation may have a more important influence (cf. also Nisbet, Tindall & Arroyo 2005, Hong-Nam & Leavell 2006, Magogwe & Oliver 2007).

In addition, McDonough (in interview with Archibald 2006) points out that there may be a difference in how effectively strategies are used by lower and higher proficiency learners: in other words, it is important to make learners aware of *how* to use strategies, rather than just inform them of their existence . However, there is no evidence that Gaelic teachers instruct their students in the use of LLSs.[8] This is despite the evidence for the beneficial effects on language learning of strategies-based instruction (see, for example, Mizumoto & Takeuchi 2009, the meta-analysis by Plonsky 2011 of research on this topic).

With no published empirical studies into the LLS use of adult L2 users of Gaelic, and considering the part that LLSs play in language learners' experiences, it is important to understand what strategies L2 Gaelic users employ, and whether or not they believe them to be of benefit. In doing so, the way may be paved for further research into the relationship between Gaelic LLS use and proficiency.

3.7 Confidence

Confidence in this study is operationalised in two ways: a learner's willingness to take risks when speaking with an interlocutor, and their self-perceived ability in Gaelic. This measure was considered important because anecdotally, anxiety in spoken interaction with more proficient L2 users and native speakers is a barrier to many L2 users' opportunities to use Gaelic, and because although self-

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[8] One participant in this study, Amanda, a Glasgow-based language teacher, is an exception to this generalization. She reports spending two classes at the start of each course on informing those in the class about learning strategies and guiding them as to their use. Indeed, during Amanda's interview, when the researcher mentioned some of the difficulties encountered when learning Gaelic, Amanda devoted some time to explaining how one particular strategy might improve the learning experience.

perceived ability has been measured in other studies on Gaelic adult SLA (e.g. MacCaluim 2007, Milligan, Chalmers & Danson 2011), very little research has confirmed the reliability of these self-ratings.

3.7.1 Willingness to take risks

Willingness to take risks in L2 use is generally considered under the umbrella of extroversion/introversion, where extroverts are more likely to take risks when using their L2, and introverts are less likely to do so (Ellis 2008). Following Ely (1986), Zafar & Meenakshi (2012: 37) argue that willingness to take risks manifests itself through:

1. a lack of hesitancy about using newly encountered language;
2. willingness to use complex language;
3. tolerance of potential incorrectness when speaking;
4. tendency towards silent rehearsal of newly encountered language before producing it for the first time.

Although willingness to take risks is considered an important factor in SLA, relatively few studies have examined the relationship between risk-taking and L2 proficiency. Ely (1986) found that willingness to take risks had a positive effect on university students' participation in a Spanish L2 classroom, but only a weak relationship between risk-taking and language learning success. On the other hand, willingness to take risks has been observed to be related to L2 proficiency among university students. Some studies have shown a relationship between willingness to take risks and general L2 proficiency (e.g. Samimy & Tabuse 1992, Van der Walt & Dreyer 1997), while Ghoorchaei & Kassaian (2009) found a statistically significant relationship between risk-taking and accuracy in the speech of Iranian EFL learners; a relationship between risk-taking and fluency was also established, but this did not reach statistical significance. More research into the effects that willingness to take risks may have on proficiency would be useful. The nature of the sample size in this study and the study design do not facilitate the examination of the relationship between proficiency and willingness to take risks. But willingness to take risks may be an important factor relating to learning experiences and L2 use opportunities. For this reason, it is included as a variable in this study.

3.7.2 Self-assessment

Self-assessment is included as a confidence variable on the basis that how a learner perceives their abilities may be a reflection of their confidence and self-belief (see, for example, MacIntyre, Noels & Clément 1997).

In the only study of its kind for Gaelic, Wells (1997) established a positive correlation between Gaelic L2 users' self-perceived proficiency in reading and objective measures of proficiency. These findings are supported by Wilson & Lindsey (1999), and Kang & Kim (2012), who found that Korean heritage learners' self-assessments of their spoken and written proficiency strongly correlated with objective measurements.

However, in his meta-analysis of self-assessment studies, Ross (1998) reports that findings for self-assessment of spoken proficiency may be complicated by differences in the construct being assessed (i.e. learners may be assessing Communicative Adequacy, while the formal test may be designed to assess grammatical accuracy). He also argues that, in contrast to their assessment of other skills, "learners are actually less adept at estimating their own speaking skills" (Ross 1998: 8). MacIntyre, Noels & Clément (1997) observed that while learners' self-assessed proficiency correlated with objective measures, more anxious learners tended to underestimate their proficiency, while more confident learners tended to overestimate theirs. This indicates that some caution is required when accepting learners' self-assessments for different measures. On the basis of a longitudinal study of 28 EFL learners, Chen (2008) argues that learners should be trained in self-assessment techniques, which may help to overcome some of the issues reported by Ross (1998) and MacIntyre et al. (1997). Training in self-assessment techniques is also sometimes used when learners of English are preparing for the IELTS test, so that learners can assess the extent to which their own writing meets the target criteria and develop a greater understanding of what further work they may need to do. It is unlikely that such training occurs in the Gaelic context. As the means to self-assess have not yet been developed for Gaelic, the findings of this study will provide the basis of a tool for doing so.

There has also been found to be a relationship between learners' self-perceived ability and self-perceived efficacy as learners and their use of LLSs: the higher a student's self-perception, the more they used strategies (Oxford & Nyikos 1989, Purdie & Oliver 1999, Wharton 2000). As use of strategies is a variable included in this study, this issue can be explored in relation to adult L2 users of Gaelic.

3.8 Summary

In this chapter, the variables used in the study to address differences in participants' experiences have been presented and justified. These are motivation, formal learning background, opportunities for using Gaelic, beliefs about language learning and learning strategy use, and confidence. Dörnyei & Ottó's (1998) Process Model of L2 Motivation, and Dörnyei's (2005, 2009) have been presented as the tools for analysis of these differences in experience. By understanding the experiences and motivations of Gaelic L2 users, we may gain insight into the experiences of minority language L2 users in general, and better understand the challenges L2 users of Gaelic face, as well as the experiences that facilitate their learning. The qualitative analysis of these factors presented in this study can also serve as the basis for further hypotheses on language learning motivation and experience. Although the relationship between learning experience and performance is not directly addressed due to the nature and size of the sample in the study, an appreciation of the diverseness of the participants may help clarify any questions relating to their performance on the Gaelic tasks.

4 The measurement of language proficiency

4.1 Chapter overview

It is stated in chapter 2 that, to date, no studies have been conducted on the cognitive processes involved in adult Gaelic second language acquisition. There is also an absence of empirically-based means of assessing proficiency in second language (L2) Gaelic. A major aim of this study is to develop a useful means of assessing adult L2 Gaelic. A further aim is to establish how proficiency can best be characterised, and what leads speakers to perform the way they do. These questions are addressed from a qualitative perspective in chapters 6 and 10, in which motivation and learning experiences and the relationship of these to proficiency are discussed.

In order to fully understand why speakers perform the way they do, it is important to not only specify a clear means of describing language skills, but also to understand the cognitive processes behind the manifestation of these skills.

Hulstijn (2011: 242) defines proficiency as

> the extent to which an individual possesses the linguistic cognition necessary to function in a given communicative situation…Linguistic cognition is the combination of the representation of linguistic information (knowledge of form-meaning mappings) and the ease with which linguistic information can be processed (skill).

It is clear in this definition that 'proficiency' is that which underlies the ability to function effectively in different situations. The ability to function is manifested through a speaker's perceived ability to communicate, and through measurable aspects of their performance. The aspects of performance discussed here are complexity, accuracy, and fluency. In section 4.2, proficiency is discussed in light of Kormos's (2006) model of L2 speech processing and production. Complexity, accuracy, fluency, and the ability to communicate are discussed in sections 4.3 and 4.4. Finally, in section 4.5, the interaction between these aspects of proficiency is discussed.

4.2 Second language speech production and processing

Kormos's (2006) Bilingual Speech Production Model (BSPM) is adopted as the theoretical framework underlying the analysis of proficiency in this study, as the most robust model of L2 speech production. The BSPM is the mechanism through which linguistic processing takes place, and is based on Levelt's (1989) blueprint of the L1 speaker.

In Levelt's (1989, 1999) model of first language (L1) speech production, speech is produced and processed in different modules: the conceptualiser, where message generation occurs; the formulator, where messages take on syntactic, morphological, phonological, and phonetic form; and the articulator, where messages are prepared for speech.

Each module draws on stores of knowledge, which include: episodic memory, where life events and episodes are stored; semantic memory, where lexical concepts, lemmas, and lexemes are held; and the syllabary, where "gestural scores" for syllable production are stored.

The conceptualising process generates the preverbal message. Levelt (1989) argues that the conceptualiser requires controlled processing: the speaker is aware that they are engaging in message generation, and is in control of the message they are generating. The conceptualiser therefore requires the speaker's overt attention. Controlled processing is usually relatively slow due to the amount of attention required. The other processing components, according to Levelt (1989) are largely automatic, i.e. they can perform their duties without conscious attention from the speaker.

The output of the conceptualiser — the preverbal message — serves as input for the next processing component: the formulator. At this stage, the preverbal message undergoes grammatical and phonetic encoding: in other words, the preverbal message takes on linguistic form. Once selected, the syntactic properties of a lemma then become available for phrase- and clause-building. Lexical items or chunks are then arranged in the appropriate order within the phrase, leaving the speaker with a surface structure, or "ordered string of lemmas grouped in phrases and subphrases of various kinds" (Levelt 1989: 11).

These utterances are then sent for phonological encoding, during which a phonetic plan for the articulation of each utterance is generated.

The phonetic plan is then articulated and the speaker's message is communicated via overt speech. The speaker can monitor the output of each module to ensure that what is being produced matches their original intentions in speaking. Monitoring takes place through three feedback loops. The first compares the preverbal plan to the speaker's intentions at the conceptualiser stage. The second is the prearticulatory loop, which checks the outcome of phonological encoding. The third is an external loop which takes place after articulation. That which is articulated is compared to the original concept in the conceptualiser, to confirm that speech produced reflects the speaker's intentions. Monitoring is an automatic process, and occurs in parallel with other processes.

Each processing component, while related to those on either side of it, is autonomous, in that it does not share processing capacity with other components, and functions independently. Processing is incremental, i.e. articulation cannot begin prior to formulation, which, in turn, can only begin following conceptualizing. However, because of the autonomy of each processing component, it is possible for parallel processing to occur: in this way, the next processing component can start work even when the output of the current processing component is incomplete. As Levelt (1999: 89) puts it, "When we are uttering a phrase, we are already organising the context for the next phrase."

The reader will have noted that a central tenet of Levelt's model is that most of the modules operate automatically, i.e. their processes are "executed without intention or conscious awareness" (Levelt 1989: 20). But language processing for many L2 speakers is not automatic, and knowledge of the TL may not yet have been proceduralised. Kormos's (2006) BSPM takes into account this important difference between L1 and L2 speakers. Kormos (2006: 154) claims automaticity is one of the most important reasons for L2 speech often being slower than L1 speech. A further difference between L1 and L2 speech is that L1 speakers have access to a wider store of prefabricated chunks than many L2 speakers. Kormos (2006) also argues that this access to prefabricated chunks allows L1 speakers to

speak more fluently than L2 speakers. The concepts of automaticity and proceduralisation are discussed in section 4.2.1. Kormos's (2006) model also takes into account findings from research into memory storage, and thus accounts for the storing of linguistic knowledge slightly differently to Levelt (1989).

4.2.1 Automaticity and proceduralisation

Despite the extent to which automaticity is referred to in psychological and psycholinguistic literature, as Kormos (2006) observes, there is not yet a general consensus as to what *automaticity* means. Citing a range of theories and studies (e.g. Posner & Boies 1971; Neely 1977; Jacoby 1991; Segalowitz 2003) she nevertheless notes that there is some evidence that automaticity refers to mental processes which are ballistic, effortless, and unconscious. As these features of automaticity are the most widely agreed upon, this is the definition of automaticity used in this study.

Automaticity arises through processes of proceduralisation of declarative rules of language. Declarative knowledge is "knowledge that", i.e. a conscious awareness of and familiarity with facts. The acquisition of declarative knowledge takes place consciously, and places a high demand on working memory, e.g. learning and memorising grammatical rules in a classroom setting. Procedural knowledge, on the other hand, is the unconscious knowledge of how to perform an action or task. The application of procedural knowledge takes place unconsciously and automatically, e.g. proficient speakers of a language know how to apply the language learned to communicate effectively, without necessarily being able to describe how to do so, or being aware of doing so (Anderson 1983, Towell, Hawkins & Bazergui 1996).[9]

Language automatisation comes about through extensive practice and exposure to the target language (TL). Rules of language first learned in a language classroom are stored as declarative knowledge. With sufficient practice and exposure to the TL, declarative knowledge can become proceduralised, until

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[9] The same distinction can be drawn between explicit and implicit knowledge. For a discussion of these concepts in relation to SLA, see Ellis et al. (2009).

such point that the language user no longer needs to consciously map, e.g. meaning onto form, and can do so almost instantaneously and without effort.

Lower proficiency L2 speakers whose knowledge is not yet proceduralised may require time and attention to search for the information necessary to construct an utterance; high proficiency L2 speakers and L1 speakers, on the other hand, have much more automatic knowledge, and as such, need to devote much less time and attention to this task.

Studies of L2 production have supported theories based on proceduralisation of linguistic knowledge. Ankerstein (2014) demonstrates that there is no difference between the automaticity of lexical access by L1 and high-proficiency L2 speakers of English. Given that low-proficiency L2 speakers are unlikely to have fully automatised knowledge of their TL, the fact that high-proficiency L2 users do provides some evidence that a process of proceduralisation and automatisation is behind language development. Towell et al. (1996) argue that proceduralisation of knowledge is behind improvements in French learners' skills after spending time in a French immersion environment. Towell (2012: 62) argues that accuracy and temporal measures of fluency (see sections 4.3 and 4.4 for further discussion of such measures) may provide evidence for proceduralisation, as they demonstrate that the speaker is "more able to call up the language needed to express ideas more quickly and accurately". Similarly, Kormos & Dénes (2004: 160) argue that:

> one is only able to speak fluently if speech production mechanisms are largely automatic and if automatic sequences are memorised, retrieved and used accurately…Low-proficiency students generally cannot rely on a sufficient number of automatic sequences and apply conscious rule-based mechanisms, and if they strive to be highly accurate, their speech becomes very slow.

However, Towell (2012) emphasises the point of contention over the distinction between fully proceduralised knowledge and declarative knowledge which has been sped up. He argues that generally, learners' fluency improvements are the result of faster access to declarative knowledge. This position requires further investigation. However, the speeding up of declarative knowledge occurs through the same processes as proceduralisation of knowledge. Furthermore, rapid access to declarative knowledge has the same surface appearance as

procedural knowledge, and is likely to have the same knock-on effects, i.e. the freeing up of attention for other activities. There is a certain amount of agreement in cognitive psychology and the field of second language acquisition (SLA) that attentional resources are limited in language use and processing (Cowan 1997, Skehan 1998, Cowan 2005, Kormos 2006, Housen, Kuiken & Vedder 2012a). Indeed, this notion is at the centre of Skehan's (1998) Limited Attentional Capacity Model (LACM). Attention in this instance takes the cognitive psychology definition of "selectivity in processing" (Eysenck, 2001 cited in Ellis 2008: 435). As a result, speakers must manage their attentional resources carefully in order to effectively communicate their message.

4.2.2 The Bilingual Speech Production Model (Kormos 2006)

The BSPM is presented in figure 4.1. There are five "modules" over which the language user must spread their limited attentional resources. Attention is also required for monitoring the message being communicated.
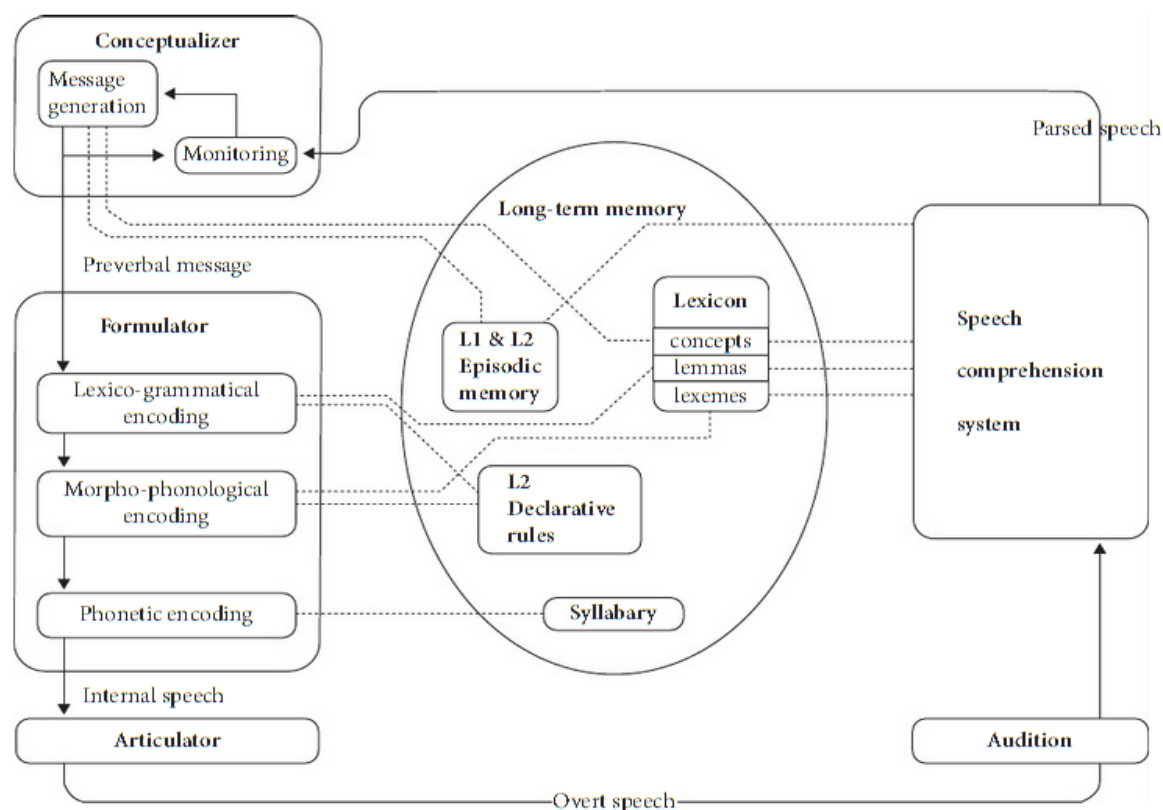
Figure 4.1 - The Bilingual Speech Production Model (Kormos 2006: 168)

Figure 4.1 presents the five modules: the conceptualiser, where message generation occurs; the formulator, where messages take on syntactic, morphological, phonological, and phonetic form; the articulator, where messages are prepared for speech; the audition module, where speech sounds are heard; and the speech-comprehension system, where parsing of messages takes place. These modules are all present in Levelt's (1989) model also.

The modules draw on knowledge from the long-term memory store. The long-term memory store, in turn, holds four smaller memory stores: episodic memory, where life events and episodes are stored; semantic memory, where lexical concepts, lemmas, and lexemes are held; the syllabary, where "gestural scores" for syllable production are stored; and declarative memory, where declarative rules of language that have not yet become automatic are stored. Episodic memory, semantic memory, and the syllabary are all found in Levelt's (1989) model. On the basis of a detailed discussion of findings in L1 and L2 speech research, Kormos (2006) argues that these three knowledge stores are also shared between L1 and L2. The fourth knowledge store, declarative rules, is unique to L2 speakers. Proficient L2 speakers do not rely on this store for language production or processing, as their knowledge has already become proceduralised, and as such, processing can occur in the same way as for L1 speakers, with each module operating in parallel.

Messages are generated in the conceptualiser, where the speaker considers their intention for speaking, their own perspective on what is to be said, and monitors what has already been said by themselves and other speakers. This conceptualising process generates the preverbal message. The output of the conceptualiser — the preverbal message — serves as input for the next processing component: the formulator. At this stage, the preverbal message undergoes grammatical and phonetic encoding: in other words, the preverbal message takes on linguistic form. For grammatical encoding to take place, the speaker accesses lemmas stored in declarative memory which best match the meaning of the preverbal message. At this point, the speaker may retrieve one lemma, or a prefabricated chunk, depending on the information in the pre-verbal message, and on the knowledge stored in semantic memory.

Phrase- and clause-building begins after lemma selection. When L2 learning begins, phrase- and clause-building rules, as well as phonological rules, are also stored in declarative memory. Over time, phrase- and clause-building rules, and phonological rules become procedural. The more proceduralised a speaker's knowledge at this point, the faster syntactic encoding will be, and the less conscious attention it will require. Proceduralised processing at this point also allows for parallel processing in other components, which will further speed up performance.

The phonetic plan is then articulated and the speaker's message is communicated via overt speech. At this stage, the interlocutor receives the message as a phonetic string, and proceeds to parse it. Acoustic perception occurs at the audition module. The phonetic string is sent to the speech-comprehension system, which has access to semantic memory. The output of the speech-comprehension system is parsed speech.

As in Levelt's (1989, 1999) model of L1 processing, L2 speakers can monitor their linguistic processing and production. At earlier stages of SLA, monitoring may also be only partially automatic, and so may require focused attention from L2 speakers. Lower proficiency L2 speakers may be hampered at the monitoring stage due to more limited knowledge of the TL lexicon, rules of grammar, etc., which could cause them to make more errors of which they are not aware. When a lot of attention is required in message formulation, there may be less attention available for monitoring, and less proficient L2 speakers may not be able to correct errors even when they are aware of them. A greater need to focus on monitoring the message also uses up attentional resources which may otherwise be allocated towards rapid formulation and articulation of the message.

Each processing component is autonomous, as in Levelt's (1989, 1999), and parallel processing is possible. But Kormos (2006) observes that when speech encoding is not fully automatic, parallel processing cannot occur. This has negative implications for the generation of messages other than those currently being processed. In addition, actively using attention for utterance production can slow speech rate.

A further difference between lower- and higher-proficiency L2 speakers is that higher proficiency L2 speakers have more attention available for discourse issues and focusing on the clear communication of their message issues than lower proficiency L2 speakers, given the more automatised nature of their speech processing system.

It is important to recognise that a learner's performance under particular conditions is not always an exact reflection of their linguistic proficiency, e.g. in a language-testing or language-experiment situation, speakers are likely to be subject to stress or anxiety which could affect their performance. While performance represents proficiency to an extent, the pressures of the real-life context will likely distort this relationship.

4.3 Measuring proficiency

Bearing this caveat in mind, the three "dimensions", or elements, of proficiency (Housen, Kuiken & Vedder 2012b) argued to be the most accurate surface representations of linguistic knowledge and the language system are complexity, accuracy, and fluency (CAF): for example, Housen et al. (2012a: 2) describe CAF as

> the primary epiphenomena of the psycholinguistic processes and mechanisms underlying the acquisition, representation and processing of L2 systems.

As this study addresses the acquisition and processing of Gaelic by L2 speakers, as well as L2 speakers' Gaelic performance, CAF is considered to be the most appropriate tool available. In addition, as the discussion in section 4.4 will show, CAF has been the subject of a huge range of empirical studies of other European languages. Its employment here will widen its applicability to include Celtic languages, but can furthermore benefit from the depth of available scholarship.

There is also consensus that the individual CAF dimensions develop at different rates between and within individuals (e.g. Skehan 1998, Robinson 2001b, Purpura 2004, de Jong et al. 2012c). Exploring the interaction between CAF dimensions has been the basis of Skehan's (1998, Skehan & Foster 2012) trade-

off hypothesis, Robinson's (2001a, 2007) cognition hypothesis, and research within the framework of Dynamic Systems Theory (e.g. Larsen-Freeman 2006), and is considered to have important implications for theories of language processing (e.g. Skehan 2009). A further aim of this study is to examine how and why interactions between these components take place in Gaelic, in order to gain more detailed insight into Gaelic L2 production and processing.

Despite their ubiquity in the SLA literature there is very little consensus as to how these constructs should be defined and measured. The implication of this is that studies based on CAF measurements, such as those outlined in sections 4.4, may be similar on the surface, but are not easily comparable in reality. Furthermore, some researchers argue that without measuring Communicative Adequacy, or the ability to effectively communicate, measurements of lexico-grammatical knowledge cannot be correctly interpreted, thus highlighting the importance of this measure to studies of proficiency in general (Kuiken, Vedder & Gilabert 2010, de Jong et al. 2012a). As such, Communicative Adequacy is one of the measures of proficiency to be included in this study. Each of these constructs and their interpretation in the context of this study is discussed in 4.4.

4.4 Defining key constructs –complexity, accuracy, fluency, and Communicative Adequacy

Construct is defined here as the essential elements of a language skill that manifest in measurable surface elements. The constructs discussed in this section are complexity, accuracy, fluency, and Communicative Adequacy. Definitions of each term are provided, followed by an explanation of how each term is defined in the context of this study.

4.4.1 Complexity

4.4.1.1 An overview of complexity in SLA research

Complexity in SLA research can be understood in two ways: the first is as an inherent property of a task in which a language user is engaging; the second refers to linguistic complexity. The second, linguistic, description may be further refined as either 'absolute' complexity, or 'relative' complexity. The former

refers to the density and number of components a language system or language feature consists of. The latter describes cognitive complexity, i.e. the difficulty with which a linguistic item is learned and processed (Bulté & Housen 2012).

Because this study is concerned with assessing features of L2 Gaelic users' language performance, it addresses linguistic complexity in its absolute sense. Linguistic complexity can refer to different aspects of language, including interactional, propositional, functional, grammatical, and lexical aspects (Ellis & Barkhuizen 2005). Ortega (2003: 492) defines syntactic complexity as

> the range of forms that surface in language production and the degree of sophistication of such forms. [It] is important in second language research because of the assumption that language development entails, among other processes, the growth of an L2 learner's syntactic repertoire…

The assumption that 'language development' implies an increase in linguistic knowledge has been considered problematic because of the potential for circularity (Pallotti 2009, Alderson 2010). While this may well be the case, it is necessary to empirically examine assumptions of this kind, and the assumptions themselves should be testable. Thus, in this study, rather than taking this assumption as given, the hypothesis that strong performance in terms of syntactic complexity is evidence of advanced proficiency will be tested.

The question remains, however, of how to measure absolute linguistic complexity. Wolfe-Quintero et al. (1998) and Ortega (2003) give comprehensive overviews of the measures of complexity frequently used in studies of L2 writing which measure features such as amount of subordination, length of clauses, and lexical diversity. To these, the researcher has added a survey of measurements of complexity in L2 research, including measurements used in studies of second language speech. The results of this survey — including findings by Wolfe-Quintero et al. (1998) and Ortega (2003) — are presented in tables 4.1 to 4.4. The reader will see that complexity measures tend to fall into one of three main categories: subordination, length of unit of analysis, and range/diversity.

Measure	Type of production	Study
Number of clauses/AS-unit	Oral	Foster & Skehan (1996)
		Ferrari (2012)
		Ahmadian & Tavakoli (2011)
		Tavakoli & Foster (2008a)
		Polat & Kim (2014)
		Saeedi & Rahimi Kazerooni (2014)
		Révész et al. (2013)
	Written	Michel et al. (2007)
Number of clauses/T-unit	Oral	Bygate (1999)
		Yuan & Ellis (2003)
		Iwashita et al. (2008)
	Written	Gyllstad et al. (in press)
		Larsen-Freeman (2006)
		Kuiken et al. (2010)
Number of clauses/C-unit	Oral	Skehan & Foster (1997)
Type of subordination	Oral	Bygate (1999)
	Written	Salamoura & Saville (2010)
Ratio of dependent clauses to total clauses	Oral	Iwashita et al. (2008)
	Written	Michel et al. (2007)

Table 4.1 - Measures of complexity based on subordination

Measures based around some assessment of subordination are by far the most common. The units of analyses used are T-units, C-units, and AS-units. A T-unit is "a main clause plus any other clauses which are dependent on it" (Hunt, 1965, 1966, 1970 cited in Foster, Tonkyn & Wigglesworth 2000: 360). The term T-unit comes from "minimal terminable unit", as a T-unit

> would be minimal as to length, and…would be grammatically capable
> of being terminated with a capital letter and a period. (Hunt 1965:
> 21)

An example of a T-unit from the data collected for this study is presented in example (1).

(1) *Bha iad a' deasachadh am biadh*.   (Gloria, narrative, line 5)

'They were preparing the food.'

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A C-unit, or communication unit, is

> an independent grammatical predication, the same as a T-unit except
> that in oral language elliptical answers to questions also constitute
> predication (Chaudron, 1988, p.45, cited in Foster, Tonkyn &
> Wigglesworth 2000: 361).

An example of an elliptical answer to a question is presented in (2). INT refers
to the interviewer, while BAR refers to the participant.

(2) INT: *Ciamar a tha thusa an-diugh?*

  'How are you today?'

  AMA: *Chan eil dona.*   (Amanda, Gaelic interview, lines 1-2)

  'Not bad.'

An AS-unit, or analysis of speech unit, is an elaboration of the T-unit developed
by Foster et al. (2000), who define it as

> a single speaker's utterance consisting of *an independent clause, or
> sub-clausal unit,* together with any *subordinate clause*(s) associated
> with either. (Foster, Tonkyn & Wigglesworth 2000: 365, italics in
> original)

Independent clauses are those containing a finite verb. Sub-clausal units are
defined by Foster et al. (2000: 366) as "phrases which can be elaborated to a
full clause by means of recovery of ellipted elements" or minor utterances, such
as "Oh poor woman", "Thank you very much", or "Yes" (Foster, Tonkyn &
Wigglesworth 2000: 366). Examples of sub-clausal units from Gaelic include *aidh*
'aye', and *gu dearbh* 'of course'. Subordinate clauses are defined here as a
clause containing a verb and some other clause element, such as a subject, or
complement.

An example of an AS-unit is provided in (3):

(3) *agus tha cù aca.*   (Chloe, narrative, line 9)

  'and they have a dog.'

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Measures of the kind presented in table 4.1 examine the number and type of clauses produced by the speaker or writer, in order to gauge the extent to which they are using simple, one-clause utterances or written units in relation to more complex, multi-clause utterances or written units. A smaller number of complex utterances might be expected from a less proficient speaker.

Table 4.2 presents measures of complexity based on length of utterances, speech units, or written units.

Measure	Type of production	Study
Length of T-unit	Oral	Bygate (1999)
		Halleck (1995)
	Written	Gyllstad et al. (in press)
Length of Clause	Oral	Ferrari (2012)
		Polat & Kim (2013)
		Révész et al. (2013)
	Written	Gyllstad et al. (in press)
Mean length of AS-unit	Oral	Polat & Kim (2013)
		Feryok (2013)
		Révész et al. (2013)
Number of verb phrases/T-unit	Oral	Iwashita et al. (2008)
Mean Length of Utterance	Oral	Iwashita et al. (2008)
		Tavakoli & Foster (2008)
Semantic elements per clause	Oral	Robinson et al. (2009)
Event conflation	Oral	Robinson et al. (2009)
Mean number of verb arguments	Oral	Bygate (1999)

Table 4.2 - Measures of complexity based on length of utterances, speech units, or written units

Measures of these kinds assess complexity by counting the number or type of words contained within each unit of analysis. Shorter units may be produced by less proficient language users. In the case of Robinson et al. (2009), of interest is the average number of semantic elements accompanying each verb: again, the higher the number of elements, the more proficient the speaker. Their measure of event conflation calculates the number of path segments included in motion clauses. Path segments are clauses referring to the temporal or spatial course along which an object or person moves. A path can be physical or metaphorical

(McIntyre 2004). Robinson et al. (2009: 547) provide (4) as an example of event conflation in which two path segments are included in one C-unit:

(4) The shadow was walking from the other side of the street towards Mrs Brown

The higher the number of path segments, the higher the speaker's complexity score. Bygate's (1999) measure is based on the proposition that use of a higher number and wider range of verb arguments could be evidence of language development.

Table 4.3 presents measures of complexity based on lexical and syntactic range or variety.

Measure	Type of production	Study
Syntactic variety	Oral	Foster & Skehan (1996)
		Yuan & Ellis (2003)
		Ahmadian & Tavakoli (2011)
		Bygate (1999)
Lexical diversity	Oral	Robinson (1995)
		Skehan & Foster (2012)
		Michel et al. (2007)
		Polat & Kim (2013)
		Révész et al. (2013)
Lexical sophistication	Oral	Skehan & Foster (2012)
	Written	Kuiken et al. (2010)
Lexical words as a percentage of total words	Oral	Michel et al. (2007)
		Rahimpour & Mehrang (2010)
Variety of verb types	Oral	Robinson et al. (2009)
		Saeedi & Kazerooni (2014)

Table 4.3 - Measures of complexity based on lexical and syntactic range or variety

The measures in table 4.3 examine the diversity of vocabulary and syntactic structures produced by the L2 user. 'Syntactic variety' refers to the tense, modality, voice, and aspect of verbs used. More complex language may be represented by a wider range of tenses, modalities, voices, and aspects employed by the L2 user.

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Lexical diversity is measured in a number of different ways. Type-token ratio is a measure of lexical diversity based on the ratio of novel words to the total number of words produced. A second means of measuring lexical diversity is through calculating D (Malvern & Richards 1997). D was developed to compensate for the fact that type-token ratio is unreliable for longer texts (MacWhinney 2012: 123), and operates around the probability of new words being introduced into longer and longer texts. Similarly, Guiraud's index is a lexical diversity measure which takes sample length into account.

Measures of lexical sophistication calculate the percentage of frequent words in a text in relation to less frequent words. Lambda (Meara & Bell 2001) is one measure of lexical sophistication, which calculates the likelihood of 'difficult', or less frequent words (defined by Meara & Bell 2001 as words other than proper nouns, numbers, and geographical derivatives) appearing in a text. The other measures reported in table 4.3 analyse the relative frequency of different words classes (i.e. lexical and function words), and the extent of tense-aspect marking on verbs.

Table 4.4 presents other proposed measures of syntactic complexity.

Measure	Study
Distance between head and dependents	Bulté & Housen (2012)
Coordinate clauses/total number of AS-units	Bulté & Housen (2012)
Coordination index	Norris & Ortega (2009)
	Bardovi-Harlig (1992)

Table 4.4 - Other proposed measures of syntactic complexity

Two of the measures in table 4.4 address complexity from the perspective of coordination. Coordination measures are useful for analysing complexity beyond the sentence-level, which has been observed to be one shortcoming of analyses based on subordination (Bulté & Housen 2012). The coordination index divides the number of coordinate clauses by the total number of 'combined clauses', i.e. coordinate and subordinate clauses. However, as Bulté & Housen (2012) observe, this measure is not a "pure" measure of coordination, as it also considers subordination. They argue that their measure, which divides the number of coordinate clauses by total number of AS-units, is therefore a more

accurate representation of coordination. The measure of distance between head and dependents is related to mean length of clause, but is argued to paint a more accurate picture of the sophistication of clauses as it is not distorted by, e.g. adjuncts of time which have no impact on the phrase (Bulté & Housen 2012).

Tables 4.1 to 4.4 are not intended to provide an exhaustive representation of measurements of syntactic complexity. Rather, they are designed to demonstrate the breadth of definitions of this one dimension of proficiency alone and to provide the reader with an up-to-date account of the most common operationalisations of complexity in SLA research today.

That complexity is open to such a variety of interpretations suggests that to attempt to define it using only one of the over 20 operationalisations above would be careless. Indeed, it has been argued that complexity *should* be measured as a multidimensional construct, as failure to do so would result in an inaccurate representation of it (e.g. Norris & Ortega 2009).

With so many definitions available, however, the decision over which to use can appear daunting. In addition, while some measures may be useful or practical for one language, they are not necessarily so for others: for instance, although useful for measuring complexity in many languages, subordination measures are not a useful measure of linguistic complexity in Finnish, due to the syntactic makeup of subordinate clauses in that language (Martin et al. 2010); similarly, lexical sophistication is not currently an appropriate measure for use with Gaelic, as there are no comprehensive lists of lexical frequency available[10]. Furthermore, more complexity does not necessarily imply development. For example, Ortega (2003) discusses the Developmental Prediction Hypothesis, which posits that as language users become more proficient, they favour increasing clause length over the use of subordinate and other dependent clauses in formal writing. This reflects the notion that more advanced learners

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[10] Lamb (2008) is an exception, but the list of frequent lexical items contained therein is restricted to 100 words, and is, as a result, not sufficiently comprehensive as the basis for a measure of lexical sophistication. *Corpas na Gàidhlig* ('The Corpus of Scottish Gaelic') is an ongoing project based at the University of Glasgow which is developing an electronic corpus of Scottish Gaelic texts. *Corpas na Gàidhlig* was made available for use by researchers in October 2014. This resource, unavailable at the time of writing, makes the examination of lexical frequency in Gaelic possible.

may modify and complement basic statements through the use of non-clausal modifiers. This hypothesis has been has been supported by Ferrari (2012)in a study of oral production . Although more research addressing this hypothesis is required, it is clear that assuming that any one of the measures outlined above is a clear marker of development may be unwise.

4.4.1.2 Complexity as it is defined here

As stated in 4.1, one goal of this study is to analyse Gaelic L2 performance using CAF measures. Having considered the most common complexity measures used, and the most practical for this study, complexity in this study will be measured by number of clauses per AS-unit, mean length of clause, and lexical diversity (using D). These measures were chosen because each represents one of the three main ways of measuring syntactic complexity. In addition, they are among the most common measures of complexity, and their employment here enhances the comparability of this study with other CAF studies.

4.4.2 Accuracy

4.4.2.1 An overview of accuracy in SLA research

Accuracy is the least controversial of the three measures under discussion here, although like complexity and fluency, it is not entirely straightforward. One major issue is that accuracy tends to refer to target-like or native-like language use. However, comparing L1 and L2 speakers in this way is not always wise or justifiable (see e.g. Bley-Vroman 1983 on the "comparative fallacy" in interlanguage studies, which addresses the problems associated with comparing interlanguage to native-speaker systems, Davies 1991, 2003). As such, some researchers consider the extent to which a speaker has control over their linguistic system, i.e. the extent to which they use the same forms with the same meanings consistently (e.g. Skehan 1996a, Carty 2012, Towell 2012). It is nonetheless the case that L2 users need to orient themselves to some target, and standardised varieties, or the ideal of an L1 speaker's variety are often used in SLA research.

Assuming the existence of some target then, grammatical accuracy is usually taken as a numerical measure of inaccuracies per AS-unit (e.g. Kuiken, Vedder &

Gilabert 2010, Ågren, Granfeldt & Schlyter 2012), or the number of accurate AS-units as a percentage of the whole (e.g. Ahmadian & Tavakoli 2011, Ferrari 2012). Researchers may also choose to examine accuracy of a certain kind, e.g. accuracy in the use of verb forms (Ahmadian & Tavakoli 2011), or accuracy in transitive constructions (Martin et al. 2010).

Skehan & Foster (2012) observe that relying on one measure of accuracy as percentage of error-free clauses carries with it its own problems: if speakers have a firm grasp of a limited range of very short, simple constructions, they may score highly for accuracy, despite having a limited command of other forms. Alternative measures include a clause-length accuracy score, which includes an assessment of the length of the maximum length of clause a speaker can accurately produce. This measure has also been adopted by Tonkyn (2012) and Skehan & Foster (2005a). As a unique measure, the clause-length accuracy score can be very useful. However, if this assessment of accuracy is used in conjunction with a measure of complexity or fluency including length of clause, it is possible that there will be significant overlap between these results. As such, it may be preferable to analyse accuracy with no regard to clause length, if clause length measures are included in the assessment of other components of proficiency.

4.4.2.2 Accuracy as it is defined here

Accuracy in this study refers to target-like language use. However, as described in chapter 2, the selection of a 'target' for Gaelic is complicated by the fact that there does not yet exist any overt unified standard. It is also noted in chapter 2 that many L2 users of Gaelic do not learn the language in immersion settings, and may be exposed to a wide range of varieties, including the emerging Mid-Minch variety. Mid-Minch Gaelic is a folk-linguistic concept, referring to a variety of Gaelic that has emerged from dialect levelling. Thus, rather than taking the TL to be the language of some ideal native speaker, the TL in this study is viewed in very broad terms, encompassing conventions of a range of Gaelic-speaking communities, such as L1 communities from different regions of the *Gàidhealtachd*, and L2 communities such as the 'new speakers' in the central belt. The deliberately broad notion of 'target' in this study reflects the conventions of the range of varieties to which Gaelic L2 users are exposed,

while maintaining a point of reference towards which L2 users may orient themselves.

'Inaccuracy' is defined as any feature of an utterance, formal or functional, that does not correspond to the TL conventions. This analysis corresponds to Pica's (1983) target-like-use analysis, which includes syntactic and lexical errors appearing in a context requiring their use. Mispronunciations are not considered inaccuracies, as accent and pronunciation are not variables included in the analysis. However, morphophonological errors, e.g. failure to apply initial mutation on nouns following a possessive adjective, failure to palatalise word-final consonants in the genitive case, were counted as inaccuracies. This is because such examples represented inaccuracies in morphosyntax that are demonstrated through phonetic realisation.[11]

The definition of inaccuracy employed here includes some uses of English phrases or lexical items. Due to close contact with English, many English lexical items have been borrowed into Gaelic and have become absorbed into the Gaelic lexicon. One such example is the English word *picnic*: although a Gaelic lexical item, *cuirm-chnuic,* does exist for the concept, the English lexical item is now at least as commonly used, and is thus considered 'a Gaelic convention'. Only AS-units containing English lexical items or phrases not borrowed into Gaelic — i.e. AS-units in which the speaker codeswitched into Gaelic, rather than used a conventionalised Gaelic lexical item — are considered inaccurate.

This operationalisation brings with it its own problems. Native speakers of Gaelic regularly use codeswitching between English and Gaelic as a communication strategy (MacAuley 1982, Smith-Christmas 2013). As this study does not include any discourse analysis, it is not possible to examine the use of codeswitching as a discourse function. Furthermore, without explicitly asking the participant why they codeswitched at different times, it was not possible to judge whether their codeswitch was the result of a lack of Gaelic knowledge, or the result of a decision to switch between languages. For the sake of consistency, any instance of codeswitching that was not a Gaelic convention was regarded as an inaccuracy. Approaching codeswitching in this way may have

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[11] For a detailed treatment of Gaelic morphosyntax and morphophonology, see Lamb (2008).

influenced the results obtained, particularly for more proficient speakers. However, this was considered the fairest means of assessing accuracy, and on balance, was not considered to have a significant effect on results.

Where a speaker produced an error only to repair it, the repair or reformulation is considered the final version and the original inaccuracy is not included in the analysis.

4.4.3 Fluency

4.4.3.1 An overview of fluency in SLA research

Several reviews have noted the range of definitions available for the concept of fluency. Fluency may be defined as spontaneous use of creative language (e.g. Brumfit 1984); as automaticity of language processing (e.g. Segalowitz 2010, Van Moere 2012); as appropriate turn-taking and discourse skills (e.g. Riggenbach 1991); or more broadly as language proficiency in general (e.g. Doutrich 2000). Lennon (1990) conceptualises fluency in two ways: the broad sense, which can be equated with overall proficiency, and the narrow sense, which addresses speed and smoothness of speech.

In CAF studies, fluency is usually regarded in the narrow sense as one component of proficiency, and is often considered as a temporal phenomenon. Table 4.5 indicates the operationalisation of fluency as a temporal variable in different studies.

Measure	Studies
*Speech rate, i.e. syllables/minute or words/minute	Ejzenberg (2000)
	*Freed (2000)
	*Kormos & Denés (2004)
	Tonkyn (2012)
	de Jong et al (2012b)
	Michel et al. (2007)
	Ahmadian & Tavakoli (2010)
	Rahimpour & Mehrang (2010)
	Yuan & Ellis (2003)
	Iwashita et al. (2008)
	*Rossiter (2009)
	Osborne (2011)
	Skehan (2003)

	Feryok (2013)
	Saeedi & Kazerooni (2014)
*Phonation time ratio, i.e. length of time speaking as a function of total floor time	Towell et al. (1996)
	*Kormos & Denés (2004)
	Tonkyn (2012)
	Foster & Skehan (1996)
	Iwashita et al. (2008)
	Osborne (2011)
*Pause frequency	Freed (1995)
	*Freed (2000)
*Pace, i.e. stressed words/minute	*Kormos & Denés (2004)
*Mean length of run, i.e. mean length of time between pauses	*Kormos & Denés (2004)
	Tonkyn (2012)
	Iwashita et al. (2008)
	Osborne (2011)
*Articulation rate: as speech rate with pause time excluded	*Kormos & Denés (2004)
*Number of pauses	*Kormos & Denés (2004)
	Ferrari (2012)
	Michel et al. (2007)
	Skehan & Foster (1997)
	Iwashita et al. (2008)
	Tavakoli & Foster (2008)
	*Freed (2000)
	*Rossiter (2009)
*Mean length of pause	*Kormos & Denés (2004)
	Osborne (2011)
Mean length of syllable	Révész et al. (2013)
	de Jong et al. (2013a)
*Ratio of stressed words to total words	*Kormos & Denés (2004)
Proportion of pause time at text unit boundaries	Tonkyn (2012)
	Foster et al. (2000)
	Davies (2003)
	Skehan & Foster (2012)
	Skehan (2009)

Table 4.5 - Frequent operationalisations of fluency in SLA research. Measures with an asterisk are those which have also been cited in studies on fluency perception.

In addition to these temporal measures, the "smoothness" of speech can be assessed by examining repair fluency and breakdown fluency (e.g. Foster & Skehan 1996, Iwashita et al. 2008, Tavakoli & Foster 2008a, Osborne 2011, Tonkyn 2012). Repair fluency refers to phenomena such as replacements and reformulations. Breakdown fluency refers to phenomena such as repetitions and

false starts. Some researchers (e.g. Gilabert 2007a, Michel, Kuiken & Vedder 2007) include these measures under the heading of accuracy, as they consider the ability to correct or reformulate errors indicative of control over the individual's language system.

How can measuring fluency yield insight into L2 proficiency and development? In a study of 35 speech samples from the PAROLE corpus of oral learner language, Osborne (2011) found that the measures of fluency most strongly related to development were speech rate and phonation time. Similarly, Iwashita et al. (2008) found that speech rate, phonation time, and number of unfilled pauses were the most suitable measures for assessing proficiency. Kormos & Denés (2004) cite evidence of consensus that fluency as development can largely be predicted by speech rate, mean length of run, and phonation time.

Further analysis of fluency addresses the position of pauses in the utterance. In L1 speech, pauses usually occur at clause boundaries (Garman, 1990 cited in Davies 2003, Tonkyn 2012). It has been demonstrated that as L2 proficiency increases, so too does the percentage of pauses occurring at clause boundaries (Riggenbach 1991, e.g. Pawley & Syder 2000). Hilton (2014) also reports that location of pauses was the most useful measure in her study based on the PAROLE corpus to distinguish between proficiency levels. Pawley & Syder (2000) attribute this to the way that utterances are encoded, arguing that speakers tend to encode one clause at a time (hence, their one-clause-at-a-time hypothesis). This hypothesis relates quite clearly to the BSPM, outlined in 4.1, and the idea that speakers often formulate speech in units, rather than individual lexical items.

4.4.3.2 Perceptions of fluency

In a study measuring the perception of fluency as a temporal variable, Kormos & Dénes (2004) assessed the perceived fluency of 16 L2 speakers of English by six English L2 teachers. Three teachers were L1 speakers of Hungarian; three were L1 speakers of English. 10 measures of fluency as a temporal variable were included in the study, as well as a measure of error-free clauses, D, and the number of words produced by each participant. Kormos & Dénes (2004) found strong correlations between raters' evaluations of participants' performances,

and participants' scores for speech rate, phonation time ratio, mean length of fluent run, and number of stressed words per minute. They go on to argue that while pauses may indicate internal processing issues, these do not affect how speakers' fluency is perceived. Finally, they note that although raters perceived temporal fluency measures as most important in their proficiency assessments, raters also paid some attention to lexical diversity and accuracy. Kormos & Dénes conclude "fluency is best conceived of as fast, smooth and accurate performance" (2004: 161).

Similarly, Pinget, Bosker, Quené & de Jong (2014) observed that raters' evaluations of fluency could be predicted by acoustic measures of fluency, including mean length of syllable, the number of pauses per second, mean length of silent pauses, number of corrections per second, and number of repetitions per second. As such, *fluency* in this study was conceived of as a phenomenon including speed, breakdowns, and repairs. Speech rate and phonation time were not included as measures in this study, on the basis that these measures confound information about pace of speech and patterns of pausing. As a result, direct comparison between the results of this study and the results presented in Kormos & Dénes (2004) is not possible. It is nevertheless clear that raters do attend to speakers' fluency in providing evaluations of speech.

Pinget et al. (2014) report on results obtained from group means of raters' evaluations. However, as Freed (2000) observes, raters may differ quite considerably in the evaluations they give to individuals, depending on their experiences with language learners, and their own individual styles. Kormos & Dénes (2004) too, while reporting on the overall evaluations provided by the group of six raters, note that raters in their study differed in the weight they placed on accuracy, vocabulary diversity and mean length of pause. Bosker et al. (2013) draw similar conclusions. These findings relate to Skehan's (1998) observation that speakers and raters may prioritise different areas of performance (cf. also McNamara 1996b). In section 4.2, it is explained that speakers allocate attentional resources in different ways in order to complete a given task to their satisfaction; the results of the studies outlined in this section indicate, however, that an L2 user's decision to allocate more attention to one

component of proficiency than another does not imply that a rater will notice this component more than others.

4.4.3.3 Fluency as it is defined here

It is explained in 4.1 that this study analyses L2 Gaelic users' performances using CAF measures. As CAF studies frequently treat fluency as a temporal phenomenon, this is also the treatment adopted here. As for complexity, it is important to assess fluency using different measures in order to precisely capture it (Skehan 2003), so those measures presented in table 4.5 were assessed to establish the most suitable for this study. As it is of interest to measure fluency in relation to language proficiency (and by extension stages of development), only measures demonstrated to be significant for the purposes of measuring language development are required. For these reasons, fluency in this study is measured using mean length of fluent run, phonation time, and articulation rate. It will also be seen from table 4.5 that these measures are widely employed in other studies of L2 fluency, thus facilitating the comparability of the findings produced here. The perception of fluency and/or proficiency is discussed in section 4.4.4. Some additional comments on the measures employed are required at this point. These are addressed in turn in the following sections.

What constitutes a pause?

An unfilled pause in this study is any silence longer than 0.25 seconds. The establishment of a cut-off time for unfilled pauses in studies of this kind has not been uncontroversial (Towell, Hawkins & Bazergui 1996). If the cut-off time is too short, speakers may be penalised for pauses that are in fact articulation phenomena, rather than hesitation phenomena. If the cut-off is too high, large numbers of pauses could be omitted from the analysis, which may skew results in favour of less proficient speakers who pause frequently for short lengths. The 0.25 second cut-off to distinguish articulation from hesitation phenomena was first proposed by Goldman-Eisler (1968), and its validity has been confirmed by, e.g. Hieke et al. (1983) and de Jong & Bosker (2013).

Another issue is that many studies assessing fluency measure the length of silent pauses only (e.g. Foster & Skehan 1996, Towell, Hawkins & Bazergui 1996, Freed

2000, Tavakoli & Foster 2008a, Tavakoli 2011, de Jong et al. 2012a). Such studies do not consider the length of filled pauses in the data. Filled pauses are defined in this study as breaks in discourse filled to any extent by non-lexical utterances such as *um*, and *eh*.[12] The measurement of unfilled pauses only is undoubtedly a more straightforward and much less time-consuming task than the measurement of filled and unfilled pauses. Unfilled pauses are immediately obvious when looking at soundwaves in transcription or acoustic analysis software. Even when these are measured by hand, the ease with which unfilled pauses can be identified speeds up the measurement process significantly. In addition, programs such as ELAN (Lausberg & Sloetjes 2009) can automatically extract and measure all silent pauses, resulting in a very fast computation of results. A further benefit of automatic extraction of this kind is the precision, down to the nearest millisecond, with which pauses can be measured.

Despite these advantages, it was considered preferable here to measure the length of both filled and unfilled pauses. Excluding filled pauses would create inaccurate results for both mean length of fluent run and phonation time, in part because many pauses would be overlooked, but also because some speakers used filled more than unfilled pauses. Therefore neglecting to include the filled pauses would have meant that the overall pause time for these speakers would have been presented as significantly less than it actually was, and may have led to their being awarded a higher score for fluency than another speaker who made use of more unfilled than filled pauses.

Software for the precise measurement of filled pauses (Keller 1994) was not available at the time of analysis. As such, all pauses (filled and unfilled) were identified acoustically and measured by hand. A sample of pauses was checked

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[12] Riggenbach (1991) also takes as filled pauses lexical items with little to no semantic information, such as *yeah* and *y'know*. She recognises however that these lexical items may be considered discourse markers, or other interactional features. This latter interpretation was considered more appropriate for the data under investigation in this study. Fillers of this kind are almost exclusively produced in English, rather than Gaelic. This language choice is significant: Matras (2000) observes that bilingual speakers often switch to their dominant language around discourse markers due to the additional cognitive burden of discourse management. This would suggest then that these speakers are using the English markers because these are intended as discourse markers. However, it is also the case that discourse markers are frequently borrowed into a minority language from a majority language, becoming part of the minority language lexicon (Matras 2000). Impressionistically, this is true for Gaelic, but the discourse marker argument still holds here: these borrowings, whether a temporary switch or representative of new introductions into the Gaelic lexicon, may be discourse markers rather than semantically empty fillers. As such, they are not included in the measurements of unfilled pauses.

a second time to ensure that the pause measurements were as accurate as possible.

Vowel stretches, i.e. "vowel elongations of .3 seconds or greater" (Riggenbach 1991: 426) are also excluded from the analysis. Although vowel stretches may indeed be a hesitation phenomenon, they nonetheless have the effect of slowing down a speaker's speech rate, particularly when they are very frequent. As speech rate is one of the measures under investigation here, measurement of vowel stretches would result in the same construct being measured under two different criteria.

Inter-speaker pauses at the start of AS-units are treated as all other unfilled pauses: a silence of longer than 0.25 seconds is considered a pause, while a silence of shorter duration is considered a natural discourse phenomenon. Filled pauses are also included in their entirety. Inter-speaker pauses at the end of AS-units are grouped with the start of the following AS-unit; this method is employed here as a consistent approach to measuring pauses at the end of an AS-unit, in the absence of having more detailed information about the nature of end of AS-unit pause phenomena, as might be provided by, e.g. video recordings of the interviews.

Mean length of fluent run

Mean length of fluent run (MLR) refers to the mean length of stretches of speech (runs) between pauses lasting longer than the cut-off of 0.25 seconds, reported in 4.4.2.1 (Kormos & Dénes 2004, Iwashita et al. 2008).

Gaelic phonation time

As indicated in table 4.5, phonation time is a measure of fluency based on the amount of time speaking as a percentage of the total length of the speech sample. For this study, because a number of speakers (particularly those who self-assessed as being at lower levels of proficiency) tended to use English lexical items and constructions in their speech samples, a measure of Gaelic phonation time was also calculated. This measure was obtained by subtracting the total length of predominantly English AS-units from the overall phonation

time. In this way, it was possible to establish figures for the amount of time as a proportion of the overall speech sample that participants were speaking Gaelic.

Speech rate[13]

Most of the studies in table 4.5 define speech rate as syllables produced per minute. However, for a number of reasons, this measure was not considered appropriate for Gaelic. Like speakers of many other languages, Gaelic speakers use contractions when speaking, e.g. *Càit a bheil Màiri?* 'Where is Mary?' becomes *Càil Màiri?* 'Where's Mary?' in spoken discourse (cf. e.g. Weininger & Shield 2003). Impressionistically, L2 speakers of Gaelic at lower levels of proficiency are less inclined to use contractions. In these instances therefore, albeit counterintuitively, a higher syllable count would in fact indicate less linguistic development than a lower one.

Other common contractions in Gaelic include *a'm* 'at me', in place of *agam* 'at me'; and *chan fhios a'm* 'I dunno', in place of *chan eil fhios agam* 'I don't know'.

In addition, there is an important distinction in Gaelic phonology between long and short vowels: often minimal pairs are identified on this basis, so that *bàta* 'boat' /ba:$^{(h)}$tə/ and *bata* 'stick' /ba^{h}tə/ – despite orthographic similarities – are pronounced somewhat differently. Discussions with Gaelic teachers have revealed that L2 users, particularly at lower proficiency levels, often do not distinguish adequately between long and short vowels, often producing long vowels as short. With this in mind, it is reasonable to suggest that less proficient speakers could again produce more, albeit shorter, syllables per minute by virtue of an inaccurate performance.

A third problem with the use of syllables per minute in studies of Gaelic is that the status of the Gaelic syllable is neither clear nor uncontroversial (Bosch 1998, Ladefoged et al. 1998, Hall 2006). The task of accurately defining 'syllable' for the purposes of this study when there is no phonological or phonetic consensus

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[13] Speech rate is considered an appropriate measure in this study. However, speech rate is a CAF measure that can easily be affected by a speaker's natural rate of speech in their L1 (de Jong et al. 2013a). As such, while speech rate is a useful measure of L2 proficiency, it is important to consider it alongside other fluency measures.

as to its nature was complicated, and results based on any definition could well have represented Gaelic syllable structure inaccurately.

Nevertheless, as observed above, speech rate is a popular and useful measure in SLA research. On this basis, this measure is still included in this study. However, it is measured here in terms of words per minute, following Freed (2000), Taguchi (2007), and Osborne (2011). 'Word' in this study refers to any standalone morpheme or lexical element shorter than the phrase. All content and function elements are considered words, including contractions and particles. Examples of Gaelic particles include the progressive particle *a(g)* (see examples 1 and 2), and the subordinating particle *a* (example 3):

(1) *Tha   mi a'   dràibheadh.*
    be.PRS I   PROG.PRT drive
    'I am walking.'

(2) *Tha   mi ag   òl   uisge.*
    be.PRS I   PROG.PRT drink water
    'I am drinking water.'

(3) *Tha   mi airson an leabhar a   leughadh.*
    be.PRS I   for   the book   SUB.PRT read
    'I want to read the book.'

There are four words in example 1, five words in example 2, and seven words in example 3.

An additional point to note is that the precise measurement used here is pruned speech rate, which refers to speech rate excluding pauses, laughter, and coughing (Levkina & Gilabert 2012, de Jong et al. 2013b). This is because pruned speech rate gives a more accurate representation of the rate of speech as the figure is not distorted by the inclusion of non-speech aspects of performance.

4.4.4 Communicative Adequacy

4.4.4.1 An overview of Communicative Adequacy in language testing and SLA research

In section 4.1, language users' ability to effectively communicate is identified as one dimension of proficiency, alongside CAF. A range of terms is used to describe this kind of ability. These include "communicative adequacy" (e.g. Kuiken, Vedder & Gilabert 2010, Révész, Ekiert & Torgersen 2013), "functional adequacy" (e.g. Pallotti 2009, de Jong et al. 2012a), "communicative competence" (e.g. Canale & Swain 1980, Bachman 1990), "communicative language ability" (e.g. Purpura 2008), and "ability for use" (e.g. Skehan 1998). Although there are some differences in precisely what is meant by each of these terms, all share the common basis that the ability to effectively communicate

> consists of the knowledge that users of a language have internalised to enable them to understand and produce messages in the [target] language. (Ellis 2008: 956)

The term employed in this study is 'Communicative Adequacy', as participants' data are analysed according to the extent to which they succeed in communicating their message.

Kuiken et al. (2010) argue that Communicative Adequacy must be studied in order to adequately interpret results obtained from CAF studies. Skehan (1998) also recognises the fact that any speech act involves a speaker's attempt to effectively communicate their message while simultaneously managing the processes of the complex underlying linguistic system. From this perspective, it is clear that Communicative Adequacy cannot be divorced from CAF.

Canale & Swain (1980), Bachman (1990), and Bachman & Palmer (1982, 1996, 2010) have designed important, influential models of Communicative Adequacy, which incorporate aspects of grammar, lexis, pragmatics, and sociolinguistic knowledge. These are considered seminal texts, and appear frequently in discussions on and research into language testing.

Canale & Swain (1980: 29) state that "communicative competence" is, in part, "purposive behaviour…and (is) to be judged as successful or not on the basis of

behavioural outcomes". The authors' theory of communicative competence includes grammatical accuracy, knowledge of sociolinguistic conventions, and the ability to overcome breakdowns in communication or gaps in knowledge through the use of verbal or non-verbal communication strategies. Communication strategies are techniques language users employ when "faced with the task of communicating meanings for which they lack the requisite linguistic knowledge" (Ellis 2008: 956). Examples of communication strategies include gesturing, paraphrasing, and switching to the L1. Crucially, Canale & Swain (1980: 27) argue that

> [t]here is no strong theoretical or empirical motivation for the view that grammatical competence is any more or less crucial to successful communication than is sociolinguistic competence or strategic competence.

This position highlights the importance of the ability to communicate as a dimension of proficiency.

Following on from Canale & Swain (1980), Bachman & Palmer (1982) set out to empirically test a model of "communicative proficiency", made up of grammatical competence (morphology and syntax), pragmatic competence (vocabulary, cohesion, and text organization), and sociolinguistic competence (register, nativeness, and non-literal language). In terms of a CAF-style approach to language, grammatical competence and some aspects of pragmatic competence could fall under complexity and accuracy. The other competencies have not traditionally been addressed in CAF studies (although see Révész, Ekiert & Torgersen 2013). Features of the proposed model were empirically validated in Bachman & Palmer (1982). This study demonstrates that communicative proficiency relies on grammatical, pragmatic, and sociolinguistic aspects of language, and so supports Canale & Swain's (1980) model.

Bachman & Palmer's (1982) model is developed further by Bachman & Palmer (1996), who divide descriptions of language into organizational knowledge (grammatical knowledge and discourse management), and functional / sociolinguistic knowledge. In discussing the development of tests to measure communicative competence, Bachman & Palmer (1996: 44) argue that the test should address the "specific domains in which the test takers are likely to need

to use language", in order to fully capture the speaker's competence in that domain. This echoes Canale & Swain's (1980) position that language teaching focused on the development of communicative skills must reflect actual communicative situations.

But Communicative Adequacy as a measure distinct from lexico-syntactic knowledge has, until recently, seldom been measured in SLA studies addressing language proficiency (Purpura 2008, de Jong et al. 2012a, Révész, Ekiert & Torgersen 2013), despite having an important position in the language testing literature and in practical language testing frameworks, such as the CEFR and the American Council on the Teaching of Foreign Languages (ACTFL) framework. Indeed, the CEFR was originally designed to provide "a descriptive scheme representing aspects of communicative language competence and use" (North & Schneider 1998). Similarly, the ACTFL proficiency guidelines are described as "an instrument for the evaluation of functional language ability" (ACTFL 2012: 3). The research conducted by members of the Second Language Acquisition and Testing in Europe (SLATE) network was the first major series of projects examining the relationship between the ability to communicate as measured by the CEFR and L2 development. These studies were almost entirely based on written L2 production. Anecdotally at least, language learners frequently report a desire to be able to communicate effectively in their target language (TL), and show less interest in, say, formal accuracy. Indeed, some researchers argue that without a measurement of skills of Communicative Adequacy, CAF scores cannot be correctly interpreted, thus highlighting the importance of this measure to studies of proficiency in general (Kuiken, Vedder & Gilabert 2010, de Jong et al. 2012a).

However, unlike CAF, Communicative Adequacy is necessarily a subjective measure, depending on how well an interlocutor perceives a message to have been communicated. As such, studies examining the subjective perception of effective communication are important. In a study specifically measuring the interaction between communicative ability and linguistic complexity in L2 written production, Kuiken et al. (2010) found a high correlation between the ability to communicate (as defined by CEFR descriptors) and linguistic complexity at high levels of proficiency: the same correlation was not found for participants who scored lower in terms of communicative ability. The authors

argue that this is possibly the result of the need by learners at lower levels to concentrate on communicating their message, at the expense of using more sophisticated language. This interpretation is logical, especially in light of models based on limited attentional capacity (e.g. Skehan 1998, outlined in 4.2, Kormos 2006). Myles (2012) reported similar results – and attributed these to the same trade-off effects – in a study of L2 speakers of French.

In a large-scale study of oral English L2 production, Iwashita et al. (2008) obtained ratings of 200 task performances in order to examine the extent to which CAF and phonological measures could distinguish between TOEFL iBT[14] levels. The authors found that vocabulary diversity, fluency (unfilled pauses, total pause time, and speech rate), grammatical accuracy, and accurate pronunciation of target-like syllables all had an effect on the overall TOEFL iBT score awarded to test-takers. Vocabulary diversity and fluency were the most important, although findings indicate that all dimensions of proficiency investigated (i.e. CAF and phonology) had some impact on scores. They conclude that a "combination of the aspects determines the assessment of the overall proficiency of the learner" (Iwashita et al. 2008: 43). This finding supports Freed's (2000: 261) argument that fluency (incorporating aspects of complexity, accuracy, and pronunciation) is "a simultaneously vague and complex notion that includes a constellation of interactive features." However, the authors are clear that although performances at Levels 4 and 5 were notably better than those at Levels 1 to 3, it was not the case that Level 1 learners always performed worst on all variables, while learners at Levels 2 and 3 performed progressively better. They suggest that this may be the result of test-takers' struggling with pronunciation: although some test-takers may perform very well on accuracy, if their pronunciation makes them unintelligible to raters, their stronger performance will not be noticed.

Iwashita et al. (2008) was a key study of the relationship between CAF and Communicative Adequacy, providing important insights into the ways in which proficiency can be distinguished at different levels. However, one limitation is that raters were not asked to comment on their feedback and provide more in-

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[14] The Test of English as a Foreign Language (TOEFL) iBT is an internet-based standardised test of English for academic purposes.

depth analyses of their rating. This was the procedure adopted by Sato (2012). Nine raters were asked to comment on test-takers' performances on tasks used in a TOEFL text book, using the following criteria: grammatical accuracy; fluency; vocabulary range; pronunciation; and content elaboration. Raters were also asked to assess "overall communicative effectiveness" (i.e. Communicative Adequacy). This was intended to be an intuitive measure, and raters were asked to describe the features to which they paid most attention when assessing overall communicative effectiveness. Raters reported most frequently that they paid attention to fluency, suggesting that this was the most important predictor of overall communicative effectiveness in this study. Sato (2012) posits that this is because all participants in that study had high levels of English proficiency, and that complexity and accuracy were therefore less noticeable to raters. In addition, Sato (2012) found that overall communicative effectiveness could not be predicted by the other variables, i.e. grammatical accuracy, fluency, etc., indicating that raters focus on factors other than those presented to them in rating scales. This is supported by Orr (2002), Kormos & Dénes (2004), and Bosker, Pinget, Quené, Sanders & de Jong (2013).

Other studies addressing the relationship between Communicative Adequacy and CAF include those included in the What is Speaking Proficiency (WiSP) project, a major study designed to investigate the relationship between Communicative Adequacy and CAF. In a study exploring the relationship between CAF and functional adequacy (i.e. Communicative Adequacy) de Jong et al. (2012a) found that Communicative Adequacy could be predicted by both language knowledge skills and processing skills. Knowledge skills were measured based on analyses of participants' knowledge of vocabulary and grammar; processing skills were measured based on analyses of the results of picture naming and sentence completion tasks, and analyses of pronunciation skills. Communicative adequacy was measured on the basis of ratings of non-expert judges. Similarly, Hulstijn, Schoonen, de Jong, Steinel & Florijn (2012) found that skills relating to language knowledge and processing could distinguish between participants rated to be at CEFR levels B1 and B2.

However, like Sato (2012), studies carried out as part of the WiSP project employed a computer-delivered approach, i.e. prompts were displayed on a computer screen, and test-takers were required to respond through a headset.

Sato's (2012) justification for this approach is that test-takers in that study were familiar with the computer-delivered format. While this approach may have benefits, particularly for test administration, internal validity (i.e. ensuring that the results of the test are not skewed by independent variables - Mackey & Gass 2005) may have been compromised by the fact that the participant was interacting with a machine, rather than a human interlocutor. Brown & Hill (2007) observe that while research into the effects of interviewer style on test-takers' performance is limited, there is some evidence that an interviewer's behaviour in a test scenario can influence participants' performance. This hypothesis is supported by Berwick & Ross (1996), Brown (2003), Brown & Hill (2007), and Ross (2007). As such, while the results presented by Sato (2012) and members of the WiSP project (e.g. de Jong et al. 2012c, Hulstijn et al. 2012, Bosker et al. 2013) are illuminating and insightful, they should be approached with caution and tested further.

A further point to consider is that de Jong et al. (2012c) based their analyses on two separate data sets: skills measuring language knowledge and processing were assessed on the basis of participants' performances on one set of speaking tasks; functional adequacy ratings were collected for the same participants' performances on another set of tasks. The authors argue that this approach is superior to approaches in which the same speech samples are used for all analyses, because the use of one sample only

> generates the danger of circularity for a study that aims to define and decompose the construct of speaking proficiency (de Jong et al. 2012c: 9).

However, language users' performances and processes of production may differ from one occasion to the next. Assessing dimensions of proficiency manifested in different performances cannot illuminate the ways in which these dimensions interact. Furthermore, as observed above, the WiSP project draws conclusions based on different performances for each component being assessed. Although these studies are insightful in so far as they indicate performance on individual tasks, caution should be employed when assuming that different task conditions can lead can lead to comparable results.

Révész et al. (2013) report the relationship between Communicative Adequacy and CAF, including one additional measure not previously investigated: discourse complexity. Discourse complexity is defined as "the ability to express functions according to the socio-cultural conventions of the context" (Révész, Ekiert & Torgersen 2013: 21). This definition is reminiscent of Canale & Swain's (1980) and Bachman & Palmer's (1982) positions that sociolinguistic competence is an important element of overall linguistic proficiency. This is the only study to date assessing such a measure in relation to CAF and Communicative Adequacy. Révész et al. (2013) report that discourse complexity — as rated by a professional discourse analyst — was the strongest predictor (65%) of Communicative Adequacy, as rated by postgraduate students. Other CAF measures predicted only between 16% and 25% of the variance in Communicative Adequacy scores. Given the importance of discourse complexity in this study, it would be very worthwhile examining this variable in future research.

Similar observations are made by Iwashita et al. (2008) and Orr (2002). However, while those involved in the former study argue that differences in raters' evaluations are unproblematic as they tend to converge on Communicative Adequacy levels, Orr (2002) argues that these differences could cause problems in our understanding of why individual raters choose to focus on what they do. More research into this question is necessary, however, in order to fully understand the practical implications of rater differences.

4.4.4.2 Communicative Adequacy as it is defined here

Kuiken, Vedder & Gilabert (2010) note the lack of consensus in the field of SLA regarding exactly what is meant by the ability to effectively communicative; indeed, the range of terms available for describing this construct is a testament to this. This kind of ability has also been defined as "functional adequacy" (Pallotti 2009), or

> the degree to which a learner's performance is successful in achieving the task's goals efficiently (de Jong et al. 2012a: 123)

Purpura (2008) provides an extremely helpful overview of the development of the operationalisation of communicative language ability (CLA). The approach taken is of CLA as the ability to successfully use language to "communicate a

variety of meanings in different…contexts" (Purpura 2008: 53). Savignon describes communicative competence as "a dynamic exchange in which linguistic competence must adapt itself to the total informational input, both linguistic and paralinguistic, of one or more interlocutors" (Savignon, 1972: 8, cited in McNamara 1996a: 35). These definitions bear a clear resemblance de Jong et al. (2012a) and their definition of functional adequacy.

Following Kuiken et al. (2010) and Révész et al. (2013), the term 'Communicative Adequacy' is used in this study to refer to the ability of a speaker to use their formal knowledge of language and language processing skills to communicate a message. It is measured in this study through raters' assessments of participants' performances on two Gaelic-medium tasks: an interview, and a narrative. Raters' assessments of Communicative Adequacy were gathered using a scale based on operationalisations of this construct in the Common European Framework of Reference for Languages (see section 6.3.4.3).

4.5 The interaction of components of proficiency

In establishing the development of proficiency, it may be insufficient to posit a linear path of development, as has frequently been suggested in SLA literature, e.g. the morpheme studies (Dulay & Burt 1974, Krashen 1977, Teresa Pica 1983), the Multidimensional Model of language learning (Meisel, Clahsen & Pienemann 1981), and Processability Theory (Pienemann 1998). Studies since the late 1990s have shown that the different components of proficiency interact in often unpredictable ways, and that development and growth in proficiency are not necessarily the same phenomenon. The relationship between CAF and Communicative Adequacy has been addressed in section 4.4.4.1. Two theories developed to explain the relationships between complexity, accuracy, and fluency are Skehan's Trade-off Hypothesis (1998, 2007, 2009), and Robinson's Cognition Hypothesis (2001b, 2005, 2007).

4.5.1 Trade-offs

The Trade-off Hypothesis (TH) proposes that complexity and accuracy compete against one another in terms of the attentional resources a speaker can allocate to them: in other words, there is a "trade-off" between these dimensions of

proficiency. The TH also proposes that complexity and fluency, or accuracy and fluency, are found in supportive relationships. The TH is directly related to Levelt's blueprint of the L1 speaker (Skehan 2009) and the concept of limited attentional capacity (see section 4.2.1). Skehan's (1998) limited attentional capacity model posits that language use and acquisition are "constrained by the operations of a limited capacity information-processing system" (Skehan 1998: 86). In order for language processing to run smoothly, the speaker must be able to distribute their attention evenly over all processing components. If attention is focused more towards some components than others, those receiving less attention will be less able to adequately fulfil their role.

As noted above, Skehan (2009) links TH-related findings to Levelt's (1989) model of speech production, arguing that "the stages of speech production give us some insight into which CAF areas are affected by which influences" (Skehan 2009: 520).[15] He asserts that different task conditions affect the conceptualiser and formulator in different ways, either by placing additional pressure on them, or by easing processing at that module. Placing pressure on, or removing pressure from, the conceptualiser affects complexity. Meanwhile, placing pressure on, or removing pressure from, the formulator affects accuracy and fluency. Complex tasks, e.g. narrative tasks with multiple storylines, affect the conceptualiser, which in turn influences performance on structural and lexical complexity.

Discussing accuracy and fluency, Skehan (2009) notes that the L2 speaker's mental lexicon is smaller and less well-organised than the L1 speaker's. In addition, while the semantic knowledge of an L1 speaker is accessed automatically (Levelt 1989), an L2 speaker, may not yet be able to access and encode this knowledge automatically. This position is supported by the findings reported in 4.2.1 on the development of automaticity. Depending on the complexity of the pre-verbal message, the formulator may be put under pressure

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[15] Levelt's (1989) model of speech processing is not discussed in detail in this thesis. However, in section 4.2, it is explained that Kormos's (2006) Bilingual Speech Production Model (BSPM) builds upon and expands Levelt's (1989; 1999) model, with specific modifications made to account for the L2 speaker. Kormos's (2006) model is outlined in section 4.2, and the reader will see that the modules referred to in this discussion of Skehan (2009), i.e. the conceptualiser and the formulator, are both described there. In terms of the processing of information, Skehan's (2009) observations can all be applied to the BSPM. The BSPM is adopted and discussed in more detail in this thesis because of its greater relevance to the L2 speaker, however.

to provide appropriate lemmas and syntactic structures, with replacement of parts of the message perhaps being necessary. This places additional attentional demands on the formulator. As such, the automatic functioning of the formulator is jeopardised, controlled processing is necessary, and it is more difficult for smooth parallel processing to take place. This affects fluency, as the process of speech production is slowed, and accuracy, as the speaker has less attention available to focus on encoding the relevant lemma accurately.

Tasks requiring infrequent vocabulary, or that restrict the vocabulary that can be used, place pressure on the formulator, as does putting speakers under time pressure, or requiring them to carry out monologic tasks. Pre-task planning which affords speakers the opportunity to organise their ideas in advance, or to rehearse what they are going to say eases the cognitive burden of the formulator at the point of lemma retrieval. This is also the case for dialogic tasks, in which the interlocutor may provide relevant vocabulary.

Referring to Van Patten (1990), Skehan (1998) observes that when a speaker chooses to prioritise meaning or function, fewer resources are available for a focus on form. A learner prioritising the communication of a message may devote more attention to message generation (which takes place in the conceptualiser), or the retrieval of lexical items to meet this message (which is carried out in the formulator). Because the real-time demands of communication are not diminished, however, the speaker does not have unlimited time to plan and formulate their message. These time constraints may result in a concept or message that is not fully ready for articulation being communicated. Furthermore, the conceptualiser requires conscious, controlled attention; the more attention that is required at this point, the less attention there is available for formulating, articulating, and monitoring the message to be produced. There is also little attention available for the parallel processing of the next message. As such, communication is slowed, and errors may surface.

Reference is made above to the effect that task manipulation can have on speech processing and production. The TH proposes that requiring speakers to use more complex lexical items can negatively impact syntactic complexity and accuracy. Skehan (1998: 168) also argues that "learners seem predisposed to prioritise particular areas consistently". Kormos (2006) argues that when

speakers are choosing how to allocate their attention, they tend to prioritise content over form, and lexis over grammar, or vice versa. In Skehan's terms, this would lead to trade-offs between complexity and accuracy. Finally, the TH proposes that raising performance in one area through task manipulation may deplete attention to other areas (Skehan 2009).

Task manipulation can take place through, for example, allowing participants planning time in task completion. Planning time is considered a "directing" condition (Skehan 2007), and is hypothesised to improve scores for complexity and fluency. Elsewhere, there is some evidence that fluency can be improved by the carrying out of familiar tasks (Foster & Skehan 1996), and that narrative structure and storyline complexity can improve scores for accuracy and complexity, respectively (Tavakoli & Foster 2008a, Skehan & Foster 2012).

Skehan (2009) emphasises that what is true for the group is not necessarily true for the individual, i.e., while the average results of a group may show clear trade-offs between complexity and accuracy, individuals' data may not show the same pattern. Studies analysing individuals' performances are crucial in order to understand the extent to which observations on trade-offs made of groups are applicable to individuals. Two such studies are by Larsen-Freeman (2006), and Ferrari (2012). Both studies are longitudinal, and investigate the linguistic performance and development of small groups of individuals (five in the case of Larsen-Freeman, and four in Ferrari).

In a longitudinal examination of the development of complexity, accuracy, and fluency in the written production of five Chinese learners of English, Larsen-Freeman (2006) found that while the group overall made progress in all areas, within individuals, the results were less straightforward. Learners showed individual preferences in areas of focus in terms of their language use, e.g., some focused on grammatical complexity, others on accuracy. The rate at which results in any area changed (either progressively or regressively) also varied according to learner. The results suggest that development on any particular task and in any particular feature indicate that a learner has greater resources available to them for that task/feature. Finally, Larsen-Freeman (2006) observes that among the participants in this study, the scores for accuracy were those which varied the most, and provides two potential

explanations: learners are approaching asymptote on scores for fluency and complexity, or they are focusing their attention on fluency and complexity at the expense of accuracy. These findings very clearly support the predictions of the TH.

Supportive relationships occur when high performance in one component of proficiency encourages high performance in another. They are sometimes referred to as "connected growers" (e.g. Larsen-Freeman 2009, Vercellotti 2012). Yuan & Ellis (2003) investigated the effects of planning on the performance in an oral narrative task by Chinese L1 learners of English. Participants were divided into three groups: one was allowed no planning, the second was allowed pre-task planning, while the third was allowed online planning. Unsurprisingly, the third group took longer to complete their task than the other groups. Fluency scores were highest for the second group, and both groups which were allowed planning scored higher for grammatical complexity than the first group. Overall, it was found that both types of planning enhanced scores for complexity, leading the authors to argue that the cognitive processes engaged in during planning are those that enhance complexity, potentially at the expense of accuracy and fluency. According to these findings, however, most learners given the opportunity for online planning will favour accuracy over fluency. A final trade-off observed in this study was between lexical complexity and grammatical complexity: this finding is certainly interesting, but has been untested elsewhere and thus requires further investigation.

Ahmadian & Tavakoli (2011) observed a trade-off between accuracy and fluency on the one hand, and complexity and fluency on the other in the oral narrative productions of Iranian learners of English. Like Yuan & Ellis (2003), their findings indicated that careful online planning correlated with a decrease in fluency. However, task repetition negated these effects, and led to improved scores for complexity, accuracy, and fluency. These findings suggest that while trade-off effects might be a natural part of L2 production, these can be minimised by a pedagogic approach which includes task repetition. Importantly, Skehan (2007) observes that the TH requires a post-hoc application to data, i.e., it is difficult to predict with precision how one variable will affect another, even taking directing conditions into account. Therefore, although the TH is certainly worth

exploring, it is important to avoid constructing hypotheses based around any particular trade-offs.

Indeed, Skehan (Skehan & Foster 2012: 215) himself argues in relation to the TH that while a trade-off between complexity and accuracy is common, "there is no prediction that one will *always* see raised performance in one area at the expense of the performance in another" (emphasis in original). Skehan & Foster (2012) go on to propose the Extended Trade-off Hypothesis (ETH), which posits that both complexity and accuracy may sometimes be raised, and that this is due to a range of factors, not just task complexity. These factors include task structure, the particular cognitive processes a task demands, and the importance of "non-negotiable elements, such as particular lexis" in any given task (Skehan & Foster 2012: 217). A research synthesis of seven studies conducted by Skehan and Foster — which allows for straightforward comparison of all findings — supports the ETH, showing the important roles played by planning conditions, task type, time restrictions, and post-task reflections on CAF relationships (Skehan & Foster 2012).

4.5.2 An alternative approach: The Cognition Hypothesis

Robinson (2005) takes a different approach to the same problem, and proposes the Cognition Hypothesis (CH), which suggests that task complexity will lead to increased scores on both complexity and accuracy. A consequence of this is that fluency will decrease. An important aspect of the CH is that it refers to scores on specific measures of language use, e.g., the expression of motion or time. Thus, although studies examining general measures of complexity and accuracy have only partially supported the CH (e.g. Gilabert 2007b, Kuiken & Vedder 2007, Michel, Kuiken & Vedder 2007), those examining specific aspects of language, e.g., those summarised in Robinson, Cadierno and Shirai (2009), have been more favourable. Skehan & Foster (2012) argue that the Extended Trade-off Hypothesis accounts better for findings supporting the CH, and indeed, the evidence they provide is strong. As such, the CH will not be examined further in this thesis, and instead, the Extended Trade-off Hypothesis will be tested.

4.6 **Summary and conclusion**

This chapter has presented Kormos's (2006) Bilingual Speech Production Model as the most appropriate means of understanding and analysing L2 proficiency and the interactions between dimensions of proficiency. In sections 4.3 and 4.4, proficiency was described in terms of complexity, accuracy, and fluency, and Communicative Adequacy. In 4.5, the complex ways that these interact, and the reasons behind these interactions were discussed.

The Bilingual Speech Production Model accounts for language production through modules of speech production which rely on stores of declarative and proceduralised knowledge. According to the model, the more proceduralised a speaker's knowledge, the more likely it is that their speech performance will be accurate and fluent. But accuracy and fluency, like complexity and Communicative Adequacy, are not easily defined. Each dimension of proficiency incorporates a range of components. Particularly in the case of Communicative Adequacy, measurement may also be difficult. This chapter has outlined the ways in which these dimensions of proficiency are defined and measured in this study.

It is also observed that many CAF studies rely on group scores to draw conclusions about language proficiency and processing. However, given that language production is an activity carried out by individuals, it is important to understand how it takes place on an individual level. Studies relying on group scores can provide understanding, but are very likely to overlook individuals' characteristics that may yield further insight. For this reason, more studies examining individuals' scores are necessary. The same is true of studies analysing Communicative Adequacy, and the perceptions of proficiency.

Many CAF studies are cross-sectional in nature, and therefore cannot inform on developments in language processing. Finally, almost all of the studies reported in this chapter address language production by L2 users of English. In order to fully understand language production, and test the BSPM and TH more thoroughly, research focusing on other languages is imperative.

5 Research questions

5.1 Chapter overview

This chapter presents this study's research questions, and the hypotheses associated with them. In 5.2, a summary of the review of the literature presented in chapters 2-4 is provided. In 5.3, the major gaps in this literature that this study attempts to address are presented. In 5.4, each of the three research questions to be examined is presented. Section 5.5 summarises this chapter.

5.2 Summary of previous chapters

In chapters 2-4, the main topics under investigation in this thesis were presented. These are:

- language planning and language revitalisation;
- individuals' experiences of language learning; and
- the measurement of language proficiency.

A detailed summary of these topics is presented in the following sections.

5.2.1 Chapter 2: Reversing Gaelic language shift through Language-in-Education policy

In chapter 2, on language planning and language revitalisation, the context in which this research takes place was identified. The role L2 users of minority languages can play in language revitalisation was highlighted, through reference to three language planning frameworks: Cooper's (1989) tripartite model of language planning, based around status planning, corpus planning, and acquisition planning; Fishman's (1991, 2001c) model of reversing language shift (RLS), which includes intergenerational language transmission from adults to children as a key principle; and Strubell's (1998, 1999) Catherine Wheel model of language acquisition and use.

It was argued that adult second language (L2) users can play an important part in language revitalisation by increasing the possibility of intergenerational transmission, and by using the target language (TL) in more domains and thereby

improving perceptions of the utility of the language in question. To increase the likelihood of adult L2 users' playing this part, changes in Gaelic language-in-education policy (GLEP) directed towards Gaelic are necessary. As part of this discussion, the limitations in GLEP that have been identified elsewhere (Comunn na Gàidhlig & Comunn Luchd Ionnsachaidh 1992, MacCaluim 2007, McLeod, Pollock & MacCaluim 2010, Milligan, Chalmers & Danson 2011) were presented. These limitations can be summarised as

- a shortage of learning materials and resources for adult L2 Gaelic users, particularly beyond beginner level;
- an absence of a clear pathway for language learning;
- a shortage of trained teachers; and
- an uncoordinated system, such that a course in one institution cannot be easily aligned with or compared to a course in another.

It was argued in chapter 2 that there has been insufficient research addressing the pedagogic cycle of needs analysis, identification of learning outcomes, materials and assessment development, and applications of proficiency descriptors to language assessment. This kind of research could identify the linguistic needs of L2 users, and establish more effective ways of teaching and learning that would meet those needs, which may resolve some of the issues associated with GLEP. It is argued that the development of a means of assessing proficiency would be a useful first step in this process, especially in terms of needs analysis, and that this thesis aims to develop such a means. The assessment of proficiency could play a central role in GLEP, and by extension, Gaelic language revitalisation policy.

5.2.2 Chapter 3: Differences in adult L2 Gaelic users' learning experiences: the main variables

In chapter 3, differences in individuals' language learning experiences were addressed. Dörnyei's (2005, 2009) L2 Motivational Self System and Dörnyei & Ottó's (1998) Process Model of L2 Motivation were introduced as the theoretical frameworks to interpret the findings on differences examined in this thesis.

A number of variables were introduced which were argued to have an effect on L2 language users' motivation at different stages of the learning process. These are: amount of exposure to the target language (TL), methods of language

instruction, opportunities to use the TL, beliefs about language learning, use of language learning strategies, and confidence. It was argued that these variables could affect participants' language learning goals and outcomes. It is important to understand these differences in order to paint a more detailed picture of the participants involved in this study. It was also argued that these differences may affect participants' performances on different tasks.

5.2.3 Chapter 4: The measurement of language proficiency

In chapter 4, the theoretical framework for the measurement of language proficiency, Kormos's (2006) Bilingual Speech Production Model (BSPM) was presented. The BSPM builds on Levelt's (1989, 1999) model of first language processing, and posits the existence of three language processing modules involved in speech production: the conceptualiser, the formulator, and the articulator.

Following this, definitions and measurements of the four dimensions of language proficiency addressed in this study were introduced. These dimensions are complexity, accuracy, fluency, and Communicative Adequacy. Complexity, accuracy, and fluency (CAF) were further divided into components. These are presented in table 5.1.

Dimension of proficiency	Components
Complexity	D, a measure of lexical diversity
	Subordination Ratio, representing the number of clauses per AS-unit[16]
	Mean length of clause in words
Accuracy	Percent of Accurate AS-units
	Inaccuracies per AS-unit
Fluency	Mean length of fluent run, i.e. mean length of time between pauses
	Phonation time, i.e. the percentage of floor time for which a participant speaks
	Articulation rate, calculated in number of words per minute

Table 5.1 - Complexity, accuracy, and fluency as dimensions of proficiency, and their associated components

Communicative Adequacy refers to a speaker's ability to effectively communicate in different situations. It was explained that this is measured in this study using raters' judgements of participants' performances.

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[16] An AS-unit is

> a single speaker's utterance consisting of *an independent clause, or sub-clausal unit,* together with any *subordinate clause*(s) associated with either. (Foster, Tonkyn & Wigglesworth 2000: 365, italics in original)

An overview of some of the key studies and theories exploring the interaction between these dimensions of proficiency was then presented, focusing in particular on Skehan's (1998) Limited Attentional Capacity Model (LACM), and Skehan & Foster's (2012) Extended Trade-off Hypothesis (ETH). The LACM assumes that language users have limited attentional resources to distribute over all language processing components. The ETH proposes that task conditions influence performance on CAF by requiring language users to focus on one processing component over another. This leads to trade-offs between dimensions of proficiency.

Although the relationship between formal language and effective communication has been well researched in the field of language testing (e.g. Hymes 1974, Canale & Swain 1980, Bachman 1990, Davies 1990, McNamara 1996a), research on CAF has not dedicated as much scholarship to these interactions until recently (but see, for example, the SLATE research reported in Iwashita et al. 2008, Bartning, Martin & Vedder 2010, de Jong et al. 2012a, Révész, Ekiert & Torgersen 2013). It has nonetheless been observed that there are trade-offs between CAF and Communicative Adequacy (Kuiken, Vedder & Gilabert 2010, Myles 2012). It is important to study this question further.

5.3 Gaps in the literature

In the literature review presented in chapters 2-4 and summarised above, a number of gaps and limitations were identified which this study intends to address. To begin with, much research remains to be done in the field of second language acquisition (SLA) on the interaction between CAF and Communicative Adequacy. If Communicative Adequacy is a means of interpreting CAF results (Pallotti 2009), CAF studies could be enhanced by reference to and analysis of Communicative Adequacy. If, on the other hand, Communicative Adequacy is a separate dimension of proficiency in its own right (see e.g. de Jong et al. 2012a), its exclusion from CAF studies may paint an incomplete picture of language development and language proficiency. Given that this study aims to describe in a comprehensive way how linguistic proficiency is manifested in performance on different tasks, it is important to include Communicative Adequacy as a variable.

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The most striking gap in terms of SLA research is that Gaelic is almost entirely absent from the research field, with the exception of Macleod's (2000) paper on the teaching of Gaelic to Irish speakers. There are also very few studies within the field on the adult acquisition of the languages most closely related to Gaelic: Manx, and Irish, with Scott & Kenny (2000) and Scott (2003) providing the only available studies of Irish adult SLA so far. This absence is not so surprising, given the relatively few numbers of L2 speakers of these languages in formal settings in comparison to other modern European languages. Nonetheless, in order to improve the generalisability of SLA findings and to deepen our understanding of concepts such as trade-offs between dimensions of proficiency, it is important to study a wide range of typologically distinct languages. The study of Gaelic can examine how CAF and Communicative Adequacy, as well as speech production and trade-offs, are best measured in Verb-Subject-Object languages, languages with complex morphology, languages with no unified standard, or languages in very close contact with English.

Despite the relatively large number of studies carried out to date describing the limitations of the adult Gaelic language learning infrastructure, there have been no studies that actively attempt to address the Gaelic pedagogic cycle. Few studies have attempted to meet the first step in needs analysis, which would identify situations in which Gaelic is to be used by L2 speakers, and how students' proficiency can be measured so that they are placed at a suitable level in a language course. Some results have been gathered for Gaelic which could be beneficial in this regard, e.g. the findings of the Shawbost report (Mac an Tàilleir, Rothach & Armstrong 2010) which describes the situations in which native Gaelic speakers in that community use Gaelic, and MacCaluim's (2007) work which reports on adult L2 users' Gaelic use. As observed in chapter 2, the Gaelic proficiency scales which do exist are not consistent with one another, nor are they supported by research into Gaelic SLA processes.

Finally, there has been no research to identify strategies and learning methods that are useful for Gaelic L2 users, or which strategies they are employing. Given the emphasis currently placed on adult L2 users of Gaelic as key agents in language revitalization, research of this kind is essential.

5.4 Research questions

This study aims to address these gaps by taking an exploratory approach to answering the following questions, using previously established SLA methods and techniques that are widely used in the field. The approach taken is a cross-sectional analysis of language learning experience and backgrounds, and learner productions, using a mixed-methods approach.

1. What paths do Gaelic users take when learning the language?
    a. How do these relate to Dörnyei's (2005, 2009) L2 Motivational Self System and Dörnyei & Ottó's (1998) Process Model of L2 Motivation?

2. How do dimensions of proficiency interact?

3. Can Communicative Adequacy be predicted by:

    a. CAF scores?

    b. Comments and observations made by raters?

5.4.1 Research question 1: What paths do Gaelic users take when learning the language?

This question is exploratory in nature, and focuses on establishing the pathways participants have taken to Gaelic learning. MacCaluim (2007) and Milligan et al. (2011) show that most adult L2 Gaelic users take a variety of approaches to Gaelic learning. The extent to which this is true of the participants in this study is examined, and the results are interpreted following models of language learning motivation that assume motivation is dynamic and changes over time (Dörnyei & Ottó 1998, Dörnyei 2005, 2009).

5.4.2 Research question 2: How do dimensions of proficiency interact?

Skehan's (1998) LACM and Kormos's (2006) BSPM both presuppose limitations on language users' attentional resources. The ETH (Skehan & Foster 2012) predicts that the dimensions of proficiency, complexity, accuracy, and fluency, interact

depending on the nature of the task being performed. Because of limited attentional capacity, the nature of a task can lead to competition and trade-offs between dimensions of proficiency.

Two hypotheses are tested relating to the research question:

1. Research question 2, hypothesis 1 (Hypothesis 2.1): As predicted by the LACM, participants' attention is not distributed equally across all CAF components. As a result, trade-offs between CAF components are evident in performance.

2. Research question 2, hypothesis 2 (Hypothesis 2.2): As predicted by the ETH, task conditions moderate the relationship between dimensions of proficiency.

5.4.3 Research question 3: Can Communicative Adequacy be predicted by CAF scores? Can Communicative Adequacy be predicted by raters' comments and observations?

This question explores the relationship between Communicative Adequacy and CAF, and examines whether measures of linguistic proficiency can predict communicative success on a given task. Three hypotheses are tested relating to this research question:

1. Research question 3, hypothesis 1 (Hypothesis 3.1): CAF scores predict Communicative Adequacy ratings.

2. Research question 3, hypothesis 2 (Hypothesis 3.2): More proceduralised language processing is associated with higher Communicative Adequacy ratings

3. Research question 3, hypothesis 3 (Hypothesis 3.3): Raters make similar comments and observations on participants' performances when those participants are considered to be at the same level of Communicative Adequacy.

5.5 Summary

This chapter has summarised the literature presented in chapters 2-5, and has highlighted the gaps in this literature that this study attempts to address. Three research questions have been presented. In the next chapter, the methodology used for data collection and analysis is presented.

6 Methodology

6.1 Chapter overview

This chapter presents the methodology employed in the study design, and data collection and analysis. The use of this methodology is also justified. The mixed-methods framework used in the study design is explained in 6.2. In 6.3, the procedures for data collection are presented. In 6.4 the transcription procedures employed are described, while coding and analysis techniques used for these data are described in section 6.5. Section 6.6 concludes this chapter.

6.2 Methodological approach

As Mackey & Gass (2012: 1) observe, "research methods are dependent on the theories that they are designed to investigate". Nonetheless, research methods must also be practical. In choosing which research methods to employ, it is important to consider not only the theoretical framework in which the research is taking place, but also the research context and resources available (Bryman 2012).

In studies assessing Communicative Adequacy and/or complexity, accuracy, and fluency (CAF), a quantitative approach to data collection and analysis is often employed (Yuan & Ellis 2003, e.g. Ahmadian & Tavakoli 2011, de Jong et al. 2012a). Quantitative research primarily involves numerical data, which are analysed using statistical methods, e.g. questionnaire survey results analysed using statistical procedures in SPSS (Dörnyei 2007). Quantitative approaches are particularly useful for analysing large amounts of data, and for drawing conclusions which can be applied more generally to the larger population.

Studies examining rater judgements often employ qualitative approaches to data collection and analysis (Orr 2002, e.g. Brown 2003, Sato 2012). Qualitative research usually involves non-numerical data which can be analysed using non-statistical methods, e.g. research based on the analysis of the content of interviews. Studies investigating language learners' motivation may employ quantitative or qualitative methods (e.g. Ushioda 1999 for a qualitative approach, e.g. Csizér & Dörnyei 2005 for a quantitative approach).

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A mixed-methods research approach was considered the most appropriate approach to data collection and analysis for this study. Mixed-methods studies combine qualitative and quantitative approaches to research, either at the level of data collection or data analysis. This approach was considered the most appropriate for this study because of the nature of the questions explored. A quantitative approach was more appropriate for many aspects of the CAF analysis, but a qualitative approach as suitable for aspects of the analyses of Communicative Adequacy and motivation.

The mixed-method approach to the data collection and analysis processes is described in detail in sections 6.3 to 6.5, but an overview is provided here. Participants were required to fill out a background questionnaire, describing their experiences of learning Gaelic. This quantitative approach to data collection resulted in a data set that was ultimately analysed in a qualitative manner, as this was more suitable for interpreting the data (see section 6.5.2). A qualitative approach was also taken to the collection and analysis of data on participants' learning experiences via an interview with the researcher.

The interview and narrative tasks were qualitative approaches to Gaelic-language data collection. Quantitative methods were used to code and analyse these data, by calculating proficiency and comparing proficiency scores (see 6.5.1). Although statistical methods were not employed in the analysis of these data, the analysis was based on numerical values, categories for data analysis were specified prior to the commencement of analysis, and the primary focus was on measuring proficiency variables. These are all characteristics of quantitative research (Dörnyei 2007). There was also a qualitative aspect to the analysis of these data, however, in the focus on individuals' performances and experiences.

Finally, the raters' data was collected through quantitative and qualitative methods (see 6.3.5.3), by asking them to place participants' performance in categories (quantitative), but also to describe their own personal evaluations (qualitative). A qualitative approach was taken to data coding and management (see 6.5.3), but the analysis of the data was both quantitative and qualitative: the quantitative aspect came about through the comparison of the occurrence of

different themes in the raters' comments; the qualitative aspect was based on an analysis of the content of raters' comments.

Mixed-methods approaches to research are useful in that they combine the strengths of both qualitative and quantitative approaches, and they afford multi-level analysis which may be more insightful than one approach or the other. Dörnyei (2007) also notes that mixed-methods approaches can provide insight into different facets of the same phenomenon: in this study, employing quantitative and qualitative methods enabled the data to be analysed using the best techniques for the purpose, rather than attempting to analyse data through a paradigm not ideally suited for the purpose.

6.3 Data collection procedures

In this section, the procedures for collecting data are outlined. In 6.3.1, the procedure for recruiting participants, and some biographical data about participants is presented. In 6.3.2, the procedure for recruiting raters is presented, along with some biographical data about the raters. In 6.3.3, the ethical considerations of the study are presented. In 6.3.4, the instruments used in data collection are presented, followed by a description of the data collection process in 6.3.5.

6.3.1 Participants

10% of Scotland's Gaelic speakers — the largest concentration outwith the *Gàidhealtachd* — live in Glasgow (Milligan, Chalmers & Danson 2011). For this reason, as well as for convenience, participants were recruited from the Glasgow area through a number of channels. The researcher visited university Gaelic classes, Gaelic classes run by Glasgow City and Renfrewshire Councils, and classes run by *Comunn na Gàidhlig* ('the Gaelic language society') to recruit participants. Members of the now inactive Glasgow's Gaelic Meetup Group were contacted via social events organised by that group, and by a message sent to all group members via their mailing list. Participants were also recruited via Facebook and the Gaelic social network, *Abair Thusa*.

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Potential participants were informed that data were being collected for a PhD project aiming to describe proficiency in Gaelic and the Gaelic second language acquisition (SLA) process. It was explained that the results could help improve resources and learning opportunities for adult L2 Gaelic users. It was clearly indicated to those with whom the researcher communicated that participants should have had minimal exposure to Gaelic before adulthood. Minimal exposure refers to participants' having not learned Gaelic in formal or informal settings, not spent time in Gaelic-speaking areas, and not having had family members from whom they might have heard Gaelic. Potential participants were also advised that second language (L2) Gaelic users of all levels of proficiency were welcome to participate. This was to enable comparison between participants with differing language skills during data analysis.

A total of 35 adult L2 Gaelic users responded to the call for participants. Four of these did not ultimately participate in the study due to geographical location. Three individuals agreed to participate, but on commencing data collection, it became clear to the researcher that their knowledge of Gaelic was insufficient for their data to be suitable for analysis. Two individuals who agreed to participate on the basis of the conditions that had been specified were later discovered to have learned Gaelic as teenagers at secondary school. As such, their data was discarded. Of the 26 remaining eligible participants, 10 acted as pilots for data collection. This left a total of 16 participants whose data would be included in the final analysis. Five participants were already known to the researcher at the time of data collection, from having participated in other Gaelic classes and activities before. While the small sample size is not typical in studies investigating CAF (e.g. Foster & Tavakoli 2009, de Jong et al. 2012b), it was considered that 16 participants was sufficient for detailed quantitative and qualitative analysis of all participants' data. Data analysis procedures are described in section 6.5.

Because participation was on a voluntary basis, and participants were self-selecting, it was not possible to control for age, gender, or social background. Furthermore, due to the wide range of Gaelic learning opportunities available to adults, it was not possible to select participants from only one learning background. Rather, these variables were considered in the qualitative analysis of participants' backgrounds and experiences. Length of time spent learning

Gaelic ranged from six months to 41 years, with a mean length of time learning of 8.9 years. Five participants used Gaelic on a daily basis for the purposes of work. Five used Gaelic on a daily basis as part of their studies at college or university. The remaining six participants used Gaelic at least once a week for social purposes.

Participants ranged in age from 19 to over 70, with a mean age of 39.9 years. Nine were women, while seven were men. English was the first language (L1) of all participants, and two participants were multilingual speakers of at least two L1s. The range of differences between participants in terms of their social circumstances was not considered problematic: as a preliminary, exploratory study, it was important to work with a sample of Gaelic adult L2 users that could reflect the diversity of adult L2 Gaelic users in general (MacCaluim 2007, Milligan, Chalmers & Danson 2011), to explore what methods would be appropriate for employment in future, more controlled studies. However, these differences may have had an effect on the results obtained: this issue is discussed further in chapter 10.

6.3.2 Raters

Five L1 Gaelic speakers who make use of Gaelic in everyday life were recruited for the purpose of rating participants' performances for Communicative Adequacy. This number was chosen to reduce the effect of chance on inter-rater reliability scores. One rater was unable to attend the second data rating session. As such, there are a total of five raters for the interview data, and four for the narrative data.

Raters were recruited through the researcher's personal Gaelic social networks, and via public messages on Facebook and Twitter. Raters were informed of the purpose of the study before agreeing to participate. Raters were paid £75 for their time. This was because, due to the time commitment required, many of the individuals approached were unable or unwilling to participate. The £75 compensation successfully served as a rewarding factor.

Two of the raters were known personally to the researcher. All raters spoke Gaelic as their L1: two had been raised in traditional Gaelic-speaking areas,

while three had been raised in Glasgow. Raters ranged in age from mid-twenties to mid-fifties. All the raters used Gaelic on a daily basis in their work and/or home lives.

6.3.3 Ethical approval

Ethical approval for the research project was obtained from the University of Glasgow College of Arts Ethics Committee for Non-Clinical Research Involving Human Subjects. For ethical reasons, all participants and raters were ascribed pseudonyms, and some identifying details (e.g. place or work, nationality, languages spoken) have been obscured. During the rating process, information which may have allowed the raters to identify the participants (e.g. area of residence) was masked with a beeping sound. Nevertheless, one participant was identified by two of the five raters. Following McLeod, O'Rourke & Dunmore (2014b) all pseudonyms are female names, and all participants are referred to with female pronouns, although seven participants were male. Similarly, all raters are referred to with male pseudonyms. This practice was adopted to avoid compromising participants' anonymity due to the size and closeness of the Gaelic community in Glasgow.

6.3.4 Instruments

The instruments used for data collection are presented in this section, beginning with the participants' background information in 6.3.4.1, followed by the collection of the Gaelic-language data in 6.3.4.2. The instrument for obtaining raters' assessments on participants' Communicative Adequacy is described in 6.3.4.3.

6.3.4.1 Background information

The purpose of the English-language data was to gather information about participants' backgrounds and learning experiences. This part of data collection was carried out in English as the same information was required of all participants, regardless of Gaelic proficiency. In order to gather a comprehensive overview of all these areas, participants were administered a self-completion questionnaire, and were asked to participate in a semi-structured interview with the researcher. Self-completion questionnaires are

those to which a respondent can provide answers without the aid or intervention of an interviewer. Semi-structured interviews are those in which an interviewer uses an interview guide, but can vary the sequence of questions, and can ask further questions for clarification, or for more detail if a response seems particularly significant (Bryman 2012). This approach was considered preferable to a more structured interview (i.e. an interview in which respondents are asked exactly the same questions in the same order) because of the focus on understanding individual participants' experiences; it was considered that a structured interview might be too rigid or restrictive to fully engage with individuals' experiences.

The questionnaire and interview were used for the purposes of gathering quantifiable factual and behavioural information, including age, knowledge of other languages, Gaelic learning experiences, learning strategy use, language learning goals, and self-perceived proficiency. There was a total of 16 questions on the questionnaire.

Although questionnaires are efficient in terms of both distribution and data analysis, they carry with them some disadvantages, including superficiality of responses (Dörnyei 2003b). In addition, questionnaires are not always suitable for qualitative or exploratory analyses, as the information they provide is not suitably detailed (Dörnyei 2003b). For this reason, the interview was adopted in addition to allow for the collection of more developed responses, and for the validation or confirmation of any information considered to be unclear from the background questionnaire. Because of the intention to analyse the background information data qualitatively, the interview was more appropriate for some issues. The semi-structured interview consisted of approximately 13 questions, and lasted approximately 15-20 minutes, depending on participants' responses.

The questions in both the questionnaire and the interview were modelled in the first instance on those used in the New Zealand-based Marsden Project of English SLA (Ellis et al. 2009), and on the questionnaires developed by MacCaluim (2007) and McLeod, Pollock & MacCaluim (2010) for their research into the learning of Gaelic by adults. These resources were modified and developed to better serve the purposes of this study.

Both the background questionnaire and the interview were piloted on 10 participants, after which, a number of changes were made to the structure of both. The original background questionnaire had been considerably shorter, with most questions being asked in the interview. However, it became clear after the first pilot interview that this led to very long interviews, which were tiring for participants. Furthermore, some answers, such as how frequently participants engaged in active Gaelic learning, could be better categorised and analysed when asked in questionnaire format, as they allowed for only a limited range of responses. The background questionnaire thus allowed for more efficient data collection and analysis. The revised interview guide can be found in Appendix A.

Following the pilot, a number of specific changes were made to the background questionnaire. The revised background questionnaire can be found in the Appendix A. Participants were no longer asked to specify their L1, as the researcher was already aware of participants' language backgrounds. The question on participants' level of education was also removed, as this was not considered relevant to the study. The question "How much exposure have you had to Gaelic?" was replaced by a series of more specific questions, enquiring as to the length of time the participant had been learning Gaelic, the consistency with which they had been learning, the amount of time (if any) they had spent in the *Gàidhealtachd*, the types of Gaelic courses they had attended, and the frequency with which they engaged in Gaelic-language activities.

On the revised background questionnaire, participants were asked to specify when and for how long any other languages were learned. Participants were also asked to rate their self-perceived ability according to a scale, in order to facilitate comparison between participants, and between self-assessments and the scores awarded to participants after data analysis. Furthermore, participants were asked whether they believed their learning of another language had been helpful to them when learning Gaelic. This question lead on to whether they believed they had a natural ability for additional language learning, and also, what they thought was the best way to learn an additional language. In this way, it was hoped that participants' general attitudes towards language learning, their overall impression of themselves as L2 users, and their experiences of language learning could be established.

During the pilot, no specific questions were asked on participants' past experiences learning Gaelic, but after a number of participants in the pilot volunteered this information, it became clear that this could be an important factor in explaining participants' current use of, and attitudes towards, Gaelic. As such, the revised background questionnaire includes a question on learning background.

Finally, following the Gaelic data collection, participants were given the opportunity to ask any questions about the research or their participation. At this stage, they were also asked if they had found any task particularly easy or difficult, and how they felt about the experience as a whole. This feedback was intended to contribute to data analysis, as it could provide insight into each participant's attitude towards different tasks, and could potentially help to explain differences in performance on the difference tasks. All participants reported enjoying the tasks, and finding them helpful, as they provided an opportunity to speak Gaelic.

6.3.4.2 Gaelic data

The Gaelic data collected were originally intended to reveal which grammatical structures were mastered by participants at different levels of ability, as well as to examine CAF and Communicative Adequacy in Gaelic L2 production. However, after data collection, it became clear to the researcher that the approach taken was not suitable for the analysis of grammatical structures, nor was it practical to analyse the data in this way.

One reason for this is that the researcher made a conscious effort to put participants at ease so that their performance would be more reflective of spontaneous production. It was hoped that in this way, Hawthorne effects and social desirability biases could be avoided or minimised. The Hawthorne effect refers to participants' tendencies to perform differently when they are aware they are being studied (Dörnyei 2007). Social desirability bias refers to participants' desires to meet the expectations they believe the research expects of them (Dörnyei 2007). In this case, it was hoped that in putting participants at their ease, they would be less likely to focus on performing to the standard they thought the researcher expected, and more likely to produce language closer to

their spontaneous production. This strategy appears to have been effective. However, as a result of encouraging communication rather than a focus on structures, it could not be assumed that participants' implicit[17] and explicit language knowledge was being assessed.

As the research project progressed, it was clear that the data collected were more suitable for analysing participants' performance using CAF and Communicative Adequacy measures only. The cross-sectional data collected using the methods described in the following sections, interview, narrative, and picture description could yield insight into performance and online processing, but were not suitable for the original purpose of testing implicit and explicit knowledge.

All participants performed the interview task first. This was because it was felt that the interview was the most natural of the three tasks, and that performing this first might reduce performance anxiety. The narrative and picture description tasks were presented following the interview: eight participants performed the narrative first and the picture description second, while eight performed the picture description first and the narrative second. This strategy was deliberately adopted to control for the effect of task ordering on performance.

Interview

The Gaelic interview was semi-structured, and took the form of an informal conversation with the interviewer. Discussion was based on topics which would be familiar to speakers of all levels, such as the weather, their wellbeing, their family and work life, and hobbies. During data collection, participants who had self-rated as A1/A2, B1/B2, and C1/C2 were asked a slightly different set of questions: participants identifying as being at levels B and C were asked a longer set of questions, giving them the opportunity to speak about more complex topics. It was intended that these data be analysed to assess the differences in linguistic knowledge at different proficiency levels. However, after data

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[17] Performance skills are of course related to implicit knowledge. This study, however, is intended to examine how linguistic knowledge and processing manifests itself in performance, rather than to examine particular linguistic features.

collection was completed, it was considered that this would lead to unfair comparisons between the data provided by different individuals, and so only the responses to questions put to participants at all levels were included in the analysis. However, the fact that these participants were required to speak in Gaelic for longer than others may have affected their levels of fatigue. This issue is discussed further in chapter 10.

The interview guide is presented in English and Gaelic in Appendix A. Interviews lasted approximately 20 minutes, depending on the participant's loquacity. Participants were informed that the purpose of the interview was not to test their knowledge of Gaelic, and that rather, the interviewer was interested in experiencing their idiolect. They were also informed that, if necessary or desirable, they could make use of English constructions and lexical items to communicate their message.

Familiar topics were chosen for the Gaelic interview, in part to replicate the kinds of informal conversations Gaelic L2 users would have in the classroom or on social occasions. It was hoped that the content of this task would assist participants in producing the kind of speech they would produce naturally, and that anxiety or nervousness would be minimised.

The particular topics covered were chosen on the basis of content covered in the Gaelic 1B course at the University of Glasgow and the *Speaking Our Language* series. Unplanned, follow-up questions were asked when the participant demonstrated interest in the subject matter and a desire to speak further. This allowed for the development of natural conversation which would still be on topics familiar to the speakers, and would help to maintain the informal feel of the interview.

The structured and set questions in this interview were chosen to make sure that all participants were presented with similar input in the interview. However, it was felt that were the interviewer to adhere to a rigid script, the conversations may be stilted, abrupt, and non-reflective of the type of conversation people have in the real world. For this reason, there was a degree of freedom, in that participants could direct the conversation as they wished.

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Narrative

The narrative task was based on a short illustrated cartoon. A copy of this cartoon can be found in Appendix A. The story chosen for this narrative task was originally developed by Heaton (1966) and its inclusion in this study was modelled on Tavakoli & Foster (2008a). In a study examining learners' performance on a number of narrative tasks, all based around illustrations, the researchers found that this particular story elicited the most complex, accurate, and fluent language from speakers. Again, it was hoped that this would counterbalance the negative effects of any stress or nerves from which the participants may be suffering.

The inclusion of a narrative task allowed for the testing of participants' abilities in an informational routine. It also allowed for the analysis of longer stretches of speech than those found in the interactional routine. In order for a narrative to be performed successfully, participants should be able to set the scene, identify characters, refer to them consistently, identify the main events, and relate these in a coherent sequence (Luoma 2004).

Although participants were unlikely to have had to perform a picture-description class in real life, it was possible that this kind of task had been employed previously in their classroom interactions. Furthermore, in informal interviews, L2 users of Gaelic expressed that they often used the language to relate stories to others. Therefore, it was considered that this task did consider theory- and context-based validity, despite its apparent surface artificiality.

Participants were given a maximum of three minutes to familiarise themselves with the story before they were asked to reproduce it orally in their own words. Planning time, however, is not considered a variable in the study for two reasons. The first is that not all participants made use of the full three minutes available to them. The second is that participants were not instructed to plan in any particular way, e.g. through focusing on content, or form. Rather, the planning time was simply to ensure that participants were not disadvantaged by coming across unexpected turns of events in the narrative.

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In the pilot phase of this task, it was observed that some participants simply described what they saw in each frame, instead of constructing a narrative. As such, participants this time around were instructed to tell the story as though they were telling a story to a friend or a child, rather than to describe what they saw in each picture. Participants were once again reminded that this was not a language test *per se*, and that they were free to tell the story as they saw fit. They were instructed that no particular grammatical tense was required, and that if necessary, they could use English lexical items or constructions. All but one of the participants correctly identified the story as having two strands. It is unclear whether the speaker who did not refer to the second strand, i.e., the puppy entering the picnic basket, failed to recognise the plot, or if her failure to include this element of the story in her narrative reflected linguistic limitations. The task took, on average, three minutes to complete.

Picture description

For this task, participants were presented with an illustrated street scene, and were asked a number of questions which were designed to elicit specific grammatical structures. The illustration and set of questions can be found in Appendix A. The particular scene chosen was a modified version of *A Busy Street* from Milford (2010). The illustration was adapted by an artist known to the researcher so that questions targeting specific structures could be asked.

Participants were informed that if the answer was not clear to them, they could invent their own answer. This was because some of the questions, e.g., "Where had they been before this?" did not have an answer which could be represented in the picture, and required participants to use their own ingenuity. This task was only presented to participants who had not produced the desired structures during the other tasks. Where participants had produced some, but not all, of the desired structures, they were only asked those questions to elicit the structures they had not yet produced. This task lasted a maximum of ten minutes.

At the pilot stage, it was found that some participants did not produce the constructions being sought, mostly because of poor elicitation techniques from the interviewer. This was especially the case at lower levels of ability.

However, despite attempts to modify questions to be more explicit, a number of participants still failed to produce the required constructions. On reflection, it was also considered that the comparison of constructions elicited in this manner with constructions spontaneously produced in the interview was invalid. As a result, it was decided to discard data elicited from this task.

6.3.4.3 Rating scale

As explained in chapter 5, one of the aims of this study is to assess how Gaelic L2 proficiency is perceived by listeners. For this assessment, the five raters introduced in 6.3.1 were presented with two rating scales modelled on the Common European Framework of Reference for languages (CEFR) and several other proficiency scales, against which they were asked to evaluate participants' performance on the interview and the narrative (see section 4.4.4.2).

In the design of the rating scales, nine proficiency scales, as well as the CEFR reference level descriptor (RLD) development guidelines (Council of Europe 2005) were consulted. The proficiency scales were:

1. The CEFR (Council of Europe 2001)

   a. The CEFR as a framework consists of a number of different proficiency scales, covering receptive and productive skills. Of these scales, the following addressing productive skills were consulted:

      i. General linguistic range

      ii. Fluency

      iii. Range

      iv. Accuracy

      v. Interaction

      vi. Coherence

      vii. Interviewing

   viii.   Information exchange

   ix.   Informal discussion

   x.   Conversation

   xi.   Overall spoken interaction

2. Objectives for Friulian language education, in terms of the CEFR: General objectives and level B2 (Lotti 2007)

3. *Teastas Eorpach na Gaeilge* (TEG — The European Certificate in Irish)

4. The functional adequacy scales used in the What is Speaking Proficiency (WiSP) project (Mulder & Hulstijn 2011, de Jong et al. 2012a).[18] In particular, the following scales were consulted:

   a. Communicative adequacy

   b. Linguistic complexity[19]

5. Association of Language Testers in Europe (ALTE) Can-Do Statements (ALTE 2007). The descriptors for "Listening/Speaking" on the following scales were consulted:

   a. Skill level summaries

   b. Social and tourist statements summaries

   c. Work statements summaries

6. The Minority Languages Skills Scale (Munro et al. 2012)

7. *An Sgèile Sgilean Cànain Luchd-ionnsachaidh Inbheach* (Language skills scale for adult learners) (Munro et al. 2012)

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[18] These scales are available for consultation from the Instruments for Research into Second Languages Digital Repository.

[19] *Complexity* as used here should not be confused with the measure of complexity outlined above. The descriptors in this scale referred to accuracy and appropriacy, rather than measures of subordination, lexical sophistication, etc.

8. International English Language Testing System (IELTS)

9. American Council on the Teaching of Foreign Languages (ACTFL) guidelines (ACTFL 2012)

As the proposed scales were to be aligned with the CEFR, it was appropriate to attempt to align the proficiency levels outlined in the above scales with those of the CEFR in the first instance. 1-3 above were unproblematic for these purposes, as they are already specifically aligned with the European framework. The functional adequacy scales used in the WiSP project were based to an extent on CEFR RLDs. There are six overall proficiency levels, which makes CEFR-comparison very straightforward. The ALTE guidelines follow a slightly different structure. However, these have already been aligned with the CEFR, following steps to do so in the early part of the 2000s (Jones 2002).

The relation of scales 6-9 to CEFR RLDs was a little more complicated. A sophisticated analysis was not possible, as this would have required a depth of analysis that was not possible within the confines of this project. Thus, while the ALTE guidelines were related to the CEFR through a series of questionnaires, student self-ratings, exam results, and Rasch measurements, the relations here were established on a much more observational basis.

The six levels of the CEFR correspond to different points on a continuum from basic to proficient user (Council of Europe 2001). The descriptors in scales 6-9 above were first categorised according to whether they were considered reflective of basic, independent, or proficient users. Each descriptor was then examined to find points of overlap or comparison between them and the sublevels in each of these broader categories, thus effectively aligning each descriptor to a CEFR level.

This process – while straightforward in many respects – was complicated by the fact that scales 6-9 all have a different number of descriptors. Nevertheless, the above method allowed for a collapsing or separation of some of these levels, which enabled CEFR alignment.

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Each level description in the scales included in Appendix A is in part a
combination of the most typical elements found at each corresponding level of
the proficiency scales drawn upon. This was not only the most direct method of
compiling a new CEFR-related scale, but is also in line with recommendations for
the development of new proficiency scales (North 2000, Council of Europe
Language Policy Division 2005). The empirical validity was to be tested during
the rating process.

As observed in 6.3.4.3, two rating scales were originally developed: one for the
interview performances, and one for the narrative performances. Before
inviting raters to complete their assessments, the scales were piloted with three
highly proficient Gaelic speakers. This was to ensure that the instructions
provided were clear, and that the scales were fit for purpose.

Raters were played the recordings that had been collected during the pilot stage
of Gaelic data collection. However, the pilot raters agreed that playing the
recordings in their entirety was excessive. Their feedback included the
comments that their attention had begun to wane after approximately five
minutes, because at that stage, they had already come to their conclusion about
participants' proficiency. Although the researcher raised the issue of
participants' level of performance changing throughout, the raters argued that
no performance varied to the extent that this would lead them to modify their
ratings.

All pilot raters agreed that the instructions and the rating procedure were clear.
However, there was disagreement among pilot raters as to the suitability of the
narrative rating scale. One of the pilot raters suggested that rather than testing
Communicative Adequacy, the narrative rating scale tested ability to tell stories;
as this rater pointed out, this skill is not necessarily related to linguistic
proficiency or communication skills. The other two raters believed that the
scale was fit for purpose.

As a result, both the interview rating scale and the narrative rating scale were
used in the original rating session with three raters. On analysing the raters'
comments, however, it became clear that the concerns expressed by the pilot

rater were legitimate, and that the raters had focused on story-telling ability, rather than Communicative Adequacy.

For this reason, the three raters were invited to return and re-assess the narrative data using the rating scale originally developed for the interview, which was deemed more appropriate for measuring Communicative Adequacy. As noted in 6.3.2, one rater was unavailable to attend this session.

There was some concern that in inviting raters to assess the narrative performances a second time, the results obtained would be invalidated, due to practice effects. However, at this stage, almost three weeks had passed, and it was believed that the original judgements made would no longer be fixed in the raters' minds. Furthermore, given that inter-rater reliability between all four narrative raters was high (see chapter 9), it was felt that the fact that two raters had had more exposure to the rating procedure and to the data did not have an effect on the ratings they ultimately provided.

6.3.5 Data collection

In this section, the procedures for collecting data are described. In 6.3.5.1, the distribution of the background questionnaire and the procedure for collecting these is described. In 6.3.5.2, the procedure for collecting the background interviews and the Gaelic data is described. The collection of raters' assessments is described in 6.3.5.3.

6.3.5.1 Background questionnaire

Participants were asked to complete the background questionnaire in their own time, to ensure they had sufficient time to answer each question, and could do so at their own convenience. It was distributed to participants electronically. Participants were asked to complete the background questionnaire prior to attending for interview, and to return it to the researcher via e-mail. However, five participants did not have the opportunity to do so, and instead, brought a printed-out copy with them to the interview session. Because the English interview was intended to supplement the interview in the background questionnaire, the researcher read these participants' responses quickly before commencing data collection.

6.3.5.2 Background interviews and Gaelic data collection

All but two sessions were carried out in a quiet room at the University of Glasgow, in a one-to-one environment with the researcher. One interview took place at a community centre in which the participant's Gaelic class was held. Another took place in a private interview room in a public library. These participants expressed prior to carrying out the interviews that it would be more suitable for them to have the interviews carried out in these locations. As the format of data collection was otherwise identical for all participants, the different locations were not considered to be likely to compromise validity. It was considered that were these participants obliged to travel, their ease during data collection might have been compromised.

The majority of interviews were carried out in a small library at the Celtic and Gaelic department of the University of Glasgow. This room was chosen as there was no through traffic and the density of shelving and books reduced the echo typical in many rooms in the building. This room had a number of other features that were considered beneficial for the participants. The room is well insulated and very quiet; the location at Glasgow University was convenient for most participants, and several were already familiar with the building due to associations with Gaelic learning and the Glasgow Gaelic community; the library stores a wide range of books on Celtic languages, literature, and history, which were topics of interest to many participants, and thus was an appealing space for them to spend time in, as evidenced by comments they made on arrival and during the break.

All interviews were recorded on a Zoom H2N portable recorder a small device measuring 68 x 114 x 43 mm. It was hoped that this would give the impression of informality, as participants in a previous study carried out by the researcher reported being negatively affected by the clinical feel of the sound recording booth in which data collection took place.

Before beginning, participants were asked to complete an ethics consent form, and were given the opportunity to ask questions or voice any concerns. Participants were also informed at this stage that they were free to withdraw from recording at any time, or take a break whenever needed. They were also

informed that there would be further opportunity to ask questions once all tasks were completed.

The data collection process was structured in such a way so as to attempt to minimise participant fatigue. The background interview was the first task, followed by the Gaelic interview. It was considered that although this first interview would last approximately 15 minutes, the fact that it was in participants' first language would result in less fatigue. Furthermore, the informal nature of the English interview was designed to help participants feel more at ease with the researcher, so as to minimise anxiety during the Gaelic stage of data collection.

It was considered that the most tiring task would be the Gaelic interview, as this required the longest stretch of constant use of Gaelic. Therefore, all participants took a 10-15 minute break after this part of data collection to recuperate before the next two tasks.

These last two tasks were significantly shorter than the previous two, so there was no break between them. It was also considered beneficial to introduce shorter tasks at the end, when participants' attention span was likely to be declining.

6.3.5.3 Raters' assessments

Raters were invited to carry out their assessments at the Celtic and Gaelic building at the University of Glasgow. As all raters were based in or close to the West End of Glasgow, this location was convenient.

Four rating sessions were held. At the first, three raters — Andrew, Liam, and Ben — assessed participants' interview and narrative performances. A second session was organised for these raters so that they could re-assess the narrative data, as outlined in 6.3.4.3. One rater, Ben, was unable to attend on this occasion. The third session was organised for the other two raters — Richard and Clem — to assess participants' interview performances. The final session for Richard and Clem was so they could assess participants' narrative performances. All raters (n=5) rated the interview performances over these

sessions; due to Ben's absence, only four raters rated the narrative performances over these sessions. However, given that average values were to be used in the final analysis, and considering the high level of inter-rater reliability (see section 9.2.4), the difference in rater numbers between tasks was not considered problematic.

On arrival, raters were informed of the purpose of the study, and given the opportunity to ask question. Raters were first presented with the interview rating scale. The researcher explained in detail what was meant by each of the descriptors, and described how the descriptors were to be used for assessment. The parts of each descriptor relevant to the assessment categories Amount of Information, Coherence, and Ease in Interaction were also highlighted.

Following this, raters had the opportunity to practice rating, using data that had been collected for the pilot. This was to ensure that there were no further questions and that the raters were comfortable in their task.

During the rating proper, five minutes of each interview performance was played. The decision to use five minutes rather than the entire performance was based on the pilot raters' feedback during their rating session, described in 6.3.4.3. In rating session 1, the interviews were presented to raters in order of the participants' Christian names. Raters were given a 15 minute break half-way through, after rating eight interviews. In rating session 3, interviews were presented to raters in the reverse order. This was to minimise the effects of fatigue and practice.

After the interview ratings were completed in rating session 1, raters were given another 15 minute break. They were then presented with the rating scale for narrative performances, and instructed in how to use this scale, following the procedure employed for the interview scale. They once again had the opportunity to practice rating, using data collected during the pilot.

Each narrative was played to the raters in its entirety. This was because the narrative performances were considerably shorter than the interview performances. In session 1, recordings were presented in alphabetical order of participants' pseudonyms. Raters were given a 10 minute break after assessing

eight performances. By this stage, it was clear that all three raters were quite tired, and had started to lose interest in their task. This was a further reason for asking these three raters to return on a second occasion. In this way, the negative impacts of tiredness and boredom on rating could be overcome.

In rating sessions 2 and 4, raters were presented with the interview rating scale and instructed on how best to use it for assessing the narrative performances. Raters practiced assessing the pilot data before beginning the assessments proper. Once again, the entire narrative recording was presented to raters. In rating session 2, participants' performances were presented in alphabetical order of their surnames; in session 4, the reverse order was employed. Raters took a 15 minute break after eight performances had been assessed.

6.4 Data transcription and coding

In this section, the procedures for transcribing and coding all data are described. The procedure for transcribing and coding Gaelic data is presented in 6.4.1. The procedure for transcribing and coding participants' background information follows this in 6.4.2: 6.4.2.1 addresses these procedures for the data collected from the background interview; 6.4.2.2 addresses the coding of the data collected from the background questionnaire.

6.4.1 Participants' Gaelic data

Gaelic Data were transcribed using CLAN (Computerised Language Analysis) according to CHILDES (Child Language Data Exchange System) and CHAT (Codes for the Human Analysis of Transcripts) conventions (MacWhinney 2012).

CHAT provides a standardised format for transcribing the oral productions of adults and children. It allows for the transcription of ordinary discourse, but also for the analysis of more complex phonology and morphology. Once analysed in CHAT format, the CLAN commands can be used, which allows for a fast, standardised analysis of tasks frequently required in work on language acquisition, such as the calculation of mean length of utterance, type/token frequency analyses, and analysis of the frequency of different parts of speech and affixes. To date, CHILDES has been cited in over 3,000 publications. It has

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most widely been used for transcription in studies of L1A, but has recently has grown in popularity among those researching SLA , e.g., the Spanish Language Learner Oral Corpora (Myles & Mitchell 2008) and French Language Learner Oral Corpora projects (Myles & Mitchell 2005).

The CHAT manual describes in detail the transcription conventions required for studies of L1A. For studies of SLA, a number of additional conventions were developed by Myles & Mitchell (2008), and Arche (2008). These include the tagging of lexical items in the speaker's L1, neologisms, instances of where the interviewee has directly imitated a word produced by the interviewer, and mispronunciations

CLAN requires that data be broken down into individual utterances for each speaker. In this study, utterances were defined as AS-units. As described in chapter 4, an AS-unit is

> a single speaker's utterance consisting of *an independent clause, or sub-clausal unit*, together with any *subordinate clause(s)* associated with either. (Foster, Tonkyn & Wigglesworth 2000: 365, italics in original)

Co-ordinated verbs were considered to form part of the same AS-unit. Topicalised noun phrases belong to the AS-unit of which they are the topic. AS-units were split at co-ordinating conjunctions, including *ach* 'but', *agus* 'and', but not at subordinating conjunctions, including *nuair* 'when', *air sgàth* 'because', *ma* 'if'. Following Foster et al. (2000), boundaries between main and subordinate clauses were indicated by :: . While participants' utterances were carefully separated into AS-units, the interviewer's were not, as the interviewer's utterances were not to be included in the analysis.

Examples of AS-units in these data are

(1) *tha e :: a' còrdadh rium*   (Joyce, Gaelic interview, line 98)

 'I am enjoying it.'

(2) *dh'ith Seòras a h-uile sìon* :: *a bha sa bhascaid!* (Chloe, narrative, line 42)

'George ate everything that was in the basket!'

(3) *'s urrain dhut rudeigin eadar-dhealaichte* :: *a dhèanamh gach oidhch'* :: *ma tha thu ag iarraidh* (Olivia, Gaelic interview, line 86)

'You can do something different every night if you want to.'

Following Arche (2008), English lexical items were tagged @s, as in (4). Where English phrases were used by speakers, these were tagged [^eng: English phrase], as in (5), in line with standard CHAT conventions. This was to ensure CLAN did not include English items in the scores for lexical diversity. Neologisms were marked @n, as in (6). Mispronunciations were transcribed orthographically as the target word, but indicated following the word by [*], as in (7) (Arche 2008). It was decided not to transcribe the mispronounced form directly, as this would interfere with the readability of the transcript, and can be heard on the recording associated with the transcript.

(4) *'s e orchids@s a th' annta.* (Amanda, Gaelic interview, line 256)

'they are orchids.'

(5) *tha e trang…*[^eng:in the summer] (Maggie, Gaelic interview, line 311)

'it is busy…in the summer.'

(6) *na cluicheadairs@n teanas aig bàrr an gèama…* (Simone, Gaelic interview, line 336)

'the tennis players at the top of the game…'

(7) *tha mi a' teagasg* [*] *clann* (Anne, Gaelic interview, line 90)

'I am teaching children'

Chapter 6

As described in 4.4.2.2, mispronunciations were not treated as inaccuracies, unless they suggested an incorrect application of morphophonological rules.

At times, overlaps occurred in speech between the interviewer and the participant. These are indicated with +< before the overlap, following CHAT conventions, as in example (8). LIL refers to Lily, the participant. INT refers to the interviewer.

(8) LIL: *ach bha e a' toiseachadh nuair* :: *a thàinig mi a-steach.*

'but it was starting when I came in.'

INT: +< *seadh .*

+< 'yeah'.   (Lily, Gaelic interview, lines 11-12)

Although there are conventions for indicating the extent to which utterances overlap, this was not necessary in this study, as the interviewer's utterances are not being analysed.

At times, one speaker interrupted the other. The interrupted utterance was indicated at the point of interruption by +/. The interruption itself was marked at the start of the interruption by +,, as in (9). INT refers to the interviewer. KAT refers to Kathy, the participant.

(9) INT: *a bheil e* +/

'is it +/'

KAT: +, *a bheil e deiseal*

'+, is it ready'   (Kathy, Gaelic interview, lines 193-194)

When a participant self-interrupts, i.e. breaks off one utterance and begins another, unrelated one, this is indicated by +//. As with interruptions by the other speaker, the new utterance is marked +,, as in 10:

(10)   KAT: *tha mo nighean +//*

'my daughter is'

KAT: *+, 's e Màiri a th' oirre*

'Màiri is her name'   (Kathy, Gaelic interview, lines 75-76)

Interrupted utterances were classed as one AS-unit.

Where a speaker trails off, this is indicated by +… at the end of the utterance, as in (11).

(11)   *agus nuair a bha iad a' fai +...*

'and when they were…'   (Cecily, narrative, line 135)

Reformulations were characterised as: repetition of an utterance fragment, coded as [/], repetition of an utterance fragment with some change, coded as [//] and complete reformulation of the utterance, coded as [///]. Reformulated speech was enclosed in angle brackets. Examples of each are shown below:

(12)   *<tha mi>* [/] *tha mi á Ghlaschu*   (Simone, Gaelic interview, line 19)

'<I am> [/] I am from Glasgow'

(13)   *<tha mi gu dòi…>* [//] *tha mi alright*   (Simone, Gaelic interview, line 15)

'<I am we…> [//] I am alright'

(14)   *<dh'iarr e orm cuid dhe na>* [///] *chaidh tachartas a chur air dòigh le Comhairle nan Leabhraichean*   (Danielle, Gaelic interview, line 201)

'<he asked me for some of the> [///] an event was arranged by Coimhairle nan Leabhraichean'.

CLAN has a standardised way of inserting time stamps, so that the length of each utterance is measured in milliseconds and displayed at the end of the utterance. Both filled and unfilled pauses were timed, and timings inserted into the transcriptions in parentheses. Although software such as ELAN (Max Planck Institute for Psycholinguistics 2002, Wittenburg et al. 2006) can calculate unfilled pauses very accurately, it was preferable to calculate pauses in these transcripts by manually measuring the length of the pauses. This was done by highlighting the relevant area of the recording on the soundwave, and reading the measurement CLAN specified. The measurement of filled pauses is not common in L2 research, as it cannot be done automatically and is extremely time consuming as a result (Witton-Davies 2012). However, due to the importance of pause analysis for the measurement of fluency in this study, the inclusion of filled pauses was considered necessary. Notes on whether pauses were filled or unfilled are not included in the transcripts themselves. The interviewer's pauses are indicated on the transcripts by (pause), but are not measured. Examples of the transcription of pauses can be found in (15) and (16).

(15)   (1.52) *soilleir* (0.54) *agus* (0.45) *nas* (0.2) *blàithe* (0.42) *na bha e* (Gloria, Gaelic interview, line 2)

'bright and warmer than it was'

(16)   *agus* (0.62) *rinn Màiri* (0.67) *agus Alasdair ceapairean* (0.52) *le ìm agus silidh*   (Danielle, narrative, line 5)

'Màiri and Alasdair made sandwiches with butter and jam'

Additionally, any laughter or coughing was measured and indicated separately, so that at the stage of analysis, phonation time ratio could be measured accurately. The codes for laughter and coughing are &=laughs and &=coughs, respectively, following CHAT conventions, and the length of time of each was placed in brackets following the code, as in (17) and (18).

(17)   (0.91) *agus* (2.03) *'s toil leatha* (3.01) *aran* &=laughs (0.91) (Nikki, narrative, line 8)

        'and she likes bread'

(18)   *agus bha sin fada fada nas fhèarr* &=coughs (0.73)   (Amanda, Gaelic interview, line 332)

        'and that was much, much better'

As per CHAT conventions, where speakers laughed *while* saying a word, [=!laughing] was included following the word itself, e.g.

(19)   *'s toil leam e* [=! laughing]

        'I like it [=! laughing]'   (Anne, Gaelic interview, line 128)

Sample transcripts are provided in Appendix C.

6.4.2 Background data

6.4.2.1 Interviews

All background interviews were transcribed using ELAN (Wittenburg et al. 2006). ELAN is transcription software developed at the Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands, and is available at https://tla.mpi.nl/tools/tla-tools/elan/.

ELAN, rather than CLAN, was chosen for the transcription of the background data for a number of reasons. While CLAN has advantages for linguistic analysis (see 6.6.1), it has a major disadvantage due to the fact that the division of a sound

file into utterances, and aligning these utterances with a transcription, is rather slow and laborious. This task is facilitated in ELAN through its more straightforward interface and range of tools. While the benefits of using CLAN for the linguistic analysis of Gaelic data outweighed this disadvantage, the English data did not require such detailed analysis. As such, the use of CLAN for the transcription of the background data was not considered useful.

Of most interest from the background interviews was the content produced by speakers, and no analysis of discourse or conversational features was intended. For this reason, very broad transcriptions were used, with no information about disfluencies, interruptions or overlaps, such as those described in 6.6.1 for the Gaelic data (Dörnyei 2007). All data were transcribed using standard English orthography. On completion of transcription, the ELAN files were exported to Microsoft Word and converted to .docx format. They were then imported to NVivo for qualitative analysis (see 6.5.2).

6.4.2.2 Questionnaires

Participants' responses to the items in the questionnaire were manually entered into a spreadsheet using Microsoft Excel. The spreadsheet was then imported to NVivo for qualitative analysis (see 6.5.2).

6.4.3 Raters' assessments

Raters' comments on both of each participant's performances were entered manually into Microsoft Word. These documents were then imported to NVivo for qualitative analysis (see 6.5.3).

The Communicative Adequacy levels awarded to participants for each task were entered directly into NVivo, for further analysis (see 6.5.2).

6.5 Coding and analysis procedures

The coding and analysis procedures for each set of data are described in this section. The procedures used for the Gaelic language data are presented in 6.5.1, followed by the procedures used for the background questionnaire and

interview data in 6.5.2. The procedure for coding and analysing the raters'
comments is presented in 6.5.3.

6.5.1 Participants' Gaelic data

The units of analysis for the Gaelic data are presented and defined in chapter 4.
They are listed again here.

Complexity

Complexity is considered to consist of three components: number of clauses per
AS-unit, mean length of clause in words, and lexical diversity. AS-units with
multiple clauses were usually those containing a subordinate clause, as in (20),
or clauses requiring object-raising (21):

<div>

(20)   *Bha mi dìreach a' smaointinn rium fhèin nuair* :: *a bha mi a'*
         fàgail na taighe   (Lily, Gaelic interview, line 5)

         'I was just thinking to myself when I was leaving the house

(21)   *Chunnaic cuideigin* :: *Sarah a' dol seachad.* (Chloe, Gaelic
          interview, line 114)

          'Somebody saw Sarah going past.'

</div>

Lexical diversity is measured using D (Malvern & Richards 1997).

Accuracy

Accuracy was calculated as the percentage of accurate AS-units per transcript,
and the number of inaccuracies per AS-unit. An AS-unit was considered to
contain an inaccuracy if any feature did not correspond to the conventions of
the Gaelic speech community. This analysis of non-conventional use corresponds
to Pica's (1983) target-like-use analysis, which includes syntactic and lexical
errors appearing in a context requiring their use, but also includes an obligatory
occasion analysis. As outlined in 4.4.2.2, phonological errors indicating the

incorrect application of a morphological rule (i.e. morphophonological errors) are considered inaccuracies for the purposes of this study.

A sample of a transcript coded for accuracy can be found in table 8, Appendix D.

Fluency

Fluency was measured on three counts: phonation time ratio (PT), pruned speech rate (WPM), and mean length of fluent run (MLR). PT is

> the percentage of time spent speaking as a percentage proportion of the time taken to produce the speech sample (Kormos & Dénes 2004: 148)

Speech rate is calculated in terms of average number of words per minute, excluding pauses and articulation phenomena (see section 4.4.3.3 for a definition of 'word'). It is important, however, to bear in mind that individuals naturally have their own speech rate which is not necessarily a reflection of their proficiency, so scores for speech rate should be considered in tandem with other measures of fluency.

Finally, MLR measures the average length of time a speaker produces speech between pauses.

Proficiency

Once scores were calculated for each individual, all measures were weighted equally and combined to calculate an overall score for proficiency.

6.5.2 Background information

The coding of English data was carried out using QSR International's NVivo 10 software. NVivo is well-suited to the management of qualitative data for analysis purposes (Dörnyei 2007, Bryman 2012).

Once data are imported, NVivo allows the user to code content according to themes. An inductive approach was taken to coding, meaning that a specific theoretical position was not adopted prior to starting coding. Rather, the

theoretical position developed throughout the coding process, as themes emerged (Bryman 2012).

A "case node" was created in NVivo for each participant. Cases are units of analysis, and a case node is "the 'container' that holds all data, of all types, for each case, regardless of source" (Bazeley & Jackson 2013: 52). By creating a case node for each participant, all data pertaining to that participant — i.e. the data collected from their English interviews, background questionnaires, and the raters' assessments of their performances — could be collected in one place.

A template of codes (Crabtree & Miller 1999, cited in Dörnyei 2007) was developed, reflecting the themes of the questions participants had been asked, e.g. length of time learning Gaelic, attitude to learning, etc. This approach is time-efficient and more focused than, say, grounded-theory approaches (Dörnyei 2007). Second-level coding was carried out by re-examining the coded data and refining them for more precision. In this way, a hierarchy of codes was developed. At the top of the hierarchy is the theme brought to the analysis in the template, e.g. *Motivation*. Following this, different categories of motivation were identified, and within this, further subcategories were identified. Coded data were then linked to each participant's case node. Finally, the coded data were interpreted based on Dörnyei's Motivational L2 Self System (2005, 2009): this procedure is described in chapter 7.

6.5.3 Raters' assessments

As noted in 6.4.3, the Communicative Adequacy level assigned to each participant by each rater was entered directly into NVivo, along with participants' overall Communicative Adequacy rating, and ratings for Amount of Information, Coherence, and Ease in Interaction. Ratings were then linked to participants' case nodes.

An inductive coding approach was taken to the coding of raters' comments. Inductive coding is based on emergent principles, in which the themes to be coded are identified during the coding process itself, and not before, as in the code template approach described in 6.5.2 (Dörnyei 2007). This approach was adopted because of the open-ended nature of raters' comments: raters were

encouraged to provide their own reasons for assigning participants with particular ratings, so themes could not be specified prior to beginning coding.

Following Dörnyei (2007), the first stage in the approach taken was 'open coding', during which themes reflecting the raters' perspectives were identified. The second stage was 'axial coding', during which

> The researcher makes connections between categories, thereby attempting to integrate them and group them into more encompassing concepts that subsume several subcategories. (Dörnyei 2007: 261)

In this way, the number of themes and categories can be reduced and streamlined. The third stage employs 'selective coding' to build a 'core category' (Dörnyei 2007), which is the ultimate theme to be employed during data analysis. Once coding was complete, themes were reorganised into hierarchies to facilitate analysis.

6.6 Summary

In this chapter, the methodology employed in this study has been presented. The mixed-methods approach to the study design was explained and justified in 6.2. Data collection procedures were presented in 6.3, while transcription procedures were presented in 6.4. Finally, in 6.5, the procedures used for coding and analysis were presented.

16 Gaelic L2 users of Gaelic participated in the study, along with 5 L1 Gaelic speakers. Data collection took the format of a background questionnaire, a background interview, and three Gaelic language tasks: an interview, a narrative task, and a picture description task. Data collection took place at the University of Glasgow in 14 of the 16 cases. Data were transcribed, coded, and analysed according to standard procedures in SLA research. In the following chapter, chapter 8, the analysis of the background information is presented and discussed in light of Dörnyei's (2005, 2009) L2 Motivational Self System, and Dörnyei & Ottó's (1998) Process Model of L2 Motivation.

7 Research question 1: What methods and approaches do adults take to learning Gaelic?

7.1 Chapter overview

This chapter focuses on establishing the methods and approaches taken by participants during their learning of Gaelic as a second language (L2). Participants were asked in the background questionnaire (see chapter 6, and Appendix A) to indicate any formal Gaelic learning experiences, to specify whether or not they had spent time living in a Gaelic-speaking area, and whether or not they had ever taken a Gaelic exam. Participants' learning experiences are presented, and then discussed in relation to Dörnyei's (2005, 2009) Motivational L2 Self System, and Dörnyei & Ottó's (1998) process model of L2 motivation. These frameworks are considered suitable for the analysis of these data as they understand motivation as a fluid, multi-faceted concept. Participants in this study take a range of approaches to Gaelic learning. In examining the data, it becomes clear that motivation for these participants is fluid and multi-faceted, so these frameworks are ideal.

In section 7.2, a working definition of motivation is presented. In 7.3, the results of the background questionnaire and English interview are presented, and discussed in light of the theoretical framework. 7.3.1 outlines participants' interest in learning Gaelic, showing the relationship between the pre-actional and actional phases, and the decisions participants make at this time. 7.3.2 presents an overview of participants' commitment to Gaelic learning, as a reflection of their ideal and ought-to L2 selves. 7.3.4 provides a discussion of the effect of participants' L2 learning experiences on the different motivational phases. 7.4 summarises this chapter.

7.2 A working definition of motivation

Motivation is conceived of in terms of Dörnyei's (2005, 2009) L2 Motivational Self System. As outlined in chapter 5, Dörnyei's system comprises three components:

- The ideal L2 self: this comprises traditional integrative and internalised instrumental types of motivation, and refers to the language learner's sense of the attributes they would most like to possess.

- The ought-to L2 self: this comprises externalised instrumental motivation, and comprises the attributes the learner believes they *should* possess so as to meet others' expectations of them and avoid negative outcomes.

- The L2 learning experience: this component relates to the learner's experiences of learning environments, teachers, and other speakers.

The ideal and ought-to selves should be viewed in relation to the learner's actual self, i.e. the attributes and abilities they believe they currently possess. Motivation is a process in language learning, through which learners seek to reconcile the difference between their actual selves and their ideal and ought-to selves. Dörnyei (2009) notes that the L2 learning experience, while related to the self, is conceptualised at a different level: the L2 learning experience may shape the ideal and ought-to selves, or may influence the behaviours in which a learner engages to develop the attributes of these selves.

Motivation is further conceptualised here as a dynamic process through Dörnyei & Ottó's (1998) process model of L2 motivation. As discussed in chapter 5, the model comprises three phases: the preactional phase, the actional phase, and the postactional phase. During the preactional phase, learners set goals, commit to their intentions for learning, and may begin acting on these intentions. During the actional phase, learners initiate the tasks that can help them reach their goals, evaluate their progress, and take steps to ensure they are staying on target. Finally, the postactional phase involves evaluating the outcome of any actions completed or terminated with a view to establishing whether their plan of action allowed them to fulfil their goal. In this chapter, the discussion focuses on the preactional and actional phases. Dörnyei & Ottó (1998) note that the postactional phase is an evaluation phase, and often brings the individual full circle to the preactional phase once more. As participants were not asked to evaluate specific actions that are now over, it was considered more appropriate to examine their experiences from the perspectives adopted at the evaluation stage of the actional phase.

Dörnyei & Ottó (1998) argue that each stage is dependent on motivational influences. For the purposes of this analysis, the motivational influences are taken to be those presented in the L2 Motivational Self System.

7.3 Results

With a view to applying these features of motivation to the data collected for this study, participants' responses to the background questionnaire and English interview were coded in NVivo to identify recurring themes. The data presented below show that participants had varying conceptions of the ideal L2 self and each had their own personal evaluation on the ought-to self. These ideal and ought-to selves influenced participants' decisions during the preactional and actional phases, which include the decision to attend a range of different courses, and to use a wide range of learning strategies. As Anya (2011) also reports, participants were not necessarily aware on an explicit level of the strategies they employed in their language learning endeavours. However, participants did express views on their learning experiences that may be seen to affect the actional stage of their motivation.

Several participants express their enthusiasm for learning Gaelic, but also acknowledge that the time available for them for Gaelic learning is limited, because of work, family, or study commitments. Recalling Nunan & Benson's (2005) comments presented in chapter 5, it is clear that for many participants, life commitments impact their language learning processes and experiences.

7.3.1 Where does participants' interest in Gaelic come from?

The data in this section can be very closely related to the pre-actional phase and actional phases, in which learners identify their motivation for language learning and decide to act on it. There is a strong relationship between these phases and the ideal and ought-to L2 selves. A number of motivational themes emerged during data analysis, including an interest in Scottish culture and heritage; learning Gaelic as a leisure pursuit; a desire to contribute to Gaelic revitalization; and a desire to work in the Gaelic-medium sector. These themes are discussed in sections 7.3.1.1 to 7.3.1.6, and are considered to exemplify the pre-actional phase of language learning motivation.

Chapter 7

7.3.1.1 A general interest in languages

Seven participants — Amanda, Gloria, Joyce, Lily, Maggie, Nikki, and Olivia — cited a general interest in foreign languages as a motivating factor in their Gaelic learning. Each attributed their decision to learn Gaelic as being the result of a combination of this interest, and other additional factors, discussed below.

Joyce's interest in Gaelic was in part sparked by her desire to learn Old Irish. Her interest in that language developed through studying Old English previously. No other participant reported motivation to learn Gaelic for a similar purpose, although it is clear that Joyce's instrumental motivation here is related to the general interest in languages expressed by others.

Interpreting these in light of the L2 Motivational Self System, this group of L2 Gaelic users perhaps conceive of their ideal L2 selves as being speakers of languages other than their first languages (L1s).

7.3.1.2 An interest in Scottish culture and heritage

A number of participants' initial motivation stems from the desire to establish links with Scottish culture and heritage. This kind of motivation is captured in the ideal L2 self stage of Dörnyei's (2005, 2009) model, and can also be linked to the creation or development of an ethnic identity.

Throughout Gloria's English interview, she makes several references to the 'authenticity' of Gaelic and Gaelic speakers. Gloria's discussion of 'authenticity' refers to Gaelic speakers' identity and heritage. Her concern with authenticity extends to culture: she states that her original motivation — as someone not from Scotland — behind learning Gaelic was to gain "a more authentic understanding" of Scottish culture. Similarly, Anne, Cecily, Kathy, and Tara cite the importance of the relationship between Gaelic language and Scottish cultural heritage to their Gaelic learning.

Nikki's analysis goes a step further: despite growing up in mainland Europe, she has developed a sense of Scottish identity from learning Gaelic:

> all my friends...are Scottish and they don't read...it, so it puts me in a certain position of being a bit more Scottish.   (Nikki, English interview, lines 154-156)

Joyce, Olivia, and Simone make specific reference to Gaelic music and literature in their recognition of the role of Scottish culture in motivating their desire to learn Gaelic. Joyce also notes that her interest in Gaelic was encouraged by observing Gaelic place names while hillwalking.

Dawn, Lily, and Maggie all cite family heritage as reasons for learning Gaelic: none were exposed to Gaelic in the home, but all are aware of having grandparents whose L1 was Gaelic. Maggie cites this as the basis for her "inbuilt interest" in Gaelic learning.

The interest in Scottish culture and heritage is also related to participants- attitudes towards the Gaelic-speaking community, and their concerns with 'authenticity'. Several participants report a desire to become a member of the Gaelic-speaking community, which relates to the themes of 'authenticity', 'heritage' and 'identity' alluded to in Gloria's comments above. They indicate that this desire is maintaining their interest in Gaelic learning.

'Gaelic-speaking community', however, means different things to different people. Anne, Dawn, and Gloria view this community as being comprised of L1 Gaelic users in the Gàidhealtachd. Anne and Gloria both believe that living in the Gàidhealtachd and speaking a native-like variety of Gaelic will allow them access to this community. Dawn, on the other hand, rejects participation in this community, and favours a distinct community of L2 users.

Other participants, like Cecily and Danielle, have a broader conception of the Gaelic-speaking community. For these participants, the Gaelic-speaking community is made up of highly proficient L1 and L2 users. Other participants, e.g. Chloe and Joyce, view the Gaelic-speaking community as comprised of L1 and L2 users of all abilities. The different attitudes displayed by participants towards Gaelic L1 and L2 users are expanded upon further in 7.3.4.1.

Although Anne currently lives in Glasgow, she owns a house in the *Gàidhealtachd,* to which she intends eventually to move permanently: Anne believes that she should continue to learn Gaelic so that she can fit in better

with the local community there.

While Cecily, Chloe, Simone and Tara do not necessarily want to integrate fully with the Gaelic-speaking community, they all report that maintaining or improving their Gaelic language skills will facilitate their interaction with this community.

Gloria comments several times throughout the English interview that she believes the standard of her Gaelic has slipped over the last number of years. She states

> I used to feel I'd got beyond the stage of being a learner, you know, a few years ago. I mean but clearly, I'm sort of, in a way, back in the learner box in a sense.   (Gloria, English interview, lines 107-111)

It seems as though Gloria at one stage considered herself fully integrated with the Gaelic-speaking community, but since her perceived decline in her language skills, she is now a member of a different, learner community. She makes clear on several occasions throughout the English interview that she is keen to recover her Gaelic language skills. By extension, it appears that she is also keen to recover her role in the Gaelic-speaking community.

But attitudes held by participants towards the Gaelic-speaking community vary from totally positive to quite negative. Dawn believes that native speakers are too quick to switch to English if they observe that a learner is struggling in conversation. This L2 learning experience has influenced her relationship to the Gaelic-speaking community, who she now perceives as nosy and rude; this perception has presented for her a sort of 'unideal' L2 self, i.e. it has given her a clear idea of the kind of speaker she does not want to be.

Dawn's hostility is reflected to an extent in Gloria's comments about the native Gaelic-speaking community: she questions the levels of knowledge of native speakers, claiming that if presented with a list of non-everyday lexical items, the native-speaking "Gaelic teacher won't know half the words" (Gloria, English interview, lines 137-138). Again then, Gloria's contact with the native Gaelic speaking community has presented her with the idea of an unideal L2 self. Gloria's and Dawn's comments are examples of Norton's (2001) non-participation in an L2 community (see chapter 5).

7.3.1.3 An interest, or lack thereof, in a particular dialect

Similarly, the model of Gaelic adopted by participants represents their relationship to other members of the Gaelic-speaking community, and their perceptions of 'authenticity'. Participants' model of Gaelic is an issue arising usually at the actional phase, once Gaelic learning has already started. Some participants target their learning on particular varieties of Gaelic, a finding similar to those reported in McLeod et al. (2014b). Other participants argue that so long as phonological distinctiveness is aimed for — e.g. the distinction between broad and slender consonants — speaking a specific dialect is unimportant.

Both Anne and Gloria have residential ties to Hebridean islands, and both are keen to learn the local variety of their respective islands. This may link to the ideas of 'authenticity' described in 7.3.1.2. Anne observes that she takes notes on any features that are peculiar to the local area around her house; she is the only participant to make reference to language learning with this kind of focus. Interestingly, despite Gloria's eagerness to speak the local variety of Gaelic, she argues:

> do you want a learner of English to speak perfect correct English, or Oxford English? Not particularly, I don't, particularly.   (Gloria, English interview, lines 189-192).

This coincides with Dörnyei's (2005, 2009) comments on the mismatch between ideal and ought-to selves: Gloria's ideal L2 self is a nativelike speaker of that variety, but she does not believe that L2 Gaelic users must take this approach.

Tara mentions Skye and Uist varieties as appealing to her, on the basis that they sound attractive. She does not report any activities to help in the learning of either one of these varieties, nor does she report having special experience with either one. Cecily also mentions an interest in Skye Gaelic, although she follows this up with a comment that she believes this is the variety spoken by a learner she admires, and that she would very much like to speak similarly to this individual. It is not necessarily the case that the Skye variety itself appeals to her; it may well be that she is motivated more by the personality and characteristics of the other learner than by any feature of that variety of Gaelic.

There is clearly a distinction here between the ideal L2 self as a speaker of a particular variety of Gaelic, and the ideal L2 self as another individual. Nonetheless, these are both represented here through the participant's modelling their own Gaelic on particular varieties.

These comments on dialect models can be related quite closely to other participants' comments that have been categorised as indicators of the ought-to L2 self. The ideal self for the speakers here is someone who speaks these particular varieties; in order to become such a speaker, there are certain dialectal features that they ought to adopt. The ought-to self is discussed in more detail in the following section.

Gloria's view of what the varieties of Gaelic L2 users ought to speak is echoed in Nikki's stance that L2 users without a residential connection to a Gaelic speaking area do not need to learn any specific variety, and can choose whichever features of whichever dialect they please. Amanda's belief is that all L2 users should, like herself, aim for Mid-Minch Gaelic (a variety of Gaelic developing as a result of dialect-levelling). Amanda's former student Danielle appears to share this view, stating that she is aware of, and comfortable with, her speaking Gaelic with accent features typical of the Scottish central belt. Both Amanda and Danielle nevertheless argue that pronunciation of key Gaelic features, e.g. pre-aspiration, is crucial. Dawn, Jenny, and Lily argue along the same lines. For these participants then, it is the ought-to self which motivates their pursuit of certain features of pronunciation.

Olivia, a learner from England, argues that as she does not identify ethnically as a Gael, to adopt one variety over any other would be contrived. She is the only participant to make such an assertion about the relationship between learner output and Scottish identity. Olivia's views on her ought-to self are, however, quite clear here: as an outsider, Olivia ought not to adopt particular dialectal features. The ought-to self influences the decisions L2 users make at the preactional stage when deciding on which phonological features of Gaelic to focus on.

It is interesting here to note that participants are concerned about linguistic norms, and what constitutes a standard. In chapter 2, it is noted that there is

no unified, official standard for Gaelic. Nonetheless, the participants in this study appear to have quite a strong sense of Gaelic usage norms. However, unlike the participants in McLeod et al. (2014b), the participants in this study do not see Gaelic L1 speakers as a target model.

7.3.1.4 Gaelic learning as a leisure pursuit

Two participants stated that their original motivation for Gaelic learning was that they were seeking a hobby. Anne initially began learning Gaelic when looking for an evening activity with her husband; similarly, Kathy attended her first Gaelic classes because her husband had taken up Gaelic learning having developed an interest in the language through observing Gaelic place names.

For Anne and Kathy, their initial motivation can be related to the ideal L2 self, in that they were keen to learn Gaelic as a kind of personal development related to leisure time and enjoyment. Learning Gaelic for Anne and Kathy can be seen as a means to an end, with that end being more personal fulfilment. In this respect then, we can consider the desire to learn Gaelic as a leisure pursuit as one component of the ideal L2 self.

Kathy and Tara are the only two participants who state explicitly that their enjoyment of classes has been a factor in their continued learning of Gaelic: for these participants, the L2 experience has played a role in the actional phase. Kathy's comment in this regard is particularly interesting:

> Obviously at my stage of life, I am doing this as a leisurely thing.
>   (Kathy, English interview, line 70)

Kathy's use of the word "obviously" makes clear that for her, adult L2 users of a certain age have an interest in Gaelic only from a leisure perspective. This stance may be indicative of the ought-to L2 self playing less of a role in Kathy's Gaelic learning than in others'.

7.3.1.5 The desire to contribute to Gaelic revitalisation

Gloria and Maggie both referred to their desire to contribute to the Gaelic revitalisation effort through learning the language. Maggie reported suffering considerable anxiety over the future of Gaelic:

> I think as someone said...the guy just said "If you don't speak it, you're killing it." Guilt, guilt, guilt. Oh, we're doomed!   (Maggie, English interview, lines 73-89)

> I think I just worry about it, you know: where's it going to go? (Maggie, English interview, line 111)

She attributes her continued efforts at Gaelic learning to this anxiety. Gloria states that Gaelic language learning is important for "helping the culture to relax and flourish again" (Gloria, English interview, lines 174-175).

Learning Gaelic for these participants reflects a sense of responsibility towards the language and Scottish culture and heritage, and is clearly related to Maggie's and Gloria's attempts to reconcile their actual and ought-to selves

7.3.1.6 The desire to work in the Gaelic-medium sector

Five participants indicated being motivated to learn Gaelic for the purposes of employment: Chloe, Danielle, Jenny, Joyce, and Olivia. This kind of motivation is related to the desire to develop a professional identity, and is clearly related to the ideal L2 self. Only two participants, Chloe and Danielle, had specific industries in mind: Chloe was motivated by her desire to be more successful as a Gaelic-medium primary school teacher, while Danielle committed to spending a year at a Gaelic-immersion college in order to ultimately work in Gaelic media. These specific goals led both participants to seek out Gaelic opportunities that specifically related to their careers at the actional phase, as well as the pre-actional phase.

Danielle's desire to integrate with the Gaelic-speaking community is very closely related to her goal of finding a career in the Gaelic sector. She reports that on returning from her Gaelic media course in the *Gàidhealtachd,* she continued to attend Gaelic classes in order to be better accepted among the Gaelic media community:

> There was also something as well, I think, about working in the media, that people have expectations about how folk speak and I felt in myself that I wasn't up to scratch, although I think I am much better now than I was.   (Danielle, English interview, lines 94-98)

Danielle's ought-to self is closely related to her ideal L2 self, as a member of the Gaelic media community, and has very clearly influenced her decisions at the postactional and preactional phases.

7.3.2 Participants' commitment to Gaelic learning

Many of the factors influencing participants' interest in Gaelic are related to their ideal and ought-to selves. Having decided to learn Gaelic, L2 users must still commit to the activities they will use in the actional phase to fulfil this goal. Depending on their specific goals regarding possible selves and their personalities, some L2 Gaelic users are more prepared than others to put effort into language learning.

Anne is one participant who makes a considerable effort in her Gaelic learning; this is likely related to her ideal L2 self as a high-scorer on Gaelic tests, and her self-described perfectionism. Her efforts include speaking to her cat in Gaelic; wearing a badge so that other Gaelic speakers will recognise her and choose to speak Gaelic with her; listening to the BBC's Gaelic radio station, *Radio nan Gàidheal*, every day; and spending at least one hour a day on Gaelic homework activities.

Lily started learning Gaelic through *An Cùrsa Inntrigidh*, a distance learning Gaelic course. She reports that at that time, she was reluctant to put much effort into learning more than the basics that were required to pass the course. This experience, however, changed her perceptions of her ideal self, and her postactional evaluation encouraged her to resign from her job and move to Skye to take the residential *Cùrsa Comais*.

The only speakers who appear to make minimal effort outwith the classroom are Nikki and Kathy: indeed, Kathy explicitly states that when interacting with highly proficient Gaelic speakers, she produces the minimum amount of Gaelic possible, as

> usually the recipient is very understanding and therefore can pick up
> on something immediately without too much further explanation on
> my part.   (Kathy, English interview, lines 31-33)

She also notes that there are few classes available in the area in which she lives, and that she is aware that there are more classes available in Glasgow city centre. She states, however, that she "wouldn't travel on a regular basis without due reason". The implication here is that attending a Gaelic class is not, in itself, a sufficient reason to travel.

In terms of their ideal selves, however, neither Kathy nor Nikki are keen to become highly proficient Gaelic speakers; Anne and Maggie, on the other hand, who are keen to become fluent, report making more of an effort with their learning. This pattern can be seen with other participants: those who are very keen to advance are those who are prepared to put great effort into Gaelic learning. As such, there is a clear relationship in these data between the ideal L2 self, and the level of commitment a learner will make to realising that self.

Few participants, however, actively recognise the level of commitment required, although this recognition is implicit in the learning activities they choose to engage in. This perhaps indicates a failure at the preactional phase to recognise the attributes of the ought-to self. Gloria has recently come back to Gaelic learning after a break, and notes that she is trying to decide whether or not she will actively proceed with Gaelic classes again; she recognises the commitment it will require for her, and is trying to determine whether or not she is prepared to make this commitment. She and Amanda are the only participants to reference the fact that considering the level of commitment is important when embarking on learning a language.

The modes of study participants adopt provide some insight into their level of commitment. Many participants are prepared to study Gaelic in their free time, e.g. Chloe and Simone both work through textbooks in their own time, while Chloe, Dawn, Jenny, and Joyce use Gaelic media as a learning resource several times a week. Anne, Cecily, and Gloria attend several hours of Gaelic classes, offered by a range of different providers, each week. Others take every opportunity available to practice Gaelic outwith the classroom, by going to events at which other Gaelic speakers might be present (e.g., Dawn attends meetings of the Skye Association to practice Gaelic), or making sure to only speak in Gaelic to other Gaelic speakers (or in Tara's case to individuals who do

not speak Gaelic but have some minimal receptive skills), even if doing so is challenging.

7.3.3 The means of reconciling the actual self with possible selves

7.3.3.1 Course types

Table 7.1 presents the questionnaire results indicating the courses attended by participants. Affirmative responses are highlighted in green. All participants had taken advantage of a range of learning opportunities, reflecting findings by MacCaluim(2007), McLeod et al. (2010), and Milligan et al. (2011).

Participant	Immersion in *Gàidhealtachd*	Cùrsa Comais	Speaking our Language course	Once weekly course	Ùlpan	SMO short course	Cùrsa Inntrigidh	Cùrsa Adhartais	Other course	Gaelic-medium course	Experience of exams
Amanda	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Anne	Yes	No	Yes	Yes	No	No	No	No	Yes	No	Yes
Cecily	No	No	No	Yes	Yes	No	No	No	Yes	No	Yes
Chloe	Yes	Yes	No	Yes	Yes	No	No	No	Yes	No	Yes
Danielle	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes
Dawn	No	No	Yes	Yes	No	Yes	No	No	No	No	No
Gloria	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
Jenny	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes
Joyce	No	No	No	No	No	No	No	No	Yes	No	Yes
Kathy	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
Lily	No	Yes	No	No	Yes	No	Yes	No	No	Yes	Yes
Maggie	No	No	No	No	No	No	No	No	No	No	No
Nikki	No	No	No	No	No	No	No	No	Yes	No	Yes
Olivia	No	No	Yes	No	No	No	No	No	Yes	Yes	Yes
Simone	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Tara	No	No	Yes	Yes	No	No	No	No	No	No	No

Table 7.1 - Participants' experiences of different learning environments

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Table 7.1 shows that the most commonly attended courses were weekly evening classes organised by local councils. Only one-quarter of participants had lived in a Gaelic-speaking area and experienced Gaelic in a naturalistic setting, echoing findings from McLeod et al. (2014b). However, a further three participants had spent one year at a Gaelic-medium college; although this is not, strictly speaking, a naturalistic environment, the experience entailed total immersion in Gaelic.

Five participants had attended an Ùlpan course, although none of these had progressed through the Ùlpan stages in the order encouraged by Deiseal, the private company responsible for Ùlpan. All five participants had started learning Gaelic before trying Ùlpan as a method. Four participants had attended at least one short course at SMO: Dawn and Simone are regular participants on these courses, attending at least one short course every year.

11 participants indicated that they had attended another course type which was not listed on the questionnaire. These are presented in table 7.2 (overleaf).

Course type	Participant
University module	Anne
University degree course	Amanda
	Cecily
	Danielle
	Jenny
	Nikki
	Olivia
University summer course	Amanda
Higher Gaelic (Learners) [20]	Amanda
	Chloe
	Joyce
Higher Gàidhlig	Amanda
	Chloe
Postgraduate course at Gaelic college	Danielle
Conversation groups	Gloria
	Simone
Courses at Gaelic colleges	Olivia
One day Gaelic course	Dawn
	Joyce

Table 7.2 - Other courses attended by participants

[20] As noted in chapter 2, the Highers are a set of general qualifications. The Higher Gaelic (Learners) course is aimed at those beginning to learn Gaelic, or who have some knowledge of the language. The Higher Gàidhlig is aimed at highly proficient L1 and L2 speakers.

Table 7.2 shows that of these 11 participants, seven had attended courses offered by Universities. Of the seven, six had taken or were undertaking a degree in Gaelic, while one participant attended a year-long Gaelic module as part of a different degree programme.

Seven participants had also attended a content and language integrated (CLIL) course: these are presented in table 7.3.

Participant	Course
Amanda	Gaelic literature, as part of university degree programme
Danielle	Creative writing
Gloria	Creativity
Jenny	Drama
	Gaelic music
Lily	Poetry
	Genealogy
Olivia	Tutor training

Table 7.3 - Gaelic-medium courses attended by participants

The courses attended by Jenny and Olivia lasted one day only. It is unclear what was involved in Gloria's creativity course. These participants stated that taking this CLIL approach allowed them to engage in activities in which they were interested or enjoyed, while simultaneously allowing them to further their Gaelic learning.

It is clear from tables 7.1 to 7.3 that most participants had experience of more than one learning environment: Joyce is the only participant to have experience of only one learning environment. Most participants had also at some point taken a Gaelic exam. For the majority, an exam would have been a compulsory aspect of the course being taken, e.g. final exams at university and the Highers exams.

The reasons for attending different courses may well be related to the desire to reduce the discrepancy between actual and possible selves. For example,

Danielle expressed a general interest in creative writing; her decision to attend a Gaelic-medium creative writing course may reflect her desire to realise her ideal L2 self as an individual who can write short stories and poetry through the medium of Gaelic as well as English. Similarly, Jenny expressed an interest in Gaelic music, so her attendance of a CLIL course based around this area of interest reflects her desire to become a member of the Gaelic music community. Attendance of different course types may also reflect postactional evaluation, as participants decide to take different or additional approaches to learning, based on their L2 experiences.

7.3.3.2 Learning strategies

Language learning strategies (LLS) are defined in chapter 3, following Griffiths (2008: 87), as "Activities consciously chosen by learners for the purpose of regulating their own language learning". In chapter 3, it is observed that there has been no research to date on the learning strategies employed by Gaelic L2 users. While much LLS research focuses on the strategies used by successful learners, of interest here are the strategies used by Gaelic L2 users at any stage of their language learning. This approach may help illuminate participants' experiences at the actional phase of motivation.

Participants were asked to describe the activities they voluntarily engaged in to further their Gaelic learning. Use of these learning strategies, or self-regulated learning activities, again reflect the desire to reconcile the differences between actual and possible selves, and reflect participants' decisions at all stages of the motivational process. The questionnaire in Appendix A shows which of these were identified in advance by the researcher as possible strategies. Participants were also invited to elaborate on their strategy use, or provide information about other strategies during the English interview. As outlined in chapter 3, strategies were grouped into three categories:

a) Skills-based deep processing strategies:
- Evaluating language produced to check for errors and breakdowns in communication
- Deducing grammatical rules from language produced or received
- Recognising structural patterns in the input and output

- Inferring meaning from context when in conversation, watching television, listening to the radio, and reading
- Monitoring language produced to check for errors and avoid breakdowns in communication

b) Language study strategies:

- Practice of language studied in class through completing grammar exercises, and repeating lexical items and structures heard
- Rehearsal of vocabulary by writing it out and memorising it
- Selective attention
  - Taking notes on grammar
  - Studying grammar
  - Consulting dictionaries

c) Social and interactive strategies:

- Practising with other L2 users
- Practising with native[21] speakers
- Requesting clarification of interlocutors' meaning
- Seeking interlocutors' support during interaction
- Taking risks when speaking by, e.g. guessing vocabulary or structures

The list of reported strategies used by each participant is presented in tables 7.4 to 7.6. Affirmative responses are highlighted in green. Language-study strategies are the most commonly used, followed by skills-based deep processing strategies. The most popular strategy among participants is the use of dictionaries; other popular strategies are inferring meaning from context, studying grammar, and practising with other L2 users. Evaluating language produced is the least popular strategy.

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[21] In chapter 1, it is noted that in this study, 'native speaker' refers to any individual who was exposed to Gaelic from birth, and spoke it as the primary language in the home.

Participant	Evaluation	Deduction	Pattern recognition	Inferring meaning in conversation, TV, and radio	Inferring meaning while reading	Monitoring
Amanda	Yes	Yes	Yes	No	Yes	No
Anne	No	Yes	Yes	Yes	No	Yes
Cecily	Yes	No	Yes	No	No	No
Chloe	No	No	No	Yes	Yes	Yes
Danielle	No	Yes	Yes	Yes	Yes	Yes
Dawn	No	No	No	Yes	Yes	Yes
Gloria	No	Yes	Yes	Yes	No	No
Jenny	No	No	No	Yes	No	Yes
Joyce	No	No	No	Yes	Yes	Yes
Kathy	No	No	No	Yes	Yes	Yes
Lily	No	Yes	No	Yes	Yes	Yes
Maggie	No	No	Yes	Yes	No	Yes
Nikki	No	No	No	Yes	No	Yes
Olivia	No	No	No	Yes	Yes	No
Simone	No	No	No	Yes	Yes	No
Tara	No	No	Yes	Yes	No	Yes

Table 7.4 - Participants' use of skills-based deep processing strategies

All participants use at least two strategies of this type. The most popular skills-based deep processing strategy used by these participants is inferring meaning from context. This strategy is employed by all but two participants, Amanda and Cecily. Interestingly, Amanda and Cecily are the only two participants to use evaluation of the language they have produced as a learning strategy. There is also a relationship between use of monitoring and use of inferring meaning from context.

Participant	Taking grammar notes	Grammar study	Dictionary consultation	Vocabulary rehearsal
Amanda	Yes	Yes	Yes	Yes
Anne	Yes	Yes	Yes	Yes
Cecily	No	Yes	Yes	Yes
Chloe	No	Yes	No	No
Danielle	Yes	Yes	Yes	No
Dawn	No	Yes	Yes	Yes
Gloria	Yes	No	Yes	No
Jenny	Yes	Yes	Yes	No
Joyce	Yes	Yes	Yes	Yes
Kathy	Yes	Yes	Yes	Yes
Lily	Yes	Yes	Yes	Yes
Maggie	No	No	Yes	Yes
Nikki	Yes	Yes	Yes	Yes
Olivia	Yes	Yes	Yes	No
Simone	Yes	Yes	Yes	Yes
Tara	No	Yes	Yes	Yes

Table 7.5 - Participants' use of language study strategies

Dictionary consultation is the most popular learning strategy out of all three categories. It is not clear whether the dictionaries used are bilingual dictionaries, from which participants can translate Gaelic words into their L1 or vice versa, or if the dictionaries are monolingual Gaelic dictionaries. Establishing this distinction could enable further insight into participant' preferences and learning styles. All participants who rehearse vocabulary also consult vocabulary in dictionaries. This finding may be related to Abraham & Vann's (1987) case that language learners use strategies in different ways: some of those who consult dictionaries take this strategy further, by actively attempting to memorise the vocabulary they have consulted. Most participants have also used grammar study as a learning strategy at some point or another, which is probably the result of the fact that all participants have learned Gaelic in a formal setting. We will see in 7.3.3.3 that Gloria does not believe grammar study to be an ideal means of learning a language, which may explain why she does not use this grammar study as a learning strategy. Gloria nonetheless has taken notes on Gaelic grammar throughout her Gaelic learning career: perhaps her failure to use these notes as a means of study reflects her personal preference for informal learning. Maggie also admits to a preference for

informal practice, rather than formal study of Gaelic. This preference may explain her avoidance of grammar study as a strategy.

Participant	Practise with L2 users	Practise with native speakers	Seeking clarification	Asking for peer support	Taking risks
Amanda	Yes	Yes	Yes	No	Yes
Anne	Yes	Yes	Yes	Yes	No
Cecily	No	No	No	Yes	Yes
Chloe	Yes	Yes	No	No	No
Danielle	Yes	Yes	No	No	No
Dawn	Yes	No	No	No	No
Gloria	Yes	Yes	No	No	Yes
Jenny	Yes	No	Yes	Yes	Yes
Joyce	Yes	No	No	No	No
Kathy	No	No	No	Yes	No
Lily	Yes	Yes	No	Yes	No
Maggie	Yes	Yes	Yes	No	No
Nikki	Yes	No	No	No	No
Olivia	Yes	Yes	No	No	Yes
Simone	Yes	Yes	No	No	Yes
Tara	Yes	No	No	Yes	Yes

Table 7.6 - Participants' use of social and interactive learning strategies

Table 7.6 shows that all participants who practise with native speakers also practise with other L2 users; and all participants who seek clarification also practise with other L2 users. Given the relative numbers of L2 and L1 Gaelic speakers in Glasgow (see chapter 2), it is unsurprising that participants who rehearse with L1 speakers also rehearse with L2 speakers. Indeed, participants who practise their Gaelic necessarily do so with L2 users, but for reasons of geography, confidence, or other circumstances, may not do so with L1 speakers. Similarly, the tendency for those who seek clarification to also practise with L2 users may be a reflection of the environments in which this practise takes place. While practise with L1 speakers may occur in more natural settings (note that five of the eight who practise with native speakers use Gaelic for work), it is likely — given the context of Gaelic in Glasgow — that practise with L2 users occurs in settings designed for Gaelic practise, such as conversation classes for Anne and Jenny, and Meetup events for Maggie. This kind of semi-formal

learning environment may be more conducive to seeking clarification from others, asking for peer support, and taking risks.

It is clear from tables 7.4 to 7.6 that all participants employ a range of learning strategies. In chapter 9, we see that the participants considered most proficient in Gaelic are Amanda, Danielle, Lily, and Olivia. Tables 7.4 to 7.6 show that there are no strategies used by only these participants, which may indicate that what is important is not which strategies are used, but rather, which strategies individuals prefer and how these are used as a means of reconciling their actual selves with their ideal and ought-to selves.

7.3.3.3 Beliefs about language learning

There are also some relationships between participants' beliefs about language learning — as ascertained from the questionnaire — and the LLSs they employ. Amanda's is the most comprehensive questionnaire response to this question:

> a) Begin with a firm grasp of the sound system b) gain structural understanding of the language, which involves a lot of rote learning c) build up vocabulary and idiom, d) at all stages, use the language as much as possible, e) never fall into the trap of translating in your head.   (Amanda, response to questionnaire item "What do you think is the best way to learn a language?")

Amanda also argues that L2 Gaelic users should be instructed in the use of learning strategies. Comparing Amanda's questionnaire responses to the strategies she reports using, it is clear that she engages in strategies that correspond to rote learning, avoiding translation, and exposing herself to Gaelic through conversation with others, reading, and studying.

Almost all participants, apart from Kathy, stated that they believed maximising exposure to Gaelic — through an immersion course or through speaking often with friends, for example — was the best way to learn the language. Even Olivia, whose personal preferred approach to language learning is through grammar study, argues that "for oral fluency, it has to be immersion" (Olivia, response to questionnaire item "What do you think is the best way to learn a language?"). This is reflected in the fact that all participants, apart from Kathy, report using practise with other speakers as a learning strategy.

Alongside the need for immersion and maximum exposure to Gaelic, over half of participants (Anne, Amanda, Cecily, Dawn, Danielle, Joyce, Lily, Nikki, and Olivia) argue for the importance of the study of grammar. All these participants use language study strategies related to grammar and vocabulary: this choice of strategy appears to be the result of their beliefs about language learning. As noted in 7.3.3.2, Gloria does not use grammar study as a learning strategy, but does make use of practise with other speakers, inferring meaning, and deduction. She states:

> I always try to imbibe it like a baby, without worrying about it.
>   (Gloria, response to questionnaire item "What do you think is the best way to learn a language?")

and

> I like to try and relax and listen to a language and just sort of emulate a little bit the way a baby learns a language…because that has to be the best way to learn.   (Gloria, English interview, lines 288-291)

The use of these strategies is reflected in her statements on language learning.

Participants' beliefs about language learning are closely related to the strategies they adopt, and the classes they attend. As such, their beliefs about learning are related to the approaches they take to realising their ideal and ought-to L2 selves.

All participants had chosen to start learning Gaelic in adulthood, with no external pressure from other individuals, but not all have the same proficiency goals.

7.3.4 The L2 learning experience

As alluded to in 7.1, having passed through the preactional phase into the actional phase, individuals' experiences may lead to a re-evaluation of their current state and a return to the actional phase.   In sections 7.3.4.1 to 7.3.4.3, participants' experiences with Gaelic learning are presented and discussed.

7.3.4.1 Experience with other Gaelic speakers

Several participants explicitly categorise the target language community as being made up of native speakers on the one hand, and L2 users on the other. These speakers report different attitudes towards both groups, which influences the extent to which they engage with them. A major problem for some participants is anxiety: Chloe and Joyce, for example, both experience anxiety when speaking to native speaker members of the Gaelic community. These less than positive experiences may impact Chloe's and Joyce's desire or ability to engage with the Gaelic-speaking community.

Cecily indicates that her Gaelic learning has been facilitated by interaction with highly proficient L2 users. Having experience of life in a Welsh-speaking region of Wales, and a *Gaeltacht* region of Ireland, Cecily observes that the non-native Gaelic speaking community is more visible and more supportive than other non-native communities. As a result, she argues that L2 Gaelic users "shouldn't be scared" to use their Gaelic with other, more proficient L2 Gaelic users (Cecily, English interview, line 63). Gloria also recognises the size of the non-native community, but believes that the number of non-native-speaking members of the Gaelic community provides a "less than complete experience" for Gaelic L2 users (Gloria, English interview, line 78). Cecily's experience here has facilitated her learning, while Gloria's learning has been frustrated. This may be related to Gloria's desire to reintegrate fully with the Gaelic-speaking community of which she was a part in the *Gàidhealtachd*: her ideal self requires the complete Gaelic experience which she has not been able to find in Glasgow. This experience has led Gloria to attend several different languages classes every week, taught by different individuals, to maximise her exposure to Gaelic. Thus, her experiences clearly impact her language learning decisions.

Anne and Jenny make distinctions within the 'native speakers' group. Anne observes that she is most at ease speaking to native speakers, as they will always understand what she is trying to say. In Anne's experience, younger native speakers are more reluctant to use Gaelic as they are worried their own Gaelic is not up to a suitable standard, while older speakers are much more enthusiastic about using Gaelic. Jenny, meanwhile, is more at ease speaking to younger native speakers, as she believes they will be more understanding of errors than

older speakers, who may not have much tolerance for deviation from norms of usage in their communities. As was the case for Chloe and Joyce, these experiences are likely to affect the actional stage of their motivation.

Like Dawn, Amanda believes that the "basic problem" with native speakers is their tendency to switch to English when they detect their interlocutor is a non-native Gaelic speaker: Gaelic L2 users in Amanda's view should strive to pass as native speakers. Similarly, Danielle — a former student of Amanda's — observes that native speakers tend to switch to English to aid comprehension when they detect a non-native Gaelic accent: the suggestion once again is that Gaelic L2 users should attempt to pass as native speakers. These experiences have helped to strengthen Amanda's and Danielle's images of their ideal and ought-to L2 selves.

As observed in 7.3.1.2, Dawn's similar experiences have contributed more to an idea of the kind of speaker she does not want to be. While Amanda and Danielle see the behaviour of native speakers as a motivating tool behind improving their Gaelic language skills, Dawn sees this same behaviour as exclusionary and off-putting:

> as if it's a secret society that you're not really....something kind of masonic that you're not admitted to, you know?

It is perhaps the negativity with which Dawn views her interactions with native speakers and native speakers' behaviour that has led to her to this view.

7.3.4.2 Attitude towards the learning situation

Participants generally reported very positive attitudes to the formal environments in which they learned or are learning Gaelic, remarking in particular that the class environment is fun, supportive, and an enjoyable place to learn. Participants also appreciate the effort made by most tutors to encourage learning formal aspects of language, and to practise conversation, although several participants — particularly those attending a university course, or a distance learning course — note that more frequent conversation classes would be beneficial.

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Simone's experience on the Gaelic distance-learning course, *An Cùrsa Inntrigidh*, is closely related to her ideal L2 self and her imagined Gaelic community: Simone believes that the structure of the course prohibits her engagement with the Gaelic community, which in turn limits her possibilities of realising her ideal self. As reported in 7.3.1.4, Simone is an active learner in her own time: she is perhaps spurred on by her unsatisfactory experiences in the learning situation to use other means of realising her ideal self.

Lily, on the other hand, did not have the same difficulty with the *Cùrsa Inntrigidh* and lack of contact with the imagined Gaelic community. Although she admits that the distance learning situation and lack of engagement with the community was not ideal, she also recognises that other life commitments would have posed a hindrance to such engagement in any case. The experience of doing weekly homework activities provided her with enough language practice at that time. This course

> fitted in with the rest of life. It was kind of a means to an end more than something that was particularly great as and of itself.
>   (Lily, English interview, lines 130-136)

This experience was stepping stone from which Lily could progress to the residential *Cùrsa Comais*.

However, despite appreciating the classes from a social perspective, several criticisms were raised repeatedly, including a lack of course structure (example 1), excessively large classes, which reduces individuals' participation time (example 2), inability of all class members to commit to regular attendance (example 3), and tutors who lack formal training, and frequent changes of teachers (example 4).

(1) on the whole, there's no structure, no logical progression. There are the teachers who are untrained…It's pretty dire.   (Amanda, English interview, lines 58-59)

(2) , it can be up to about 20 [people], so there's not so much chance to talk. If you're going around, you might get 2 sentences in the night. A smaller class is better for actual talking. (Dawn, English interview, lines 198-201)

(3) I have to say that [local authority] council have been very good in the sense that they have tried to run, and do run, summer-type classes that people can attend as when they wish on a weekly basis. However, a slight difficulty with that is that not everybody goes every week.　　　(Kathy, English interview, lines 62-66)

(4) the teacher was going to be off every few weeks and there was a different teacher coming in who had a very different approach. Sort of 'I will talk at you in Gàidhlig because I am a native speaker and therefore I know all, and you are but minions to my wonderful knowledge'. And I think that's not really helpful. And then, conversely, the main teacher, who was lovely, didn't have a grammar background. So when I would ask about grammar points she couldn't necessarily answer me. (Anne, English interview, lines 397-406)

These concerns are similar to those raised by Comunn na Gàidhlig (1992), McLeod et al. (2010), and Milligan et al. (2011).

Finally, both Chloe and Gloria state that despite enjoying classes at one time, the contrived nature of Gaelic use in the classroom no longer appeals to them, and that their learning would be better facilitated by more natural use outside the classroom.

These experiences are closely related to participants' ideal L2 selves: Kathy — who is learning Gaelic as a hobby — is content to remain in these classes, and does not make active use of many learning strategies, as we see in table 7.4. On the other hand, Anne notes that the structure of the class she originally attended was not likely to help her achieve her ideal L2 self. For this reason, she opted to take Gaelic as a university module.

7.3.4.3 Course assessments

Although almost all participants had taken a Gaelic exam in the past (see table 7.1), and several would have to take exams in the future (e.g. Anne, Cecily, Joyce, and Nikki), only one — Anne — reported spending time studying Gaelic for the sake of getting good grades:

> Those little exercises usually take me about 4 hours to do each one,
> because I sit and I'll do it and I'll look everything up and I'll check it
> and check it again because it's worth marks.   (Anne, English
> interview, lines 222-224)

Anne's ideal L2 self is an individual who can score highly on Gaelic tests.
Furthermore, her ought-to L2 self plays an important part in encouraging her to
perform well. Anne's comments here reflect her earlier description of herself as
a perfectionist. Anne's positive experience of taking exams has helped
strengthen her perception of herself as an individual close to resolving the
discrepancy between her actual and ideal and ought-to L2 selves.

7.3.5 Self-assessment

As noted in 3.7.2, self-assessment is included in this study as a measure of
participants' confidence in their own Gaelic abilities. Table 7.7 shows
participants' self-assessed skills in Interaction with Others and Speaking, as well
as the overall Communicative Adequacy ratings[22] they received for their
Interview and Narrative performances.

Participant	Interaction with others	Speaking	Overall Communicative Adequacy rating Interview	Overall Communicative Adequacy rating Narrative
Amanda	C2	C2	C2	C2
Anne	A2	A2	A2	A1
Cecily	A2	B1	A2	A2
Chloe	B1	B1	B2	B2
Danielle	C1	C1	C1	C1
Dawn	B1	B1	B2	B1
Gloria	B2	B2	B1	B1
Jenny	B1	B2	B1	B1
Joyce	B1	B1	A2	B1
Kathy	A2	A2	A2	A2
Lily	C2	C1	C1	C1
Maggie	A2	A2	B1	B1
Nikki	B1	B2	A1	A2
Olivia	C2	C2	C1	C1
Simone	B1	B1	B1	B1
Tara	A1	A2	A2	A2

Table 7.7 - Participants' self-assessed skills in Interaction with Others and Speaking, and their overall Communicative Adequacy ratings for the Interview and Narrative tasks

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[22] The procedure for calculating overall Communicative Adequacy ratings is described in detail in
section 9.2. To summarise this procedure here, overall Communicative Adequacy ratings were
calculated as a mean of individual raters' assessments of participants' performances.

The data in table 7.7 show that participants' self-assessments were the same as, or very close to, the Communicative Adequacy ratings they received from the raters. Although participants' self-assessments were based on the Common European Framework of Reference for languages (CEFR) while raters' were based on a framework modelled on this (see chapter 6), it is nevertheless clear that participants and raters view their skills similarly. From this, it can be concluded that participants in this study are good judges of their own proficiency, with most participants self-assessing at the same level as they were placed by raters. This supports the findings reported in Wells (1997), and contradicts those reported by Ross (1998) and MacIntyre et al. (1997). Participants like Amanda and Lily were confident in their abilities, as demonstrated by their high self-ratings. Participants like Chloe and Maggie, however, had less confidence in their own abilities, as demonstrated by their low self-ratings. The ability to self-assess with precision may be useful in helping L2 users develop their weaknesses, but may also affect their performance if they are aware of lacking the skills necessary for communication.

7.4 Summary

This chapter has addressed the data collected from the questionnaire and English interview from a qualitative perspective. The data were analysed using Dörnyei & Ottó's (1998) Process Model of L2 Motivation, and Dörnyei's (2005, 2009) L2 Motivational Self System. It has been shown that the participants in this study come from a range of learning backgrounds and bring a variety of different experiences to their Gaelic learning. These experiences affect their ideal and ought-to L2 selves.

The L2 Motivational Self System model provides a useful means of interpreting the data collected during the English interviews and background questionnaires, with several "types" of possible L2 self, presented below, identifiable. It is important to note that these types contribute to participants' overall motivational profiles, rather than serving as a single possible self. Due to the size of this sample, further statistical analysis (e.g. cluster analysis, as employed by Csizér & Dörnyei 2005) to examine the nature of these profiles is not possible. Nevertheless, several characteristics were common to a number of participants.

In this respect, these 'selves' may be considered common in the Gaelic SLA experience.

7.4.1 Possible ideal selves

7.4.1.1 The self as a multilingual

Amanda, Gloria, Joyce, Lily, Maggie, Nikki, and Olivia, while interested in, and committed to, Gaelic learning, had all taken up Gaelic out of a desire to be a competent speaker of several languages. Gaelic for these participants is a means to an end, with that end being multilingualism.

7.4.1.2 The self as a more authentic Gael or Scot

Several participants' interest in Gaelic developed out of a more general interest in Scottish or Gaelic culture and heritage. The learning of Gaelic in these cases was a means for participants to further explore their interest in cultural phenomena. Again, this model of the ideal self features Gaelic as a means to an end. These participants do not seek an ideal self as a Gaelic speaker, per se, but rather, believe that speaking Gaelic is an aspect of participation in Scottish culture.

This self is reflected in a number of different ways: Nikki – a speaker not originally from Scotland – sees learning Gaelic as a means of building a Scottish identity for herself. Dawn, Lily, and Maggie see their knowledge of Gaelic as a means of connecting with their families' Scottish heritage. Danielle and Jenny, meanwhile, have keen interests in Gaelic literature and music. The ideal self for these participants as a member of these cultural movements motivates their continuing desire to attend Gaelic CLIL classes. These participants do not view the language as a *necessary* aspect of Gaelic language and culture, but see learning the language as one means of engaging with this.

7.4.1.3 The self as a highly proficient Gaelic speaker

Amanda, Anne, Chloe, Danielle, Joyce, Maggie, and Olivia, all have a sense of ideal self as an individual who is very highly proficient in Gaelic. While none of these participants aims to pass as a native speaker, they do aim to reach very high L2 proficiency. Dörnyei (2005) notes that this kind of drive to perform well

may fall under the category of 'ought-to self'. However, he goes on to explain that once this drive becomes internalised by the speaker, it becomes a feature of their ideal self. In this respect, these speakers aim for high proficiency to actualise their ideal, rather than ought-to, selves.

7.4.1.4 The Gaelic worker

Five participants – Chloe, Danielle, Jenny, Joyce, and Olivia - conceived of the ideal self as a member of the Gaelic workforce. While two participants had clear goals with regard to their participation in this workforce (Chloe and Danielle), three were interested in pursuing Gaelic-medium careers more generally. Their internalised desire to find employment in this sector motivates their Gaelic learning.

7.4.2 Possible ought-to selves

7.4.2.1 The self as an agent of language revitalisation

Both Gloria and Maggie express concerns over the future of Gaelic, and it is clear that their desire to contribute to language revitalisation is important for their language learning. Both participants believe they have a responsibility to learn Gaelic in order to secure the future of the language. This conceptualisation of the ought-to self does not correspond to those identified by, e.g. Csizér & Dörnyei (2005), Papi & Abdollahzadeh (2012). It is nonetheless a clear example of language learning with a preventive focus, and represents a duty that these L2 users feel compelled to carry out. This finding corresponds to those by MacCaluim (2007) and McLeod, Pollock & MacCaluim (2010), who show that language revitalisation is important for L2 Gaelic users.   Attitudes towards the target language (TL) have been found to affect learners' ought-to selves (e.g. Kormos & Csizér 2008), but the findings reported here show the importance of considering the effect that a minority language can have on attitudes towards language learning, and the ought-to self.

7.4.2.2 The self as a Gaelic-speaking incomer

Both Anne and Gloria describe their desire to be accepted into communities in the *Gàidhealtachd* as an important motivational factor for their continued Gaelic

learning. Relocation to a different community, and the desire not to be categorised as an English-speaking 'incomer' with no connection to the area appears to motivate these participants. As Smith-Christmas (2014) observes, there is a perception that in-migrants to *Gàidhealtachd* areas are not always entirely welcome, with the label 'incomer' often being applied pejoratively; they may be seen as interested not in the local area, but in simply relocating "to a rural Scottish area in search of an idyllic, pastoral existence" (Smith-Christmas 2014: 5). Smith-Christmas (2014) reports that in-migrants are perceived to threaten the stability of – and to be hostile towards – the Gaelic language and culture of these rural areas. The desire held by Anne and Gloria to be fully-Gaelic speaking incomers suggests a desire to avoid fulfilling this negative stereotype. This motivational aspect may also be related to Gloria and Maggie's concerns over the future of Gaelic; Gaelic should be spoken in the *Gàidhealtachd* in order to preserve it.

7.4.2.3 The self as commanding an appropriate variety or register

Finally, the ought-to self appears to motivate several participants in their decision to learn particular dialects or registers of Gaelic, even if their original desire to learn Gaelic more generally was not motivated in this way. This is most clearly the case for Danielle, who, on becoming highly proficient in Gaelic, felt the need to learn an additional register in order to be fully accepted as a member of the Gaelic media community.

Similarly, Amanda, Danielle, Dawn, Jenny, and Lily argue that it is insufficient to learn Gaelic without paying due attention to phonetic features such as pre-aspiration, and the distinction between broad and slender consonants. In these data, this motivation represents the ought-to self. Failure to master these sounds would be tantamount to failure to master the language. In these examples, the desire to master these features has less to do with the speakers' ideal selves, and more to do with their sense of duty as responsible Gaelic learners.

This contrasts with Olivia's position. In order not to be seen to be appropriating Gaelic speakers' language and identity, she believes she ought not to adopt any particular variety. Although she has always aimed at high proficiency, her

perceived obligation to respect the boundaries of Gaelic culture discourages her from choosing one dialect over another.

These components of the L2 Motivational Self System, along with the range of learning experiences reported in this chapter, when applied to participants' data are closely related to the preactional, actional, and postactional phases of motivation, as individuals take action and evaluate this in order to ensure that the discrepancy between their actual and possible selves is minimised. The data presented in this chapter show the inter-connectedness of all phases of the motivation process, and all motivational influences.

Given the vast range of learning experiences and goals among these participants, it is not possible to assess in a controlled way their performance on the interview and narrative tasks in relation to the variables presented in this chapter, as originally hoped. However, the data presented here provide more detail about the individuals that participated in this study, and indeed, suggest that some of the variability in scores that we will see in chapters 8 and 9 may be attributable to the wide range of experiences and backgrounds held by this group.

8 Research question 2: What are the interactions between dimensions and components of proficiency?

8.1 Chapter overview

This chapter addresses the second research question, on the interactions between dimensions of proficiency. The analysis addresses these relationships and interactions for each task individually, and compares these relationships and interactions between tasks.

This research question is designed to test Skehan & Foster's (2012) Extended Trade-off Hypothesis introduced in chapter 4. In chapter 4, Skehan's (1998) Limited Attentional Capacity Model (LACM) and Kormos's (2006) model of second language (L2) production are also presented. To recapitulate, the LACM assumes that the attentional resources of language users are limited. The Extended Trade-off Hypothesis (ETH) proposes that these limitations on speakers' attentional resources result in a competitive relationship between components of proficiency, especially between complexity and accuracy; fluency may be found in a supportive relationship with either. The ETH predicts that task conditions moderate the relationship between CAF dimensions: of particular relevance to this study, the ETH predicts that more structured tasks may elicit more accurate language; narrative tasks with more than one storyline may elicit more complex language; and tasks based on familiar information may elicit more fluent language.

Kormos's (2006) model of second language (L2) production builds upon Levelt's (1989, 1999) model of first language (L1) production. Pre-verbal messages are generated in the conceptualiser, and then move on to the formulator for lexico-grammatical, morpho-phonological, and phonetic encoding. The encoded message is sent to the articulator for production. Kormos's (2006) model proposes that there exist distinct regions of the brain for storing and processing rules of language that have not yet been automatised. Proceduralisation of linguistic knowledge can only begin once rules stored in declarative memory have been learned. Without proceduralisation of linguistic knowledge, an L2 speaker must direct attention more closely to the production and accessing of

rules stored in declarative memory. Thus, for speakers whose knowledge is less proceduralised, there is less attention available for output monitoring and the generation of new messages: in other words, accessing language rules in declarative memory reduces the speaker's capacity for parallel processing.

Results obtained from the analysis of participants' interview and narrative performances are presented in section 8.2.

In sections 8.3 and 8.4, two hypotheses related to the research question are tested. As specified in chapter 5, these are:

- Research question 2, hypothesis 1 (Hypothesis 2.1): As predicted by the TH, participants do not distribute attention equally across all CAF components.

- Research question 2, hypothesis 2 (Hypothesis 2.2): As predicted by the ETH, task conditions may moderate the relationship between dimensions of proficiency.

Section 8.5 concludes the chapter.

8.2 Dimensions of proficiency

As outlined in chapters 4 and 5, eight components of linguistic proficiency, falling under three dimensions — complexity, accuracy, and fluency — are employed in this study:

- Complexity

  o D: a measure of lexical diversity, based around the probability of new words being introduced into longer texts

  o Subordination Ratio (SR): Number of clauses per AS-unit[23]

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[23] In chapter 4, it is explained that an AS-unit (analysis of speech unit) is "a single speaker's utterance consisting of *an independent clause, or sub-clausal unit,* together with any *subordinate clause*(s) associated with either" (Foster, Tonkyn & Wigglesworth 2000: 365, emphasis in original)

- o Mean Length of Clause (MLC) in words

- Accuracy

  - o Percentage Accurate AS-units

  - o Number of Inaccuracies per AS-unit

- Fluency

  - o Mean Length of fluent Run (MLR): the mean length of runs of speech between pauses

  - o Phonation Time (PT): the percentage of total floor time for which participants spoke Gaelic during each task

  - o Pruned Words per Minute (WPM): the number of words produced per minute, excluding pauses, laughter, and coughing

Results for each measure for each individual for the interview are presented in table 8.1, and for the narrative, in table 8.2. Descriptive statistics for these data are presented in tables 8.3 and 8.4, respectively. The justification for using these tasks is presented in chapter 6. There, it is argued that the interview task should elicit accurate and fluent language. The narrative task should elicit complex and accurate language.

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies/AS-unit	MLR	PT	WPM
Amanda	61.92	1.60	4.93	87.10	0.08	1.30	0.71	237.82
Anne	45.61	1.40	4.00	36.81	0.53	0.72	0.38	210.57
Cecily	38.31	1.13	3.35	64.05	0.43	0.84	0.45	150.47
Chloe	54.65	1.73	4.73	50.00	0.61	0.98	0.65	202.61
Danielle	70.14	1.52	4.66	85.54	0.25	1.08	0.69	242.67
Dawn	52.58	1.09	4.27	32.38	0.45	0.97	0.74	163.29
Gloria	60.05	1.37	5.40	55.04	0.74	1.05	0.53	168.48
Jenny	41.21	1.19	4.85	41.84	0.66	1.04	0.67	197.86
Joyce	51.61	1.21	3.41	55.10	0.32	0.87	0.35	142.20
Kathy	48.73	1.14	3.39	52.22	0.51	1.25	0.61	145.93
Lily	62.79	1.67	4.90	78.46	0.20	1.17	0.76	225.57
Maggie	47.03	1.15	5.00	42.78	0.55	0.77	0.39	197.59
Nikki	38.31	1.22	4.81	23.43	0.60	0.98	0.44	150.27
Olivia	69.21	1.47	3.90	80.22	0.20	1.33	0.76	196.36
Simone	45.81	1.23	4.00	63.03	0.48	0.95	0.53	207.00
Tara	34.17	1.08	2.85	52.30	0.53	0.69	0.41	174.49

Table 8.1 - Interview: Results for components of linguistic proficiency

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies/AS-unit	MLR	PT	WPM
Amanda	39.07	1.79	4.20	82.86	0.15	1.67	0.70	193.95
Anne	27.64	1.67	3.80	33.30	1.11	0.63	0.31	178.48
Cecily	31.13	1.19	4.33	23.53	0.54	0.82	0.44	148.73
Chloe	61.08	1.41	4.78	51.16	0.68	1.22	0.56	162.16
Danielle	51.17	1.81	5.60	69.23	0.65	1.70	0.69	169.56
Dawn	47.01	1.21	4.55	50.00	0.68	1.42	0.60	131.94
Gloria	34.83	1.37	5.61	60.00	1.12	0.92	0.35	153.47
Jenny	19.00	1.33	4.85	33.33	1.42	1.55	0.74	145.25
Joyce	26.67	1.79	4.63	13.30	1.14	0.99	0.35	138.61
Kathy	26.41	1.42	4.24	41.94	0.73	1.07	0.31	139.69
Lily	48.76	1.56	3.50	76.47	0.26	1.16	0.62	193.09
Maggie	31.18	1.33	3.81	22.58	1.04	0.73	0.34	175.55
Nikki	29.17	1.25	4.60	12.50	1.06	1.15	0.41	112.85
Olivia	39.43	2.13	6.00	86.67	0.40	1.74	0.78	190.92
Simone	30.42	1.39	5.29	34.61	0.85	0.95	0.37	175.51
Tara	16.49	1.11	5.42	6.25	1.42	0.65	0.28	153.79

Table 8.2 - Narrative: Results for components of linguistic proficiency.

Variable	Range	Min.	Max.	Mean	Std. Deviation
D	35.97	34.17	70.14	51.3831	11.05
SR	0.65	1.08	1.73	1.325	0.22
MLC	2.55	2.85	5.4	4.2781	0.74
% Accurate AS-units	63.67	23.43	87.1	56.2688	19.10
Inaccuracies/AS-unit	0.66	0.08	0.74	0.45	0.19
MLR	0.64	0.69	1.33	0.9994	0.20
PT	0.41	0.35	0.76	0.5653	0.15
WPM	100.47	142.2	242.67	188.3238	32.76

Table 8.3 - Interview: Descriptive statistics for components of linguistic proficiency

Variable	Range	Min.	Max.	Mean	Std. Deviation
D	44.59	16.49	61.08	34.97	12.09
SR	1.02	1.11	2.13	1.49	0.28
MLC	2.5	3.5	6	4.70	0.73
% Accurate AS-units	80.42	6.25	86.67	43.61	25.72
Inaccuracies/AS-unit	1.27	0.15	1.42	0.83	0.38
MLR	1.11	0.63	1.74	1.15	0.37
PT	0.5	0.28	0.78	0.49	0.18
WPM	81.1	112.85	193.95	160.22	23.71

Table 8.4 - Narrative: Descriptive statistics for components of linguistic proficiency

The tables show the raw scores for each of these proficiency components, which are not easily comparable. As such, tables 8.5 and 8.6 show the results for each measure recalculated to values from 0 to 100, to facilitate comparison. Following Verspoor et al. (2011), recalculation is carried out using the formula presented in equation 8.1.

$$\left(\frac{speaker's\ score - minimum\ value}{maximum\ value - minimum\ value} \right) * 100$$

Equation 8.1 - Recalculation of participants' scores on a scale of 0 to 100

For example, Anne's score of 45.61 for D for the interview would be rescaled as in equation 8.2, giving her a new score of 31.80 for D.

$$\left(\frac{45.61 - 34.17}{70.14 - 34.17}\right) * 100 = 31.80$$

Equation 8.2 - The recalculation of Anne's interview score for D

In equation 8.2, 45.61 is Anne's original score for D. 34.17 is the lowest score any participant received: in this case, Tara's D score is the lowest, at 34.17. Danielle's D score is the highest, at 70.14; this is the maximum value. 31.8 is Anne's recalculated score for D.

The method shown in equation 8.1 allows for each participant's scores for each measure to be compared to their other scores. It also allows for participants' scores to be compared with other participants' scores. For this reason, it was considered an appropriate alternative to the more traditional Z-scores. As Verspoor & van Dijk (2011) observe, this approach is particularly useful for interpreting interactions between variables at the intra-individual level, as well as the inter-individual level. For example, Tara's rescaled interview proficiency scores show that she scores relatively high for Accuracy per AS-unit (with a score of 45.34%) in comparison to her relatively low scores for D, SR, MLC, and MLR. Similarly, these same data show that compared to other participants, Tara's score for this component was roughly in the middle relative to the other participants. The same results can be used to assign a weight to each score, to assess the amount it contributes to any speaker's overall score. The latter is discussed further in 8.3.3.

The scores for Inaccuracies per AS-unit were modified further: the nature of this result was such that after recalculation, a higher score was equated with a poorer performance, i.e. the person who produced the highest number of Inaccuracies per AS-unit would receive a score of 100. In order to better align these scores with those for other components of linguistic proficiency, the rescaled scores for Inaccuracies per AS-unit were inverted: a score of 0 was awarded to the individual who produced the most inaccuracies per AS-unit, while a score of 100 was awarded to the individual who produced the fewest inaccuracies per AS-unit. Thus, the participant who produced the fewest inaccuracies per AS-unit would be awarded the highest score.

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Scores for Inaccuracies per AS-unit were recalculated using the method presented in equation 1. Equation 8.3 shows the recalculation of Anne's interview score for Inaccuracies per AS-unit.

$$\left(\frac{0.53 - 0.08}{0.74 - 0.08}\right) * 100 = 68.18$$

Equation 8.3 – The recalculation of Anne's interview score for Inaccuracies per AS-unit

In order to invert Anne's score, the recalculated score was subtracted from 100, as in equation 8.4.

$$100 - 68.18 = 31.82$$

Equation 8.4 - The inversion of Anne's recalculated interview score for Inaccuracies per AS-unit

Equations 8.3 and 8.4 thus show how Anne's raw score for Inaccuracies per AS-unit, i.e. 0.53, became 31.82, as shown in table 8.5. This was considered the most straightforward way of aligning the results for Inaccuracies per AS-unit with results for other components of proficiency.

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies / AS-unit	MLR	PT	WPM
Amanda	77.15	80.00	81.57	100.00	100.00	95.31	87.10	95.17
Anne	31.80	49.23	45.10	21.01	31.82	4.69	5.48	68.05
Cecily	11.51	7.69	19.61	63.80	46.97	23.44	23.30	8.23
Chloe	56.94	100.00	73.73	41.73	19.70	45.31	73.67	60.13
Danielle	100.00	67.69	70.98	97.55	74.24	60.94	82.89	100.00
Dawn	51.18	1.54	55.69	14.06	43.94	43.75	94.91	20.99
Gloria	71.95	44.62	100.00	49.65	0.00	56.25	42.92	26.16
Jenny	19.57	16.92	78.43	28.91	12.12	54.69	77.47	55.40
Joyce	48.48	20.00	21.96	49.74	63.64	28.13	0.00	0.00
Kathy	40.48	9.23	21.18	45.22	34.85	87.50	62.10	3.71
Lily	79.57	90.77	80.39	86.43	81.82	75.00	99.80	82.98
Maggie	35.75	10.77	84.31	30.39	28.79	12.50	8.94	55.13
Nikki	11.51	21.54	76.86	0.00	21.21	45.31	21.03	8.03
Olivia	97.41	60.00	41.18	89.19	81.82	100.00	100.00	53.91
Simone	32.36	23.08	45.10	62.20	39.39	40.63	43.19	64.50
Tara	0.00	0.00	0.00	45.34	31.82	0.00	13.38	32.14

Table 8.5 - Interview: Rescaled proficiency scores

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies /AS-unit	MLR	PT	WPM
Amanda	50.64	66.67	28.00	95.26	100.00	93.69	84.45	100.00
Anne	25.01	54.90	12.00	33.64	24.41	0.00	5.67	80.92
Cecily	32.83	7.84	33.20	21.49	69.29	17.12	31.71	44.24
Chloe	100.00	29.41	51.20	55.84	58.27	53.15	56.64	60.80
Danielle	77.78	68.63	84.00	78.31	60.63	96.40	82.45	69.93
Dawn	68.45	9.80	42.00	54.40	58.27	71.17	63.62	23.54
Gloria	41.13	25.49	84.40	66.84	23.62	26.13	12.48	50.09
Jenny	5.63	21.57	54.00	33.67	0.00	82.88	92.14	39.95
Joyce	22.83	66.67	45.20	8.77	22.05	32.43	13.79	31.76
Kathy	22.25	30.39	29.60	44.38	54.33	39.64	4.32	33.09
Lily	72.37	44.12	0.00	87.32	91.34	47.75	68.96	98.94
Maggie	32.94	21.57	12.40	20.31	29.92	9.01	10.71	77.31
Nikki	28.44	13.73	44.00	7.77	28.35	46.85	25.10	0.00
Olivia	51.45	100.00	100.00	100.00	80.31	100.00	100.00	96.26
Simone	31.24	27.45	71.60	35.26	44.88	28.83	16.75	77.26
Tara	0.00	0.00	76.80	0.00	0.00	1.80	0.00	50.48

Table 8.6 - Narrative: Rescaled proficiency scores

The interactions between these proficiency components are explored in section 8.3.

8.3 Hypothesis 2.1: As predicted by the ETH, participants do not focus their attention on all CAF components simultaneously.

Hypothesis 2.1 examines whether complexity, accuracy, and fluency compete within both tasks. In line with the LACM and ETH, we expect L2 language users' performance to be stronger on one dimension of proficiency over others. The LACM predicts competition between form and meaning, with most speakers focusing on meaning. This reduces the attention available for focus on form. When speakers do focus on form, there is further competition between a focus on linguistic complexity (form-as-ambition), and a focus on accuracy (form-as-conservatism) (Skehan 1998). Following Kormos's (2006) Bilingual Speech Production Model (BSPM), trade-offs should decline as language knowledge becomes more proceduralised. As such, the results are also discussed in relation to the BSPM.

Pearson's *r* correlation was considered the most appropriate means of establishing the interactions between components and the nature of the trade-offs between them. However, scores for components of proficiency were not observed to be in linear relationships with one another, according to visual inspection of scatterplots in SPSS. Similarly, most variables were not found in monotonic relationships with one another, and as a result, Spearman's rank order correlation was not suitable. Due to the issues inherent in transforming data for analysis of this kind (Larson-Hall 2010), it was preferable to examine these data using non-statistical procedures. As the calculation performed using equation 8.1 allows for an analysis of how well participants performed on one component relative to any other, this approach was employed here.

8.3.1 Hypothesis 2.1 results

Tables 8.7 and 8.8 provide total scores for each participant for linguistic proficiency. The total is calculated by weighting all recalculated proficiency scores equally as worth one-eighth of the total, and summing these figures. The weighted scores are also presented in tables 8.7 and 8.8. Each participant's three highest scores are highlighted in green; each participant's three lowest scores are highlighted in red. Where a participant scored the same for any two

measures, these scores were tied. For example, Olivia scores 12.5 for both MLR and PT. As such, four components are highlighted in green, as this better reflects the top three scores she received. Participants are presented in order of total score, from lowest to highest.

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies/ AS-unit	MLR	PT	WPM	Total
Tara	0	0	0	5.67	3.98	0	1.67	4.02	15.33
Cecily	1.44	0.96	2.45	7.97	5.87	2.93	2.91	1.03	25.57
Nikki	1.44	2.69	9.61	0	2.65	5.66	2.63	1	25.69
Joyce	6.06	2.5	2.75	6.22	7.95	3.52	0	0	28.99
Anne	3.98	6.15	5.64	2.63	3.98	0.59	0.69	8.51	32.15
Maggie	4.47	1.35	10.54	3.8	3.6	1.56	1.12	6.89	33.32
Kathy	5.06	1.15	2.65	5.65	4.36	10.94	7.76	0.46	38.03
Dawn	6.4	0.19	6.96	1.76	5.49	5.47	11.86	2.62	40.76
Jenny	2.45	2.12	9.8	3.61	1.52	6.84	9.68	6.92	42.94
Simone	4.05	2.88	5.64	7.77	4.92	5.08	5.4	8.06	43.8
Gloria	8.99	5.58	12.5	6.21	0	7.03	5.37	3.27	48.94
Chloe	7.12	12.5	9.22	5.22	2.46	5.66	9.21	7.52	58.9
Olivia	12.18	7.5	5.15	11.15	10.23	12.5	12.5	6.74	77.94
Danielle	12.5	8.46	8.87	12.19	9.28	7.62	10.36	12.5	81.79
Lily	9.95	11.35	10.05	10.8	10.23	9.38	12.47	10.37	84.59
Amanda	9.64	10	10.2	12.5	12.5	11.91	10.89	11.9	89.54

Table 8.7 - Interview: Weighted scores for proficiency components

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies / AS-unit	MLR	PT	WPM	Total
Tara	0.00	0.00	9.60	0.00	0.00	0.23	0.00	6.31	16.14
Nikki	3.55	1.72	5.50	0.97	3.54	5.86	3.14	0.00	24.28
Maggie	4.12	2.70	1.55	2.54	3.74	1.13	1.34	9.66	26.77
Anne	3.13	6.86	1.50	4.20	3.05	0.00	0.71	10.12	29.57
Joyce	2.85	8.33	5.65	1.10	2.76	4.05	1.72	3.97	30.44
Cecily	4.10	0.98	4.15	2.69	8.66	2.14	3.96	5.53	32.22
Kathy	2.78	3.80	3.70	5.55	6.79	4.95	0.54	4.14	32.25
Jenny	0.70	2.70	6.75	4.21	0.00	10.36	11.52	4.99	41.23
Gloria	5.14	3.19	10.55	8.35	2.95	3.27	1.56	6.26	41.27
Simone	3.91	3.43	8.95	4.41	5.61	3.60	2.09	9.66	41.66
Dawn	8.56	1.23	5.25	6.80	7.28	8.90	7.95	2.94	48.91
Chloe	12.50	3.68	6.40	6.98	7.28	6.64	7.08	7.60	58.17
Lily	9.05	5.51	0.00	10.91	11.42	5.97	8.62	12.37	63.85
Danielle	9.72	8.58	10.50	9.79	7.58	12.05	10.31	8.74	77.26
Amanda	6.33	8.33	3.50	11.91	12.50	11.71	10.56	12.50	77.34
Olivia	6.43	12.50	12.50	12.50	10.04	12.50	12.50	12.03	91.00

Table 8.8 - Narrative: Weighted scores for proficiency components

A higher total score indicates greater proficiency.

The range and minimum and maximum values for each weighted component of proficiency are identical, i.e. 12.5, 0, and 12.5, respectively. The means and standard deviations for both the interview are presented in table 8.9, and for the narrative in table 8.10. Table 8.11 provides descriptive statistics for the interview and narrative for total scores.

Measure	Mean	Standard Deviation
D	5.98	3.84
SR	4.71	4.14
MLC	7.00	3.64
% Accurate AS-units	6.45	3.75
Inaccuracies/AS-unit	5.56	3.53
MLR	6.04	3.82
PT	6.53	4.56
WPM	5.74	4.08

Table 8.9 - Interview: Means and standard deviations of weighted scores

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Measure	Mean	Standard Deviation
D	5.18	3.39
SR	4.60	3.44
MLC	6.00	3.63
% Accurate AS-units	5.81	4.00
Inaccuracies/AS-unit	5.83	3.77
MLR	5.84	4.20
PT	5.23	4.44
WPM	7.30	3.65

Table 8.10 - Narrative: Means and standard deviations of weighted scores

Task	Range	Min.	Max.	Mean	Std. Deviation
Interview	74.21	15.33	89.54	48.02	23.54
Narrative	74.86	16.14	91.00	45.77	21.83

Table 8.11 - Descriptive statistics for total scores for both tasks

The data in tables 8.7 and 8.8 are represented graphically in figures 8.1 and 8.2, respectively. Speakers are sorted in order of total score, from lowest to highest.
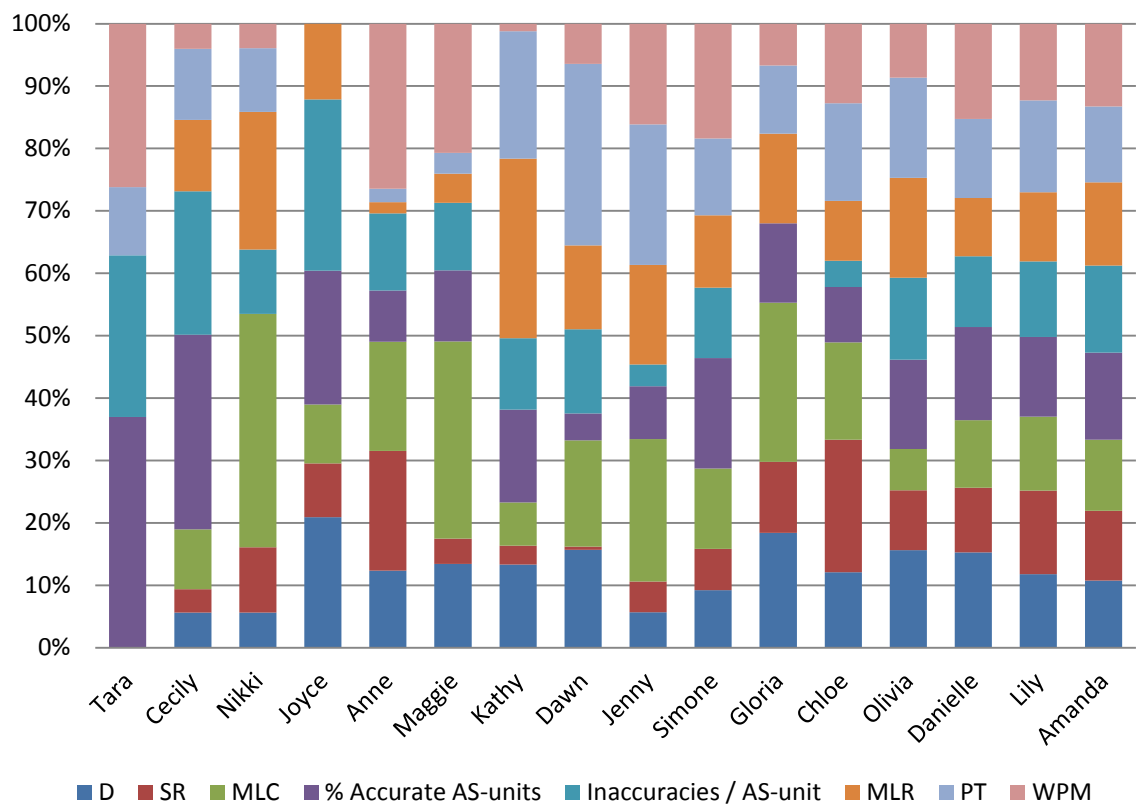
Figure 8.1 - Interview: Weighted scores for proficiency components
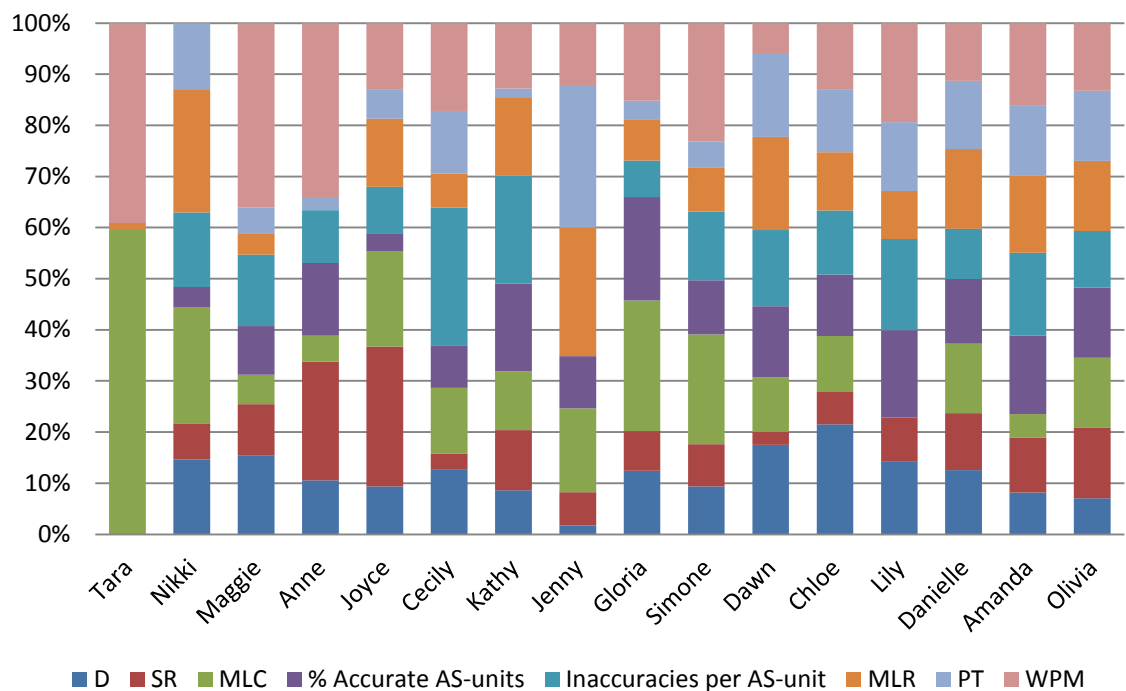
Figure 8.2 - Narrative: Weighted scores for proficiency components

The figures and tables show considerable variation between participants and between tasks. In 8.3.2, an interpretation of these results based on the TH is presented.

8.3.2 The Extended Trade-off hypothesis

The ETH predicts that participants will not score equally for all components of proficiency, due to limited attentional resources (Skehan 1996b, Skehan & Foster 2012). In addition, the BSPM (Kormos 2006) posits that trade-offs will be more extreme for less proficient speakers, whose linguistic knowledge is not yet proceduralised . As encoding declarative knowledge requires attention, less proficient speakers do not have attentional resources to disperse evenly over all aspects of language processing (Kormos 2006).

The results in tables 8.7 and 8.8 confirm that trade-offs between components of proficiency do exist, as predicted by the ETH. But on consulting tables 8.7 and 8.8, it is clear that it is not possible to predict the nature of these trade-offs. For example, table 8.7 and figure 8.1 show that Kathy scores high on the interview for fluency, but lower for complexity and accuracy. Table 8.7 and figure 8.1 also show that Joyce scores high for complexity and accuracy, but low for fluency. Tara's lowest interview scores are the three complexity measures, and MLR. These results suggest a direct trade-off between dimensions of proficiency, and suggest that Tara does not prioritise complexity at all.

The data also show that it is not necessarily the case that one participant will focus on accuracy in general at the expense of complexity in general. Table 8.8 and figure 8.2 show that Dawn scores high for D and accuracy, but lower for other complexity measures. Similarly, in table 8.8 and figure 8.2, we see that Anne's narrative results suggest that while she prioritises one aspect of fluency — WPM — the other two fluency measures are low priorities. These data are discussed in relation to the ETH and BSPM in section 8.3.3.

8.3.3 The contribution made by proficiency components to total scores

If attentional resources are evenly distributed across all production modules, then strong performance in one area should not lead to weaker performance in another area (Kormos 2006). In other words, an even distribution of attentional resources should reduce the trade-offs between different components of proficiency. Following Kormos (2006), it is argued that attentional resources can be more evenly distributed if a speaker's language processing system operates using proceduralised linguistic knowledge. More proficient speakers should be able to allocate their attentional resources evenly across components of proficiency, due to their linguistic knowledge being more proceduralised (Kormos 2006).

In order to examine how evenly attention is distributed among processing components, the amount contributed by each component of proficiency to participants' total scores was calculated. If each component were to contribute equally to participants' total scores, then each would contribute 12.5%. The less proceduralised a speaker's knowledge, the greater the difference between the amounts contributed by different components of proficiency. This is because, according to the ETH, limitations on attentional capacity lead speakers to prioritise some areas of performance over others. The amount contributed by each component to the total can indicate which areas are prioritised over others.

Tables 8.12 and 8.13 show the amount each component of proficiency contributes to each participant's total score. Figures representing the top three contributors to each participant's total score are highlighted in green; figures representing the three lowest contributors to each participant's total score are highlighted in pink.

Partici-pant	Percent contributed to total by...								
	D	SR	MLC	% Accurate AS-units	Inaccuracies/ AS-unit	MLR	PT	WPM	Total
Amanda	10.77	11.17	11.39	13.96	13.96	13.31	12.16	13.29	100
Anne	12.37	19.14	17.54	8.17	12.37	1.82	2.13	26.46	
Cecily	5.63	3.76	9.59	31.19	22.96	11.46	11.39	4.02	100
Chloe	12.08	21.22	15.65	8.86	4.18	9.62	15.64	12.76	100
Danielle	15.28	10.35	10.85	14.91	11.35	9.31	12.67	15.28	
Dawn	15.70	0.47	17.08	4.31	13.48	13.42	29.11	6.44	100
Gloria	18.38	11.39	25.54	12.68	0.00	14.37	10.96	6.68	100
Jenny	5.70	4.93	22.83	8.42	3.53	15.92	22.55	16.13	100
Joyce	20.90	8.62	9.47	21.44	27.44	12.13	0.00	0.00	100
Kathy	13.30	3.03	6.96	14.86	11.45	28.76	20.41	1.22	100
Lily	11.76	13.41	11.88	12.77	12.09	11.08	14.75	12.26	100
Maggie	13.41	4.04	31.63	11.40	10.80	4.69	3.35	20.68	100
Nikki	5.60	10.48	37.40	0.00	10.32	22.05	10.23	3.91	100
Olivia	15.62	9.62	6.60	14.31	13.12	16.04	16.04	8.65	100
Simone	9.23	6.59	12.87	17.75	11.24	11.59	12.32	18.40	100
Tara	0.00	0.00	0.00	36.96	25.94	0.00	10.91	26.20	100

Table 8.12 - Interview: Amount contributed to participants' total scores by each proficiency component

Partici-pant	Percent contributed to total by...								
	D	SR	MLC	% Accurate AS-units	Inaccuracies / AS-unit	MLR	PT	WPM	Total
Anne	10.57	23.21	5.07	14.22	10.32	0.00	2.40	34.21	100
Cecily	12.74	3.04	12.88	8.34	26.89	6.64	12.30	17.17	100
Kathy	8.62	11.78	11.47	17.20	21.06	15.36	1.67	12.83	100
Nikki	14.64	7.07	22.65	4.00	14.59	24.12	12.92	0.00	100
Tara	0.00	0.00	59.50	0.00	0.00	1.40	0.00	39.11	100
Dawn	17.49	2.51	10.73	13.90	14.89	18.19	16.26	6.02	100
Gloria	12.46	7.72	25.56	20.24	7.15	7.91	3.78	15.17	100
Jenny	1.71	6.54	16.37	10.21	0.00	25.13	27.93	12.11	100
Joyce	9.38	27.38	18.56	3.60	9.05	13.32	5.66	13.04	100
Maggie	15.38	10.07	5.79	9.48	13.97	4.21	5.00	36.10	100
Simone	9.37	8.24	21.48	10.58	13.47	8.65	5.03	23.18	100
Chloe	21.49	6.32	11.00	12.00	12.52	11.42	12.17	13.07	100
Danielle	12.58	11.10	13.59	12.67	9.81	15.60	13.34	11.31	100
Lily	14.17	8.64	0.00	17.09	17.88	9.35	13.50	19.37	100
Olivia	7.07	13.74	13.74	13.74	11.03	13.74	13.74	13.22	100
Amanda	8.18	10.78	4.53	15.40	16.16	15.14	13.65	16.16	100

Table 8.13 – Narrative: Amount contributed to participants' total scores by each proficiency component

By comparing the data in tables 8.12 and 8.13 with those in tables 8.9 and 8.10, it is clear that the component of proficiency contributing the most to any participant's total score is the component for which they received the highest score. This observation is what might intuitively be expected, and demonstrates that the data in tables 8.12 and 8.13 represent the trade-offs described in section 8.3.2.

To examine the extent to which contributions made by each component of proficiency differ for each participant, the difference between the maximum and minimum contributions was calculated. These data are presented in tables 8.14 and 8.15, and represented graphically in figures 8.3 and 8.4.

Partici-pant	% Min. contribution		% Max. contribution		% Difference between min. and max.
Amanda	10.77	D	13.96	Accuracy measures	3.19
Anne	1.82	MLR	26.46	WPM	24.64
Cecily	3.76	SR	31.19	% Accurate AS-units	27.43
Chloe	4.18	Errors/AS-unit	21.22	SR	17.04
Danielle	9.31	MLR	15.28	D, WPM	5.97
Dawn	0.47	SR	29.11	PT	28.64
Gloria	0.00	Errors/AS-unit	25.54	MLC	25.54
Jenny	3.53	Errors/AS-unit	22.83	MLC	19.30
Joyce	0.00	PT, WPM	27.44	Errors/AS-unit	27.44
Kathy	1.22	WPM	28.76	MLR	27.54
Lily	11.08	D	14.75	PT	3.66
Maggie	3.35	PT	31.63	MLC	28.27
Nikki	0.00	%Accurate AS-units	37.40	MLC	37.40
Olivia	6.60	MLC	16.04	MLR, PT	9.43
Simone	6.59	SR	18.40	WPM	11.82
Tara	0.00	Complexity measures, MLR	36.96	% Accurate AS-units	36.96

Table 8.14 – Interview: Maximum and minimum contributions to participants' total scores
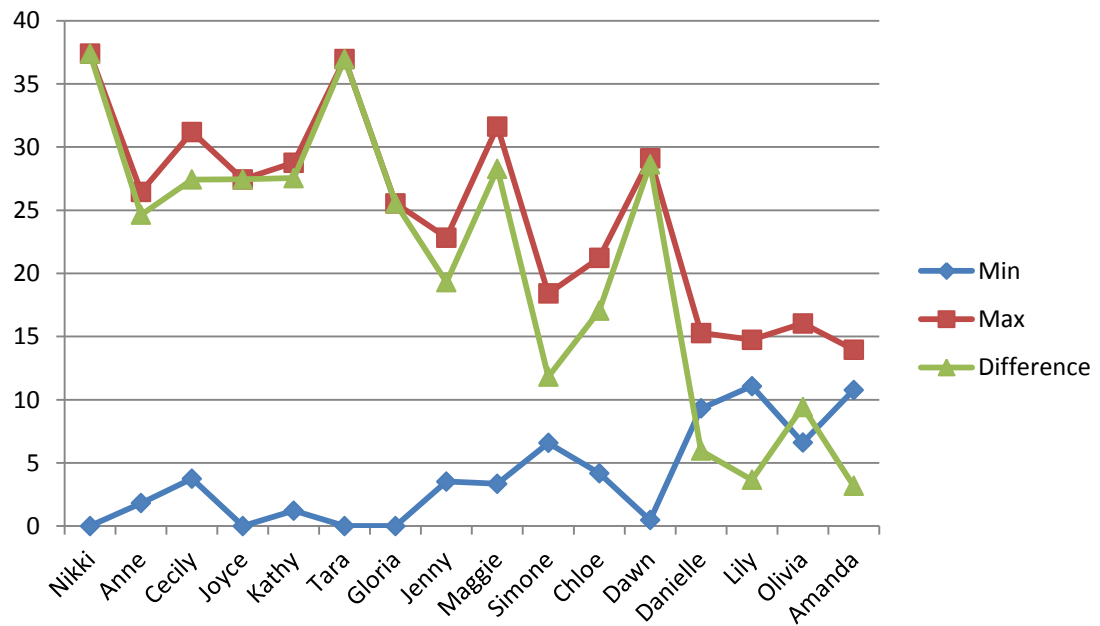
Figure 8.3 - Interview: Maximum and minimum contributions to participants' total scores

Partici-pant	% Min. contribution		% Max. contribution		% Difference between min. and max.
Amanda	4.53	MLC	16.16	Errors/AS-unit, WPM	11.64
Anne	0.00	MLR	34.21	WPM	34.21
Cecily	3.04	SR	26.89	Errors/AS-unit	23.84
Chloe	6.32	SR	21.49	D	15.17
Danielle	9.81	Errors/AS-unit	15.60	MLR	5.79
Dawn	2.51	SR	18.19	MLR	15.68
Gloria	3.78	PT	25.56	MLC	21.78
Jenny	0.00	Errors/AS-unit	27.93	PT	27.93
Joyce	3.60	% Accurate AS-units	27.38	SR	23.78
Kathy	1.67	PT	21.06	Errors/AS-unit	19.38
Lily	0.00	MLC	19.37	WPM	19.37
Maggie	4.21	MLR	36.10	WPM	31.89
Olivia	7.07	D	13.74	SR, MLC, % Accurate AS-units, MLR, PT	6.67
Simone	5.03	PT	23.18	WPM	18.16
Tara	0.00	D, SR, Accuracy measures, PT	59.50	MLC	59.50

Table 8.15 - Narrative: Maximum and minimum contributions to participants' total scores
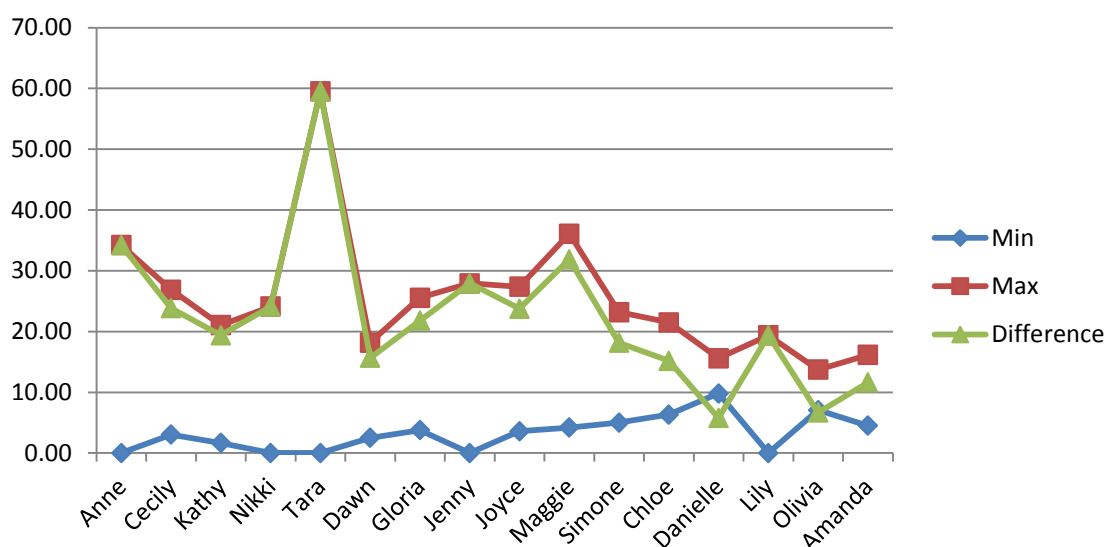
Figure 8.4 - Narrative: Maximum and minimum contributions to participants' total scores

The difference between minimum and maximum contributions to total scores varies by participant. Table 8.14 shows, for example that the minimum contribution to Jenny's total interview score came from Number of Inaccuracies per AS-unit, which contributed only 3.53% to her total. Jenny's interview score for MLC contributed the most to her total, providing 22.83%. Jenny's scores then did not contribute evenly to her total score, with there being a maximum difference of 19.3% between amounts contributed.

Similarly, the minimum contribution to Anne's total narrative score came from MLR, which in fact, contributed nothing to her total score. The maximum contribution to Anne's total narrative score came from WPM, which contributed 34.21%. The maximum difference for amounts contributed by different components of proficiency to Anne's narrative score is 34.21%.

The data in table 8.14 and figure 8.3 show that Amanda's scores contribute most evenly to her total interview proficiency score, with a maximum difference of 3.19%.

At the start of this section, it is argued that the more proficient a speaker, the more proceduralised their linguistic knowledge. It is also argued that the more proceduralised a speaker's knowledge, the smaller the difference between the amounts contributed by different components of proficiency. For both tasks, it

is usually the more proficient speakers whose production systems appear most proceduralised on the basis of differences between contributions made by components of proficiency to total scores. (Lily's narrative data do not quite fit this pattern, as table 8.15 and figure 8.4 show. This finding is discussed further in section 8.3). For example, Danielle's total interview score is high, at 81.79 (see table 8.9). The maximum difference between contributions made by components of proficiency to this score, according to table 8.14, is 5.97%. This is a relatively small difference, which suggests that she can distribute her attention relatively evenly across all processing components. As noted above, this is taken as evidence of a more proceduralised language processing system.

Evidence of equal distribution of attention, and therefore evidence of proceduralisation, is more variable among those participants with lower total proficiency scores. For example, table 8.10 shows that Maggie's total narrative score is low, at 26.77. Table 8.15 shows that the difference between contributions made by components of proficiency to this score is relatively large, at 31.89%. This indicates that Maggie's attention is not distributed evenly over all processing components, and that her linguistic knowledge is less proceduralised (Kormos 2006).

These results are not altogether surprising: we expect less proficient participants to carry out interlanguage restructuring quite regularly as new knowledge is acquired and put in place (Ellis 2008). Restructuring refers to "the qualitative changes that take place in learners' interlanguages" (Ellis 2008: 442), where interlanguage refers to a stage of L2 development, featuring "an individual learner's idiosyncratic use of target language structures" (Matras 2009: 74). In this sample, none of the most proficient speakers were still taking Gaelic classes, whereas all of the first 12, less proficient speakers were. As the language system undergoes change during learning, it is natural that some processing capacity is diminished (Kormos 2006). Because L2 language users are individuals, however, the exact way the system changes is different for everyone, so irrespective of proficiency, individuals' interlanguage systems look different at different points in time. For this reason, the results for less proficient participants are less predictable than those for more proficient participants.

8.3.4 Summary of results and analysis for hypothesis 2.1

This section has tested the hypothesis that participants' attention is not distributed equally across all dimensions of proficiency because of limited attentional capacity. According to the ETH (Skehan 1998, Skehan & Foster 2012), speakers cannot attend to all dimensions of language equally, so a focus on one dimension occurs at the expense of performance in another. The data presented in 8.3 to 8.3.3 show that participants score differently for different components of proficiency. By extension, the data show that different components of proficiency contribute different amounts to participants' total scores. Interpreting these results in light of the ETH, there is evidence off trade-offs in participants' productions, which reflect their limited attentional resources. According to the BSPM, the more proceduralised a speaker's linguistic knowledge, the more evenly attentional resources can be distributed across processing components. Even distribution of attentional resources reduces the trade-offs predicted by the ETH. The data presented in 8.3.3 support this position.

The more equal distribution of some participants' scores reported in 8.3 supports Kormos's (2006: 174) position that as speech production becomes more automatic, speakers do not need to "consciously control production", nor do they need to buy themselves time to construct utterances through the use of disfluencies, as retrieval of lexical items and chunks is much quicker (see also R. Towell 2012). Speakers whose CAF scores are less equally distributed are likely to need to access linguistic knowledge as declarative rules at the formulator stage (see chapter 4). In doing so, fluency may be sacrificed. Alternatively, by not allowing sufficient time to access the appropriate rules in their most correct or sophisticated form, accuracy or complexity may be compromised, or participants may rely on constructions that are more readily accessible; in the latter case, this may lead to less sophisticated language, which would affect complexity scores. For this reason, participants with higher overall scores tended to produce language that appeared more proceduralised than those with lower overall scores.

8.4 Hypothesis 2.2: As predicted by the ETH, participants' CAF scores differ by task

In order to examine hypothesis 2.2, it is necessary to investigate differences in proficiency scores between the interview and narrative tasks. This is done in section 8.4.1. According to the Trade-off Hypothesis (TH), participants should score higher for fluency for the interview task, which is based on familiar information; participants should score higher for accuracy and complexity measures on the more highly structured, multi-storyline narrative task, and accuracy or complexity should be found in a supportive relationship with fluency. According to the ETH, these precise trade-offs may not occur, but task conditions will nonetheless moderate the relationship between dimensions of proficiency.

8.4.1 Hypothesis 2.2 results

To establish whether participants performed better on one task or the other, the differences between their scores for components of proficiency was calculated. Paired samples t-tests were initially considered the most appropriate means of establishing whether or not a meaningful difference existed between scores for the interview and scores for the narrative. The interview data were not all normally distributed, with deviations from normality in interview SR and interview MLC, according to visual examination of Q-Q plots. Furthermore, the difference between scores for MLR and Accuracy were not normally distributed, according to visual examination of Q-Q plots. T-tests are considered robust to violations of the assumption of normality, so it was possible to carry out the paired samples t-test nonetheless.

However, a post-hoc power analysis using G*Power (Faul, Erdfelder, Lang & Buchner 2007) showed that power was insufficient for detecting a difference for MLC and MLR (.709 and .602, respectively). Given recommendations that power is adequate at level 0.8 (Larson-Hall, 2010), these power results were not sufficiently high. Given the issues identified above with normality, it was considered that a more cautious approach would be wise, and as such, the decision was taken to not employ t-tests in the analysis of these data. Furthermore, as qualitative approaches had been taken to other types of data

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analysis for hypothesis 2, the qualitative approach, which assumed that differences in scores were meaningful, was considered more consistent with the other methods of testing data for this hypothesis.

Table 8.16 shows percentage differences between CAF scores for the two different tasks. These results were calculated using the calculation presented in equation 8.5.

$$\frac{(interview\ score - narrative\ score) * 100}{interview\ score}$$

Equation 8.5 - Percentage differences between CAF scores for each task

This equation was used as a standard means of establishing percentage differences between two figures.

The results in table 8.16 presented are rounded to two decimal places. Higher scores for the interview are represented by positive integers and highlighted in purple; higher scores for the narrative are indicated by negative integers and highlighted in orange. Participants are presented in alphabetical order.

Partici-pant	D	SR	MLC	% Accurate AS-units	Inaccuracies /AS-unit	MLR	PT	WPM	Total
Amanda	36.90	-11.88	14.81	4.87	-87.50	-28.46	0.87	18.45	13.61
Anne	39.40	-19.29	5.00	9.54	-109.43	10.00	16.88	15.24	3.97
Cecily	18.74	-5.31	-29.25	63.26	-25.58	2.38	-0.43	1.16	-36.65
Chloe	-11.77	18.50	-1.06	-2.33	-11.48	-24.49	13.62	19.96	-1.72
Danielle	27.05	-19.08	-20.17	19.07	-160.00	-57.41	-0.15	30.13	3.91
Dawn	10.59	-11.01	-6.56	-54.42	-51.11	-46.39	18.65	19.20	-28.41
Gloria	42.00	0.00	-3.89	-9.01	-51.35	12.38	34.47	8.91	11.06
Jenny	53.89	-11.76	0.00	20.33	-115.15	-49.04	-10.61	26.59	-2.11
Joyce	48.32	-47.93	-35.78	75.86	-256.25	-13.79	0.29	2.52	-15.51
Kathy	45.80	-24.56	-25.07	19.69	-43.14	14.40	50.58	4.28	7.72
Lily	22.34	6.59	28.57	2.54	-30.00	0.85	17.69	14.40	24.43
Maggie	33.70	-15.65	23.80	47.22	-89.09	5.19	15.34	11.15	16.97
Nikki	23.86	-2.46	4.37	46.65	-76.67	-17.35	6.99	24.90	-11.72
Olivia	43.03	-44.90	-53.85	-8.04	-100.00	-30.83	-2.39	2.77	-16.97
Simone	33.60	-13.01	-32.25	45.09	-77.08	0.00	30.62	15.21	26.74
Tara	51.74	-2.78	-90.18	88.05	-167.92	5.80	31.31	11.86	-19.24

Table 8.16 - Percentage difference between CAF scores for each task

Descriptive statistics for these results are presented in table 8.17.

Measure	Range	Min.	Max.	Mean	Std. Deviation
D	65.66	-11.77	53.89	32.4504	17.05326
SR	66.43	-47.93	18.50	-12.7831	16.89276
MLC	118.75	-90.18	28.57	-13.8442	30.42061
% Accurate AS-units	142.47	-54.42	88.05	23.0227	36.39237
Inaccuracies/AS-unit	244.77	-256.25	-11.48	-90.7348	62.81331
MLR	71.81	-57.41	14.40	-13.5467	23.51635
PT	61.19	-10.61	50.58	13.9828	16.47292
WPM	65.18	1.16	66.33	17.3659	15.77952

Table 8.17 - Descriptive statistics for percentage differences between tasks in CAF scores

8.4.2 Analysis of results for hypothesis 2.2

The data in tables 8.16 and 8.17 are examined to assess the extent to which participants' scores differ by task. Tables 8.16 and 8.17 show that the biggest mean difference between scores by task is for Number of Inaccuracies per AS-unit: the smallest mean difference is for SR.[24] All participants except Chloe score higher for interview D. Interestingly, it is noted in chapter 7 that Chloe is the only participant who does not use a dictionary for the purposes of new vocabulary acquisition. It may be that a failure to use this strategy has led to her having more knowledge of vocabulary suitable for story-telling than for discussing her personal life. That all other participants scored higher for D for the narrative is unsurprising: the interview task was based on open-ended questions which allowed participants to develop their answers to the best of their ability, while the narrative elicited a restricted range of vocabulary (see appendix A for the images upon which this task was based). As such, there is a clear task effect at play in this instance. All participants perform better for WPM for the interview task. Similarly, all participants perform better on the interview for Inaccuracies per AS-unit. Three participants received the same score for both tasks for one measure: Gloria scored 1.37 for SR for both tasks; Jenny scored 4.85 for MLC for both; while Simone scored 0.95 for MLR for both.

There is also some evidence of a trade-off between accuracy and complexity for all speakers. As well as scoring higher for narrative Inaccuracies per AS-unit, almost all participants score lower for at least one of SR and MLC for the interview. Lily scores higher for the narrative for both SR and MLC, and is the exception to this general pattern. The particular component of complexity affected by this trade-off is unpredictable. While this result supports the ETH to an extent — in that there is clearly a trade-off between accuracy and complexity, the findings also support the position that a change in task conditions places different processing constraints on individuals. The distribution of attentional resources changes with participants' change in focus,

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[24] A paired samples t-test was considered the most appropriate way to examine the statistical importance of the differences presented in table 8.16. No assumptions were violated in preparing the data for such analysis in SPSS. However, post-hoc power analyses showed that power was low for most variables. As a result, it was decided to continue this analysis on the assumption that score differences for each participant were meaningful.

and the data show that individual participants place their changing focus on different processing components.

Again, considering the fact that all participants score higher for at least one interview complexity measure, and all score higher for WPM for the interview, we can suggest that there is a supportive relationship between complexity and fluency. It appears that by easing pressure on the formulator stage of the BSPM, participants were able to produce speech more quickly, perhaps because this linguistic knowledge — being familiar — was more proceduralised. Again, however, the particular component of complexity affected is not predictable.

It is observed in 8.3.3 that for the interview data in particular, there is evidence that more proficient speakers, i.e. those with a higher total score, have a more proceduralised linguistic system. The data show that while Danielle's, Olivia's, and Amanda's language systems still appear proceduralised for the narrative task, Lily's results show much less evidence of proceduralisation than even some participants with lower proficiency scores. Amanda's scores are also less equally distributed for the narrative, although not to the same extent as Lily's; on the other hand, for Olivia and Danielle, the distribution of scores is less evenly balanced for the interview task. The distribution of scores on each task is different too for less proficient speakers, suggesting once more that the two tasks placed different cognitive burdens on participants.

Re-examining the data in table 8.16, we see that Lily scored higher on the interview for all components of proficiency, except Inaccuracies per AS-unit. Considering this finding in relation to her less balanced performance on the narrative, we might argue that the cognitive burden placed on Lily's language system by the narrative task reduced her capacity for parallel processing, and led her to produce less complex, less fluent language. In order to effectively communicate the message, Lily drew on her existing knowledge, but because of the burden of the task at hand, was required to rely on shorter clauses to do this. The cognitive burden imposed by the task may have led her to abandon a focus on form-as-ambition, in favour of a focus on form-as-conservatism, in order to effectively communicate her message (Skehan 1998). Indeed, if we remove MLC from Lily's score, her other skills are much more equally distributed. This lends further support to the case that Lily chose to sacrifice

MLC in order to communicate her message, and maintain control over her language system, as would be expected following the LACM (Skehan 1998).

Following the ETH and BSPM, we might expect a negative relationship between task complexity, and balanced distribution of scores. But as Révész (2014) argues, it is unwise to assume that some tasks are more cognitively demanding than others without adequate evidence. Indeed, the data indicate greater competition between proficiency components for several participants for the interview, and several others for the narrative. Indeed, in the post-task interview, only six participants (Anne, Danielle, Jenny, Joyce, Kathy and Tara) report that the narrative task was more challenging for them than the interview. Comparing the results presented in tables 8.12 and 8.13 and figures 8.1 and 8.2 once more, Joyce and Kathy seem to have allocated their attentional resources more evenly during the narrative than the interview, while the distribution of scores for Danielle, Jenny, and Tara does not appear to have changed to any major extent. Only Cecily, Nikki, and Lily explicitly stated that they found neither task more challenging than the other. No participant reported finding the interview more challenging than the narrative.

If it is indeed the case that a more cognitively demanding task leaves a speaker less room for focus on form as more effort is required to complete the task, these results would suggest that for some participants, the interview task — based on familiar information — was more complex. This seems counter-intuitive. However, it may well be the case that some participants favoured the opportunity to speak in monologue, rather than engage in a dialogue. An alternative suggestion is that in coming first in the sequence, some participants had not 'warmed up' their Gaelic language skills. An additional alternative is that the short length of preparation time provided by the story gave these participants sufficient opportunity to retrieve the necessary linguistic knowledge.

A final alternative explanation is that as the narrative followed the interview, participants were tired, a phenomenon that may also affect their cognitive processing.[25] If this is the case, then the cognitive burden imposed on speakers

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[25] In chapter 6, it is explained that the order in which tasks were presented to participants was not varied, in order to avoid performance problems which may have arisen due to participants'

by fatigue can be said to have affected their performance, instead of, or in combination with, the burden imposed by the task. Nevertheless, the same case applies that under different cognitive conditions, the distribution of speakers' attentional resources changes. Moreover, it is clear that any potential fatigue did not affect all participants equally, thus re-emphasising the importance of individuals' characteristics and experiences. It is very clear that differences in task performance depends to a large extent on individuals' experiences of the task at hand.

8.4.3 Summary of results and analysis for hypothesis 2.2

In 8.4, the hypothesis that task conditions mediate the relationship between components of proficiency is tested. For the most part, it appears that where competition exists, it is between SR and/or MLC and some dimension of accuracy. Skehan (2009) and Skehan & Foster (2012) are clear, that individuals may attend to different dimensions of language: this position is supported by the findings here that some participants score higher on complexity relative to accuracy on the interview (although the exact component of complexity or accuracy cannot be predicted), and for others in their interview performance, the reverse is true. In addition, while some participants' data suggest that complexity and fluency are in supportive relationships, others' suggest that accuracy and fluency are: in other words there is evidence for Skehan & Foster's (2012) position based on the ETH that the exact nature of trade-offs may vary on an individual basis.

Furthermore, Skehan (2014: 232) argues that, in instances in which both complexity and accuracy are raised, this can be attributed to "the separate effect of different task factors or processing conditions". What the data presented in this chapter suggest is that depending on the individual in question, the different task factors and processing conditions have different effects. This may be attributable to the precise nature of participants' learning experiences (reported in chapter 7), or on the way in which they engage with the task. For example, the narrative task was considered to be more complex than the

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feeling uneasy. On balance, this decision may have affected the results, but the degree to which this is the case — and whether it is more or less the case than would have been if task order was modified — is uncertain.

interview because it was based on unfamiliar information, and was based around two interwoven storylines, which meant that it was more difficult for speakers to regroup and engage in online planning (Tavakoli & Foster 2008b). But as reported in 8.3, not all speakers found the narrative task more challenging, and as such, a more general interpretation that different tasks pose different challenges to different individuals is preferable.

8.5 Summary of research question 2

This chapter explores the relationship between CAF scores within and between tasks. The results for hypothesis 2.1 support the ETH, showing that components of proficiency compete with one another. The results show, however, that it is not possible to predict the nature of this competition. The results for hypothesis 2.2 show that participants' CAF scores are usually different for each task, but that task does not always predict how they will differ. In the case of D, there is a clear task effect which led most participants to score lower on this measure for the narrative. These results partially support the ETH and support the BSPM, as all participants scored higher for the interview for one fluency measure, WPM, and higher for the narrative for one accuracy measure, Inaccuracies per AS-unit. Based on previous discussions on the interactions between components of proficiency, however, it is reasonable to conclude that the different cognitive pressures experienced by participants during the two tasks caused a shift in the distribution of participants' attentional resources. It is also reasonable to conclude — given the findings reported in the literature reviewed in chapter 4 — that speech rate was facilitated by performing on the more familiar interview task, while the narrative task facilitated accuracy in terms of Inaccuracies per AS-unit.

The discussion arising from the testing of both hypotheses suggests that there is some association between proficiency and the proceduralisation of linguistic knowledge. In general, the findings presented and discussed in this chapter support the ETH and the relationship between proceduralisation and proficiency (e.g. Hilton 2014), but highlight the need to conduct these analyses at the individual, rather than the group level.

9 Research question 3: What factors lead raters to give particular Communicative Adequacy ratings?

9.1 Chapter overview

This chapter explores the relationship between Communicative Adequacy ratings and scores for the dimensions of proficiency complexity, accuracy, and fluency (CAF).

In section 9.2 the results of the raters' evaluations are presented. In section 9.2.1, the results for all Communicative Adequacy ratings are presented. In section 9.2.2, the results for ratings for Amount of Information, Coherence, and Ease in Interaction are provided. Amount of Information refers to how much information the participant communicates, irrespective of how long they speak for. Coherence refers to how well connected a participant's discourse is perceived to be. Ease in Interaction refers to the degree to which a participant appears comfortable in their performance, or appears to be nervous or anxious. The relationship between these measures is examined in section 9.2.3. In section 9.2.4, a test for inter-rater reliability is presented, in order to test the validity of the rating scale used.

In section 9.3, the results presented in 9.2 are applied to test hypothesis 3.1, which posits that CAF scores predict Communicative Adequacy ratings. This hypothesis is tested using a qualitative analysis. The results of this analysis are summarised in section 9.3.1, and the findings are discussed in relation to the relevant literature in section 9.3.2.

In section 9.4, hypothesis 3.2 is tested. Hypothesis 3.2 states: "More proceduralised language processing is associated with higher Communicative Adequacy ratings". Data presented originally in chapter 8 are reanalysed here in light of the findings presented in section 9.2. The findings are summarised in section 9.4.1.

In section 9.5, comments made by the raters are explored in detail to test hypothesis 3.3, that participants considered at the same level of Communicative

Adequacy receive the same comments on their performance. A qualitative approach is taken to analysing the data. The results for each task are presented and discussed, and are summarised in section 9.5.2. The findings are discussed in relation to the relevant literature in section 9.5.3.

A summary and conclusion for this chapter is presented in 9.6.

9.2 Communicative Adequacy ratings

In this section, the results of the rating procedure are presented. These results are analysed further in sections 9.3, 9.4, and 9.5.

As described in chapter 6, raters were asked to assign participants an overall rating for Communicative Adequacy, as well as for Amount of Information, Coherence, and Ease in Interaction. Ratings were based on a scale designed for the purpose, which was modelled on a number of proficiency scales (see chapter 6). The scale and the form used by raters during the rating process can both be found in Appendix A.

Overall Communicative Adequacy ratings are presented first, in section 9.2.1, followed by the ratings for Amount of Information, Coherence, and Ease in Interaction in section 9.2.2.

9.2.1 Overall Communicative Adequacy Ratings

In this section, the method for calculating participants' overall Communicative Adequacy ratings is described. Ratings assigned to each individual on the basis of individual raters' evaluations are combined to create an overall rating. This process involves converting the ratings into scores, as in table 9.1 (overleaf).

Rating	Score
A1	1
A2	2
B1	3
B2	4
C1	5
C2	6

Table 9.1 - Score associated with each rating

An average score for each participant was then calculated, which provides the overall score for Communicative Adequacy. As an example, the ratings and corresponding score for Anne's interview performance are presented in table 9.2.

Rater[26]	Communicative Adequacy Ratings from each rater, on a scale from A1 to C2	Communicative Adequacy Score , on a scale from 1 to 6	Overall Communicative Adequacy Rating
Andrew	A2	2	--
Ben	A1	1	--
Liam	A2	2	--
Clem	B1	3	--
Richard	A2	2	--
Total	--	10	--
Average score	--	2	A2

Table 9.2 - Ratings and scores received by Anne for interview Communicative Adequacy

The average score for each participant was calculated — in Anne's case, the average is 2 — and this is then assigned to the participant as their Communicative Adequacy score. Decimals are rounded to whole numbers. As in table 9.1, a score of 2 corresponds to an overall rating of A2: Anne's final rating for Communicative Adequacy is therefore A2. Consulting the scale in Appendix A, this result indicates that, on average, Anne was considered by the raters to be understandable, although incoherent at times. On average, the raters considered Anne to be capable of exchanging simple information, and to be able to interact comfortably with the interviewer.

Table 9.3 shows the Communicative Adequacy scores and ratings for each participant for their interview performance, while table 9.4 shows the same data for participants' narrative performance. Participants are ordered from lowest overall rating to highest.

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[26] It is explained in chapter 6 that, to protect anonymity, raters and participants are referred to by pseudonyms. All raters are given male pseudonyms, while all participants are given female pseudonyms.

Participant	Communicative Adequacy Score, on a scale from 1 to 6		Overall Communicative Adequacy Rating, on a scale from A1 to C2
	Actual	*Rounded to the nearest whole number*	
Nikki	1.4	1	A1
Cecily	1.8	2	A2
Anne	2	2	A2
Joyce	2	2	A2
Tara	2	2	A2
Kathy	2.4	2	A2
Gloria	2.6	3	B1
Maggie	2.6	3	B1
Jenny	3.2	3	B1
Simone	3.4	3	B1
Chloe	3.6	4	B2
Dawn	3.6	4	B2
Olivia	5	5	C1
Danielle	5.4	5	C1
Lily	5.4	5	C1
Amanda	5.8	6	C2

Table 9.3 – Interview: Total Communicative Adequacy scores and ratings for each participant

Participant	Communicative Adequacy Score, on a scale from 1 to 6		Overall Communicative Adequacy Rating, on a scale from A1 to C2
	Actual	*Rounded to the nearest whole number*	
Anne	1.25	1	A1
Kathy	1.5	2	A2
Nikki	1.5	2	A2
Tara	2	2	A2
Cecily	2.25	2	A2
Jenny	2.5	3	B1
Joyce	2.5	3	B1
Maggie	2.75	3	B1
Simone	2.75	3	B1
Dawn	3	3	B1
Gloria	3	3	B1
Chloe	4	4	B2
Olivia	4.75	5	C1
Danielle	5	5	C1
Lily	5	5	C1
Amanda	5.5	6	C2

Table 9.4 - Narrative: Total Communicative Adequacy scores and ratings for each participant

The data in tables 9.3 and 9.4 are interpreted in the same way as those in table 9.2. For example, Amanda's overall interview rating of C2 shows that on average, raters considered Amanda's speech to be well-organised and coherent. Raters also recognised Amanda's ability to express nuance, and to interact with the interviewer in a way that seemed natural to the listener. Joyce's overall narrative rating of B1 indicates that on average, raters observed that Joyce was willing to speak and expand on her points, but that she was not always capable of doing so. They also observed that she was slow to produce utterances, but that when she did so, her utterances were well-connected to those next in sequence.

Tables 9.3 and 9.4 show that most participants receive the same rating for both tasks. Where ratings differ (as is the case for Anne, Dawn, Joyce, and Nikki), this is only by one Communicative Adequacy level. The comparison between CAF scores by task performance is explored in chapter 8. In sections 9.3, 9.4, and 9.5, hypotheses about the nature of the relationship between CAF and Communicative Adequacy are tested, but as we will see, the results of testing these hypotheses cannot explain this variation. This variation may be the result of a task effect: individuals perform better on some tasks than others because of the nature of the task itself, and the degree to which their communication skills can be used to complete the task (de Jong et al. 2012a).

9.2.2 Amount of Information, Coherence, and Ease in Interaction

In this section, the method for calculating participants' ratings for Amount of Information, Coherence, and Ease in Interaction is described.

The process outlined in section 9.2.1 is repeated for each of the rating criteria, Amount of Information, Coherence, and Ease in Interaction. Tables 9.5 and 9.6 show the total rating awarded to each participant for these measures on their interview and narrative performances, respectively. Participants are presented in alphabetical order.

Participant	Amount of Information		Coherence		Ease In Interaction	
	Score	Rating	Score	Rating	Score	Rating
Amanda	6	C2	5.6	C2	5.6	C2
Anne	2.6	B1	2.4	A2	1.8	A2
Cecily	2.4	A2	1.6	A2	1.6	A2
Chloe	3.8	B2	3.2	B1	3.2	B1
Danielle	5.4	C1	5	C1	5.4	C1
Dawn	3.6	B2	2.8	B1	3.6	B2
Gloria	3	B1	2.2	A2	2.2	A2
Jenny	3.2	B1	2.8	B1	3.2	B1
Joyce	1.4	A1	1.6	A2	1.4	A1
Kathy	2.4	A2	3	B1	2.4	A2
Lily	5.4	C1	5.4	C1	5.2	C1
Maggie	2.6	B1	2.4	A2	2.8	B1
Nikki	1.8	A2	1.6	A1	1.2	A1
Olivia	5.2	C1	4.8	C1	5.2	C1
Simone	3.6	B2	3.6	B2	3.2	B1
Tara	2	A2	2	A2	1.6	A2

Table 9.5 - Interview: Participants' overall ratings for Amount of Information, Coherence, and Ease in Interaction

Participant	Amount of Information		Coherence		Ease in Interaction	
	Score	Rating	Score	Rating	Score	Rating
Amanda	5.5	C2	5.5	C2	5.75	C2
Anne	1	A1	1.25	A1	1.5	A2
Cecily	2.5	B1	2	A2	1.75	A2
Chloe	4	B2	4	B2	3.5	B2
Danielle	5.25	C1	5	C1	5	C1
Dawn	3.25	B1	2.75	B1	2.5	B1
Gloria	3.25	B1	3.25	B1	2.75	B1
Jenny	2.75	B1	3	B1	2.75	B1
Joyce	2.5	B1	2.5	B1	2.25	A2
Kathy	2.25	A2	1.5	A2	1	A1
Lily	4.75	C1	5	C1	4.5	C1
Maggie	3.25	B1	3	B1	2.5	B1
Nikki	71.75	A2	1.25	A1	1.25	A1
Olivia	4	B2	4.75	C1	4.75	C1
Simone	3.5	B2	2.5	B1	2	A2
Tara	1.5	A2	1.75	A2	1.5	A2

Table 9.5 - Narrative: Participants' overall ratings for Amount of Information, Coherence, and Ease in Interaction

Table 9.5 shows that on average, Maggie was perceived to be at level B1 for her interview performance for Amount of Information and Ease in Interaction, and

level A2 for Coherence. The proficiency scale in Appendix A is used to interpret these results. The descriptor for level B1 states that participants at this level are "willing to talk at length" and can "actively participate in the interaction". Maggie's overall result of B1 for Amount of Information indicates then that on average, raters believed that these descriptors reflected the amount of information produced by Maggie. Similarly, the descriptor for level B1 states that a participant at this level "Appears confident in performance." As such, Maggie's rating indicates that on average, raters believed Maggie to be a confident speaker. Maggie's average rating of A2 for Coherence demonstrates that the descriptor raters best believed described the coherence of her discourse: "The text may lack coherence and cause confusion at times, but overall, the speaker can be understood."

All other ratings presented in tables 9.5 and 9.6 can be interpreted similarly. Comparing the results in tables 9.3 and 9.4 with those in tables 9.5 and 9.6, it is clear that participants score similarly for Communicative Adequacy, and Amount of Information, Coherence, and Ease in Interaction. The extent of this similarity is explored in the next section, 9.2.3.

9.2.3 Correlations between ratings for overall Communicative Adequacy, and Amount of Information, Coherence, and Ease in Interaction

It is noted in section 9.2.2 that participants score similarly for overall Communicative Adequacy, and Amount of Information, Coherence, and Ease in Interaction. This section aims to establish if there is a relationship between Communicative Adequacy and Amount of Information, Coherence, and Ease in Interaction. In order to do this, a Pearson's correlation analysis was performed in SPSS. Correlation "measures the strength of the relationship between two variables" (Larson-Hall 2010: 391). In this case, the first variable is Communicative Adequacy; the second variable is Amount of Information, Coherence, or Ease in Interaction. Pearson's correlation analyses produce a figure known as the correlation coefficient, referred to as r.

Pearson's correlation is a statistical test of correlation used when the data satisfy the assumptions of linearity and normality (Larson-Hall 2010, Lund & Lund

2013a). The assumption of linearity is that "the relationship between two variables can best be described by a straight line" (Larson-Hall 2010: 395). Normality refers to the data having a normal distribution, i.e. the data are distributed symmetrically around their mean (Larson-Hall 2010: 396). The tests for these assumptions, as well as the Pearson's Correlation analysis, are presented for the interview data in section 9.2.3.1. The same information is presented for the narrative data in section 9.2.3.2.

9.2.3.1 Interview

To establish the existence of a correlation between Communicative Adequacy and Amount of Information, Coherence, and Ease in Interaction for the interview, a Pearson's correlation analysis was run in SPSS. Figure 9.1 shows the scatterplot produced in SPSS for the Pearson's Correlation analysis for interview ratings.
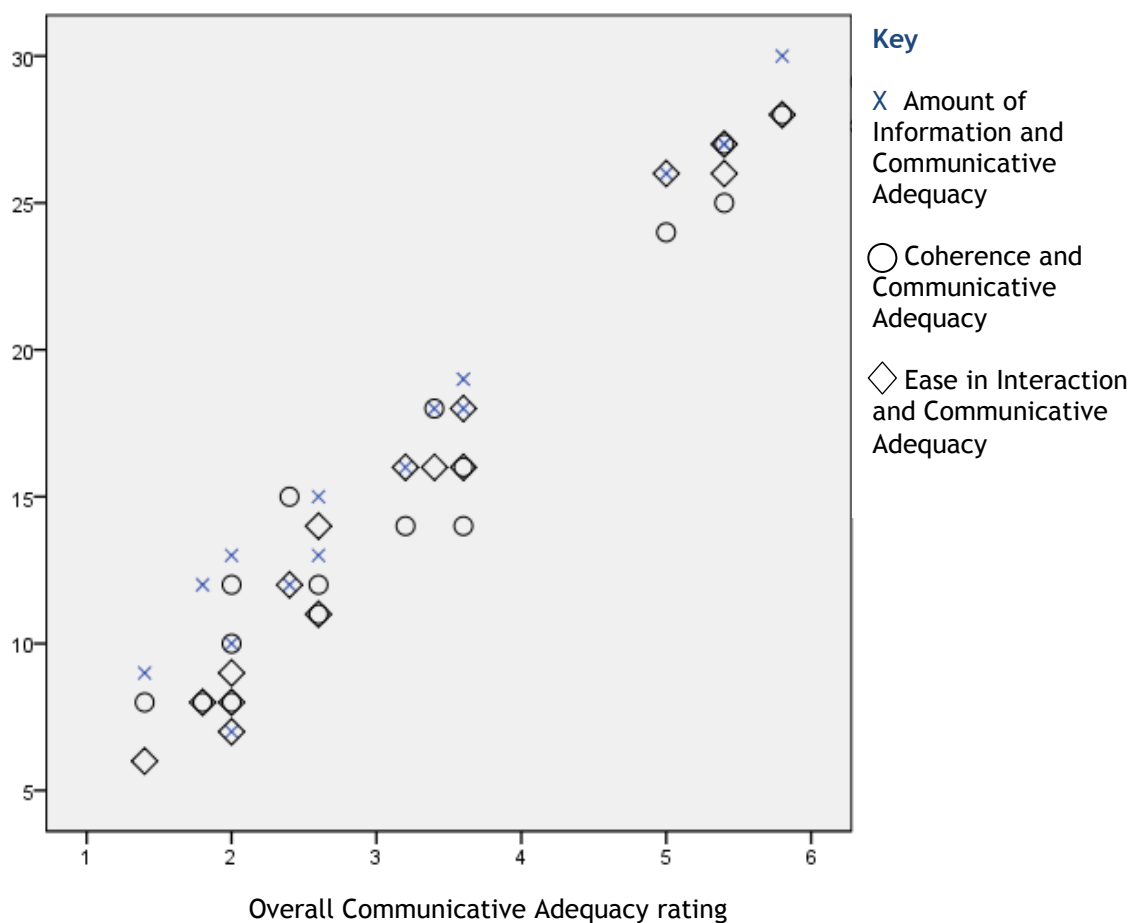
Figure 9.1- Interview: Relationship between Communicative Adequacy scores, and scores for Amount of Information, Coherence, and Ease in Interaction

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Figure 9.1 shows that there is a linear relationship between Communicative Adequacy and Amount of Information, Coherence, and Ease in Interaction. Figure 9.1 also shows that there are no outliers in these data. The noticeable gap in figure 9.1 between 20 and 25 on the Y axis reflects the fact that no participant received a score between these numbers for Amount of Information, Coherence, or Ease in Interaction.

Normality is established through visual examination of normal Q-Q plots produced in SPSS. The normal Q-Q plots for the interview data are presented in figures 9.2 to 9.5. Although Shapiro-Wilks is a legitimate measure for measuring normality in small sample sizes, visual examination is considered more appropriate for a sample size this small (Larson-Hall 2010). If the distribution of data is normal, then the data points in a Q-Q plot will fall in a straight line.
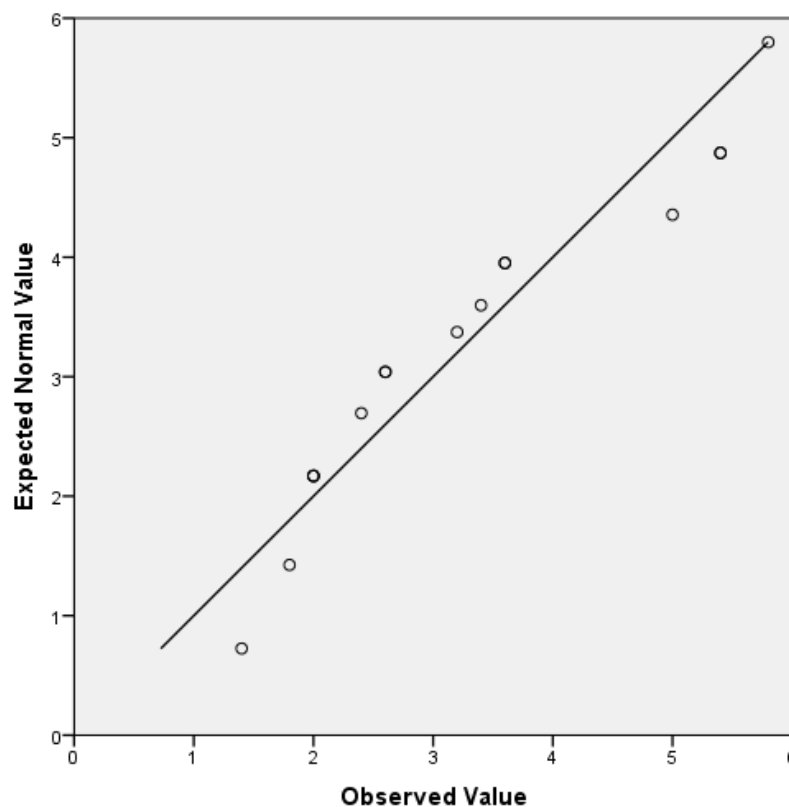
Figure 9.2 - Interview: Normal Q-Q plot of Overall Communicative Adequacy ratings
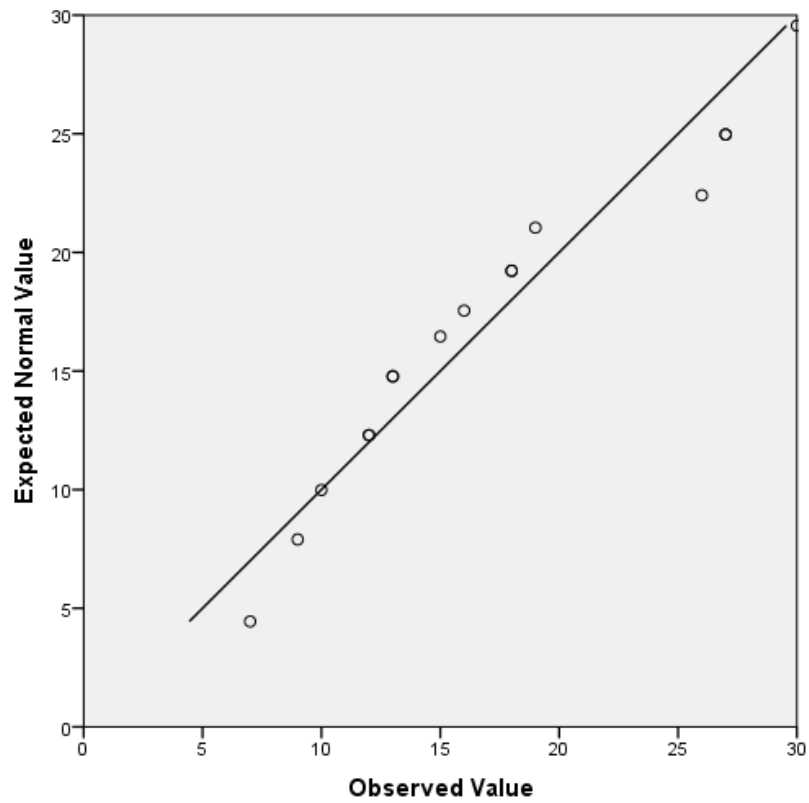
Figure 9.3 - Interview: Normal Q-Q plot for Amount of Information ratings
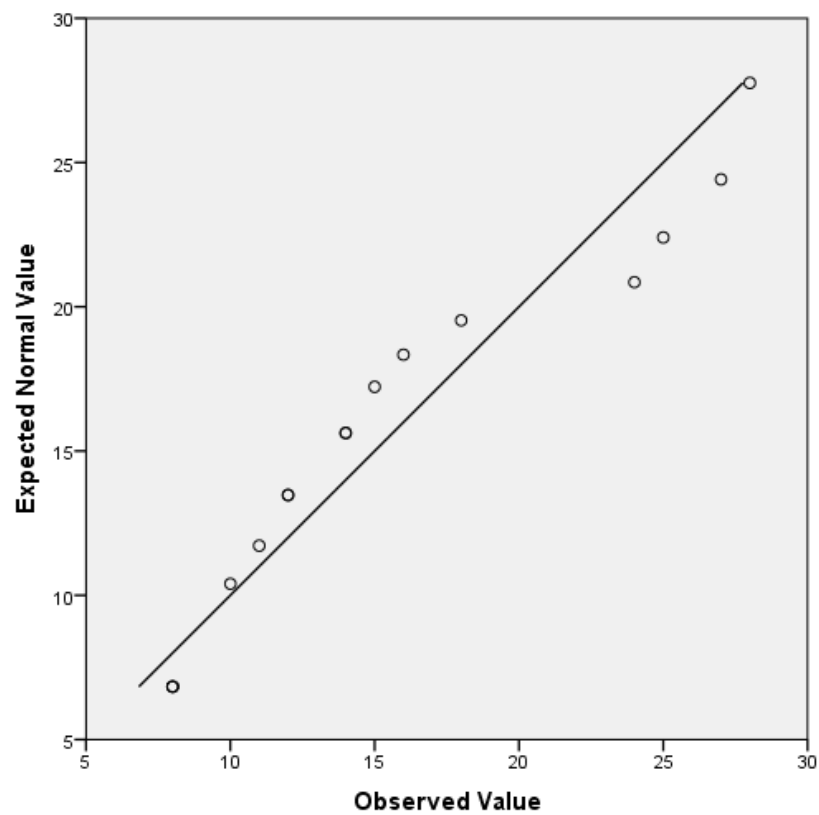
Figure 9.4 - Interview: Normal Q-Q plot for Coherence ratings
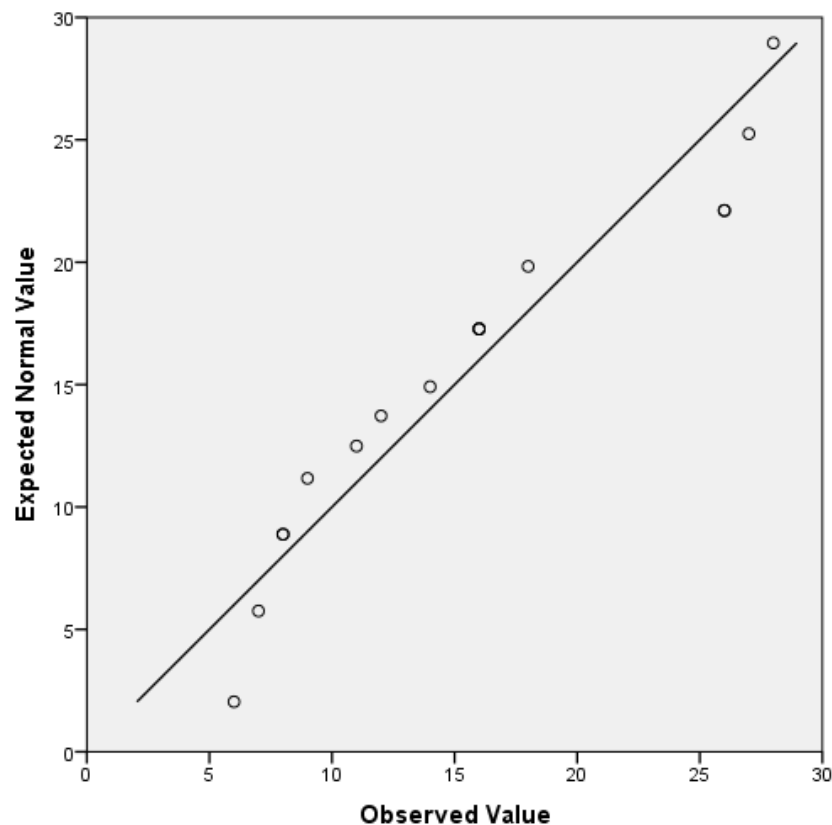
Figure 9.5 - Interview: Normal Q-Q plot for Ease in Interaction ratings

The normal Q-Q plots indicate that there are some slight deviations from normality for all variables. However, because Pearson's correlation is fairly robust to deviations from normality (Lund & Lund 2013a), these deviations are not considered problematic. As before, there are noticeable gaps between 4 and 5 on the X axis in figure 9.2, and 20 and 25 on the X axis in figures 9.3 to 9.5; this again reflects the fact that no participant received a score between these numbers for these variables.

Pearson Correlation analyses reveal high r values for correlations between all variables. In other words, there are strong correlations between all variables. The results of this analysis are presented in table 9.7. All correlations are significant at the $p < 0.10$ level. Although this p value is slightly higher than is frequent in second language acquisition (SLA) and social sciences research, it is employed here to minimise the probability of a Type II error, following Larson-Hall (2010). A Type II error is also known as an error of being overly cautious (Larson-Hall 2010). By being overly cautious in the test carried out here, we might be led to believe that there is no relationship between variables when in fact, such a relationship does exist.

	Communicative Adequacy	Amount of Information	Coherence	Ease In Interaction
Communicative Adequacy	1	.979	.969	.990
Amount of Information	.979	1	.962	.975
Coherence	.969	.962	1	.965
Ease in Interaction	.990	.975	.965	1

Table 9.6 - Interview: *r* values for rating variables

9.2.3.2 Narrative

As for the interview, a Pearson's correlation analysis was run in SPSS to establish the existence of a correlation between Communicative Adequacy and Amount of Information, Coherence, and Ease in Interaction for the narrative. Figure 9.6 shows the scatterplot produced in SPSS for the Pearson's Correlation analysis for interview ratings.

Figure 9.6 shows that there is a linear relationship between overall Communicative Adequacy and Amount of Information, Coherence, and Ease in Interaction. Figure 9.6 also shows that there are no outliers in the data. The gap between points 3 and 4 on the X axis in figure 9.6 reflects the fact that no participant scored between these numbers for Communicative Adequacy.
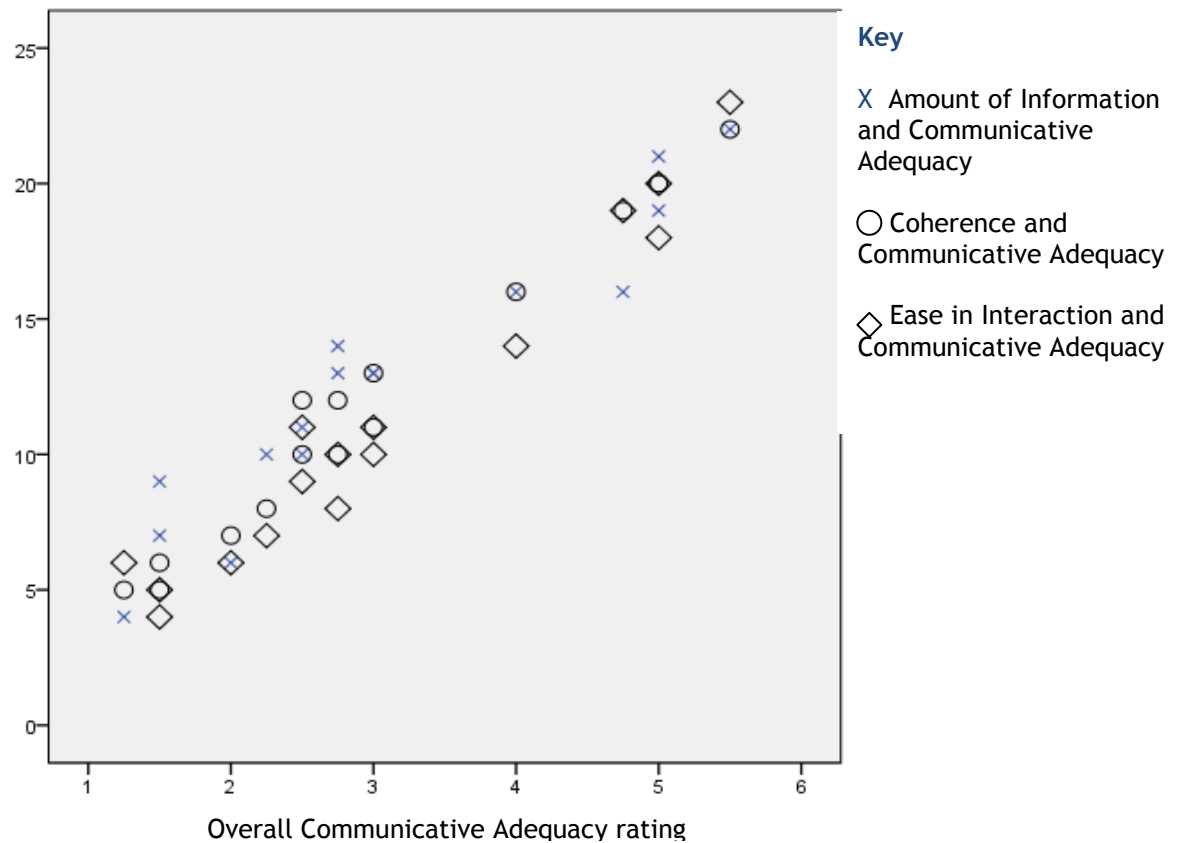
Figure 9.6 - Narrative: Relationship between Communicative Adequacy ratings, and ratings for Amount of Information, Coherence, and Ease in Interaction

Visual examination of the normal Q-Q plots for the narrative data generated in SPSS shows that all data are approximately normally distributed. These Q-Q plots are presented here as figures 9.7 to 9.9.
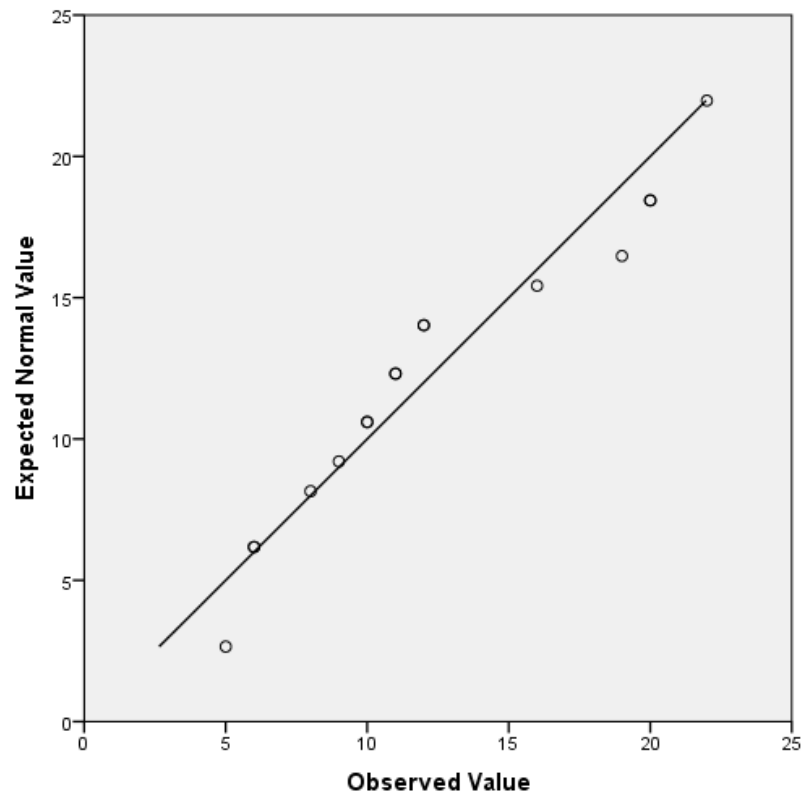
Figure 9.7 - Narrative: Normal Q-Q plot of Communicative Adequacy ratings
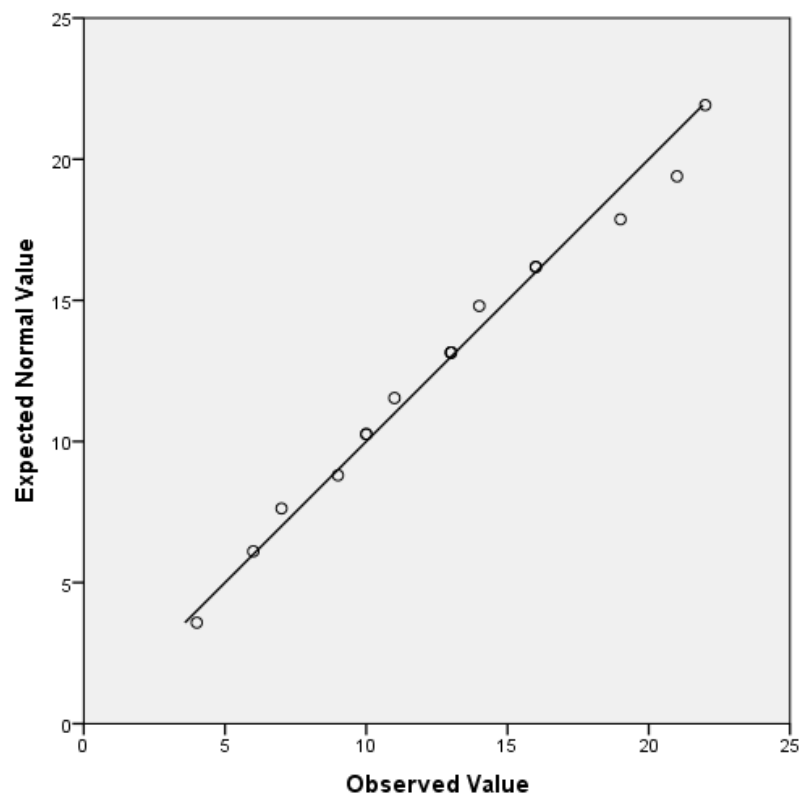
Figure 9.8 - Narrative: Normal Q-Q plot for Amount of Information ratings
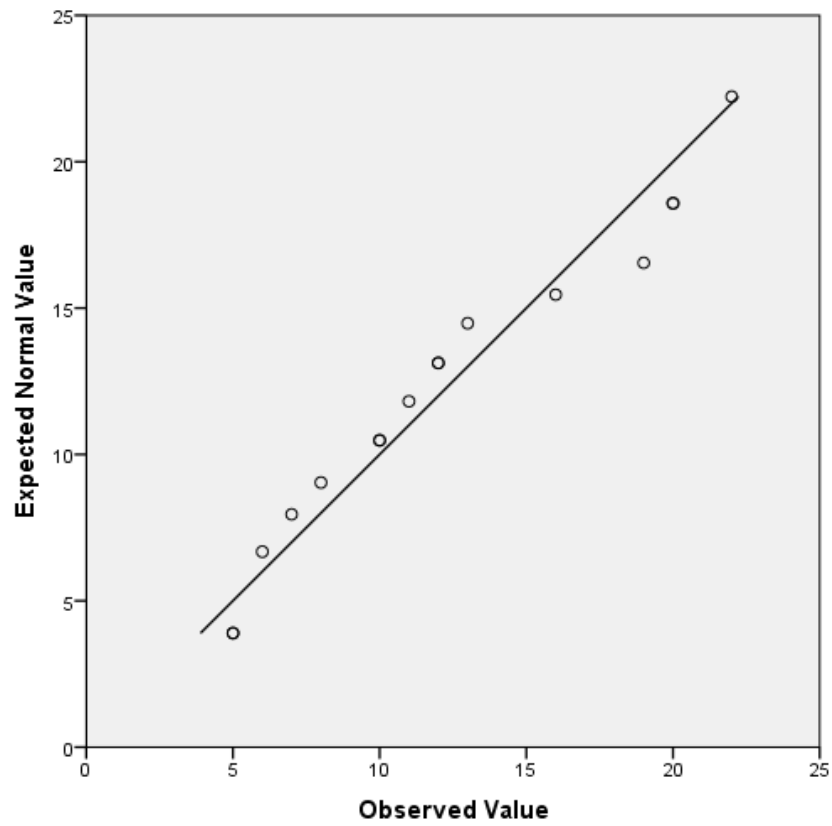
Figure 9.9 - Narrative: Normal Q-Q plot for Coherence ratings
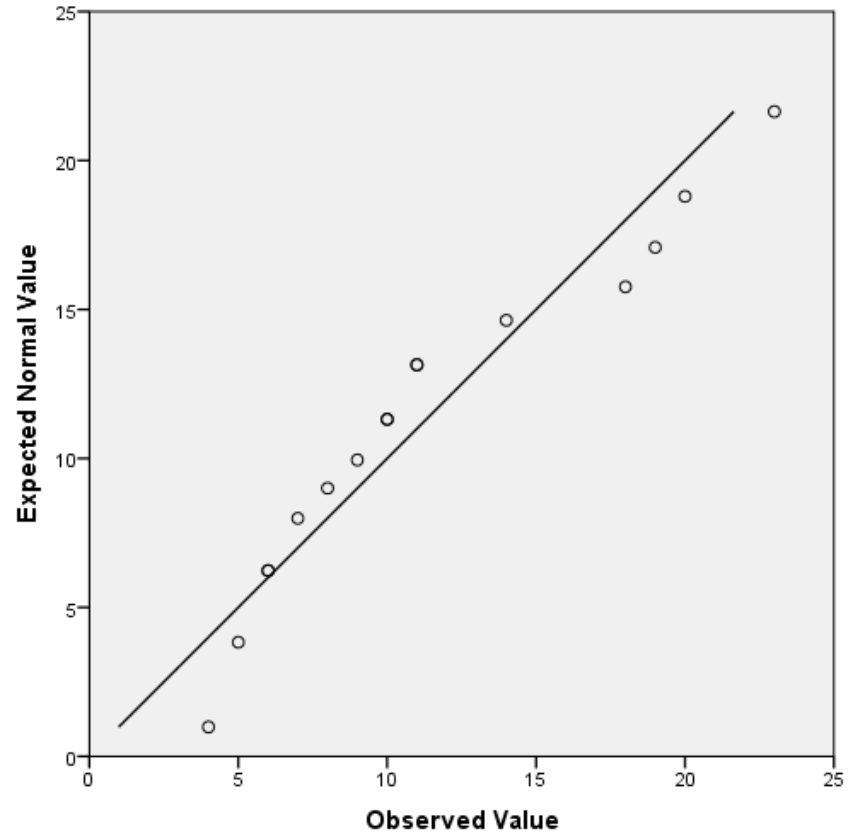
Figure 9.10 - Narrative: Normal Q-Q plot for Ease in Interaction ratings

Pearson Correlations on these data show that — as in the interview — there are strong positive correlations among all variables. These results are presented in table 9.8. All correlations are significant at the $p < 0.10$ level.

	Communicative Adequacy	Amount of Information	Coherence	Ease in Interaction
Communicative Adequacy	1	.954	.989	.977
Amount of Information	.946	1	.949	.915
Coherence	.989	.949	1	.983
Ease in Interaction	.977	.915	.983	1

Table 9.7 - Narrative: *r values* for rating variables

9.2.3.3 Summary

There are strong correlations between the overall ratings assigned to participants for Communicative Adequacy and the overall ratings they received for Amount of Information, Coherence, and Ease in Interaction. There are no significant variances in the data. This is the case for both the interview and the narrative task. It can be concluded from these correlations that when coming to their overall rating for each participant, raters in this study considered the amount of information each participant produced, the level of coherence of the text, and whether or not the participant appeared to feel at ease.

9.2.4 Inter-rater reliability

In this section, the validity of the rating scale provided to raters is investigated. This is done using a test of inter-rater reliability. If inter-rater reliability is high,

then we may conclude that the guidelines with which the raters were provided (i.e. the proficiency scale in Appendix A) were helpful and fit for purpose.

Tables 9.3 and 9.4 show the overall rating each participant received for Communicative Adequacy. In order to establish the extent to which raters agreed with one another in their evaluations, tests for inter-rater reliability were conducted in SPSS. By extension, these tests can also establish the extent to which average ratings resembled individual raters' evaluations.

Cronbach's α is the statistic most commonly used to measure inter-rater reliability (Larson-Hall 2010, Lund & Lund 2013a). Cronbach's α statistics for the interview ratings are presented in table 9.9, and for the narrative in table 9.10.

	Communicative Adequacy	Amount of Information	Coherence	Ease in Interaction
Cronbach's α	.961	.958	.915	.945

Table 9.8 - Interview: Cronbach's α for inter-rater reliability

	Communicative Adequacy	Amount of Information	Coherence	Ease in Interaction
Cronbach's α	.949	.920	.951	.943

Table 9.9 – Narrative: Cronbach's α for inter-rater reliability

Cronbach's α is high for all measures for all raters, and for both tasks. This indicates high inter-rater reliability, and indicates that raters did indeed agree with one another when assigning ratings to participants.

9.2.5 Summary

Section 9.2 has presented the results of the Communicative Adequacy ratings procedure. In section 9.2.3, it is shown that there are very strong correlations between the four measures raters were asked to evaluate: Communicative Adequacy, Amount of Information, Coherence, and Ease in Interaction. For this reason, the results discussed and analysed in sections 9.3 and 9.4 refer only to the overall Communicative Adequacy results, and not those for Amount of Information, Coherence, or Ease in Interaction, as to include discussion and analysis for each variable would not provide any further insight into the research questions.

The data in section 9.2.4 show that there is strong agreement among raters when assigning participants with scores for Communicative Adequacy: this demonstrates that the rating scale used is reliable and valid for the purpose of this study.

It is also noted that most participants receive the same Communicative Adequacy ratings for both tasks: this point is explored further in the following sections, where the relationship between CAF and Communicative Adequacy is investigated. In the next section, the extent to which Communicative Adequacy ratings can be predicted by CAF scores is investigated.

9.3 Hypothesis 3.1: CAF scores predict Communicative Adequacy ratings

This section analyses the extent to which CAF scores can predict Communicative Adequacy ratings. Results and analysis of the interview data are presented in this section, and are summarised and discussed in sections 9.3.1 and 9.3.2, respectively.

Linear regression analysis — with CAF scores as the independent variables, and Communicative Adequacy as the dependent variable — was considered the most appropriate means of examining the data for hypothesis 3.1, following Larson-Hall (2010) and Lund & Lund (2013b). However, scatterplots produced in SPSS for the relationship between independent and dependent variables showed that these relationships were not linear for measures for either task. This violated

the assumption of linearity required to perform a regression analysis. Transformation of the data was considered, but due to the problems this may cause for data interpretation (cf. Osborne 2002, Tabachnick & Fidell 2007, Larson-Hall 2010), this technique was not used.

Qualitative analysis was adopted as an alternative procedure. Participants were grouped according to their Communicative Adequacy ratings. The range of CAF scores for participants in each Communicative Adequacy rating band was compared to CAF scores for participants in other Communicative Adequacy rating bands. This was done to investigate whether CAF score ranges overlapped between Communicative Adequacy groups. In addition, CAF scores for participants within the same Communicative Adequacy rating band were compared, to examine the extent to which participants in the same group scored similarly. Figure 9.11 shows the graphical representation of participants' rescaled interview CAF scores, rounded to one decimal place. Participants are grouped according to their Communicative Adequacy scores, from A1 to C2.
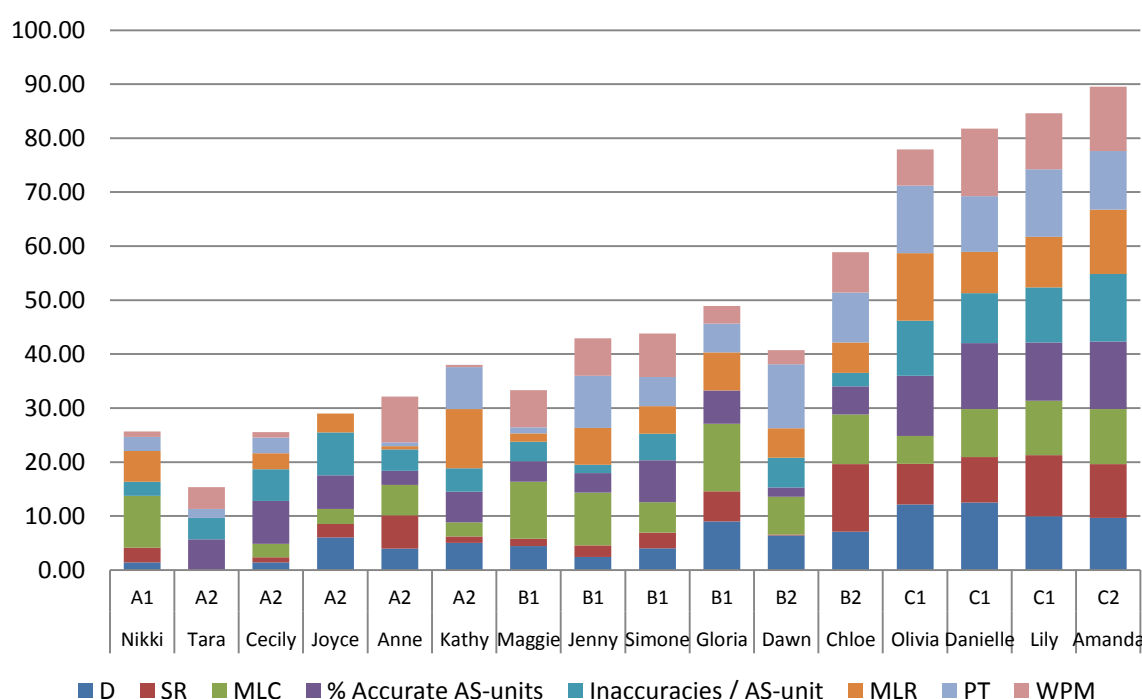
Figure 9.11 - Interview: Participants' CAF scores and Communicative Adequacy levels

It is clear from figure 9.11 that participants who received the same overall Communicative Adequacy rating do not all score the same for each CAF measure.

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It is also clear that level of Communicative Adequacy does not determine CAF scores. For example, although Nikki was given an overall Communicative Adequacy rating of A1, she scores higher than Tara (who received a Communicative Adequacy rating of A2) for all variables apart from Percentage Accurate AS-units. Anne (A2), scores higher for Mean Length of Clause (MLC) than Simone (B1). Kathy (A2) scores higher for Mean Length of Run (MLR) than Danielle (C1). Furthermore, while Dawn and Chloe are both rated at B2 for Communicative Adequacy scores, their scores vary considerably: Dawn's lexical diversity (D) score, for instance, is 2.6, while Chloe's is 7.5; Dawn's score for Inaccuracies per AS-unit is 5.5, while Chloe's is 2.5. Similar observations can be made for participants at other levels.

Some trends are visible in the data which indicate that participants at levels A1 and A2 tend to score lower than those at B1 and so on. These are not definitive patterns, but the data represented in figure 9.11 clearly show a relationship between Communicative Adequacy and total proficiency score.

Furthermore, when considering the average score for each component of proficiency at each proficiency levels, additional patterns can be observed. Table 9.11 shows the average score per proficiency component, organised by level of Communicative Adequacy. Averages were not calculated for levels A1 and C2, as there was only one participant at each of these levels.

Lev-el	D	SR	MLC	% Accurate AS-units	Inaccuracies / AS-unit	MLR	PT	WPM	Total
A1	11.51	67.69	76.86	0.00	61.19	45.31	14.29	8.03	35.61
A2	33.07	25.77	26.96	44.94	42.35	35.94	27.98	20.00	32.13
B1	39.91	30.77	76.96	42.79	30.22	41.02	43.45	50.30	44.43
B2	78.47	3.85	72.35	69.64	73.88	53.13	73.81	80.06	63.15
C1	76.05	66.67	59.08	63.23	79.85	72.92	91.27	52.63	70.21
C2	77.15	21.54	81.57	100.00	100.00	95.31	88.10	95.17	82.35

Table 9.11 - Interview: Average score per proficiency component, organised by level of Communicative Adequacy

Table 9.11 shows that scores for D and SR were helpful for raters in reaching their Communicative Adequacy judgements. The data represented in figure 9.11

show a noticeable trend for these results, with scores for D increasing in line with Communicative Adequacy scores. These results are discussed in 9.3.2.

Figure 9.12 presents the graphical representation of participants' rescaled narrative CAF scores, rounded to one decimal place. Participants are grouped according to their Communicative Adequacy scores, from A1 to C2.
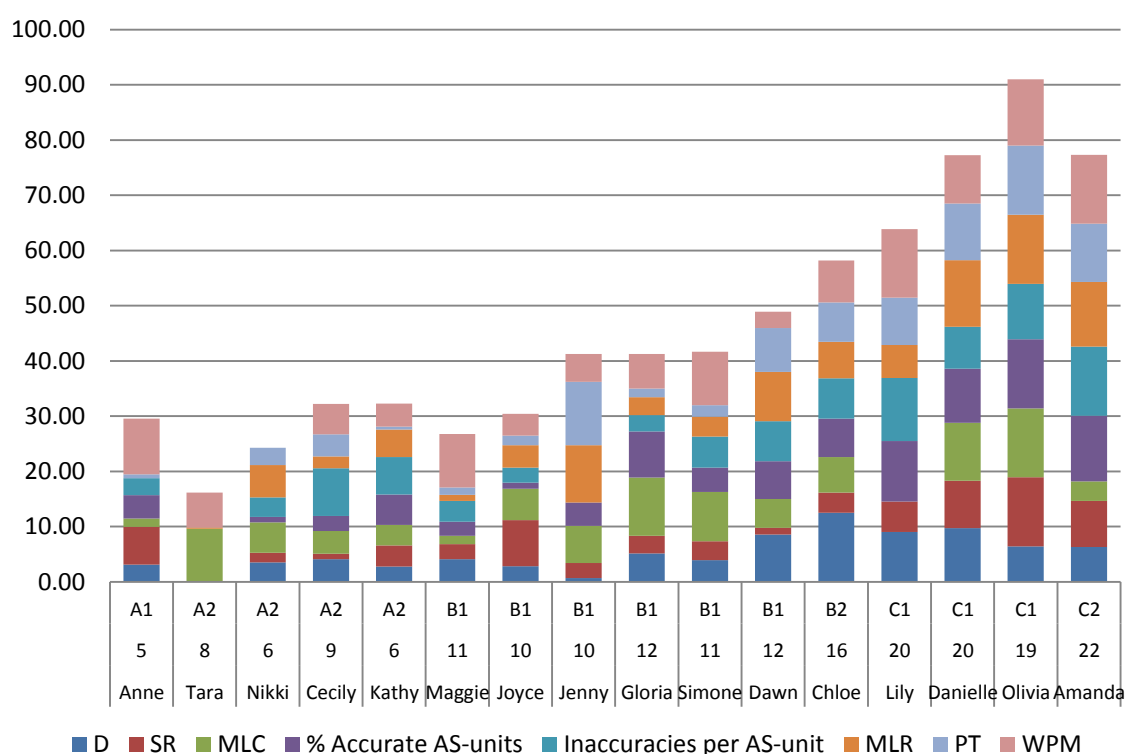
Figure 9.12 - Narrative: Participants' CAF scores and Communicative Adequacy levels

As was the case for the interview data, it is clear from figure 9.12 that participants at each level of Communicative Adequacy do not all score the same for each CAF measure. Similarly, scores for individual proficiency components do not always predict Communicative Adequacy ratings, e.g. Tara (A2), scores higher for MLC than Lily (C1); Cecily (A2), scores higher for D than Jenny (B1). Figure 9.12 nevertheless shows that participants at levels B1 and B2 tend to score higher than those at A1 and A2, and those participants at C1 and C2 tend to score higher than those at B1 and B2.

Table 9.12 shows the average scores for each component of proficiency, grouped according to Communicative Adequacy level. As before, averages were not

calculated for level A1 and C2, as there was only one participant at each of these levels.

Level	D	SR	MLC	% Accurate AS-units	Inaccuracies / AS-unit	MLR	PT	WPM	Total
A1	25.01	49.23	12.00	33.64	24.41	0.00	6.43	87.55	29.78
A2	20.88	9.62	45.90	18.41	37.99	26.35	15.85	55.59	28.82
B1	35.26	30.51	58.60	42.62	30.18	45.95	38.14	58.21	42.43
B2	100.00	100.00	51.20	55.84	58.27	53.15	56.72	74.42	68.70
C1	64.09	50.77	47.33	80.57	76.64	72.97	77.51	82.32	69.03
C2	50.64	80.00	28.00	95.26	100.00	93.69	84.15	100.00	78.97

Table 9.12 - Average score per proficiency component, organised by level of Communicative Adequacy

As for the interview data, some trends are visible when considering the relationship between scores for CAF components and Communicative Adequacy. In the case of the narrative, the most striking are for both measures of accuracy, MLR, PT, and total scores. Again, the data do not show an absolute pattern, but these patterns are clearly visible, and it is reasonable to suggest that raters relied on these cues to some extent when assigning their ratings. These results are discussed further in 9.3.2.

9.3.1 Summary of results

This section attempted to address the hypothesis that Communicative Adequacy can be predicted by CAF scores. However, as explained in section 9.3, regression analyses were not appropriate for these data, and this hypothesis could not be tested statistically. It was, however, possible to use qualitative analysis to examine whether or not relationships exist between CAF scores and Communicative Adequacy. There are some trends in the data, such that lower levels of Communicative Adequacy are more commonly associated with lower CAF scores. It is almost never the case at the individual level that CAF scores when divided into thirds categorically distinguish between Communicative Adequacy levels. For example, despite scoring relatively high for Words per Minute (WPM) and Subordination Ratio (SR) for the interview, Anne received a rating of A2. However, there are obvious trends visible when considering the average score for each component of proficiency at each Communicative Adequacy levels, which can also be clearly seen in figures 9.11 and 9.12.

9.3.2 Discussion of results

Studies addressing the relationship between CAF and Communicative Adequacy for oral performance have found that knowledge of vocabulary is a strong predictor of Communicative Adequacy (de Jong et al. 2012b, Révész, Ekiert & Torgersen 2013, Révész, Ekiert & Torgersen 2014). The data presented in this section confirm this finding, and the finding reported in Révész et al. (2013, 2014) that amount of subordination and overall accuracy also contribute to perceptions of communicative adequacy. Iwashita et al. (2008) also report that certain measures appeared to have a greater influence on raters' perceptions of proficiency than others; some of their findings are replicated here, with the data presented in 9.3 showing that D, PT, and Percent Accurate AS-units appear to influence raters' judgements. Unlike the results reported by Iwashita et al. (2008), however, Number of Errors per AS-unit and MLR appear to have an effect on raters' judgements for the interview.

Although the data presented in 9.3 do not show absolute relationships, the tendencies observed appear quite strong. Nevertheless, a participant's Communicative Adequacy grouping does not necessarily determine whether their score for any CAF measure will be low, high, or somewhere in the middle. These findings correspond to those reported by Iwashita et al. (2008: 41), who observe that the "impact [of differences in scores] on the overall level assigned to the test taker was not particularly strong". In other words, CAF scores appear to influence raters, but other factors have an influential role also.

These other factors are further suggested by the variation in rater judgements, and in participants' scores at the same level of Communicative Adequacy. The findings lend some support to previous findings demonstrating the relationship between Communicative Adequacy and vocabulary (de Jong et al. 2012b, Hulstijn et al. 2012); Communicative Adequacy and breakdown fluency, lexical diversity, mean length of syllable, Number of Errors per AS-unit, and subordination ratio (Révész, Ekiert & Torgersen 2013). They also demonstrate, however, the importance of not relying on group means to make these predictions, as the reality of individuals' performances is much more blurred.

9.4 Hypothesis 3.2: More proceduralised language processing is associated with higher Communicative Adequacy ratings

In this section, the question of the relationship between proceduralisation of linguistic production and Communicative Adequacy ratings is addressed.

As strong associations between CAF and Communicative Adequacy, and raters' comments and Communicative Adequacy have not been observed, one final hypothesis is explored: do participants whose linguistic knowledge appears more proceduralised score higher for Communicative Adequacy? At the time of writing, no other available studies have explored this hypothesis.

The case is made in chapter 4 for evidence of proceduralisation being observable by examining the contribution of each component of proficiency to participants' total scores. It is argued that if each component of proficiency contributes equally to a participants' total score, that participant exhibits balanced control over their linguistic resources, because processing components are not competing with, or depleting attention from, one another. It is also argued that the smaller the difference between the contributions made by each component of proficiency to the total score, the more proceduralised the participant's linguistic knowledge is likely to be.

Figures 8.3 and 8.4 are reproduced here as figures 9.13 and 9.14. These figures show the difference between the minimum and maximum contributions made by each component of proficiency to participants' total scores. Participants are presented in order of Communicative Adequacy ratings.
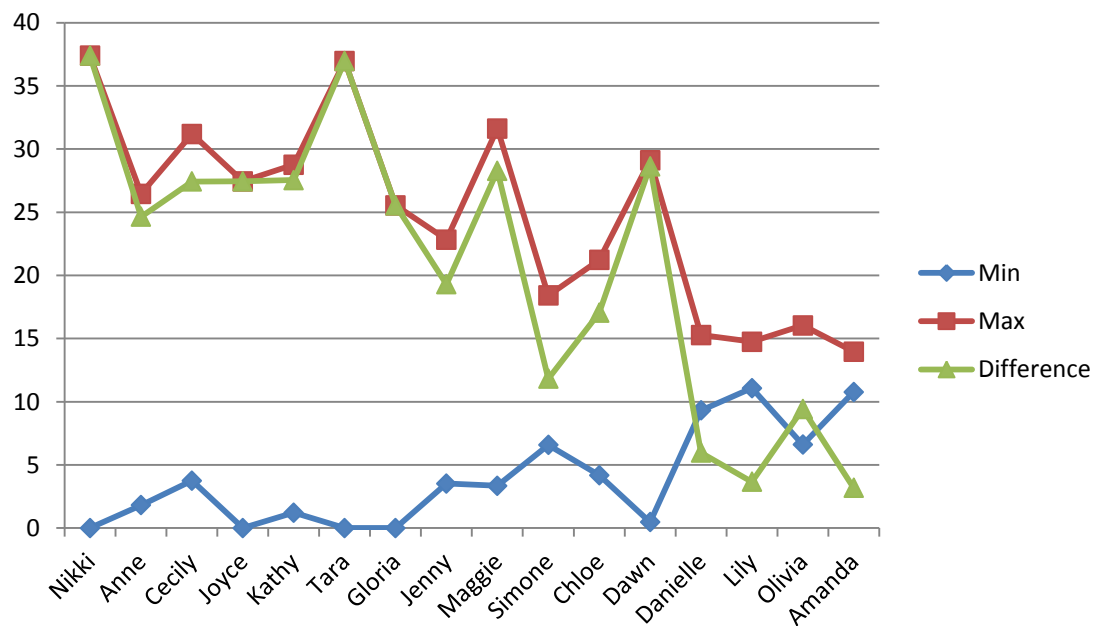
Figure 9.13 - Interview: Maximum and minimum contributions to participants' total scores

Figure 9.13 shows that Danielle, Lily, Olivia, and Amanda — those speakers with Communicative Adequacy ratings at level C — have the smallest difference between their minimum and maximum scores. If the argument that a small difference between minimum and maximum scores is evidence of a more proceduralised linguistic system is taken as true, then figure 9.13 shows that participants who received an overall Communicative Adequacy rating of C1 or C2 display more proceduralised knowledge than participants with Communicative Adequacy ratings at levels A1 to B2.
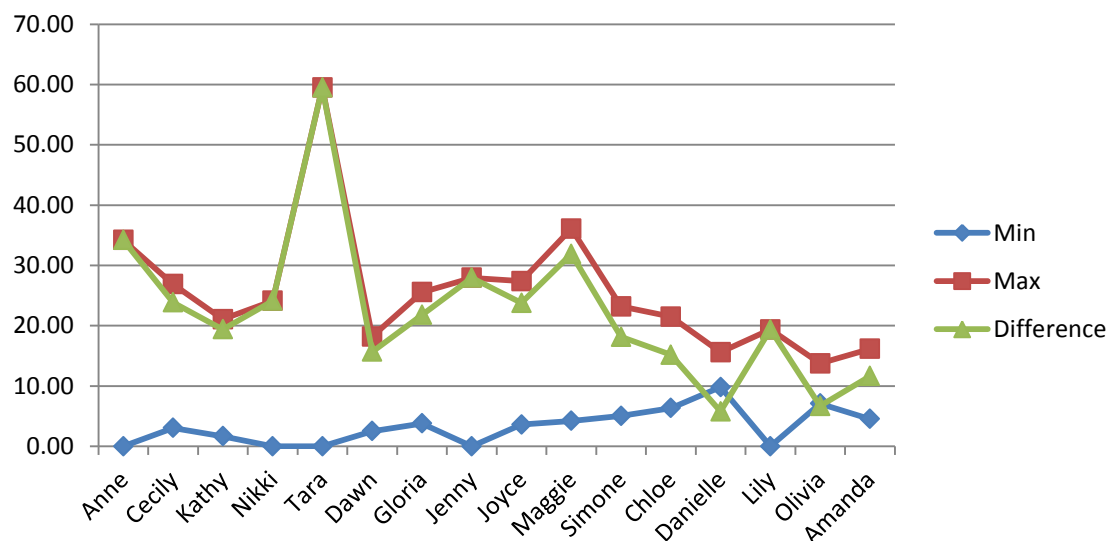
Figure 9.14 - Narrative: Maximum and minimum contributions to participants' total scores

Figure 9.14 shows that Danielle, Olivia, and Amanda — those speakers with Communicative Adequacy ratings at level C — again have the smallest difference between their minimum and maximum scores. However Chloe, a participant with a Communicative Adequacy rating of B2, and Simone, a participant at level B1, have lower difference between minimum and maximum scores than Lily. These exceptions, however, do not negate the overall trend suggesting a relationship between proceduralised linguistic knowledge, and Communicative Adequacy ratings.

9.4.1 Summary of hypothesis 3.2

Accepting that proceduralisation of linguistic knowledge is evidenced by a smaller difference between minimum and maximum CAF scores, the data in figures 9.13 and 9.14 support the hypothesis that there is some relationship between proceduralisation and Communicative Adequacy ratings. However, this finding cannot be applied to all participants' data, highlighting once again that predicting Communicative Adequacy is not straightforward, and may depend on a number of intersecting factors. Until further research is carried out, it is not possible to relate this particular finding to other literature.

9.5 Hypothesis 3.3: Participants considered at the same level of Communicative Adequacy receive the same comments on their performance.

In the previous sections it is explained that there are very few clear-cut relationships between CAF scores and Communicative Adequacy ratings. This section explores whether more insight can be gained into ratings given by analysing the comments made by raters during the rating session. The comments made by raters are discussed in section 9.5.1

9.5.1 Raters' comments

In this section, the procedure for analysing raters' comments is outlined. As indicated in chapter 6, raters were asked to explain their reasons for assigning participants with particular ratings during the rating process. Their handwritten comments were entered into Microsoft Word, and these documents imported into NVivo. On examining these data in NVivo, 44 themes were identified, which

were further categorised into sub-themes. These are presented alphabetically in table 1 of Appendix B.

Some of the themes are more easily interpretable than others. For example, comments on the themes of a participants' tendency to self-correct errors, their hesitancy, or whether or not they managed to maintain the rater's interest are intuitively understandable. On the other hand, comments on the themes of fluidity, sticking, and level of language are less clear and seem more subjective. As raters were not asked to explain their comments, it is unfortunately not possible to clarify these comments further.

9.5.1.1 Raters' comments and rating scale descriptors

In section 9.5.1, the method of collating themes addressed by raters in their comments is described. The descriptors were coded in NVivo against the themes that had emerged from the analysis of the raters' comments, after which a cluster analysis was performed in NVivo to establish the extent of similarities between the descriptors and the raters' comments. The results of the cluster analysis are presented in table 9.11. The references in parentheses following raters' pseudonyms indicate the task for which comments were made.

This type of cluster analysis is the default method for establishing coding similarities in NVivo. The analysis produces a figure for Jaccard's coefficient, which indexes the similarity between two sets of data. Jaccard's coefficient can range from 0 to 1, with 0 being a very weak relationship between that which is being compared, and 1 being a strong relationship.

Relationship between descriptors and comments by…	Jaccard's coefficient
Richard (interview)	0.343
Clem (interview)	0.314
Clem (narrative)	0.312
Andrew (interview)	0.310
Richard (narrative)	0.306
Andrew (narrative)	0.293
Liam (interview)	0.263
Liam (narrative)	0.208
Ben (interview)	0.183

Table 9.13 - Jaccard's coefficient, indexing the coding similarity for descriptors in the raters' scale and raters' comments

Table 9.11 shows that although there is some coding similarity between the descriptors and the raters' comments, there is not substantial overlap. Furthermore, comments from some raters (e.g. Clem) were more similar to the descriptors than comments from others (e.g. Liam).

Tables 2 and 3 in Appendix B show the number of times the themes in raters' comments were also identified in the descriptors, and in the raters' comments for the interview and narrative task, respectively. There is not always a positive relationship between the frequency with which a theme was coded in the analysis of the descriptors and the frequency with which it was coded in the analysis of the raters' comments. Furthermore, raters commented on different aspects of performance depending on the task they were rating. By comparing these numbers, it is clear that different observations were made by the raters for both tasks.

9.5.1.2 Raters' comments and Communicative Adequacy ratings

In this section, the relationship between raters' comments and Communicative Adequacy ratings is explored. Tables 4 and 5 in Appendix B show the number of times themes appeared in the raters' comments for the interview and narrative performances for participants at each level, from A1 to C2. Where raters did not comment on a theme at a particular level, this is represented by an en-dash. Themes commented on for the narrative only for all levels are not included in table 4, while themes commented on for the interview only are not included in table 5. The themes which emerged most frequently at each level are highlighted in bold and italicised. This issue is first discussed in relation to the interview data, and then the narrative data.

Interview data

It is clear from table 4 in Appendix B that more fluency, confidence, and coherence are associated with higher levels of Communicative Adequacy, while there is more recognition of struggling and sticking as serious problems for speakers at lower levels of Communicative Adequacy. Raters comment more on the fact that more information is produced during the interview from the intermediate levels upwards. There also appears to be a relationship between pronunciation and being perceived as an adequate communicator. A further

observation on the distribution of raters' comments in appendix B, table 4 is that there are several themes observed for speakers at levels A1, A2, and B1 only, and several others observed for speakers at levels B2, C1, and C2 only. In this sense, it appears that B1 speakers tend to group more with those at beginner level, while B2 speakers tend to group more with those at advanced level.

Table 4 in appendix B also shows that participants at all levels apart from A1 were observed by at least two raters to provide a "larger amount of information". Similarly, at least one rater observed that speakers at all levels apart from A1 were "more confident". Only speakers at levels A1 and A2 were observed to have a poorer command of sentence structure, and to use English in a way that was not considered to sound 'authentically' Gaelic.

Participants at levels A1, A2, and B1 were observed to be dependent on the interviewer, an observation that was not made of participants with higher overall Communicative Adequacy scores. Participants at these three levels were also observed to have command of a narrower range of vocabulary, and to use less sophisticated language. Only participants at levels B1 and B2 were observed to self-correct when they made a mistake. Speakers at these levels were also observed to be "less fluid", a theme which did not occur with speakers at A or C levels.

There appears to be an association between being "more fluid" and higher proficiency, as comments falling under this theme were only made on participants at levels C1 and C2. Participants at these levels were the only ones to be considered to be enjoying the interview experience.

It is also clear that raters do not all make the same observations for the same participants. Tables 6 and 7 in Appendix B show which raters identified which themes for each participant. These differences in comments at times lead to contradictions in terms of characterisations of performances.

Only one participant – Nikki – received an A1 rating. The most frequent comment is that Nikki tended to struggle, get confused, or produce "sticky" language. The reference to "stickiness" is perhaps a comment on speech rate,

or pace, although no rater clarified exactly what was meant by such references. Raters noted that Nikki did not seem comfortable when interacting, and that she was dependent on the interviewer to get her message across. They also observed that she was largely unsuccessful in maintaining a conversation.

Nikki's comprehensibility was commented on four times: interestingly, on two occasions, raters commented that Nikki's speech was comprehensible, while on the other two, they commented that her speech was not comprehensible. As explained in 9.1.1, participants' final scores for Communicative Adequacy are based on an average of all scores received, but examination of the scores assigned by each rater and the comments made on Nikki's comprehensibility showed that these comments do not predict whether Nikki was assigned A1 or A2.

On re-examining the raters' comments, it was noted that Clem commented that Nikki was "*at times* quite difficult to understand" (emphasis added), which may explain the apparent contradiction in ratings. Liam commented that Nikki "did make herself understood to the interviewer", which may indicate that Liam's comments on comprehensibility are in fact related to Nikki's ability to keep the conversation going, rather than Liam's own understanding of Nikki's speech. As raters were not contacted to discuss ratings and comments after the rating session, it is not possible to examine further the motivation behind these comments. It is nonetheless clear that while inter-rater reliability is high, raters do have different impressions of participants' performances.

Five participants — Tara, Cecily, Joyce, Anne, and Kathy — received a final Communicative Adequacy score of A2. As for Nikki, the most frequently commented on aspect of interview performance was the tendency of participants at this level to become confused, or produce sticky language. Participants' lack of confidence was also frequently observed at A2 level.

Again, there is a contradiction in terms of comprehensibility: with six references made to participants' lack of comprehensibility, and six made to their comprehensibility. Kathy's comprehensibility was commented on by two raters, who agreed that she could be understood. The only rater to comment on

Joyce's comprehensibility stated that it was necessary to listen closely to follow what was being said.

Raters did not agree on comprehensibility for Tara, Cecily, or Anne. Richard comments that Tara was "difficult to follow and you have to listen carefully": perhaps the fact that other raters comment that Tara was more comprehensible is a reflection of more sympathy towards the speaker, in that they considered Tara ultimately to be a comprehensible speaker, with sufficient effort from the listener. This, however, is not stated explicitly by any rater.

Clem comments that Cecily "was not very easy to understand", while Richard comments: "I understood her and she tried hard to help you understand." Clearly both raters had very different experiences with listening to Cecily, although perhaps Richard's view that Cecily made an effort led to the more favourable comment.

Andrew, Clem, and Richard all comment that Anne was difficult to understand; Ben, on the other hand, argues that she was "mostly comprehensible". Again, no more precise explanations are offered for these comments.

Like the speakers at levels A1 and A2, speakers at level B1 — Maggie, Jenny, Simone, and Gloria — were observed most often to struggle when speaking. At this level, however, all comments on comprehensibility are favourable. Raters also commented frequently that speakers at level B1 produced a fair amount of information, that is to say, they contributed to the conversation sufficiently, although could have elaborated more on what they wanted to say.

The two speakers at level B2 — Dawn and Chloe — received the highest number of comments on their confidence, and on the fact that their performance improved as the interview progressed. The next two areas of performance most frequently commented on were the speakers' high fluency and coherence.

Most noticeable to the raters commenting on participants at level C1 — Olivia, Danielle, and Lily — was the large amount of information produced by speakers, suggesting that these speakers contributed noticeably more to the interview than speakers at lower levels. These speakers are considered confident,

coherent, comfortable in interaction, and raters also observed the wide range of vocabulary used by these speakers.

Finally, Amanda, the only participant at level C2, was also considered to contribute a lot to the interview, as demonstrated by the comments on the amount of information she produced. Amanda is considered a coherent, fluid, and fluent speaker, with a "strong island accent" (Clem). Raters also comment frequently on the fact that Amanda sounds natural when speaking. The fact that raters commented relatively frequently on Amanda's tendency to struggle when speaking is unexpected, given the other comments made on her performance, and her high overall rating. Liam comments that Amanda "only at times…has to quickly search for the odd word or phrase", which suggests that this is not a serious issue for Amanda. Ben states that Amanda's speech is "at times a little convoluted and sticky": perhaps the fact that this is only an issue "at times" suggests again that this is not a major problem for Amanda. It is nonetheless interesting that the speaker with the highest ranking shares this feature with speakers at lower proficiency levels. This confirms the complex way that different aspects of proficiency can interact, which is explored and discussed in chapter 8. It may also show that raters are less sympathetic to inaccuracies or poor discourse management when a speaker appears more proficient, and that they hold more proficient speakers to higher standards than less proficient speakers.

Narrative data

As is the case for the interview, the data in table 5 in Appendix B show that participants fall into two groups in relation to raters' comments: those at levels A1, A2, and B1, and those at levels B2, C1, and C2. Only speakers from level A1 to B1 were observed to produce less information, and only these speakers were observed to produce less complex information. In this respect then, there appears to be a relationship between lower proficiency and the amount of detail given in narrating the narrative. Speakers at levels A1 to B1 were also observed to be less confident, speak with less fluidity, and to produce a less well-structured narrative. One theme emerged for beginners (i.e. participants at levels A1 and A2 only): for speakers at this level, raters observed feeling uncomfortable listening to the narrative. This is the only theme unique to

participants at both A levels, so it is perhaps this that prevented their being rated at B levels.

No theme is unique to B level speakers, although given the observation that speakers tend to cluster at the bottom three levels or at the top three, this is perhaps unsurprising. Speakers from level B2 to C2 are observed to appear at ease, and comfortable relating the narrative. Participants at B2 and C1 are also observed to have maintained the raters' interest throughout the narrative. It appears then that these themes are associated with higher proficiency.

As is the case for the interview, raters do not all make the same observations for the same participants: data supporting this claim are presented in table 7 in Appendix B.

As for the interview, only one speaker is assigned level A1 for overall Communicative Adequacy. This speaker is Anne. As before, some rater disagreement can be observed through the fact that Anne's success in completing the narrative is recognised once, but so is her lack of success in doing so. On examining the raters' comments, it is clear that Anne did produce an outline of the narrative, but that this was interpreted by one rater (Andrew) as an unsuccessful telling of the narrative, and another (Richard) as a successful telling.

Cecily, Kathy, Nikki, and Tara are all placed at level A2 for Communicative Adequacy for the narrative (see table 9.4). Again, paradoxically, participants at this level were frequently observed to be both more and less successful at carrying out the narrative task. Clem states that Cecily tells the narrative well, but Liam and Richard agree that the narrative is fragmented, and that Cecily's limited vocabulary prevents a successful narrative. Liam and Andrew both state that the lack of detail provided by Kathy prevents her from telling a narrative rather than providing a string of sentences; Clem on the other hand states that Kathy successfully narrates a basic narrative, while Richard states that Kathy "[d]oes tell a good narrative in the end", suggesting that her narrative skills improved throughout. Andrew notes that Nikki did not manage to convey the message of the narrative, while Richard notes that Nikki described the sequence of events in the picture without telling a narrative per se. Liam differs from

Andrew and Richard in that he believes Nikki "does manage to convey the basic flow of the narrative". Comments on Tara's narrative performance are provided by Clem and Richard: Clem believes that Tara's ability to complete the task is "limited", while Richard considers that despite incoherence, Tara manages to provide "enough of a narrative". In this instance again, it is clear that raters may differ in their subjective interpretations of what they listen to.

Participants at level B1 — Maggie, Joyce, Jenny, Gloria, Simone, and Dawn — are frequently observed to be confident narrative-tellers, a theme noted by raters on seven occasions. Nevertheless, raters continue to comment that participants at this level are less confident, although this observation is not so frequent. Clem observes that Joyce's performance is not confident; however, both Andrew and Richard state that Joyce appears to become more and more confident as the narrative progresses. It is possible that Clem's judgement was more influenced by Joyce's speech at the start of the narrative. While Clem considers Simone's performance to be "unsure", Andrew claims that she sounds confident. Andrew also observes, however, that Simone is "[v]ery hesitant". It is possible that Clem focuses on Simone's hesitancy as arising from a lack of confidence, whereas Andrew views this hesitancy as having more of a relationship with planning the narrative, for example. Both Liam and Clem considered Dawn's performance to be lacking in confidence, as opposed to Andrew, who considered Dawn's confidence commendable.

The themes most frequently commented on by raters for participants at B2 are their confidence and coherence, themes also frequently observed for participants at level C1. Participants at C1 differ from those at B2 in that the most frequent comment for the former is that they are successful in carrying out the task. This observation was not made at all for participants at B2. Again, Amanda is the only participant at level C2, and the most frequent observations made by raters are that she successfully carries out the task, has a wide vocabulary, and appears to be at ease.

9.5.2 Summary of hypothesis 3.3

The qualitative analysis of the raters' comments does not suggest that there are clear distinctions between participants at adjacent levels of Communicative

Adequacy. Furthermore, it is not always the case that raters agree on their analysis and interpretation of a participant's performances even at the same level of Communicative Adequacy. There are nevertheless some trends in the data which distinguish participants at levels A1, A2, and B1 from those at levels B2, C1, and C2 for both tasks. In addition, there is a unique combination of themes identified at each level, which indicates that raters do make different evaluations for speakers at different proficiency levels. Raters may also hold participants at different levels to different standards.

9.5.3 Discussion of results for hypothesis 3.3

It is reported in section 9.5 that although there was some overlap between raters' comments and the proficiency scales with which they were provided, the raters also made a variety of observations that were unanticipated. Many of these observations were not clearly quantifiable, and were somewhat vague. In addition, analysis of individual raters' comments indicates that they do not make the same comments for participants to whom they awarded the same Communicative Adequacy level. These findings support Freed's (2000: 261) claim that fluency (incorporating aspects of complexity, accuracy, and pronunciation) is "a simultaneously vague and complex notion that includes a constellation of interactive features".

The findings contradict those reported by Sato (2012), who found that raters reported most frequently focusing on fluency. Sato (2012) posits that this is because all participants in that study had high levels of English proficiency, and that complexity and accuracy were therefore not noticeable to raters. The results from the interview show that raters indeed commented more on fluency from level B2 up than from B1 down, which may support Sato's observation; however, the reverse was true for the narrative data. This may be attributable to task effects: raters most often commented on participants at B2 and above in terms of their confidence, lexical range, the amount of information they produced, and their coherence. The fact that the narrative was designed to elicit more complex language may have drawn raters' attention to these aspects of more communicatively advanced participants' performance; where these were lacking for the less communicatively advanced participants, raters focused on their fluency instead.

It is clear from the results and analysis presented in 9.4 that different raters focus on different aspects of performance. As Skehan (1998) observes, speakers and raters may prioritise different areas of performance. Similarly, Kormos & Dénes (2004) note that raters in their study differed in the weight they placed on accuracy, vocabulary diversity and mean length of pause (see also Bosker et al. 2013). This is likely to bear influence on the ratings they provide, no matter how speakers themselves choose to allocate their attention. For example, table 9.9 shows that Richard comments on seven participants' ability to express themselves in their interview performance. Looking at their interview CAF results in figure 8.11, however, it is clear that these participants' scores are not distributed in the same way. For example, Kathy prioritises Fluency in her interview performance, and is considered by Richard to have a stronger ability to express herself; Tara, on the other hand, prioritises Accuracy, and is also considered by Richard to have a stronger ability to express herself. Similarly, taken together, Liam and Andrew commented that 10 participants were more hesitant in their narrative performance. An inspection of figure 8.12, however, shows that most of these participants prioritised Fluency at least as much as Complexity or Accuracy. As such, although Liam and Andrew appear to have focused on Fluency shortcomings, the participants themselves appear to attend to Fluency over or as much as other proficiency components. Thus, the rater's perception of performance appears to be influenced by factors other than those prioritised by the participants themselves. The answer to Freed's (2000) question, "Is fluency in the eyes (and ears) of the beholder?" is therefore "yes", for these data at least.

Tables 6 and 7 in Appendix B show that there are few similarities in comments made by different raters, a finding which lends further weight to the case that different raters focus on different aspects of performance. This finding contradicts Rossiter (2009), who observed that raters in her study provided responses that all patterned similarly. Nevertheless, as reported in 9.2, inter-rater reliability is high. So, although raters' comments differ, there is still moderate to strong agreement between them on participants' levels of Communicative Adequacy. This finding reflects those reported in Orr (2002), who notes that raters apply different standards to performance in their evaluations, but these do not seem to affect scores. Although raters may attend

to different aspects of performance, the weighting they provide these may help explain why raters nevertheless converge on their overall ratings of participants. Thus, not only do raters perceive fluency in different ways, they also value different components of proficiency differently. A similar observation is made by Iwashita et al. (2008), who go on to note that the differences in raters' judgements do not necessarily invalidate ratings.

Unlike Iwashita et al. (2008), however, Orr (2002) warns that these differences in rater evaluations could be problematic in real-life test-taking circumstances, and that in addition, the varying perceptions can cause problems in our understanding of why raters choose to focus on what they do. This latter point is clearly of relevance to this study: raters' decisions are unpredictable, and while this may not be of practical importance in a real-life rating situation, the results here pose questions for further, more in-depth research into raters' priorities, such as that described in Brown (2003, 2005). Nevertheless, the fact that raters were in agreement to such an extent indicates that the rating scale with which they were provided was reliable. In section 9.5 it was shown that raters' comments did not overlap to a great extent with the descriptors. This may show that raters were guided by the descriptors, but that different raters focused on different aspects of performance from that basis on. Contrary to Orr's (2002) position then, differences in rater evaluations do not necessarily cause problems for language testing, when what is being tested is Communicative Adequacy.

Looking at the overall ratings received by participants in tables 4 and 5 in Appendix B, we see that raters make similar comments for participants at levels A1 to B1, and for participants at levels B2 to C2 for both tasks. This finding lends support to Pollit & Murray's (1996: 89) "the trait of 'proficiency' is understood in different terms at different levels".

However, when we examine individual raters' comments for both task, no such pattern is observed. The analysis of individual raters' comments therefore contradicts Pollit & Murray's (1996) report. It is once again demonstrated that group averages can hide differences in individuals' assessments. These group means may well be useful in an assessment context in which more than one rater

is present; they are clearly very problematic if one rater's judgement is being relied upon.

Raters may focus on different aspects of performance than participants themselves, and do not necessarily agree with one another in their reasons for assigning ratings. If we are keen to understand the processes behind raters' judgements, it is therefore very important to collect data such as those collected here explaining their judgements.

9.6 Summary of research question 3

The data presented and discussed in sections 9.2 to 9.5 are now summarised. In section 9.2, the results of the rating process are presented. It is observed that there are strong correlations between Communicative Adequacy ratings, and ratings for Amount of Information, Coherence, and Ease in Interaction, for both tasks. In section 9.2.4, inter-rater reliability is reported to be high. This indicates that there was high agreement among the raters when awarding participants ratings for Communicative Adequacy.

Hypothesis 3.1 was tested in section 9.3. Hypothesis 3.1 posits that CAF scores are associated with Communicative Adequacy ratings. The analysis presented in section 9.3 shows that there are few clear relationships between CAF measures and Communicative Adequacy for either task, although some important trends are visible. Higher CAF scores are often associated with C1 and C2 ratings, but this is not consistently the case. Nevertheless, the data presented in section 9.3 show that there are some associations between CAF and Communicative Adequacy; for the most part, participants at A1 and A2 score low, participants at B1 and B2 score in the middle, and participants at C1 and C2 score high, although this is less true of the narrative data. Furthermore, there are strong trends for particular components of proficiency, suggesting that raters drew on participants' performances in terms of D and PT for the interview, and Accuracy, MLR, and PT for the narrative. As such, the data provide some support for this hypothesis.

Section 9.4 addresses hypothesis 3.2: more proceduralised language processing is associated with higher Communicative Adequacy ratings. The analysis shows

that there is some evidence to support this claim, but that as was the case for CAF scores and raters' comments, there is no clear-cut relationship between proceduralisation and Communicative Adequacy.

Finally, in section 9.5, hypothesis 3.3 is tested. This hypothesis posits that participants considered at the same level of Communicative Adequacy receive the same comments on their performance. In section 9.5, the results of a qualitative analysis of comments made by raters during the rating process are presented. This analysis yields insight into raters' thought processes during rating, and highlights factors that they considered important in addition to the linguistic factors discussed in section 9.2. Once again, there are few categorical associations observable between raters' comments and Communicative Adequacy ratings, although trends are observable. Despite high inter-rater reliability among raters (reported in section 9.2.4), raters' comments on individuals' performances do not always coincide. It appears from the data presented in this section that particular combinations of factors are more important to raters than individual factors. Again then, the data only partially support the hypothesis.

The findings reported in this chapter once again reflect the importance of conducting analyses at the individual, rather than the group level, and indicate that it is difficult to get to the heart of why raters make particular decisions when assessing Communicative Adequacy. There are nevertheless indications that raters do draw on aspects of linguistic proficiency in their assessments. Further research could also include the analysis of a wider range of linguistic variables, e.g. pronunciation; discourse structure, as in Révész, Ekiert & Torgersen (2013); and lexical items and collocations used. Including additional variables may help better explain how raters' judgements converged when their perceptions of performance were so varied. While at this stage it is reasonable to conclude that raters place different weightings on different aspects of performance, and that the guidelines presented to them in the proficiency scale were adhered to, further research would enable these hypotheses to be tested further. In addition, expanding the analysis to explore the structures participants use could help explain raters' judgements in terms of participants' linguistic knowledge, and not just Communicative Adequacy. It is hoped that such research will be possible in future, using the Gaelic Part-of-Speech Tagger

Project[27] and *Corpas na Gàidhlig*[28], which were both unavailable at the time of writing.

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[27] This project is led by William Lamb, of the University of Edinburgh.

[28] Based at the University of Glasgow.

10 Conclusion

10.1 Restatement of aims and methodological approach

The major aim of this study was to establish a means of assessing the oral proficiency of adult second language (L2) users of Gaelic. It was argued that the development of such a tool could contribute to official efforts to reverse Gaelic language shift, by overcoming some of the issues that have been identified in Gaelic language-in-education policy by Comunn na Gàidhlig & Comunn Luchd Ionnsachaidh (1992), MacCaluim (2007), McLeod et al. (2010) and Milligan et al. (2011). In overcoming these issues, adults have a greater possibility to contribute to reversing Gaelic language shift through intergenerational transmission, and increased use of Gaelic in society.

In addressing this aim, it was also possible to examine Gaelic L2 users' motivation and experiences. Furthermore, the data collected could also be used for the first examination of Gaelic second language acquisition (SLA) using the framework of complexity, accuracy, and fluency (CAF).

Three research questions were tested:

1. Research question 1: What paths do Gaelic users take when learning the language?

2. Research question 2: How do dimensions of proficiency interact?

   a. Hypothesis 2.1: As predicted by the Limited Attentional Capacity Model, participants' attention is not distributed equally across all CAF components. Trade-offs between CAF components are therefore evident in performance.

   b. Hypothesis 2.2: As predicted by the Extended Trade-off Hypothesis, task conditions moderate the relationship between dimensions of proficiency.

3. Research question 3: Is it possible to predict how individuals are rated for Communicative Adequacy?

a. Hypothesis 3.1: CAF scores predict Communicative Adequacy ratings.

b. Hypothesis 3.2: More proceduralised language processing is associated with higher Communicative Adequacy ratings.

c. Hypothesis 3.3: Raters make similar comments and observations on participants' performances when those participants are considered to be at the same level of Communicative Adequacy.

16 adult L2 users of Gaelic contributed to the oral corpus to be used for addressing the research questions. All had started learning Gaelic as adults, and all had taken different approaches to learning. Participants were invited to perform a number of activities, in English and Gaelic. The English activities consisted of a background questionnaire and an interview with the researcher. These were designed to understand participants' learning experiences and motivations for language learning. The three Gaelic tasks included an informal interview with the researcher, a narrative task, and a picture description task.

Participants' proficiency was objectively assessed using CAF measures, and subjectively assessed using raters' judgements of Communicative Adequacy. Five raters were involved in the rating process, and based their evaluations on a Communicative Adequacy scale designed for the purposes of this project.

The next section summarises the main findings of this study.

10.2 Main findings

10.2.1 Research question 1: What paths do Gaelic users take when learning the language?

The findings from this study confirm previous observations by MacCaluim (2007), Milligan et al. (2011), and McLeod et al. (2014b). All participants in this study had experience of at least two different Gaelic class environments and formal learning experiences.

The particular choices made by individuals may reflect their personal senses of ideal and ought-to L2 selves (Dörnyei 2005, 2009). The ideal selves identified in these data correspond to findings reported in MacCaluim (2007), Milligan, Chalmers & Danson (2011), and McLeod, O'Rourke & Dunmore (2014a) (although these studies do not interpret the data in terms of this model), and fall into categories including the self as multilingual, the self as connected to Scottish history and culture, and the self as a Gaelic worker.

The ought-to self is manifested in several ways also, including the self as somebody responsible for Gaelic revitalisation, and the self as an acceptable member of a Gaelic community in the *Gàidhealtachd*. The ought-to self is also manifested in these data by several participants' focus on quite specific phonological features of Gaelic. Similarly, all participants employed a variety of language learning strategies. The most commonly used learning strategy was the consultation of dictionaries to look up newly encountered words, which was used by all participants except Chloe. All participants also employed social strategies in their Gaelic learning, in particular through practice with other Gaelic speakers. Kathy is the only participant who did not actively practice learning Gaelic with others outwith the classroom. Beliefs appear to influence strategy use, see Ellis (2008, 708).

These findings can again be interpreted in light of Dörnyei's (2005, 2009) L2 Motivational Self system. Depending on their reasons for learning Gaelic and their ideal and ought-to L2 selves, participants employ different strategies to help them realise these possible future selves. Participants in this study very clearly identified with real and imagined communities of practice, and their motivation was, as Ushioda (2006) argues, a complex mixture of traditional integrative and instrumental motivations, as well as the desire to maintain and revitalise Gaelic.

The range of different experiences expressed by each participant makes it very difficult to test for the relationship between formal learning background, strategy use, and proficiency; to establish direct links while controlling for all these factors would be extremely difficult. However, it is argued that these differences in learning experiences and in individuals' possible future selves may explain why participants prioritise aspects of performance over others.

10.2.2 Research question 2: What are the interactions between dimensions and components of proficiency?

This research question aimed to assess participants' proficiency in terms of linguistic knowledge and language processing. There is consensus in the field of SLA that dimensions of proficiency compete with one another in performance due to processing constraints (Skehan 1998, Robinson 2001a, Larsen-Freeman 2006, Skehan 2009, see, e.g. Housen, Kuiken & Vedder 2012b, Skehan & Foster 2012). This study confirmed these findings, showing that components of proficiency do indeed compete in all participants' performances for both tasks. Findings also support the position that this is due to less proficient speakers having less control over linguistic processing: trade-offs for the more proficient speakers tended to be much less pronounced than those for the less proficient speakers, suggesting that there is less competition between processing components for more proficient speakers, and that their linguistic knowledge is more proceduralised (see also Skehan 1998, Kormos 2006). In addition, findings show that different task conditions mediate the competition between components and dimensions of proficiency, as predicted by the trade-off hypothesis and extended trade-off hypothesis (Foster & Skehan 1996, Skehan 1998, Skehan & Foster 2012).

The findings reported in chapter 8 show, however, that the nature of the competition between dimensions and components of proficiency is unpredictable. A trend is observed in the data showing some evidence of a trade-off between complexity and accuracy on the narrative task. However, the exact component of complexity and accuracy affected by this trade-off is unpredictable.

The data do not provide evidence that the narrative task was more complex for all participants. In addition, while we might expect the interview to elicit more fluent language, and the narrative to elicit more accurate and/or complex language (Foster & Skehan 1996, Tavakoli & Foster 2008a, Skehan & Foster 2012), this was not the case for all participants. Furthermore, viewing D as a separate dimension of proficiency, we could predict that the interview would elicit higher scores on this measure, given the restrictions placed on vocabulary diversity by the nature of the narrative task (see section 8.4.2). This was the

case for the majority of participants. It is therefore extremely important to recognise that what applies to the group does not necessarily apply to the individual, both in terms of task complexity and performance (Révész 2009, Skehan & Foster 2012), although this recognition should not detract from the observance of overall trends.

10.2.3   Research question 3: What factors lead judges to give particular Communicative Adequacy ratings?

The high inter-rater reliability reported in chapter 9 shows that the rating scale developed for assessing the proficiency of participants in this study was valid for this purpose and reliable. The findings show that the descriptors provided in the rating scale were used by judges in guiding their assessments of participants' proficiency.

Some relationships were observed between participants' CAF scores and judges' Communicative Adequacy ratings, supporting findings reported elsewhere (Iwashita et al. 2008, e.g. de Jong et al. 2012b, Révész, Ekiert & Torgersen 2013). A trend was observed showing that participants with higher CAF scores and whose CAF scores demonstrated more evidence of proceduralised linguistic knowledge were more likely to be judged as being at higher levels of the Communicative Adequacy scale, but this was not definitive, nor was it always the case that lower scores were associated with lower proficiency. Trends were also observed in the relationship between Communicative Adequacy and D, PT, and total proficiency score for the interview. Similar trends were observed in the relationship between Communicative Adequacy and Accuracy, MLR, PT, and total proficiency scores. This finding is similar to those observed by Kuiken et al. (2010) in their study of L2 writing, and supports findings reported elsewhere (Iwashita et al. 2008, de Jong et al. 2012c, Hulstijn et al. 2012, Révész, Ekiert & Torgersen 2013, Révész, Ekiert & Torgersen 2014). The variation in CAF scores among participants at the same level of Communicative Adequacy also highlights the importance of assessing proficiency at the individual, rather than group, level.

The qualitative analysis of judges' comments revealed that individual judges focus on different aspects of performance. It was also clear that some raters

were more sympathetic than others in their evaluation of participants' performances.

10.3 What does this tell us overall?

The data make clear that L2 users of Gaelic are motivated in a vast range of ways to learn the language, with some motivated by positive ideals, and others motivated by some sense of duty or obligation. These motivational profiles – coupled with their learning experiences – influence the range of strategies and approaches to learning they adopt. It is likely that the particular combination of motivational factors and learning experiences unique to each individual contributes to their performance for Communicative Adequacy and CAF.

Bringing together these findings, it seems clear that the assessment of proficiency in Gaelic is complicated by factors such as participants' learning backgrounds and personal motivations for learning. It is also complicated by the fact that judges are very subjective. The particular trade-offs observed in participants' scores appear to reflect the extent to which participants' experiences differ. In attempting to realise their ideal and ought-to L2 selves, participants engaged in a range of different classes, learning strategies, and social practices. Although these findings cannot draw distinctive conclusions about the relationship between each course type and performance outcomes, it is plausible that the precise makeup of each individual's learning background is what led to their skills manifesting themselves in the way they do.

It is not the case that any one learning path is superior to another, or that any one ideal or ought-to L2 self is more conducive to language learning than another. Participants' skills differ and interact in a multitude of ways, highlighting the multi-dimensional nature of proficiency in Gaelic, as in other languages. Gaelic users can also be considered to have good or bad communication skills on the basis of a variety of factors, not just proficiency. There is some evidence of an association between high total scores and high Communicative Adequacy, but at lower levels, this association is much weaker.

The development and perception of linguistic skills in Gaelic is, according to the findings reported in this study at least, complicated and subject to many

factors. However, it is still possible to assess proficiency in a systematic way, particularly if we are interested in assessing Communicative Adequacy.

10.4 Significance of findings for theory and research development

The findings reported in chapter 7 show that the Motivational Self System model is useful in minority language contexts. However, the data show that some reinterpretation of the selves described in the model would be useful in applying it to minority language contexts. One conception of the ideal self observed in these data shows that speakers may learn Gaelic as a cultural activity, rather than for the sake of learning the language itself. Gaelic, like other minority languages, holds an increasingly important symbolic and cultural value (Paterson & O'Hanlon 2014). If an individual's ideal self is an owner of this symbolism and the target culture, then having some ability in Gaelic is one way of displaying this. Note that these participants did not feel an *obligation* to learn Gaelic in order to fully participate in Scottish culture. This type of ideal self may be more prevalent in minority language, than majority language, contexts, and is worth investigating further.

Further reinterpretation includes the importance of language maintenance and revitalisation as a motivating factor. This factor imposes a sense of duty on some participants to learn a minority language which is necessarily absent in majority language contexts. Similarly, learning a language in order to avoid posing a threat to the vitality of a minority language in its traditional heartlands is a type of ought-to self not observed in majority language contexts. The data also show that the ought-to self is useful in explaining the preoccupation with some participants with accurately acquiring specific features of Gaelic phonology; this finding is worth investigating further in other language contexts.

Other findings reported in this study highlight the importance of investigating individuals' experiences, rather than group means only. Group means can mask individual processes, and can suggest that e.g. particular trade-offs between components of proficiency are features of the speech of all individuals, rather than just some. Nevertheless, group means can be revealing, and have confirmed findings reported elsewhere on the relationship between

Communicative Adequacy and vocabulary diversity, accuracy, and speakers' pausing patterns.

The findings also show the importance of recognising the relationship between the complexity of L2 users' backgrounds and the complexity of their proficiency as manifested in performance. It may be helpful to consider the complexity of L2 users' experiences and possible future selves when attempting to explain trade-offs between components of proficiency and language processing modules.

As it was not possible to predict Communicative Adequacy from CAF scores with absolute certainty, the data here suggest that Communicative Adequacy may be a dimension of proficiency distinct from CAF. Individuals employ the different resources at their disposal when communicating, but the success of their communication is the result of factors other than CAF. Communicative Adequacy as a dimension in its own right appears to be also related to the amount of information a speaker attempts to produce, their comfort in communication, their discourse management skills, as well as CAF features. Although these are all related to language production and processing, the essence of the skill of Communicative Adequacy appears to be greater than the sum of its parts.

10.5 Significance of findings for practical application

The high inter-rater reliability reported in chapter 9 demonstrates that the rating scale developed for the purposes of this study is reliable and valid, and can be used in further research into Gaelic language proficiency. CAF measures employed in this study are also useful means of examining proficiency in Gaelic, although scores for Mean Length of Clause (MLC) differed the least between participants, suggesting this measure is not necessarily useful. Given the complex morphology of Gaelic (see e.g. Lamb 2008), a more appropriate measure of complexity may have been one assessing morphological complexity.

Although findings were not definitive, there is also some evidence that higher total scores and more balanced production skills contribute to greater perceived Communicative Adequacy. As such, these findings may indicate that assisting L2 language users in the development of evenly balanced skills while also helping

them increase their knowledge of formal language may be a useful way of teaching Gaelic.

Furthermore, the fact that adult L2 users of Gaelic have such a broad range of learning experiences and possible future selves suggests that it may be helpful to inform L2 Gaelic users of the availability of learning strategies — as recommended by Amanda, one participant who worked part-time as a Gaelic teacher (see chapter 3, footnote 6) — and of the pedagogical approaches of different courses. In this way, adult L2 users may be better positioned to select learning pathways that best correspond to their own goals.

Finally, the finding that individuals' skills contribute differently to their total proficiency, and raters consider many aspects of performance when judging Communicative Adequacy suggests that in future, raters could be provided with a multiple trait scale, i.e. a scale focusing on multiple dimensions of performance (see e.g. Hirai & Koizumi 2013). On completing the multiple trait scale, raters could then come to an overall assessment of an individual's proficiency. It may also be helpful to specify to raters the average score for a given measure at a given level of Communicative Adequacy. This would then provide judges, assessors, or raters with guidelines for what to expect, but given that this would be weighted differently at the end for the overall proficiency score, it may not skew the results significantly.

As noted above, raters' perceptions of proficiency are very subjective, and any rating scale developed will be affected by this. However, it is also clear that despite differences in raters' orientations, they tend to converge on their ratings. In a practical sense, these differences are therefore unproblematic, although as Orr (2002) notes, acknowledging these differences does not bring us closer to understanding why raters assign participants the levels they do.

10.6 Limitations

Several limitations of the study should be highlighted. Perhaps the most notable limitation is the small sample of only 16 participants (compare with, e.g. Skehan & Foster 2005b, de Jong et al. 2012b). With so few participants, inferential statistical analysis was not possible, and the findings cannot be generalised to a

wider population. However, it has been argued throughout this thesis that the sample size facilitated more detailed quantitative and qualitative analyses of learner performances, and indeed, that Skehan & Foster (2012) highlight the importance of carrying out assessments of individual as well as group performances. It nonetheless remains the case that the findings presented here – while useful as a basis for future research – apply only to the participants and raters included in this study.

A further limitation related to the selection of participants is that those who participated in this study were members of a self-selected group. Although the data presented confirm that the participants in this study resemble the wider adult Gaelic L2 community (as reported in, e.g. MacCaluim 2007, Milligan, Chalmers & Danson 2011, McLeod, O'Rourke & Dunmore 2014b), it should not be assumed that the performances of self-selecting individuals are representative of the performances of individuals who may be less enthused about their Gaelic performance.

Furthermore, it was noted that it was not possible to obtain a gender-balanced sample; the age range of participants spanned over 56 years; and there was no homogeneity in terms of learning experiences. In particular, there is evidence that age affects L2 learning and processing (see e.g. DeKeyser, Alfi-Shabtay & Ravid 2010, DeKeyser 2013), and that gender may influence L2 users' approaches and attitudes to language learning, the dimensions of performance they choose to prioritise when speaking, and their preferred target language variety (Oxford & Nyikos 1989, Spolsky 1989, Labov 1990, Ehrlich 1997). In this study, it was not possible to control for these variables during analysis. Nevertheless, examining Gaelic L2 users' proficiency without controlling for such variables may be helpful for applied use, given that the diversity of this group is representative of the diversity of adult Gaelic L2 users as a whole. These variables may also account for the differences observed in participants' CAF scores: while this study cannot explain exactly how these variables produce these differences, the results nonetheless show the importance of recognising that trade-offs in processing and performance may be the result not only of task conditions, but also of individual variables.

As observed in chapter 6, a conscious effort was made by the researcher to put participants at ease during data collection, and the order in which tasks were presented to participants was ordered accordingly. A disadvantage of this approach is that the order of tasks could influence performance on specific tasks, and therefore differences in task performance may be due not only to the inherent properties of the tasks themselves, but also to the conditions under which they were presented to participants. If this is the case, however, it remains true that for these participants, different task properties and/or conditions had unpredictable effects on their performance, and again highlights the importance of examining individuals' performances.

A further methodological limitation is that, as explained in 6.3.5.3, raters' assessments of participants' interview performances were based on five minute extracts of each interview performance. While the raters themselves and the interviewer were confident that this would not skew the results obtained, it is of course possible that assessments of the entire interview performances would have yielded different results. As CAF results were based on mean values for participants' entire interview performance, it seems unlikely that different results would have been obtained regarding the relationship between CAF and Communicative Adequacy. This, however, cannot be certain, and future research would be required to confirm this position.

Finally, a limited number of CAF measures were employed: the use of a broader range of CAF measures may be useful for attempting to predict Communicative Adequacy. Similarly, examining participants' pronunciation and knowledge of particular structures could be illuminating in this regard. While the findings from this study suggest that the assessment of Communicative Adequacy is, to some extent, subjective, the inclusion of more or different CAF and formal linguistic measures may have proved otherwise.

10.7 Further research

The findings and limitations of this study lay the ground for much future research. To begin with, having piloted this means of assessing adult Gaelic L2 proficiency, the way is now paved for future research including a much higher number of participants. This would allow for analysis using inferential statistics,

and would also enable further testing of the results and observations made in this thesis.

Future research projects could also include how pronunciation correlates with other measures of proficiency, and how raters' perception of participants' pronunciation contributes to their assessments of Communicative Adequacy. Although pronunciation featured in several raters' comments, it would be useful to test this measure in more detail. Similarly, the future availability of resources and software to conduct analyses of structures produced will also be extremely useful in understanding features of adult Gaelic L2 performance. In addition, participants' experiences with languages other than Gaelic could be explored in relation to these findings to establish the existence of any correlations between these and Gaelic L2 performance.

Finally, the participants in this study all expressed an interest in participating in further research. Having established connections with these participants, it may be possible to return and conduct longitudinal studies with them, to analyse their language development over time.

10.8 Closing remarks

This PhD project has developed the first empirically-derived means of assessing proficiency in adult L2 Gaelic, which can be used as one tool in official policy towards reversing language shift. The piloting of this tool in this study is also relevant for language-in-education planning, assisting teachers and language learning materials developers. It has been confirmed that adult L2 users of Gaelic have a variety of learning experiences, and are motivated in a range of ways to learn Gaelic. Findings have suggested that this diversity manifests itself in adult L2 Gaelic users' performances also. The results demonstrate that the measurement of proficiency in Gaelic is often subject to individual perceptions. Proficiency can nevertheless be described and measured in such a way as to be useful.

This first insight into the nature of adult Gaelic L2 proficiency confirms that proficiency in Gaelic is multi-componential, and suggests that the pathway to high-level proficiency in L2 Gaelic can be complex to navigate. For the

participants in this study, however, their language learning journey is pleasant, rewarding, and well-worth the effort.

Appendices

Appendix A – Material used for data collection and analysis

English interview guide

1. How often do you get to speak Gaelic, and what kinds of things do you do with it, e.g.

    a. use Gaelic at work?

    b. help children with homework?

    c. chat with friends about day-to-day topics?

    d. debate and discuss topical issues?

2. Do you like doing Gaelic classes?

    a. Do you prefer those which focus on grammar, or those encouraging conversation?

3. What do you think are the strengths and weaknesses of teaching provisions for Gaelic at the moment?

4. Are you confident when you're speaking Gaelic, or are you more reserved?

    a. Are you comfortable speaking to anyone about anything?

5. Are there any tricks or techniques or strategies you use for remembering the things you've learned?

6. Do you think grammatical accuracy is important, or is it better to just go along as fluently as possible?

    a. Do you monitor yourself when you're talking?

7. Is it OK to use English words when you're speaking Gaelic?

   a. If you don't know a word or grammatical form, what do you do? Do you just guess? Do you switch to English straight away? Why?

8. Do you think *blas*/accurate pronunciation of all the Gaelic sounds is important?

9. Is there any particular dialect you try to emulate? Is it important to maintain different dialects?

10. What's your interest in Gaelic, e.g. historical, family history?

Background questionnaire

University
of Glasgow

Background Questionnaire

Name:_____

Please circle or highlight the appropriate age group:

18-24   25-29   30-39   40-49   50-59   60-69

70+

Aside from Gaelic, what other languages have you studied?

Language	*Level (beginner, lower intermediate, upper intermediate, advanced)*	*When was this?*	*For how long?*

How helpful has learning another language been for your learning of Gaelic? Please circle or highlight the most appropriate response:

Unhelpful   Neither helpful nor unhelpful   A little helpful

Extremely helpful

Do you have a "knack" for learning languages?

_____

_____

What do you think is the best way to learn a language?

_____

_____

How many years have you been learning Gaelic?

_____

Has this been consistent, or were there breaks along the way?

_____

_____

_____

Have you ever spent time in the Western Isles to experience Gaelic in everyday life? _____ _____

    If yes, when?

_____

    For how long?

_____

Are you currently attending, or have you ever attended, Gaelic classes?

Course type	YES/NO	When was this?	How long did it last?
A course using *Speaking our Language*			
Ùlpan			
SMO short course			
SMO Cùrsa Inntrigidh			
SMO Cùrsa Adhartais			
SMO Cùrsa Comais			
Once weekly course			
Other (Please specify):			

Are you currently attending, or have you ever attended, another course through the medium of Gaelic, e.g., drama, music, etc.? If so, when? For how long?

_____

_____

Please rate the frequency with which you do the following activities for learning Gaelic <u>outwith the classroom,</u> on a scale from 1 to 5, where 1='never' and 5='daily'.

Activity	Never 1	Very Occasionally 2	Monthly 3	Weekly 4	Daily 5
Write lists of vocabulary	☐1	☐2	☐3	☐4	☐5
Memorise lists of vocabulary	☐1	☐<u>2</u>	☐3	☐4	☐5
Make notes on the things you've heard or read	☐1	☐2	☐3	☐4	☐5
Study grammar points	☐1	☐2	☐3	☐4	☐5
Do grammar activities from a workbook	☐1	☐2	☐3	☐4	☐5
Use a dictionary to look up new words	☐1	☐2	☐3	☐4	☐5
Translate texts from Gaelic to English	☐1	☐2	☐3	☐4	☐5
Converse with other learners	☐1	☐2	☐3	☐4	☐5
Converse with native speakers	☐1	☐2	☐3	☐4	☐5
Repeat the things others say	☐1	☐2	☐3	☐4	☐5

Read Gaelic books	☐1	☐2	☐3	☐4	☐5
Watch BBC Alba	☐1	☐2	☐3	☐4	☐5
Listen to Radio nan Gàidheal	☐1	☐2	☐3	☐4	☐5
Listen to *An Litir Bheag*	☐1	☐2	☐3	☐4	☐5
Listen to *Litir do Luchd-Ionnsachaidh*	☐1	☐2	☐3	☐4	☐5
Read along with *An Litir Bheag*	☐1	☐2	☐3	☐4	☐5
Read along with *Litir do Luchd-Ionnsachaidh*	☐1	☐2	☐3	☐4	☐5
Use other online resources (please specify, and indicate frequency with the appropriate number for each activity):					

Other (please specify, and indicate frequency with the appropriate number for each activity):

Can you think of anything you have found particularly helpful to your learning of Gaelic?

_____

_____

Are there any aspects of Gaelic language that you find particularly difficult, e.g., vocabulary, pronunciation, grammar, etc.?

_____

_____

Have you ever done a Gaelic test or exam? If so, which?

_____

_____

Do you have any particular goals with regards to your learning of Gaelic, e.g., to sound like a native speaker, to use Gaelic at work, to be able to chat with friends,…?

_____

_____

On the following pages, you will find three grids based on the Council of Europe's Common European Framework of Reference for Languages. Across the top, there are a number of levels, from A1 – C2. In each of the other boxes, there are one or two 'can-do' statements, which describe the different language skills people at the above levels might have. Please read through these statements, and assign yourself a level for each of the skills *Listening*, *Interacting with Others*, and *Speaking*. There is no need to give yourself the same level for all three skills, if you feel that you are stronger in some areas than others. Once you have decided on a level for each of the three skills, please fill it in in the box below.

Your views on your Gaelic language skills	
Understanding	*Speaking*
Listening	Speaking
	Interacting with others

		A1	**A2**	**B1**	**B2**	**C1**	**C2**
U N D E R S T A N D I N G	Listening	I can understand familiar words and phrases concerning myself, my family and immediate concrete surroundings when people speak slowly and clearly.	I can understand phrases and frequent vocabulary related to areas of most immediate personal relevance (e.g. basic personal and family information, shopping, local area, employment). I can catch the main point in short, clear, simple messages and announcements.	I can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc. I can understand the main point of many radio or TV programmes on current affairs or topics of personal or professional interest when the delivery is relatively slow and clear.	I can understand extended speech and follow even complex lines of argument provided the topic is reasonably familiar. I can understand most TV news and current affairs programmes.	I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television and radio programmes without too much effort.	I have no difficulty in understanding any kind of spoken language, whether live or broadcast, even when delivered at fast speed, provided I have some time to get familiar with the accent.

SPEAKING	Interacting with others	I can interact in a simple way provided the other person is prepared to repeat or rephrase things at a slower rate of speech and help me formulate what I'm trying to say. I can ask and answer simple questions in areas of immediate need or on very familiar topics.	I can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. I can handle very short social exchanges, even though I can't usually understand enough to keep the conversation going myself.	I can deal with most situations likely to arise whilst travelling in an area where Gaelic is spoken. I can enter unprepared into conversation on topics that are familiar, of personal interest or pertinent to everyday life (e.g. family, hobbies, work, travel and current events).	I can interact with a degree of fluency and spontaneity that makes regular interaction with fluent speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views.	I can express myself fluently and spontaneously without much obvious searching for expressions. I can use language flexibly and effectively for social purposes. I can formulate ideas and opinions with precision and relate my contribution skillfully to those of other speakers.	I can take part effortlessly in any conversation or discussion and have a good familiarity with idiomatic expressions and colloquialisms. I can express myself fluently and convey finer shades of meaning precisely. If I do have a problem I can backtrack and restructure around the difficulty so smoothly that other people are hardly aware of it.

S P E A KI N G	Speaking	I can use simple phrases and sentences to describe where I live and people I know.	I can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job.	I can connect phrases in a simple way in order to describe experiences and events, my dreams, hopes and ambitions. I can briefly give reasons and explanations for opinions and plans. I can narrate a story or relate the plot of a book or film and describe my reactions.	I can present clear, detailed descriptions on a wide range of subjects related to my field of interest. I can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.	I can present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion.	I can present a clear, smoothly-flowing description or argument in a style appropriate to the context and with an effective logical structure which helps the recipient to notice and remember significant points.

Gaelic interview schedule

1. Ciamar a tha thu an-diugh?

   How are you today?

2. Ciamar a tha an t-sìde an-diugh?

   What is the weather like today?

3. Càit a bheil thu a' fuireach?

   Where do you live?

   a. Cò ris a tha e coltach an sin?

      What is it like there?

4. Dè an obair a th' agad?

   What is your job?

5. Dè tha thu air dèanamh an-diugh?

   What have you done today?

6. Dè 's toil leat dèanamh /Dè na cur-seachadan agad?

   What do you like doing / What are your hobbies?

7. An innis thu dhomh mun teaghlach agad?

   Can you tell me about your family?

8. Dè bhios tu a' dèanamh gach latha?

   What do you do every day?

9. Dè rinn thu am bliadhna?

   What did you do this year?

10. Dè nì thu an ath-bhliadhna?

   What will you do next year?

Narrative task (image from Heaton 1966)
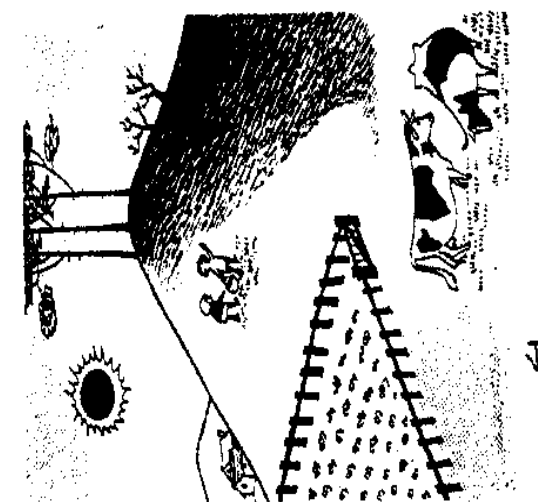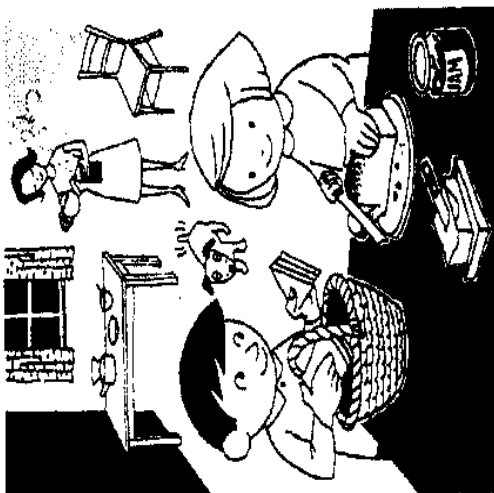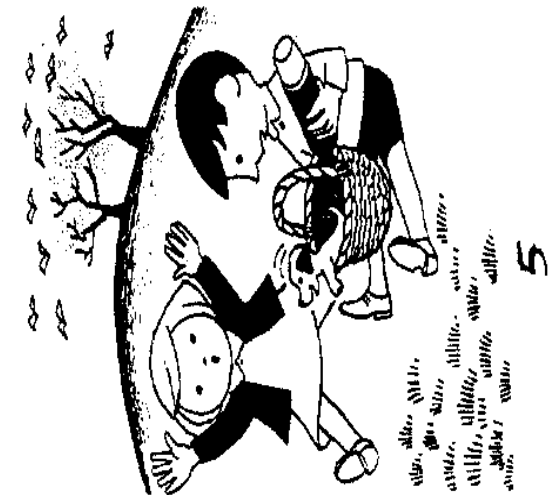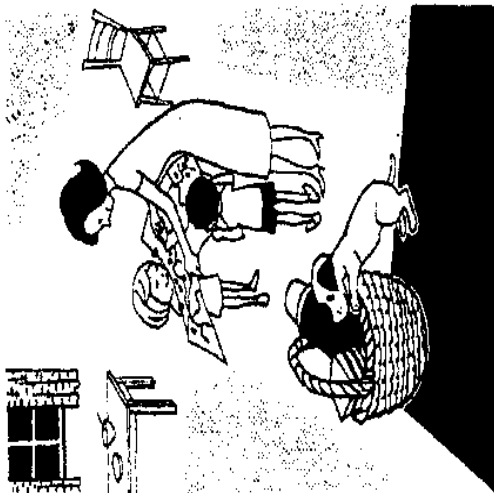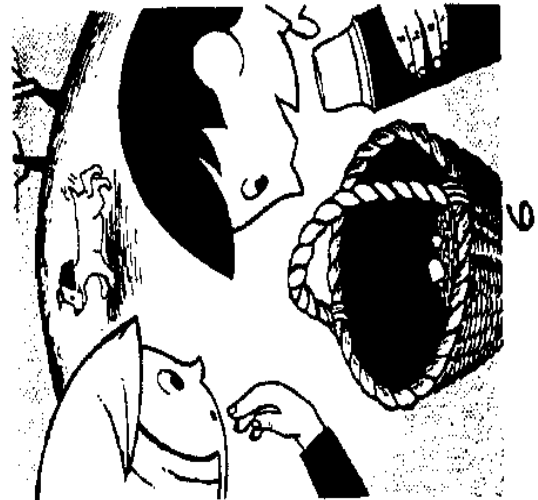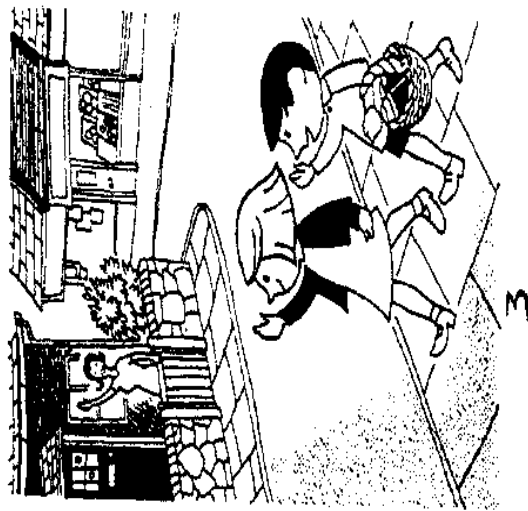
Picture description task

1. Dè tha anns an dealbh seo?

   What is in this picture?

2. Dè seòrsa latha a th' ann?

   What sort of day is it?

3. Càit a bheil an t-sràid seo?

   Where is this street?

4. Cò iadsan? Dè tha iad a' dèanamh? Càit an robh iad?

   Who are these people? What are they doing? Where were they?

5. A bheil eòlas aig a' bhean seo orra-san? Ciamar a tha fhios agad? Dè tha i a' dèanamh?

   Does this woman know <u>them</u>? How do you know? What is she doing?

6. Cò ris a tha ise coltach?

   What's she like?

7. An seo tha clann: dè tha a' tachairt?

   Here are some children: what is happening?

8. Tha taigh an seo: innis dhomh mu dheidhinn a' bhean seo. Dè tha i a' dèanamh?

   There is a house here: tell me about this woman. What is she doing?

9. Dè an obair a th' aig a' bhean seo? Cò ris a tha i coltach?

   What is this woman's job? What is she like?

10. An seo tha clann: càit a bheil iad a' dol?

    Here are some children: where are they going?

    a. Cò an leanabh às àirde?

       Who is the tallest child?

11. Dè an obair aig an fhear seo?

    What is this man's job?

12. Dè tha a' tachairt an seo?

What is happening here?

13. Nach innis dhomh mu dheidhinn a' bhalaich seo.

Tell me about this boy.

14. Dè seòrsa bùth a th' ann an seo, nad bheachd?

What sort of shop is this, in your opinion?

15. Cà bheil na craobhan?

Where are the trees?

16. Cà bheil am balach seo?

Where is this boy?

17. Dè tha iadsan ag ràdh?

What are <u>they</u> saying?

Proficiency scale

	A1	A2
Beginner	Can produce simple statements unsupported by other arguments. The basic message is incoherent and difficult to comprehend. In order for communication to be successful, the speaker relies on the interviewer to rephrase and repair.	The text may lack coherence and cause confusion at times, but overall, the speaker can be understood. The speaker does not show exertion in routine exchanges. Can exchange simple information. Can recognise when it is appropriate to comment on interlocutor's statements, although ability to do so may be restricted to one or two word oral gestures.
Intermediate	**B1** Is willing to talk at length, but support from the interviewer may be necessary to do so and coherence may be lost. Appears confident in performance. Can actively participate in the interaction by turn-taking and commenting on the interlocutor's statements. Taking the floor, however, may be inappropriately slow. Can link statements into a connected sequence of points. Can use a simple word meaning something similar to the concept he/she wants to convey, or can describe the concept. Can 'Gaelicise' an English word and ask for confirmation.	**B2** Actively participates in conversation by taking initiative, turn-taking appropriately, and commenting on interlocutor's statements. Interaction is not strained for either participant and there are no breakdowns in communication resulting in misunderstanding. Can indicate significant aspects of what they are saying through emphasising strategies. Discourse is coherent, though may be slightly jumpy in longer contributions. Can use circumlocution and paraphrase to cover gaps in vocabulary and structure.
Advanced	**C1** Can relate contributions skilfully to those of the interviewer. Can produce clear, well-structured, coherent speech. Information is elaborate, complex, and well-developed. Support is not necessary and interjections can be handled well. Communication seems effortless and is spontaneous. Can comfortably speak at length. Can backtrack when he/she encounters a difficulty and reformulate what he/she wants to say without fully interrupting the flow of speech.	**C2** Can interact with ease, interweaving their own contribution into the discourse with natural turntaking. Discourse is coherent and cohesive; the speaker makes appropriate use of a range of organisational patterns. Arguments and information are very complete, and finer shades of meaning can be expressed without leading to misunderstanding.

Form for raters

Participant:

Task

1. **Initial impression**

2. **Detailed analysis**

Amount of information	Coherence	Ease in interaction

3. **Considered Judgement**

What led you to give this judgement?

Do you have any other comments?

Appendix B – Additional data

Table 1 – Themes identified in raters' comments

Theme	
Ability to express oneself	Stronger ability to express self
	Weaker ability to express self
Accent and Pronunciation	Better accent or pronunciation
	Poorer accent or pronunciation
Amount of information	Fair amount of information
	Larger amount of information
	Smaller amount of information
Clarity	Clear
Coherence	Less coherent
	More coherent
Comfort	Participant seems less comfortable
	Participant seems more comfortable
Competence	Less competent
	More competent
Complexity of information	More complex information
	Simpler information
Comprehensibility	Less comprehensible
	More comprehensible
Conciseness	Less concise
	More concise
Confidence	Less confident
	More confident
Dynamism	Less dynamic
	More dynamic
Eagerness to communicate	Eager to communicate
Effort	At ease
	Uneasy
Enjoyment	Participant appears to enjoy the task
Fluency	Less fluent
	More fluent
Fluidity	Less fluid
	More fluid

Hesitation	Less hesitant
	More hesitant
Inconsistency	Disimproved throughout performance
	Improved throughout performance
Knowledge of grammar	Fair knowledge of grammar
	Less extensive knowledge of grammar
	More extensive knowledge of grammar
Knowledge of vocabulary	Fair vocabulary
	Narrower vocabulary
	Wider vocabulary
Level of language	High level of language
Level of participation	Less participation
	More participation
Maintaining the rater's interest	Does not maintain the rater's interest
	Maintains the rater's interest
Naturalness	Less natural-sounding
	More natural-sounding
Pace	Faster pace
	Slower pace
	Varying pace
Participant's comprehension	Participant mostly understands the questions
	Participant only sometimes understands the questions
	Participant tends not to understand the questions
Planning of the narrative	Narrative is better planned
	Narrative is less-well planned
Quality of information	High quality of information
Rater's comfort as a listener	Rater feels comfortable listening to the participant
	Rater feels less comfortable listening to the participant
Reliance on interviewer	Less dependent on interviewer
	More dependent on interviewer
Restrictions on knowledge	No restrictions on language or performance
	Some restrictions on language or performance

Self-correction	Participant self-corrects
Sentence structure	Better sentence structure Poorer sentence structure Varying sentence structure
Sophistication	Less sophisticated language More sophisticated language
Speed of response	Inappropriately slow response time
Structure	Better structured discourse Less well-structured discourse
Struggling, sticking, searching	Does not tend to struggle, get confused, or produce "sticky" language Tends to struggle, get confused, or produces "sticky" language
Success in carrying out the task	Less successful carrying out of task More successful carrying out of task
Use of avoidance	Uses avoidance strategies
Use of English	Appropriate use of English Less appropriate use of English
Use of patterns	Uses patterns
Variation in speech	Speech and language are less varied Speech and language are more varied

Table 2 - Interview: Number of times each theme was identified

Theme	Total times mentioned by raters	Number of times coded in descriptors
Tends to struggle, "stick", or get confused	23	0
Larger amount of information	19	3
More comprehensible	16	3
More confident	15	1
More coherent	14	4
Improved throughout	12	0
Less comprehensible	11	2
Less confident	10	0
Less coherent	8	3
More comfortable	8	1
Eager to communicate	8	1
More fluent	8	0
More participation	8	4
More successful carrying out of task	8	2
Fair amount of information	6	0
Smaller amount of information	6	3
Less comfortable	6	0
More dependent on interviewer	6	2
Less successful carrying out of task	6	0
Stronger ability to express self	5	1
Simpler information	5	1
Disimproved throughout	5	0
At ease	5	4
More fluid	5	0
Wider vocabulary	5	0
Less sophisticated language	5	1
Better accent or pronunciation	4	0
More competent	4	0
More hesitant	4	0
Narrower vocabulary	4	0
Participant only sometimes understands the questions	4	0
Poorer sentence structure	4	0
Weaker ability to express self	3	0
Enjoys	3	0
Fair vocabulary	3	2
Less participation	3	0
Less dependent on interviewer	3	1
Better sentence structure	3	0
Less appropriate use of English	3	0
More clear	2	1
More complex information	2	1
More dynamic	2	0
Uneasy	2	0
Less fluent	2	0
Less fluid	2	0

Maintains the rater's interest	2	0
More natural-sounding	2	0
Participant tends not to understand the questions	2	0
Participant self-corrects	2	1
Varying sentence structure	2	0
Inappropriately slow response time	2	1
Doesn't tend to struggle, "stick", or get confused	2	0
Less hesitant	1	0
Less extensive knowledge of grammar	1	0
More extensive knowledge of grammar	1	0
High level of language	1	0
Slower pace	1	0
Participant mostly understands the questions	1	0
High quality of information	1	0
Rater feels comfortable listening to the participant	1	1
Some restrictions on language or performance	1	0
More sophisticated language	1	0
Less well-structured discourse	1	0
Appropriate use of English	1	0
Uses patterns	1	0
Speech and language are more varied	1	0
Less concise	1	0
More concise	1	0
Fair knowledge of grammar	0	1
Better structured discourse	0	2

Table 3 – Narrative: Number of times each theme was identified

Theme	Total times mentioned by raters	Number of times coded in descriptors
Fair amount of information	21	0
More successful carrying out of task	20	2
Tends to struggle, "stick", or get confused	17	0
Larger amount of information	16	3
More confident	15	1
Less successful carrying out of task	15	0
Less comprehensible	11	2
More hesitant	11	0
Less confident	9	0
Smaller amount of information	7	3
More coherent	7	4
Improved throughout	7	0
Fair vocabulary	7	2
More dependent on interviewer	7	2
Less comfortable	5	0
More comprehensible	5	3
Doesn't maintain the rater's interest	5	0
Slower pace	5	0
Less coherent	4	3
More comfortable	4	1
Simpler information	4	1
At ease	4	4
Less fluid	4	0
Wider vocabulary	4	0
Inappropriately slow response time	4	1
More clear	3	1
Less fluent	3	0
More extensive knowledge of grammar	3	0
Narrower vocabulary	3	0
Better sentence structure	3	0
Less sophisticated language	3	1
Less well-structured discourse	3	0
Uses avoidance strategies	3	0
Less appropriate use of English	3	0
Stronger ability to express self	2	1
Better accent or pronunciation	2	0
More complex information	2	1
Disimproved throughout	2	0
More fluid	2	0
Maintains the rater's interest	2	0
More natural-sounding	2	0
Rater feels less comfortable listening to the participant	2	0
No restrictions on language or performance	2	0
Poorer sentence structure	2	0
Varying sentence structure	2	0

More sophisticated language	2	0
Better structured discourse	2	2
Doesn't tend to struggle, "stick", or get confused	2	0
Poorer accent or pronunciation	1	0
Less competent	1	0
More competent	1	0
Less dynamic	1	0
Eager to communicate	1	1
Enjoys	1	0
More fluent	1	0
Fair knowledge of grammar	1	1
High level of language	1	0
More participation	1	4
Less natural-sounding	1	0
Faster pace	1	0
Varying pace	1	0
Participant mostly understands the questions	1	0
Narrative is better planned	1	0
Narrative is less-well planned	1	0
High quality of information	1	0
Less dependent on interviewer	1	1
Participant self-corrects	1	1
Speech and language are less varied	1	0
More concise	1	0
Rater feels comfortable listening to the participant	0	1

Table 4 – Interview: The number of times each theme was commented on by raters when rating participants at different levels.

Theme	A1	A2	B1	B2	C1	C2
More comprehensible	*2*	*6*	*6*	-	3	1
Less confident	-	*5*	4	1	-	-
More confident	-	2	3	*4*	*5*	1
Disimproved throughout	-	1	2	2	-	-
More dynamic	-	-	-	-	2	-
Eager to communicate	-	2	3	2	1	-
At ease	-	-	-	1	3	1
Uneasy	1	-	1	-	-	-
Enjoys	-	-	-	-	2	1
Less fluent	-	1	1	-	-	-
More fluent	-	-	1	*3*	2	*2*
Less fluid	-	-	1	1	-	-
More fluid	-	-	-	-	3	*2*
Less hesitant	-	-	-	-	1	-
More hesitant	-	-	1	-	3	-
Improved throughout	-	4	2	*4*	3	-
Stronger ability to express self	-	2	1	-	2	-
Less extensive knowledge of grammar	-	-	1	-	-	-
More extensive knowledge of grammar	-	-	-	-	1	-
Fair vocabulary	-	2	1	-	-	-
Narrower vocabulary	1	1	2	-	-	-
Wider vocabulary	-	-	-	-	*4*	1
High level of language	-	-	-	1	-	-
Less participation	-	1	1	-	1	-
More participation	-	-	4	1	2	1
Maintains the rater's interest	-	-	1	-	-	1
More natural-sounding	-	-	-	-	-	*2*
Slower pace	-	-	1	-	-	-
Participant mostly understands the questions	-	1	-	-	-	-
Participant only sometimes understands the questions	-	4	-	-	-	-
Participant tends not to understand the questions	-	-	2	-	-	-
Weaker ability to express self	-	2	1	-	-	-
High quality of information	-	1	-	-	-	-
Rater feels comfortable listening to the participant	-	-	-	-	1	-
Less dependent on interviewer	-	-	-	-	3	-
More dependent on interviewer	*2*	2	3	-	-	-
Some restrictions on language or performance	-	1	-	-	-	-
Participant self-corrects	-	-	1	1	-	-
Better sentence structure	-	1	-	1	1	-
Poorer sentence structure	1	3	-	-	-	-
Less sophisticated language	1	3	1	-	-	-
More sophisticated language	-	-	-	-	1	-
Inappropriately slow response time	-	1	-	-	1	-

Less well-structured discourse	-	1	-	-	-	-
Doesn't tend to struggle, "stick", or get confused	-	1	-	-	1	-
Tends to struggle, "stick", get confused	*4*	*10*	*6*	2	2	*2*
Less successful carrying out of task	-	4	2	-	1	-
More successful carrying out of task	-	1	*5*	1	1	-
Appropriate use of English	-	-	1	-	-	-
Less appropriate use of English	1	2	-	-	-	-
Uses patterns	-	1	-	-	-	-
Speech and language are more varied	-	-	-	-	1	-
Less concise	-	-	-	-	-	1
More concise	-	-	-	-	1	-
Better accent or pronunciation	-	1	-	-	1	*2*
Fair amount of information	1	-	*5*	-	-	-
Larger amount of information	-	2	3	2	*10*	*2*
Smaller amount of information	-	3	3	-	-	-
More clear	-	1	-	1	-	-
Less coherent	1	2	4	2	-	-
More coherent	-	4	-	*3*	5	*2*
Less comfortable	1	2	2	1	-	-
More comfortable	-	-	3	-	*4*	1
More competent	-	1	-	1	2	-
More complex information	-	-	-	-	2	-
Simpler information	-	4	1	-	-	-
Less comprehensible	*2*	*6*	2	2	-	-

Table 5 – Narrative: The number of time each theme was commented on by raters when rating participants at different levels.

Theme	A1	A2	B1	B2	C1	C2
More comprehensible	-	-	4	-	2	-
Less confident	1	3	5	-	-	-
More confident	-	-	*7*	*3*	*5*	1
Disimproved throughout	-	1	1	-	-	-
Less dynamic	-	-	-	-	1	-
Eager to communicate	-	1	-	-	-	-
At ease	-	-	-	1	1	*2*
Enjoys	-	-	-	1	-	-
Less fluent	1	-	2	-	-	-
More fluent	-	-	-	-	-	1
Less fluid	1	2	1	-	-	-
More fluid	-	-	-	-	1	1
More hesitant	-	*5*	*7*	-	2	-
Improved throughout	-	2	3	1	1	-
Stronger ability to express self	-	-	2	-	-	-
Fair knowledge of grammar	-	-	1	-	-	-
More extensive knowledge of grammar	-	-	1	-	1	1
Fair vocabulary	-	3	3	-	1	-
Narrower vocabulary	-	2	1	-	-	-
Wider vocabulary	-	-	1	-	2	*2*
High level of language	-	-	-	-	1	-
More participation	-	-	-	-	1	-
Doesn't maintain the rater's interest	-	1	4	-	-	-
Maintains the rater's interest	-	-	-	1	1	-
Less natural-sounding	-	-	1	-	-	-
More natural-sounding	-	-	1	-	-	1
Faster pace	-	-	-	-	1	-
Slower pace	-	2	3	-	-	-
Varying pace	-	-	1	-	-	-
Narrative is better planned	-	-	-	-	1	-
Narrative is less-well planned	-	-	1	-	-	-
High quality of information	-	-	-	1	-	-
Rater feels less comfortable listening to the participant	1	1	-	-	-	-
Less dependent on interviewer	-	-	-	-	1	-
More dependent on interviewer	-	*7*	-	-	-	-
No restrictions on language or performance	-	-	1	-	2	-
Participant self-corrects	-	-	1	-	-	-
Better sentence structure	-	-	-	-	*3*	-
Poorer sentence structure	-	2	-	-	-	-
Varying sentence structure	-	2	-	-	-	-
Less sophisticated language	-	1	1	1	-	-
More sophisticated language	-	-	-	-	1	1
Inappropriately slow response time	1	-	2	1	-	-
Better structured discourse	-	-	1	-	-	1
Less well-structured discourse	1	1	1	-	-	-
Doesn't tend to struggle, "stick", or get confused	-	-	1	1	-	-

Tends to struggle, "stick", or get confused	-	*7*	*8*	-	2	-
Less successful carrying out of task	1	*7*	*8*	1	-	-
More successful carrying out of task	1	*5*	3	-	*9*	*2*
Uses avoidance strategies	-	-	3	-	-	-
Less appropriate use of English	-	3	-	-	-	-
Speech and language are less varied	-	-	-	-	1	-
More concise	-	-	1	-	-	-
Better accent or pronunciation	-	-	-	-	1	1
Poorer accent or pronunciation	-	-	1	-	-	-
Fair amount of information	-	*5*	*13*	1	2	-
Smaller amount of information	*4*	1	2	-	-	-
More clear	-	-	2	-	1	-
Less coherent	1	-	3	-	-	-
More coherent	-	-	1	*2*	*4*	-
Less comfortable	-	3	2	-	-	-
More comfortable	-	-	-	1	2	1
Less competent	-	1	-	-	-	-
More competent	-	-	-	-	1	-
More complex information	-	-	-	-	1	1
Simpler information	1	1	3	-	-	-
Less comprehensible	1	4	6	1	-	-

Table 6 - Interview: Comments made by each rater for participants

Participant	Stronger ability to express self	Weaker ability to express self	Better accent or pronunciation	Fair amount of information	Larger amount of information	Smaller amount of information	More clear	Less coherent	More coherent	Less comfortable	More comfortable	Less comprehensible
Anne					Clem				Andrew, Richard			Andrew, Clem, Richard
Amanda			Andrew, Clem		Andrew, Richard				Andrew, Clem		Andrew	
Cecily						Clem						Clem
Chloe					Clem				Clem, Richard			Richard
Dawn					Andrew		Richard	Andrew, Richard	Richard	Ben		Clem
Danielle					Liam, Andrew, Clem, Richard				Richard		Andrew, Ben	
Gloria		Richard		Clem	Andrew			Andrew, Ben		Richard		
Jenny				Liam, Richard	Richard						Liam, Andrew, Clem	
Joyce		Richard	Andrew			Liam, Richard			Ben	Richard		Richard
Kathy	Richard	Andrew					Richard		Clem			
Lily	Richard		Andrew		Liam, Andrew, Clem, Richard				Clem, Richard		Andrew	
Maggie						Liam, Andrew, Clem				Richard		Andrew
Nikki				Clem				Andrew		Richard		Andrew, Clem
Olivia	Richard				Clem, Richard				Andrew, Richard		Ben	
Simone	Richard			Liam, Andrew	Richard			Andrew, Richard				Clem
Tara	Richard				Richard			Andrew, Clem		Liam		Richard

Table 6 continued

Participant	More competent	More complex information	Simpler information	More comprehensible	Less confident	More confident	Disimproved throughout	More dynamic	Eager to communicate	At ease	Uneasy	Enjoys
Anne			Liam, Andrew	Ben	Richard							
Amanda				Richard		Richard				Andrew		Clem
Cecily	Andrew			Richard	Clem				Richard			
Chloe					Clem	Andrew, Richard	Ben, Richard					
Dawn	Andrew					Ben, Clem			Clem, Richard	Andrew		
Danielle		Andrew		Clem, Richard		Clem		Ben		Clem		
Gloria			Andrew	Richard	Andrew	Liam						
Jenny				Andrew	Richard	Andrew	Ben		Liam			
Joyce					Richard	Andrew, Clem			Andrew			
Kathy				Andrew, Ben	Andrew, Clem							
Lily	Ben, Richard			Andrew		Clem			Liam			Clem
Maggie				Clem, Richard	Clem, Richard						Andrew	
Nikki				Liam, Richard							Richard	
Olivia		Clem				Liam, Andrew, Richard		Ben		Andrew, Clem		Clem
Simone				Andrew, Ben		Liam		Andrew	Liam, Andrew			
Tara			Andrew, Clem	Andrew, Ben		Andrew						

Table 6 continued

Participant	Less fluent	More fluent	Less fluid	More fluid	Less hesitant	More hesitant	Improved throughout	Less extensive knowledge of grammar	More extensive knowledge of grammar	Fair vocabulary	Narrower vocabulary	Wider vocabulary
Anne												
Amanda		Liam, Ben		Clem, Richard								Andrew
Cecily	Andrew									Andrew	Liam	
Chloe		Liam, Andrew, Richard					Liam, Andrew, Ben, Richard					
Dawn			Liam									
Danielle		Ben		Liam		Liam, Andrew	Ben					
Gloria	Liam					Clem					Ben	
Jenny							Ben			Andrew		
Joyce							Andrew, Ben, Clem, Richard					
Kathy										Richard		
Lily		Liam		Richard		Liam	Ben					Andrew
Maggie								Liam			Liam	
Nikki											Richard	
Olivia				Liam	Liam		Ben		Liam			Liam, Andrew, Richard
Simone		Richard	Liam				Richard					
Tara												

Table 6 continued

Participant	More dependent on interviewer	Some restrictions on language or performance	Participant self-corrects	Better accuracy of sentence structure	Poorer accuracy of sentence structure	Varying accuracy of sentence structure	Less sophisticated language	More sophisticated language	Inappropriately slow response time	Less well-structured discourse	Doesn't tend to struggle, "stick", or get confused	Tends to struggle, "stick", or get confused
Anne									Clem			Liam, Andrew
Amanda												Liam, Ben
Cecily		Andrew								Richard		Andrew, Ben, Richard
Chloe												
Dawn			Richard	Richard								Liam, Ben
Danielle												Liam
Gloria			Andrew									Clem,Richard
Jenny						Andrew	Ben					Liam
Joyce	Andrew						Richard					Andrew, Ben
Kathy	Liam			Richard	Andrew		Liam				Richard	
Lily							Ben				Liam	Ben
Maggie	Andrew, Ben											Ben
Nikki	Andrew, Clem				Clem		Richard					Liam, Andrew, Clem, Richard
Olivia				Richard				Andrew	Ben			
Simone	Andrew											Liam, Andrew
Tara					Clem, Richard	Andrew						Liam, Clem, Richard

Table 6 continued

Participant	Less successful carrying out of task	More successful carrying out of task	Appropriate use of English	Less appropriate use of English	Uses patterns	Speech and language are more varied	Less concise	More concise
Anne		Liam						
Amanda							Ben	
Cecily	Liam							
Chloe								
Dawn		Liam						
Danielle								
Gloria	Liam	Andrew						
Jenny	Clem	Liam, Andrew, Richard						
Joyce	Liam, Andrew							
Kathy	Andrew			Liam	Ben			
Lily	Ben					Andrew		Richard
Maggie		Richard						
Nikki				Andrew				
Olivia		Liam						
Simone			Ben					
Tara				Andrew				

Table 7 - Narrative: Comments made by each rater for participants

Participant	Stronger ability to express self	Better accent or pronunciation	Poorer accent or pronunciation	Fair amount of information	Larger amount of information	Smaller amount of information	More clear	Less coherent	More coherent	Less comfortable	More comfortable	Less competent	More competent
Anne						Liam, Andrew, Clem, Richard			Andrew				
Amanda		Andrew			Liam, Andrew, Clem						Clem		
Cecily				Richard									
Chloe				Liam	Andrew, Clem, Richard				Andrew, Richard		Andrew		
Dawn				Liam, Richard	Andrew		Liam	Andrew, Richard					
Danielle					Liam, Andrew, Richard				Andrew, Richard		Clem		
Gloria	Richard		Andrew	Liam	Clem								
Jenny				Liam, Richard		Andrew, Clem		Andrew	Clem				
Joyce				Liam, Andrew	Clem					Clem			
Kathy				Andrew, Richard		Liam				Richard			
Lily		Andrew		Liam	Andrew, Clem, Richard		Andrew		Andrew				
Maggie				Liam, Andrew, Clem, Richard									
Nikki										Richard			
Olivia				Liam	Andrew, Clem, Richard				Clem		Andrew		Andrew
Simone	Richard			Liam, Clem			Andrew			Richard			
Tara				Liam, Richard						Richard		Clem	

Table 7 continued

Participant	More competent	More complex information	Simpler information	Less comprehensible	More comprehensible	Less confident	More confident	Disimproved throughout	Less dynamic	Eager to communicate	At ease	Enjoys
Anne			Richard	Andrew		Liam						
Amanda		Clem					Andrew				Andrew, Clem	
Cecily												
Chloe				Andrew			Liam, Andrew, Clem				Andrew	Liam
Dawn					Andrew	Liam, Clem	Andrew					
Danielle		Clem					Liam, Andrew					
Gloria				Andrew		Andrew						
Jenny			Liam, Richard	Andrew	Clem		Liam, Andrew	Andrew				
Joyce			Andrew		Andrew	Clem	Andrew, Richard					
Kathy			Andrew	Andrew		Clem						
Lily					Andrew		Andrew				Andrew	
Maggie				Andrew, Richard			Andrew					
Nikki				Andrew, Clem		Clem				Clem		
Olivia	Andrew				Andrew		Liam, Clem		Andrew			
Simone				Andrew, Richard	Andrew	Clem	Andrew					
Tara				Andrew		Clem		Richard				

Table 7 continued

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Participant	Less fluent	More fluent	Less fluid	More fluid	More hesitant	Improved throughout	Fair knowledge of grammar	More extensive knowledge of grammar	Fair vocabulary	Narrower vocabulary	Wider vocabulary	High level of language
Anne	Andrew		Clem									
Amanda		Liam		Richard				Andrew			Liam, Andrew	
Cecily			Liam		Andrew				Andrew, Clem	Liam, Clem		
Chloe						Andrew						
Dawn					Andrew							
Danielle				Richard	Liam, Andrew	Liam		Richard			Andrew	
Gloria	Andrew		Liam		Liam, Andrew			Andrew	Richard	Richard	Andrew	
Jenny										Liam		
Joyce					Liam	Andrew, Richard						
Kathy					Liam	Andrew						
Lily											Andrew	
Maggie					Liam, Andrew	Andrew						
Nikki					Liam	Andrew			Andrew			
Olivia									Liam			Richard
Simone	Andrew				Andrew		Andrew		Andrew			
Tara			Liam		Andrew, Clem							

Table 7 continued

Participant	More participation	Doesn't maintain the rater's interest	Maintains the rater's interest	Less natural-sounding	More natural-sounding	Faster pace	Slower pace	Varying pace	Participant mostly understands the questions	Narrative is better planned	Narrative is less-well planned	High quality of information
Anne												
Amanda					Andrew							
Cecily		Andrew										
Chloe			Liam									Clem
Dawn												
Danielle									Clem			
Gloria		Andrew					Clem					
Jenny												
Joyce				Clem								
Kathy							Clem					
Lily	Richard		Andrew							Clem		
Maggie		Andrew			Clem						Clem	
Nikki												
Olivia						Clem						
Simone		Liam, Andrew					Clem, Richard	Andrew				
Tara							Liam					

Table 7 continued

Participant	Rater feels less comfortable listening to the participant	Less dependent on interviewer	More dependent on interviewer	No restrictions on language or performance	Participant self-corrects	More accurate sentence structure	Less accurate of sentence structure	Varying accuracy of sentence structure	Less sophisticated language	More sophisticated language	Inappropriately slow response time	Better structured discourse
Anne	Andrew										Clem	
Amanda										Clem		Richard
Cecily	Andrew		Liam, Andrew, Clem, Richard									
Chloe									Clem		Clem	
Dawn												
Danielle		Andrew		Richard		Andrew				Clem		
Gloria												
Jenny											Clem	
Joyce					Andrew				Liam			
Kathy			Andrew, Richard				Clem		Clem			
Lily						Andrew, Richard						
Maggie											Richard	
Nikki							Andrew					
Olivia				Andrew								
Simone				Andrew								Richard
Tara			Andrew				Andrew	Andrew				

Table 7 continued

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Participant	Less well-structured discourse	Doesn't tend to struggle, "stick", or get confused	Tends to struggle, "stick", or get confused	Less successful carrying out of task	More successful carrying out of task	Uses avoidance strategies	Less appropriate use of English	Speech and language are less varied	More concise
Anne	Richard			Andrew, Clem	Richard				
Amanda					Liam				
Cecily			Liam, Richard	Liam, Richard	Richard		Andrew		
Chloe		Liam		Richard					
Dawn			Liam, Andrew, Clem		Clem, Richard				Clem
Danielle			Richard		Liam, Clem, Richard				
Gloria			Liam, Andrew, Richard	Andrew, Richard					
Jenny		Richard		Andrew		Liam, Clem, Richard			
Joyce				Andrew, Richard	Liam				
Kathy			Richard	Liam, Andrew	Clem, Richard		Andrew		
Lily			Clem		Liam, Clem, Richard				
Maggie	Richard		Liam	Clem, Richard					
Nikki			Richard	Andrew, Richard	Liam				
Olivia					Andrew, Clem, Richard			Andrew	
Simone			Liam	Clem					
Tara	Richard		Andrew, Clem, Richard	Clem	Richard		Andrew		

Appendix C – Sample transcripts

In this appendix, the reader can find sample transcripts for performances on both tasks. The first three samples represent different levels of performance on the interview; the second three represent different levels of performance on the narrative. Transcription conventions can be found in the front matter of this thesis, and are explained further in 6.4.1.

Anne, Interview. Level A2. Lines 35-74.

*INT: so càite ann an Glaschu a bheil a' fuireach ?

*ANN: (0.43) tha mi :: a' fuireach ann an (3.03) <tuath> [//] (2.59) <ta>

[//] [place] (0.44) faisg [*] air [place] .

*INT: +< mhmm .

*INT: oh glè mhath .

*ANN: +< xxx .

*INT: agus cò ris a tha e coltach an sin ?

*ANN: (0.82) <tha m> [/] tha mi duilich ?

*INT: cò ris a tha e coltach ?

*ANN: +< oh (0.81) oh <th> [/] tha e brèagha .

*ANN: (0.50) <tha> [/] <tha>

[/] <tha (0.39) pàirc> [/] (1.34) tha pàirc faisg [*] air (0.64) am

flat agam [*] .

*INT: +< mhmm .

*ANN: +< (1.52) agus (1.02) tha sinn <fas> [//] faisg

[*] air an stèisean trèan (0.79) .

*INT: oh glè mhath .

*ANN: +< (0.49) yeah xxx (1.15) <tha e> [/] (0.83) tha e <sm> [//] (2.28)

sgoinneil &=laughs (0.7) xxx .

*INT: +< glè mhath !

*INT: agus am bidh thu a' dol dhan a phàirc gu tric ?

*ANN: (0.76) gu tric@g .

*ANN: (1.33) [^eng:how often] ?

*INT: em .

*ANN: +< xxx (0.52) tric ?

*INT: uill tha .

*INT: <ach> [/] ach am bidh thu a dol gu tric ?

*ANN: [^eng:will i go] mhmm.

*INT: +< neo .

*INT: [^eng:so do you go often rather than how often do you go] 0 ?

*ANN: +< oh ah tha mi duilich !

*ANN: tha mi duilich .

*INT: no@s sin ceart gu leòr .

*ANN: +< (2.81) h+uile latha .

*ANN: (1.02) 's toil leam a' ruith .

*ANN: (0.90) <agus> [///] (0.62) ach (0.44) chan eil mi a' ruith ::
(2.24) <gu m> [/] (0.35) gu mòr (0.72) an+dràsta (0.68) <c> [/]
carson :: tha mi glè trang anns an oilthigh .

*INT: +< oh glè mhath .

*ANN: agus <tha> [/] (0.39) <tha> [/] (0.39) tha an obair agad (0.46)
cuideachd .

*INT: +< ah seadh .

*ANN: 's e tidsear a th' annam ann an sgoil so &=laughs (1.13) .

*INT: +< so bidh thu glè thrang .

*ANN: +< &=laughs (2.38) .

*ANN: (0.34) chan eil mi a' caidil &=laughs xxx (2.06) .

*INT: +< ay!

*ANN: (0.52) tha mi sgìth an+dràsta .

Chloe, Interview. Level B2. Lines 26-60.

*INT: agus cà bheil thu a' fuireach ?

*CHL: (0.99) tha mi :: a' fuireach ann am [place] (0.3) faisg air
        [place] .

*INT: +< mhmm .

*INT: glè mhath .

*CHL: mhmm .

*INT: agus an do rugadh thu an+sin no cò às a tha thu ?

*CHL: cha do rugadh mi ann an+sin .

*CHL: rugadh 's thugadh mi ann an Glaschu fhèin .

*INT: oh glè mhath !

*CHL: +< mhmm .

*CHL: mhmm .

*INT: oh glè mhath !

*CHL: +< mhmm .

*CHL: mhmm .

*INT: so cò as fheàrr leat ?

*INT: <an> [/] <an> [/] fhèarr leat am baile mòr agus [^eng:kind of]
        Glaschu neo a bheil thu nas toilichte a+niste an sin <ann an> [/]
        ann an àite nas bige ?

*CHL: (0.21) no@s .

*CHL: (0.47) tha mi toilichte :: a bhith :: a' fuireach (0.95) 's ann an
        dùthaich .

*INT: mhmm .

*CHL: (0.84) <dh'fhuirich> [///] (0.69) <bha mi air falbh> [//]
        (0.89) tha mi :: a bhith air falbh bho Glaschu (4.79) <trì>
        [//] (0.57) deich air fhichead bliadhna no rudeigin .

*CHL: (0.53) dà fhichead .

*INT: +< oh ok .

*CHL: ahah .

*CHL: (0.67) tha e <fada> [//] ro fhada (0.81) :: bho (0.78)
        dh'fhuirich mi ann an Glaschu .

*INT: +< ok .

*INT: +< mhmm .

*CHL: (0.89) <dh'fhuirich> [///] (0.35) chaidh sinn <a> [///] (0.51)
thall+thairis .

*CHL: agus (0.37) dh'fhuirich sinn ann an (0.3) [place] .

*INT: oh ok ceart gu leòr .

*CHL: +< agus as+dèidh sin <a tha> [///] (0.91) <chai si>
[///] (0.38) thill sinn air ais <a> [/] (0.6) a Alba (2.31)
<de> [/] (0.45) <deich> [//] (0.31) <còig air deu> [///] (0.28) còig
air fichead +// .

*CHL: no@s .

*CHL: no@s .

*CHL: <trì> [//] (0.4) <trithead> [/] trithead bliadhna .

*INT: mhmm .

*CHL: (1.42) .

*INT: oh ok .

*CHL: +< (0.83) agus (0.84) <tha> [/] tha sinn (0.16) air :: a bhith :: a'
fuireach ann an (0.62) [place] (0.7) le gàrradh .

*CHL: 's toil leam :: a bhith sa gàrradh 's a h+uile sìon .

Olivia, Interview. Level C1. Lines 46-90.

*OLI: uill 's ann à [place] +//.

*OLI   [place]0 .

*OLI   +, a tha mise .

*OLI: so 's e baile eachdraidheal a th' ann .

*INT: +< mhmm .

*OLI: tòrr eachdraidh .

*OLI: tòrr chultar .

*OLI: dè eile ?

*OLI: (1.71) tòrr ri dhèanamh cuideachd .

*OLI: ach +...

*OLI: (1.78) oh chan eil fhios a'm (0.23) really .

*INT: nah@s sin ceart gu leòr .

*OLI: ok .

*INT: +< &=laughs .

*OLI: nì sin a' chùis [?] &=laughs (0.93).

*INT: +< an fheàrr leat Alba neo +...

*OLI: Sasainn .

*OLI: (0.96) oh 's e ceist doirbh a tha sin .

*OLI: (4.81) tha iad (0.60) eadar+dhealaichte .

*OLI: 's toil leam an dà chuid .

*INT: mmm .

*OLI: &=laughs . (0.96)

*INT: ah uill sin math .

*INT: sin math .

*OLI: +< tha sin math .

*OLI: yeah .

*OLI: 's toil leam :: a bhith aig an taigh (3.51) oir :: tha [place] dìreach
       sgoinneil .

*OLI: ach 's toil leam cuideachd :: bhith :: fuireach ann an Alba .

*OLI: <tha> [/] tha sin math .

*OLI: agus tha e a' còrdadh rium glan .

*OLI: (0.50) agus yeah .

*OLI: tha mi <ai> [/] air :: a bhith :: fuireach an seo <f> [//] bho dà mhìle
's a trì .

*OLI: so yeah .

*OLI: ann an [place] agus ann an [place] .

*OLI: so (0.45) yeah .

*OLI: tha mi <g> [//] :: faireachdainn gu math aig an taigh <ann an> [/]
ann an Alba cuideachd an latha an+diugh .

*INT: +< yeah .

*INT: +< bheil thu toilichte gu leòr an seo ann an [place] ?

*OLI: oh tha .

*OLI: bha mi :: ag iarraidh :: a bhith a seo fad bliadhnaichean .

*OLI: so yeah .

*OLI: tha mi gu math toilichte :: gu bheil mi ann .

Kathy, narrative. Level A2. Lines 10-34.

*KAT: <tha> [/] (1.69) &=laughs (1.16) (2.24) tha (0.71) màthair .

*INT: +< [^eng:you're alright] 0!

*KAT: <agus (3.86) de> [/] agus dèanamh i (0.61) tì .

*KAT: (1.04) tha (0.88) am màthair (1.58) dà (2.43) mic <ac>

[//] <aige> [//] <ai> [/] aice .

*KAT: (2.02) 's iadsan [*] Èilidh agus Dòmhnall .

*INT: glè mhath .

*KAT: +< (2.69) <Èilidh agus Dòmhnall>

[//] (0.84) tha Èilidh agus Dòmhnall cù (1.16) aca .

*KAT: (0.91) agus (2.03) 's toil leatha (3.01) aran &=laughs (0.91).

*INT: glè mhath .

*KAT: (3.31) <tha se> [//] tha iad ag iarraidh :: a' dol (0.52) a+mach .

*KAT: (2.19) tha (0.66) am màthair (3.72) :: a' smaoineach (1.63)

<that@s> [//] :: gun e gu math .

*KAT: agus tha (1.65) iad :: a' dol a+mach [*] (1.35) dh (5.74) ull [?] .

*KAT: a' dol iad (1.30) dhan am pàirc .

*KAT: (1.57) tha e (1.01) an (1.13) latha grianach agus blàth .

*KAT: (1.36) agus (1.71) an ràinig (2.39) an cù .

*KAT: an cù (1.91) esan (1.36) dol cuideachd .

*KAT: agus (4.70) Èilidh agus Dòmhnall (3.38) dh'ith am picnic .

*KAT: (1.21) ach nuair (0.76) a coimhead iad ann am bascaid (1.29) chan

eil cù (1.95) anns am bascaid .

*KAT: (1.48) agus chan eil fios aca (2.15) dè (2.57) an cù e .

@End

Gloria, narrative. Level B1. Lines 9-62.

*GLO: bha mamaidh agus (2.58) gille [*] (0.38) agus (0.27) nighean

(0.81) aice (0.85) :: a' dèanamh (1.78) cuirm+cille@n (1.21) (3.51)

anns a' mhadainn .

*GLO: (0.76) bha iad anns a' cidsin .

*GLO: agus (1.25) :: a' deasachadh (0.46)

biadh (0.39) airson (2.99) :: a bhith :: ag ithe [*] (0.99) a+muigh

(5.40) aig meadhan+latha .

*GLO: (4.17) bha mummy (2.31) aig a' bhòrd (1.59) leis (0.16) a' tì

.

*GLO: agus (0.92) bha (1.85) <am (0.63) balach> [/] (0.29) <am

bal> [//] an gille agus (1.83) nighean (7.24) leis an aran agus

(1.21) silidh .

*GLO: (3.12) bha iad (1.98) :: a' deasachadh am biadh .

*GLO: (1.35) sandwiches 's mar [*] sin air adhart .

*GLO: agus (2.26) bha (1.7) creutair eile (0.34) anns an t+seòmar

cuideachd .

*GLO: (2.00) bha cù aca ann .

*GLO: (3.09) 's dòcha (1.46) <bha (0.54) esan> [///] (0.91) <bha> [/]

:: bha an t+acras (0.33) air (0.82) an cù cuideachd .

*GLO: (2.56) nuair a :: bha mamaidh (0.71) agus (0.99) an dithis

clann   (0.62) :: a' coimhead (1.99) air (2.13) <a' mhap> [//] <a'

mhapa> [//] (2.97) <a' clàr+dùthaich > [///] (0.74) a' coimhead air

a' clàr+dùthaich (5.84) bha an cù (1.49) :: a' coimhead (0.48)

am broinn (6.65) a' bocsa no (1.01) basket@s (1.55) <far an

robh (0.23) am biadh> [///] far an :: robh (1.67) na sandwiches

agus (0.37) tì .

*GLO: (1.78) bha mamaidh agus na cloinn (2.51) :: a' coimhead air a'

mhapa airson (1.05) slighe (1.79) a :: lorg (3.41) <airson> [/]

(4.82) <a> [/] airson cuirm+cille@n (1.19) aig meadhan+latha .

*GLO: ach (1.05) <tha>

[///] (0.49) chan fhaca iad (5.88) ur cù (3.48) <anns (0.16) an (1.66) basket@s> [//] (pause) anns an [^eng:picnic basket] .

*GLO: agus (4.50) an dithis <clann> [//] cloinn@n (2.82) thuirt (1.07) tioraidh gu mamaidh .

*GLO: (2.88) dh'fhalbh iad an taigh .

*GLO: (1.13) agus (0.50) thòisich iad (1.06) tron a' bhaile [*] (1.57) agus (0.40) <suas> [/] (1.24) suas (0.96) a' <cnoc> [//] cnuic .

*GLO: 's (0.98) bha iad (2.88) anns an dùthaich .

*GLO: (4.75) <bha an grèine> [///] bha e soilleir .

*GLO: bha an grèine (2.47) teth .

*GLO: <a> [/] <a> [/] agus (0.48) <bha> [/] (2.80) bha (0.52) bò no dhà (1.27) timcheall (0.53) oirre .

*GLO: (3.66) streap [*] iad (3.70) air (1.55) cnoc .

*GLO: (1.41) agus (4.12) coimhead iad (2.01) am broinn (1.32) basket@s .

*GLO: (0.77) ach gu mì+fhortanach (0.85) ged a :: bha an (1.42) tì ann fhathast (0.64) cha robh (0.24) na (0.51) sandwiches ann (1.35) air sgàth (3.88) gun :: (0.87) do dh'ith an cù (2.13) am biadh .

*GLO: (1.92) gu mì+fhortanach (1.14) cha robh (0.60) càil ann (0.23) airson an dithis ach (1.00) tì agus (1.29) cuid (2.07) <cr> [/] criomagan .

*GLO: (2.94) obh obh !

@End

Amanda, narrative. Level C2. Lines 10-72.

*AMA: (3.03) latha bha siud .

*AMA: bha (0.57) dithis cloinne ann .

*AMA: (1.89) agus (1.90) <bha> [/] bha dùil
aca (0.33) :: falbh air cuirm chnuic .

*AMA: agus dh'eirich iad (0.89) anns a' mhadainn .

*AMA: agus <rinn> [/] (1.18) rinn am màthair +//.

*AMA: (2.69) an e xxx ?

*AMA: 's e !

*AMA: +, thermos (0.44) tì dhaibh (0.6) airson :: a thoirt leotha .

*AMA: agus <bha> [//] <tha> [/] <tha> [//] <bha> [/] bha cuilean aca
cuideachd :: a bha airson tighinn .

*AMA: (1.34) agus <rinn> [/] (0.6) <rinn a' chlann iad fhèin> [//] rinn
iad <ceapairean> [/] (0.39) ceapairean le ìm agus le silidh .

*AMA: (0.71) agus chuir iad na ceapairean sin <ann am ba> [/] <ann a>
[/] <a> [/] ann am bascaid .

*AMA: (0.76) agus an uairsin (0.71) b' eudar dhaibh :: sùil a
thoirt air mapa (0.49) airson 's :: gum bidh fios aca :: <cà bh>
[/] <cà> [/] cà bheil iad a' dol .

*AMA: <agus bha iad> [//] (0.86) <bh> [///] fhad 's a bha iadsan (0.4)
a' cur <si> [//] sùil air a' mhapa (0.66) còmhla ri am màthair
(0.62) as a' chidsin :: (2.11) streap (0.34) an cuilean air
a' bhòrd .

*AMA: agus thug e sùil a+steach air a' bhascaid far :: an
robh na ceapairean agus a' thermos (0.37) leis an tì .

*AMA: (1.4) agus (0.44) an uairsin (0.95) nuair a bha fios
aig a' chlann :: (0.25) cà bheil iad a' dol :: (1.6)
dh'fhalbh iad an taigh .

*AMA: agus dh'fhàg iad (0.58) slàn aig am màthair .

*AMA: agus dh'fhalbh iad (1.03) air a' rathad .

*AMA: (1.05) agus choisich iad (2.42) gus :: an d' ràinig iad

(1.89) tom (0.53) beag (0.8) :: a bha (1.45) slighe bheag a+mach

(0.86) <às a> [/] às a bhaile .

*AMA: (0.94) agus 's e (0.56) latha (0.48) blàth bruthainneach a bh' ann

.

*AMA: <bha> [/] bha grian ann .

*AMA: agus cha robh ach beagan neòil (0.37) as an adhar .

*AMA: (0.78) agus bha beagan a' chraobhan :: a' fàs <air a>

[/] air an tom seo .

*AMA: (0.84) agus chaidh iad suas dhan a' mhullach .

*AMA: agus chunnaic iad (1.1) <gu robh> [/] (0.85) :: gu robh crò :: ag

ionaltradh <aig> [/] aig bun an toimm .

*AMA: agus <bha> [/] <bha> [/] <bha a h+uile> [/] <bha a h+uile rud>

[///] (0.51) <bha> [/] bha iad air an dòigh .

*AMA: <'s e> [/] 's e latha uabhasach fhèin breàgha a bh' ann .

*AMA: (1.02) agus an uairsin chaidh iad air mullach (1.07) a' chuic .

*AMA: agus bha iad airson :: cothrom+chnuic a chumail <mar a bha> [/] <mar

a> [/] mar :: a bha dùil aca roimhe .

*AMA: (0.74) agus (0.42) nuair a thug iad (0.52) a+mach an thermos às a'

bhascaid :: (0.66) chunnaic iad :: gun robh cuilean (0.51) air

(0.26) :: sleipeach a+steach air a' bhascaid agus :: gu robh iad

(0.49) air an cuilean :: a thoirt leotha (0.35) dhan a' chnoc .

*AMA: (0.87) agus oh !

*AMA: abair iongnadh <air a> [//] air an dithis .

*AMA: cha robh dùil aca ris a sin idir .

*AMA: (0.82) agus (0.6) bha (0.52) iongnadh na bu mhotha ri tighinn

fhathast (0.55) nuair :: a mhòthaich iad :: gu robh an cuilean

(0.42) air a h+uile ceapaire :: a bh' aca as a bhascaid :: ithe .

*AMA: (0.9) so bha iadsan <a+nis [?] air> [//] (0.6) a+muigh air a'

bhlàr agus air cnoc agus airson <cothrom> [/] (pause) ::

cothrom+cnuic a chumail .

*AMA: agus cha robh aca (0.41) ach <bascaid fal> [//] bascaid fhalamh agus

thermos (0.31) loma+làn de thì .

Appendix D – Sample transcripts coded for accuracy

In this appendix, a sample transcript illustrates the colour-coding system that was used to identify inaccuracies in each transcript. Transcripts were copied from CLAN into .docx format, in order to allow colour highlighting of text. This approach was employed for two reasons. The first is that this project did not address types of errors, i.e. morphosyntactic, morphophonological, and lexical inaccuracies were not distinguished from one another. Instead, all inaccuracies (as defined in 6.5.1), were flagged identically. A finer-detailed error tagging system was therefore not required for this study. Secondly, at the time of data coding, there were no automatic part of speech taggers available for Gaelic, which made use of the %mor tier (i.e. the tier at which morphemic segments are coded) in CLAN extremely difficult. As such, analysis of morphosyntactic errors using this tier, as in, e.g. Myles & Mitchell (2005) was not possible. For these practical reasons[29], and the purposes of efficiency, the colour-coding system was deemed to be the most appropriate.

This system has clear limitations in terms of, e.g. granularity, i.e. the amount of detail encoded in each error tag (Díaz-Negrillo & Fernández-Domínguez 2006). Furthermore, this coding system is unhelpful for other researchers wishing to make use of the corpus, because the errors are not classified for detailed explanation. However, as this was the approach adopted during the initial stages of coding and was deemed to give sufficient detail for the initial purposes of the study, it was considered appropriate to continue in the same vein for purposes of consistency.

Table 8 presents an extract from Nikki's interview (Communicative Adequacy level A1). Inaccuracies in utterances are highlighted in red. The justification for including these as inaccuracies is presented in the third column, 'Comments'.

The text highlighted in green represents speech that would not be included in the pruned Words per Minute analysis. As explained in xx, non-conventional English speech was excluded from this analysis: this is identified in the extract above by highlighting in green, and through a tagging system in the transcripts.

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[29] See, e.g.Hughes (1989), Bachman & Palmer (1996) for a more in-depth discussion of weighing the costs and benefits of particular testing methods in order to arrive at a practical solution.

English lexical items are tagged with @s, following Arche (2008). Use of English for more than one lexical item are coded using square brackets, and the language code ^eng (Arche 2008). Incomprehensible speech which is not to be treated as a word is represented using xxx, and is highlighted in teal, as in line 49.

Table 8 - Colour-coded extract from Nikki's interview transcript

Line no.	Utterance	Comments
43	*INT: neo carson an tàinig tu an seo ?	
44	*NIK: +< ah (1.55) 's toil leam (0.54) Alba .	
45	*NIK: agus 's toil leam Glaschu .	
46	*INT: mhmm .	
47	*NIK: agus (0.46) tha mi ag iarraidh (0.36) :: a fuireach (0.91) <ann (1.53) an> [/] ann an Alba (3.73) :: càit an (1.19) bruidhinn (0.37) <the> [//] an daoine (2.14) Sasanach .	There are five inaccuracies in this line. The first is the incorrect use of the progressive particle *a(g)* with the verbal noun *fuireach* 'live'. The second is the incorrect use of *càit* 'where' in place of *far* 'where', where *càit* is the question form only. The third is an error of syntactic structure: the target form here is *far a bhruidhinnear* 'where [language] is spoken' or *far am bi na daoine a' bruidhinn* 'where the people speak'. The fourth is the use of the singular article *an* with the plural noun *daoine*: the target form here is *na daoine*, with the use of the plural article. Finally, the fifth inaccuracy is lexical, with the use of the word *Sasanach* 'an English person' instead of *Beurla* 'the English language'.
48	*INT: seadh seadh .	

49	*NIK: +< xxx .	
50	*NIK: (0.65) agus (0.63) air (2.78) oh &=laughs (1.18).	
51	*INT: [^eng:you're alright] 0 !	
52	*NIK: +< (2.17) tha mi :: a' fuireach ann an Eadailt .	Here, Nikki uses the present tense of the verb *bì* 'be', where she intended to refer to the past: the target verb form here is *bha* 'was'.
53	*NIK: agus ___ an daoine (0.77) ___ bruidhinn Eadailtis .	There are three inaccuracies in this line. The first is the omission of the auxiliary verb *bì* 'be'. The second is, again, the use of the singular article, rather than the plural article, with the plural noun *daoine* 'people'. The third is the omission of the progressive particle *a(g)*.
54	*INT: mhmm .	
55	*NIK: agus (3.04) after@s +...	
56	*NIK: (1.35) sorry@s .	
57	*NIK: [^eng:after many] bliadhna (0.67) &=laughs (2.14) :: tha mi__ :: a' bruidhinn Eadaltais .	There is one inaccuracy in this line. Here Nikki has chosen a structure using the present tense of the auxiliary verb *bì* 'be' in order to express her learning of Italian after a number of years. The target structure here would employ the auxiliary verb *bì* 'be' in the past tense, and would also use the verb *ionnsachadh* 'learn' as the main verb, as opposed to *bruidhinn* 'speak' in the construction produced by Nikki, i.e. *bha mi air Eadaltais*

		ionnsachadh 'I had learned Italian'.
58	*INT: +< mhmm glè mhath &=laughs .	
59	*NIK: agus chan eil mi ag iarraidh learn@s +/. NIK: +, [^eng:another language] 0 .	359
60	*INT: +< mhmm .	
61	*NIK: (pause) [^eng:oh sorry] .	
62	*NIK: agus tha mi :: a' fuireach ann an Alba an+diugh .	

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