

ENGLISH LANGUAGE NEEDS AND LANGUAGE  
PROFICIENCY OF ACADEMIC PROFESSIONALS AS A  
BASIS FOR DEVELOPING LANGUAGE TRAINING:  
A case study of environmental researchers

Master's thesis  
Tytti Ekola

University of Jyväskylä  
Department of Languages  
English  
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<p>Tiivistelmä - Abstract</p> <p>Suomalainen työelämä on monilla aloilla kansainvälistynyt ja sen myötä työntekijöiden kielitarpeet ovat lisääntyneet. Erityisesti tieteellisen tutkimuksen tekeminen vaatii tekijältään laadun ylläpitämiseksi kansainvälistä yhteistyötä ja tutkijat työskentelevät usein tieteellisen tuotoksen julkaisemiseksi englannin kielellä. Euroopassa ja Suomessa, kuten muuallakin maailmassa, lingua franca-asetmassa oleva englanti toimii tutkijayhteisöissä tieteellisen kanssakäymisen välineenä.</p> <p>Tämän tutkimuksen tarkoituksena oli kartoittaa suomalaisten ympäristöalalla toimivien tutkijoiden englannin kielen käyttöön liittyviä tarpeita sekä verrata niitä heidän kielitaitoonsa. Vertailua käytettiin lähtökohtana kielikoulutustarpeen selvittämiseen. Tutkimus toteutettiin laadullisena tutkimuksena, jonka kohteena oli kahdeksan valtion tutkimuslaitoksessa työskentelevää tutkijaa. Tutkimuksessa selvitettiin heidän työtehtäviinsä liittyvää kielenkäyttöä haastattelun muodossa toteutetun tarveanalyysin avulla sekä testattiin heidän kielitaitonsa tasoa DIALANG-kielitestillä.</p> <p>Tutkimuksen perusteella voidaan sanoa, että kirjallisen kielitaidon osalta tutkijoiden taitotaso on kielitarpeiden tasolla. Eurooppalaisen viitekehityksen mukainen taitotaso tutkijoilla oli C1 eli he olivat tasoltaan taitavia kielenkäyttäjiä. Suullisen kielitaidon osalta haasteita löytyi enemmän, kuten esimerkiksi spontaanin englanninkielisen keskustelun seuraamisessa sekä siihen osallistumisessa. Tämä selittyy osittain tutkijoiden työnkuvan kautta, sillä tutkimukseen osallistuneet tutkijat työskentelevät englannin kielellä pääsääntöisesti kirjallisesti. Tulosten perusteella työelämään valmistavalla ja työelämässä tapahtuvassa koulutuksessa on tarpeen huomioida suullisen kielenkäytön haasteita työelämässä lingua franca englannin yleistyessä.</p>	
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## 1 INTRODUCTION

The position of the English language, be it in the field of entertainment, business or science, is undeniably dominant. English is an international language with speakers all over the world. In fact, the number of second and foreign language speakers of English has exceeded the native speakers and English has gained a lingua franca status in different fields (Jenkins 2003: 2).

English has been the language of especially science and research for centuries. It is in this domain where the use of English can be considered essential if a researcher aims to be acknowledged as an important member of the academic community. Moreover, this lingua franca enables people with different native languages to come together and contribute to the science community through their knowledge.

As globalization advances, the demand for people with good skills in multiple languages in working life increases (Karjalainen and Lehtonen 2005). More often than not, it seems that the most common language needed and used, regardless of the sector or field, is English. Its popularity in the field of science is no doubt due to the fact that cooperation between scientists all over the world is vital and important for the knowledge to reach people worldwide.

Although the field of business and its use of English have been studied reasonably thoroughly in terms of language needs, the needs of professionals in the field of science have not been at the center of attention to the same extent. The present study does not aim to focus on the specific linguistic aspects of the lingua franca English for science professionals as such, but the focus will be on the communicative challenges presented by the use of English among researchers in the Finnish research field. By comparing these language needs with language proficiency, the aim is to achieve a more accurate picture of the language use of academic researchers.

Hence, the focus in this study is on the English language needs and proficiency of a selected group of academic researchers working in the Finnish Environment Institute. The study involves conducting a language test and interviews with the participants about their perceptions of their language needs. The aim is to discover, whether the language needs the participants have concerning their work, are met by the participants' proficiency in English, in the lingua franca in the field of science. The specific aim of this study is to answer the following research questions:

- 1) How do the language needs of academic researchers relate to their proficiency in English?
  - a) In which areas of language competence and use do their needs and proficiency meet?
  - b) If there are discrepancies between their needs and proficiency, what are they like?
- 2) How can the language needs of the focus group be better taken into account through language training?

The answers to the first set of questions will be sought with the help of the DIALANG language test, and of the needs analysis interview data. The results of these analyses will be compared in order to find out whether and how the focus group's language proficiency corresponds to the language needs posed by their work, and where possible discrepancies lie. The answer to the second research question will be provided by exploring options for language training for the purposes of suggesting solutions which create a good correspondence between the focus group's language proficiency and language needs.

Firstly, in Chapter 2, the thesis will discuss the status English language has in working life globally, in Europe and especially in Finland. Then, the focus will shift to describing the academia and English in the academic lingua franca environment. In Chapter 3, language proficiency, assessing language proficiency and language needs will be elaborated on. The set-up of the study

will be presented in Chapter 4. The results of the DIALANG language test and the Needs Analysis Interview will be presented in Chapter 5. Finally, a comparison and discussion of the results of the language proficiency tests and the needs analysis with suggestions for future language training will conclude the present study.

## 2 ENGLISH AS A PROFESSIONAL LINGUA FRANCA

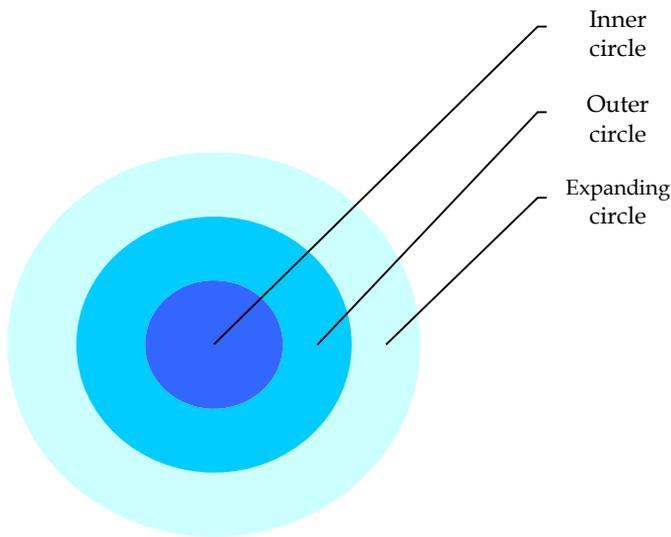
The present study aims to shed light on the English language needs and language proficiency of the members of a professional and more specifically a scientific working community in a Finnish research institute. English has certainly influenced societies globally and Finland is no exception. In this chapter, the role of English is examined more closely moving from the global perspective to an exploration of English in Finnish working life. In fact, to be able understand the role of English on a national scale, it is useful to look into the reasons for the success of English on the global scale.

### *2.1 English in the world*

English can be encountered virtually anywhere in the world. A glance into history provides two important explanations to this: the increasing power of the British Empire in the 1800s and the economic dominance of the United States from the 1900s onwards aided English on its way to becoming a global language of today (Crystal 2003: 59). In the more recent decades, as noted by Leppänen and Nikula (2008: 13), the effects of globalization on cultures and economies of societies have been the force behind the triumph of English. Additionally, English has reached people globally due to the development and use of information and communication technology (Virkkula 2008: 383). Presently, the total estimated number of English speakers' worldwide is around 1.7 billion (Jenkins 2003: 14-15). This estimation, according to Jenkins (2003: 15), comprises all the English speakers with at least a "reasonable competence" in the language.

The spread of English has been described with different models. One of the most prominent models used for describing the power of English and its spread was developed by Kachru in 1985 (Jenkins 2003: 15). In his model of three concentric circles, Kachru (1985, as quoted by Jenkins 2003: 15) describes the

division of both native and non-native English speakers in the world. Kachru's model of circles of English is illustrated in Figure 1.

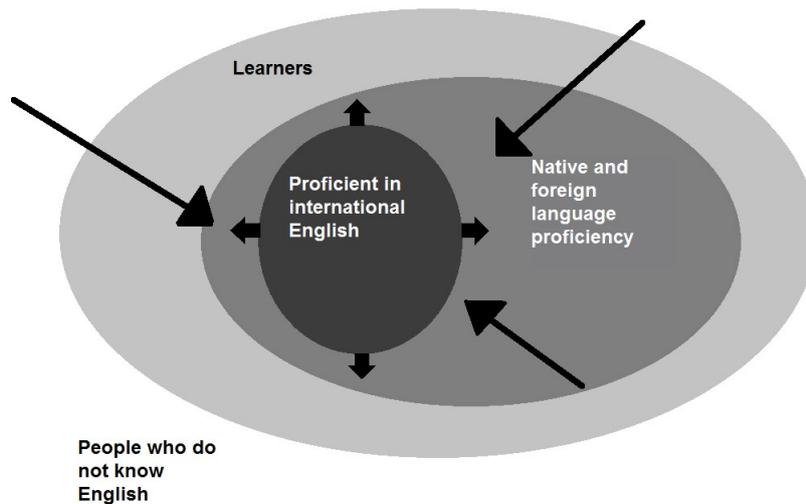


**Figure 1.** Kachru's (1985) three circles of English (adapted from Crystal 2003: 61)

In Kachru's model, the inner circle represents countries where people speak English as a native language, namely the United States, Canada, United Kingdom, Ireland and Australia (Crystal 2003: 60). According to the model, countries such as India and Singapore are placed on the outer circle. Colonialism has brought English to these countries and they thus use English in official settings but otherwise English is used as a second language. (Crystal 2003: 60.) The third circle, as Kachru's model illustrates, is the expanding circle. English is being used for communication in international contexts and taught as a foreign language but no official status has been assigned to it in these countries such as China and Russia. (ibid.) Kachru's views on the use and the spread of English have been acknowledged as a useful starting point in describing the different stages of English around the world. However, as Crystal (2003: 60) notes, the model is somewhat problematic as its application to all speakers of English in every country is not a straightforward task.

As Jenkins (2003: 16) explains, these three groups of English speakers, native (ENL), second language (ESL) and foreign language speakers (EFL) categorized in Kachru's model, are also commonly viewed according to their use of English language norms: the native speakers are said to be the "norm-providers" whereas the ESL speakers are seen as the "norm-developers" and EFL speakers are viewed as being "norm-dependent". This means, according to the Kachruvian view, that the native speakers set the standards for English use, the second language English speakers develop them for their own purposes and people who speak English as a foreign language depend on the norms provided by the native speakers when using English (ibid.). In addition to Crystal (2003: 60), (Jenkins (2003: 17) criticizes Kachru's model for having weaknesses. Among other things, defining proficient English users based on the model is problematic as it assumes that the inner and outer circle speakers are always somehow less competent compared to the native speakers, although in some cases the situation can be quite the opposite. Related to this, the role of English in specific fields, as in science, is not taken into consideration in the model; the competency of speakers in specific fields may not in fact vary significantly according to their geographical origin. (Jenkins 2003: 17.)

As noted earlier, Kachru's model has been a useful way to examine the role English has had among speakers all over the world. However, Modiano (1999) felt that there was a need for an alternative view on English speakers and thus created his model of centripetal circles of international English, illustrated in Figure 2, to present the ways in which English functions and develops.



**Figure 2.** The centripetal circles of international English (adapted from Modiano, 1999: 25)

According to Modiano (1999), the focus in describing English speakers should shift from the idea of English being owned by a certain group in specific locations to the actual users of English and their abilities to communicate across cultures. In fact, Modiano (1999: 25) suggests that those speakers who are proficient international English (EIL) users should form the core in his model. By EIL Modiano (ibid.) refers to “all of the varieties which function well in cross-cultural communication” and thus he implies that the inclusion of native speakers who, for instance, have strong dialects to the innermost circle is not automatic as proficient users of EIL are able to accommodate their communication by code-switching when required. By expressing this, Modiano puts emphasis on the ability to adapt language use and communicate in a comprehensible manner in different intercultural situations when defining proficient users of EIL (ibid.). Additionally, the norm-providing native speakers of English are replaced in Modiano’s model with the proficient non-native EIL speakers as the force behind defining and developing English to be used for communication in intercultural contexts (Modiano 1999: 25). Moreover, on the second circle Modiano places the native and foreign language users of English “who have achieved varying degrees of proficiency in a variety far enough removed from EIL to require code-switching when communicating

internationally” (Modiano 1999: 26). Among these varieties are the Creole languages and the native speakers’ strong dialects and accents that were excluded from the first circle (ibid.). Learners of EIL are placed on the third circle in Modiano’s model (Modiano 1999: 26). The final element in Modiano’s model covers the population which has no experience in using English, as illustrated in his model (Modiano 1999: 25).

As mentioned earlier, there are more non-native speakers of English today than there are native speakers and consequently English is being used more commonly as a tool for communication among people whose first, or even second, language is not English (Jenkins 2003: 35). These are situations where English is being used as a lingua franca (ELF) (Jenkins 2003: 4). Jenkins (ibid.) uses the term ‘contact language’ to refer to ELF. Additionally, lingua franca English communication, as Louhiala-Salminen and Kankaanranta (2011: 248) point out, can be examined from different co-existing viewpoints: ELF defined by the cultural and behavioral norms provided by native speakers, ELF defined as being independent from specific cultural norms and ELF as a mixture of the different norms from its users. Presently, according Louhiala-Salminen and Kankaanranta (2011: 248), a combination of these three views is the most popular approach to ELF; ELF is constructed according to the norms of the speakers present in a given situation. This approach seems logical as there are more non-native than native speakers using English with each other for various purposes in various situations and therefore the native language norms may not provide the flexibility needed in these situations for making communication successful.

In the present study, since the focus is mostly but not exclusively on the English used in interactions between non-native speakers, as will be discussed in the following chapters, the definition used by Jenkins (2003: 4) referring to lingua franca English as a language of communication only among non-native speakers is somewhat problematic as it excludes interaction between non-native and native speakers. However, Modiano’s term international English (EIL),

introduced above, covers language use among English speakers despite their first languages. Therefore, the terms ELF and EIL in the present study are considered synonymous.

## ***2.2 English in Europe and Finland***

English is the most dominant language in the multilingual European Union (Jenkins 2003: 42). This is reflected in various ways to the lives of Europeans. For instance, in the European language education the role of English is significant, as illustrated by Eurostat (2013): English was the most studied foreign language of 83% of the children in basic education and of 94% of high school students in 2011 in the 28 EU member countries. In contrast, French came in second with 19% of basic and 23% of high school students studying the language (Eurostat 2013). In addition to the strong presence of English in education, as Jenkins (2003: 38) states, English has gained the status of a European lingua franca, 'Euro-English', in various fields. Among these fields, is science. To illustrate, for instance, the organization managing research activities among the member countries, the European Science Foundation, employs only English in its operations (Ammon 1996, as quoted by Kaplan 2001: 11). Moreover, English is the major medium for scientific publishing across Europe (ibid.).

The dominance of English extends to Finland as well. In fact, English, officially a foreign language in Finland, has a firm foothold in the Finnish society in private and public spheres. Finns have a close relationship to English and according to Leppänen et al. (2011: 168), the position of English in Finland could be viewed in terms of a second or a third language, and not in terms of a foreign language. As noted by Leppänen et al. (2011: 17), the reasons behind the increasing importance of English in Finland, are multidimensional. To begin with, the Finnish society has become more modern, urban and technologically and internationally oriented over past decades as well as more equipped to teach languages effectively and this has had an effect on different areas of

society from working life to the educational sector (Leppänen et al. 2011: 17). Simultaneously, cultural and economic globalization has an increased impact of English on Finnish society (Leppänen et al. 2008: 13). In addition to corporate and business spheres, where English as a lingua franca for communication has been for some time acknowledged as an important tool (see e.g. Virkkula 2006), the academic research community has long employed English in order to share research information with the world.

The ways in which English manifests itself among the members of the Finnish society and in working life have been fairly well examined. To begin with, the role of English in Finland and attitudes Finns have towards it, were in the focus of a research group from the Studies of Variation, Contacts and Change in English (VARIENG) project at the University of Jyväskylä. A national questionnaire survey conducted in 2007 by this research group showed that English has an important and yet a varied role in Finland, working life included. (Leppänen et al. 2011). According to the survey, in the Finnish working life English has the most prominent role in the field of science in addition to business and economic sectors and music industry (Leppänen et al. 2011: 167). As noted by Leppänen et al. (*ibid.*), these internationally oriented domains have been the ones aiding the spread of English in Finland in the past and will be the domains where the importance of English continues to grow. Moreover, according to the survey, weekly usage of English was the reality for nearly half (46%) of Finnish workers (N=1025) (Leppänen et al. 2011: 118). More than 60% of these workers had a higher education degree and nearly 60% of workers in high occupational positions used English weekly (Leppänen et al. 2011: 119.) The survey also showed that most commonly English was used at work to search information. In fact, exposure to English in written form, for example in emails and on the internet, was more common than producing written or spoken English. (*ibid.*)

Furthermore, Virkkula (2008) examined how English represented itself in the Finnish working life and noted that using English at work has become

increasingly common, especially as a lingua franca in business contexts. For her study, she examined five master's theses that had focused the relationship between Finnish workers and English (Virkkula 2008: 384). Among the reasons for using English at work and in intercultural communication were the perceived neutrality and usefulness of English (Virkkula 2008: 392). On the practical level, English is present at meetings and when reading and writing documents, papers and especially in emails (Virkkula 2008: 389). In fact, email correspondence with foreign clients and colleagues is the most common way of in which English is used (ibid.). Virkkula (2008: 391) notes that written English is used more at work in comparison to spoken English. As a matter of fact, speaking English was viewed as the most challenging part of English language use at work. The reasons behind these challenges, according to workers, are linked to the limited opportunities to use English in spoken interaction in Finland. (Virkkula 2008: 401-402). In general, the workers in Virkkula's study thought that the groundwork on building language skills is done at school but it takes its shape in actual language use situations in working life. However, some of the workers thought that there was a discrepancy between language skills acquired through education and actual language needs of working life. Specifically, the workers felt that pragmatic competences such as small talk and politeness practices needed some improvement. (Virkkula 2008: 402.) Moreover, Virkkula's (2008: 411) findings show that workers viewed employing English in ELF contexts easier because the pace of talking is slower and the content of the communication is usually expressed in a simpler way due to the limited vocabularies of ELF users. Overall, the based on the Virkkula's findings, comprehensible communication was more important to the workers than correct pronunciation or flawless grammar. (Virkkula 2008: 411.)

Moreover, Räsänen (2013) examined Finnish engineers and their relationship to English at different stages of each of their working lives. Based on the findings of the four articles examined by her, Räsänen (2013: 143) observed that the importance of English for the engineers grew progressively during the process of becoming a global professional worker. Räsänen (2013: 158) also points out

that her findings confirm that the status of English as the language for international communication as well as the lingua franca in global working life, remains unchanged. Furthermore, Räsänen describes how the findings in her study show the complex nature between English and its users in the globalizing world: learning English does not necessarily offer better prospects in personal and professional life for all. In fact, it was perceived that English provided its users with unequal opportunities as English competency helped only in some personal and work related pursuits. (Räsänen 2013: 158.) Moreover, the findings revealed that a proficient English user in working life was defined by the workers according to certain communicative abilities instead of according to the mastery of language rules (Räsänen 2013: 159).

In sum, English has a strong presence globally and its significance continues to grow. This applies also to Europe in terms of learning and using languages. Moreover, the Finnish society has been affected by English, and particularly Finnish working life has become increasingly aware of the need for employing English. In fact, English is seen as a tool for international communication but it is not seen as completely unproblematic: some benefit more from having English language skills than others. Nevertheless, using English has become more common in especially written forms of working. Finnish workers experience difficulties in speaking English as the possibilities for using the language in Finland are scarce and they also view lingua franca English as a positive thing as it allows them more freedom to deviate from the standards of native English.

### ***2.3 English as a lingua franca- academic context***

As mentioned previously, academia has long been one of the main domains to adopt English as its lingua franca. First, to understand the attraction for the use of English in the academia, it is useful to look at some of the features of the academia and academic work. Then, the relationship between lingua franca English and the academia can be examined and discussed.

As described by Mauranen (2010: 7), the academic domain can essentially be seen as consisting of universities, research institutes and teams as well as of the most prominent product of their work, i.e. publications. However, as Mauranen (ibid.) points out, the academic domain cannot be neatly defined as it is a multidimensional entity. In fact, as illustrated by Mauranen (ibid.), academic communities can operate in different physical locations but their members are also brought together by research fields and topics. Due to this multidimensionality of the academia, as stated by Mauranen (2010: 7), international cooperation and conventions are vital to it in order for it to function as a community as its members often operate scattered around the world. In fact, according to Mauranen (ibid.), internationality, mobility and as well as the increasing reliance on English characterize the academia and it is thus seen to represent the ELF domain well. In fact, as pointed out by Mauranen (2010: 7), lingua francas have always existed among the academia but the dominance of English has been the greatest for several decades now. Academic communities are linked together through the various hierarchical, competitive and influential publication channels (Mauranen 2010: 8).

Scientific research in Finland is carried out mainly by universities and government research institutes (Suomi.fi, n.d.). These actors conduct research in order to produce information to various audiences for various purposes. Mostly the research information is targeted to the members of the scientific community (Kaukonen et al. 2011: 11). One of the main emphasis of the Finnish science policy has been on promoting the internationality of scientific research (Ahonen et al. 2009: 93). For a small country like Finland, it has been crucial to create contacts outside the nation in order to keep up with the developments in science and research (Ahonen et al. 2009: 21). In fact, according to Ahonen et al. (2009: 69), Finnish research activities have become more international since the beginning of the 90s in terms of scientific publishing, mobility, research funding as well as cooperation and networks.

Although scientific research by nature is always to some extent international, there are differences between the various research fields. More specifically, as explained by Puuska and Miettinen (2008: 12), in certain scientific fields such as medicine and natural sciences, the publishing practices differ from the ones in, for instance, humanities. Even though international publications such as referee articles in scientific journals are appreciated in both of these disciplines, their significance is the greatest in medical and natural sciences (*ibid.*). This is illustrated by the fact that international publishing increased by 54% in 1994–2007 in natural sciences although this form of publishing was already at a high level within the field (Ahonen et al. 2009: 41-42). When examining the reasons for this, it is revealed that actually international publishing is the customary way of communicating with other researchers within the same field. Additionally, publishing in English in international forums enables the research information to reach the scientific community fast and thus a researcher is able to claim ownership of his or her results before other researchers make similar findings. (Puuska and Miettinen 2008: 29.)

In addition to the preference for publishing in English, publishing together with people from outside Finland has become increasingly common. According to Muhonen, Leino and Puuska (2012: 7), statistically speaking, international co-publishing is a more efficient way of receiving attention, i.e. citations, than if a Finnish researcher writes a text alone or together with other Finnish researchers (Muhonen et al. 2012: 7). In fact, according a report on the trends of international co-authorship in Finland between 1990 and 2009, this form of publishing has clearly increased (Muhonen et al. 2012: 3). According to Muhonen et al. (2012: 14), Finland co-published internationally most commonly with representatives from the EU15+ countries, Finland, Sweden and Denmark excluded: Belgium, the Netherlands, Austria, Greece, Spain, Italy, France, Germany, the United Kingdom, Ireland, Portugal, Luxembourg and Switzerland. Canada and the United States were the second most common origin of authors in co-publications, followed by the Nordic countries (*ibid.*). Although a strong growth across scientific disciplines was reported in terms of

international jointly published texts in 1990–2009, agriculture and forestry were the fields that witnessed the most prominent rise in the number of these publications (Muhonen et al. 2012: 11). Additionally, only in natural science journals most of the texts published by Finnish writers were joint efforts of international cooperation (ibid.).

As mentioned above, Finnish researchers most commonly co-publish with researchers from the EU15+ countries, excluding Denmark and Sweden (Muhonen, Leino and Puuska 2012: 14). This is for the most part explained through the intra-EU cooperation. EU framework programs are an essential part of international research carried out in Finland, and through which Finnish research is partly funded. Additionally, the involvement in some of the major international science organizations and networks, such as the European Organization for Nuclear Research (CERN), the European Space Agency (ESA), the European Molecular Biology Laboratory (EMBL) and the European Southern Observatory (ESO), among others, further highlights the internationality of Finnish research. Also, for scientific research to contribute at a societal level within Europe, by increasing the number of jobs and enhancing the ability to compete, the EU has aspirations towards a European Research Area (ERA). Finland has taken an active role in contributing to these aspirations. (Ministry of Education and Culture, n.d.)

From this description of the academia and its characteristics, an inclination towards the use of English as a *lingua franca* can be detected. Next, the relationship between the academia and *lingua franca* English will be examined. As the present study aims to examine ELF usage in the Finnish academic settings, it is useful to look at some of the research carried out in that field. As expressed by Mauranen (2010: 10), examining academia and its use of English is very revealing of ELF features as language use is shaped by interaction between multilingual speakers.

### 2.3.2 Academic ELF

The ELF employed by the academia in the Finnish context has been extensively studied by a group of researchers at the Helsinki University's English department through the English as a Lingua Franca in Academic Settings (here forth ELFA) project. Specifically, the focus of the ELFA project was on spoken academic lingua franca English. (Mauranen, Hynninen and Ranta 2010.) The first part of the ELFA project, started in 2001, entailed examination of academic discourses through the corpus project of English a lingua franca in academic settings. The other part of ELFA was a project started in 2007 which focused on investigating experiences of university students studying in English as a lingua franca (SELF project). (Mauranen et al. 2010: 184.) SELF was a complimentary part to corpus project in the sense that it went deeper into the thoughts and views of foreign language students. Its focus was on the aspects of ELF use such as interactive management of discourse, negotiation of meanings, accommodation and sources of misunderstandings (Mauranen and Ranta 2008: 201). The ELFA project resulted in a corpus of one million words of spoken academic discourse. The ELFA project collected material for the corpus from international degree programs, in addition to other academic events which regularly entailed ELF interaction. (Mauranen et al. 2010: 185.)

ELF research has been conducted in the Finnish academic context by a number of researchers. To begin with, Mauranen (2010: 6) examined spoken academic language focusing on the characteristics of interaction, vocabulary and grammar. As explained by Mauranen (2010: 13), ELF interaction is characterized by the speakers' efforts to make communicated output as clear as possible. This process is called, in Blum-Kulka's terms (1986, as quoted by Mauranen 2010: 13), *explicitation*, originating from the translation field. As a typical communication strategy in the ELF discourse, this term is used to refer to the use of topic negotiation, metadiscourse and rephrases, among others (Mauranen 2010: 13). Mauranen states that comprehension in ELF interaction is built with the help of these elements (Mauranen 2010: 17-18). In addition to features of interaction, Mauranen studied the lexical and grammatical nature of

academic ELF. As Mauranen (2010: 18) states, ELF deviates from Standard English most clearly in these aspects of language use and especially in the employment of prepositions and articles. Further, Mauranen (2010: 19) detected that the use of fixed phrases, such as *take into account*, often deviates from Standard English. She points out that even though the use of phraseological units even for the highly proficient non-native English speakers is challenging, comprehension in interaction is seldom affected negatively because of these challenges (Mauranen 2010: 19).

Furthermore, Ranta (2006) and Metsä-Ketelä (2012) based their studies on the ELFA corpus with different emphases; Ranta studied the progressive constructions and Metsä-Ketelä focused on the use of imprecise language in academic ELF. Ranta (2006: 111) examined the use of the progressive form of *-ing* and discovered that second language (L2) users of English extended their use of the progressive to native language (L1) deviant contexts. Although the use of the progressive was mostly semantically correct, L2 users employed it as an element which made their output more expressive in ELF interactions (Ranta 2006: 111-112). As Ranta (2006: 113) points out, this is one of the ways in which ELF speakers ensure that communication taking place is clear and unambiguous as the interlocutors do not share the same norms in terms of language and culture. Metsä-Ketelä (2012), on the other hand, examined the frequencies of using vague expressions such as *and so on*, *some sort of*, *so to say* and *in a way* in interactions between non-native English speakers. She discovered that the frequency of using vague expressions was nearly twice as high among non-native speakers in comparison to native speakers which implies they are commonplace in ELF communication (Metsä-Ketelä 2012: 278). Discursive situations such as doctoral defenses were among the most common events where vague expressions were employed (Metsä-Ketelä 2012: 280).

Moreover, Hynninen (2010) focused on examining the experiences of the participants studying and using English in academic settings. Her research was a part of the SELF project and it revealed that native English, according to the

interviewed students, acted as the guideline in their pursuits towards better language skills (Hynninen 2010: 40). Additionally, native English was perceived as a natural and easy language although comprehending it in comparison to lingua franca English was reported to be harder (ibid.). In fact, the findings showed rather different perceptions of L1 and L2 Englishes; the importance of L1 correctness was acknowledged by the students but this correctness, according to them, did not play a significant role in ELF interaction (ibid.). Instead, adapting language use into a simpler and clearer form was seen as the key element in ELF encounters (Hynninen 2010: 36). Additionally, language errors were seen of secondary importance in comparison to comprehension in ELF (Hynninen 2010: 38). Overall, the students clearly made a distinction between the native English and lingua franca English: the former was seen as the real English from which the language use in ELF interactions deviates through accommodation (Hynninen 2010: 40).

As illustrated above, spoken lingua franca English and its features in the Finnish academic context have been studied to a considerable extent. Written academic ELF in the Finnish context, however, has not been studied as extensively. Recently, however, Mauranen and the ELFA research team started their way towards studying written academic ELF as well. In 2015, a corpus project (WrELFA) for written academic ELF was completed by Mauranen and her research group (the ELFA project, n.d.). As a result of the WrELFA project, 1.5 million words were compiled from written products of academic work authored by lingua franca users: PhD examiner reports, research blogs and unedited research papers (ibid.).

Some research on written aspects of academic ELF, based on the preliminary data of WrELFA, has been conducted by Carey (2013). He investigated how frequently certain fixed phrases such as *so to speak* and *at the same time*, and their possible deviant forms occurred in both spoken and written academic ELF in comparison to native English language use. For making these comparisons, the data from the ELFA and from the MICASE corpuses (Michigan Corpus of

Spoken Academic English) was examined (Carey 2013: 207). Carey's findings suggest that there is no significant difference between the spoken and written modes in terms of frequency of using the variant forms of fixed phrases in utterances used for corresponding purposes. Many of these fixed phrases were used in ELF as they would be used in the native language. However, these particular units were used more often in ELF than in ENL. (Carey 2013: 225.) Nevertheless, based on the findings of Carey (2013: 226), academic ELF users mostly employed these fixed phrases under investigation, in terms of native English, in conventional and not in deviant ways.

In this chapter, some light has been shed on the reasons behind the success of English in the world and more specifically among the academia. A characteristically international and mobile domain of academia needs English to cooperate and produce information for a wide range of audiences. In the Finnish context, there has been an increase in the number of international jointly written publications, especially in the field of natural sciences. The publishing counterparts most commonly come from Europe and specifically from EU15+ countries. This means that these publications are produced in ELF contexts. Although research on spoken academic ELF exists, written academic ELF has been less studied, although the most visible products of academic work are in written format. Based on the research conducted on spoken academic ELF, it could be said that English usage often deviates from Standard English in ELF contexts but the effects on communication comprehension is rarely negative. Written ELFA, however, shows more obedience to the standard way of employing English.

### 3 ASSESSING PROFESSIONAL LANGUAGE PROFICIENCY

As discussed in the previous section, the Finnish working life has become more globalized and the need for different languages at work has increased. More often than not one of the languages needed, either alongside the native tongue or in replacement of it, is English. In order for the academic professionals to carry out work tasks in English, they need to have certain skills in using the language. By defining those skills, i.e. language proficiency, in general and specifically in academic working life, we are able to examine and assess the English language proficiency the participants of this study have. This examination leads to an understanding of what issues, if any, need addressing in terms of using English at work. The first half of this chapter aims to provide an overview of what is involved in defining and assessing language proficiency in academic professionals' work. After this, some of the most common means for assessment are introduced as well as the purpose and aims of language proficiency assessment. A brief description of the most commonly used language tests is provided and the reasons for using the test selected for this study will be elaborated on. In the second half of this chapter, the concept of language need is introduced. This chapter also entails an overview of needs analyses and methods for conducting them. The chapter is concluded with an examination of previous studies on language needs and proficiency of academics.

#### *3.1 Defining language proficiency in academic working life*

The concept of language proficiency has been viewed and hence defined in different ways throughout time. Nevertheless, what could be considered as the most influential step in the attempt to define language proficiency, was Noam Chomsky's introduction of transformational grammar and the constitutive components of language: competence and performance (Llurda 2000: 85). Chomsky viewed competence as "the monolingual speaker-listener's knowledge of language" and performance as "the actual use of the language in

real situations” (Bagarić and Mihaljević Djigunović 2007: 95). In other words, Chomsky viewed the knowledge of the inner workings of a language as a separate entity from the actual usage of the language. Chomsky’s view of competence as involving only grammatical knowledge was expanded by Hymes in 1972 to entail the communicative or sociolinguistic aspect of language use (Bagarić and Mihaljević Djigunović 2007: 95). According to Bagarić and Mihaljević Djigunović (ibid.), Hymes combined these separate aspects of language proficiency into a concept of communicative competence by which he referred to both knowing the grammatical systems of a language as well as to the ability to apply that knowledge in language interactions (ibid.).

Further, Canale and Swain (1980) developed a framework where language proficiency was based on three elements: grammatical or linguistic, sociocultural and strategic competencies (Harley et al. 1990: 9). The first component in this model, grammatical competence, is roughly equivalent to Chomsky’s definition of linguistic competence, i.e. an understanding of the correct use of language in terms of lexicon, semantics, syntax and phonology, among others. The sociolinguistic competence then, is defined as the know-how of using language in social interactions. (Bagarić and Mihaljević Djigunović 2007: 97.) According to Bagarić and Mihaljević Djigunović (ibid.), strategic competence comes into use through communication strategies, non-verbal and verbal, when comprehension compromising problems in the other competencies occur. For instance, repeating the communicated output or paraphrasing it in order to ensure successful communication, is an illustration of strategic competence. In addition to the competencies mentioned above, Canale (1983) introduced the concept of discourse competence which referred to the knowledge of achieving coherence and cohesion in interaction by following rules governing the way syntactical and semantic aspects of words are combined. (Bagarić and Mihaljević Djigunović 2007: 97.)

A more recent definition of language proficiency was provided by Council of Europe in the form of the Common European Framework of Reference (here

forth CEF(R)) for languages (2001). In CEF (2001: 9-11), competency is the term used for all the knowledge (gained through experience and learning), skills and characteristics an individual has developed and he or she uses to communicate with others. These competences are divided into two categories: general and communicative competences (ibid.). The former comprises of knowledge, skills, existential competence which are considered as language independent components, and of the ability to learn. The latter, according to CEF, is concerned with language use and is examined from the perspective of linguistic, sociolinguistic and pragmatic competences. Much like Canale and Swain (1980) suggested, linguistic knowledge is seen in terms of grammatical elements of a language. Moreover, the sociolinguistic competence is seen as the influence of social conventions, such as politeness practices and expected behavior towards, for example, old and young people, men and women or people from different classes, in interaction. The final component of communicative language competence, i.e. pragmatic competence, is the knowledge of matching linguistic output with a given situation according to interaction norms. (CEF 2001: 13.)

Based on the discussion on the definitions of language proficiency above, it is obvious that modern understanding of proficiency is not concerned merely with linguistic correctness. On the contrary, the contexts of language use and asserting appropriate functions for the language play a significant role in determining whether a user of a language is communicating proficiently. In terms of lingua franca English use, as in this study, language proficiency is additionally viewed as being aware of different norms in interaction. According to Canagarajah (2006: 234), for persons using English today to be called competent language users they should be conscious of norms connected to native English as well as to all other existing varieties of English. The ability to move flexibly between these different norms is essential. Additionally, it is important to acknowledge "the systematic and legitimate status of different varieties of English in this diverse family of languages". (Canagarajah 2006: 234.) In fact, according to Canagarajah (ibid.), interaction between people with

different linguistic backgrounds generates new norms into lingua franca English, which are used in varying ways in diverse discourses. In other words, norms guiding for instance informal English interaction can have more variance in their use when compared to formal discourse. As pointed out by Canagarajah (2006: 234), “in extremely formal institutional contexts where inner-circle norms are conventional (such as in academic communication), one has to adopt the established norms”. Based on this statement by Canagarajah, it seems that proficiency in academic language use is examined more closely in terms of native English than other types of ELF interaction would be.

There are a number of aspects to consider when defining the English language proficiency of academic professionals examined in the present study. To begin with, there are certain foreign language skills that academics entering working life need to have upon graduation based on a government decree guiding universities’ language requirements (Finlex 794/2004). Those skills are defined as being “able to update their professional expertise in their fields of study and operate successfully in an international work environment” (University of Jyväskylä’s language center, n.d.). That foreign language, as Karjalainen and Lehtonen (2005: 88) report, in most cases is English: nearly all of the students who had graduated from the faculty of mathematics and natural sciences at the University of Helsinki (N=162) had chosen English as the foreign language as a part of their degree (ibid.). This choice to study English as a foreign language, especially in the field of natural sciences, can be explained by several factors. Firstly, as stated by the University of Jyväskylä, the faculty of mathematics and science is the most internationally oriented faculty in the university (jyu.fi). This statement is illustrated by the fact that the literature employed in natural sciences is mainly written in English (Curriculum of Mathematics and Science 2007–2008). Further, the preferred language for dissertations is clearly English (Väyrynen 2006: 32). Combining these factors with the Finnish universities language requirements for foreign languages introduced above, it would seem that the choice of English for academics is a natural one; science cooperation on an international scale is possible through English.

In a study conducted by the University of Helsinki's language center, employers in academic professions expressed there being several aspects to language proficiency in the academic domain (Karjalainen and Lehtonen 2005). Generally speaking, the language needs in working life, academic work included, vary according to the actual work and what it entails (Karjalainen and Lehtonen 2005: 153). In their study, some of the interviewed academic employers considered language proficiency in academic professions in terms of the proficiency levels defined by the Finnish language training assessment system, which is based on the recommendations made by the Council of Europe and more specifically the Common European Framework of Reference: on the whole, the three highest levels were considered as a good level of proficiency for academic employees (Karjalainen and Lehtonen 2005: 143.). These three levels, B2 (higher level of independent user), C1 (lower level of proficient user) and C2 (highest level on the scale, fully proficient user), are described in the CEFR (2001: 24) as follows:

## B2

Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

## C1

Can understand a wide range of demanding, longer texts, and recognize implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

## C2

Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations. (CEFR 2001: 24.)

The first noticeable difference between these three levels of proficiency lies in the ability to produce spontaneous and fluent output. A B2 level speaker has less tools in terms of vocabulary to interact fluently in every situation in comparison to the C1 and C2 level speakers. The C1 level description above mentions the ability to employ language in “academic and professional” contexts. Clearly these three levels cover the aspects needed in terms of language skills in academic work.

However, as stated by the academic employers, competency in relation to work tasks does not depend merely on good English proficiency. In fact, expertise in one’s field was seen as an equally important part of professional competence. (Karjalainen and Lehtonen 2005: 142.) Moreover, linguistically flawless language output was considered of secondary importance to comprehensible interaction, awareness of cultural aspects in communication and the courage for using English. For instance, the faulty grammar and deficient pronunciation were not seen as severe issues as long as the parties in interaction comprehended each other (*ibid.*). Interestingly, what can be detected from these statements is a reference to the presence of ELF communication at work as lingua franca communication is to a great extent characterized by the pursuit to ensure that what is being said is understood by all parties in these ELF interactions where people have different linguistic and cultural backgrounds (see for example Mauraanen 2010). Yet another essential part of language proficiency expressed by the academic employers, was knowing and using field-specific terminology (Karjalainen and Lehtonen 2005: 146).

Another study, conducted by the University of Vaasa’s Levón Institute in 2013, focused on mapping the language needs in the Vaasa region. The views of major employers in that area, University of Vaasa’s students and alumni as well as personnel were in the focus when considering language needs and proficiency in working life. (Martin et al. 2013: 14.) As in the study of Karjalainen and Lehtonen (2005), the importance of having the courage to use languages at work despite possible deficiencies in its employment, was

accentuated. Total mastery of a foreign language was not seen as the ultimate goal, but comprehensible interaction was. (Martin et al. 2013: 43.) All these above-mentioned parties perceived good language proficiency as consisting of both productive and receptive skills (Martin et al. 2013: 67). Additionally, it would seem that good language skills are inseparable from good communication skills in terms of overall language performance at work (ibid.).

When examining researchers' work tasks in the academic world, some language skills are accentuated more than others. Karjalainen and Lehtonen (2005: 88) shed some light on the language requirements based on work tasks of academic workers, similar to the ones under examination in the present study. According to the findings of Karjalainen and Lehtonen (2005: 94), English language usage in the work tasks of alumni from the faculty of mathematics and natural sciences emphasized the role of receptive skills: most commonly workers read a variety of texts, from formal to informal, as well as listened to speeches and presentations by others. More specifically, reading papers, reports and literature in the relevant field as well as producing short texts, such as emails, formed a large part of the academic employees' work. All of the graduates from the faculty of mathematics and natural sciences employed by the university sector (N=39) who used English regularly (the range being from monthly to daily usage) at work, read pragmatic texts such as manuals and professional literature. (ibid.) Additionally, all of the workers stated that writing short texts, for example emails, was a part of their work tasks. Also, nearly every worker (97%) listened to presentations in English. Further, over 90% of the informants wrote pragmatic texts in addition to reading and writing scientific texts. Oral English production skills, on the other hand, were used at work to a lesser extent in comparison to writing, reading and listening. 72% of the workers gave presentations and speeches and 77% conversed in formal meetings as well as with colleagues in English. (ibid.) Only 59% of the workers expressed using English in encounters with clients which could be explained by the fact that universities do not have a clientele in the same sense, for instance, as businesses do. Instead, universities have partners they cooperate with and these partners

could be viewed as more like colleagues. Productive skills were most commonly put into use in small talk situations. (Karjalainen and Lehtonen 2005: 94.) Overall, 83% of the above-mentioned workers stated that their work tasks entail international interaction (Karjalainen and Lehtonen 2005: 95). Additionally, English was reported to be the most frequently used language among foreign languages at work (Karjalainen and Lehtonen 2005: 85). These factors help explain the extensive use of English in academic work tasks.

As discussed in this section, presently language proficiency in general, but also specifically in working life, is most commonly seen in terms of communicative competence and, as defined by the CEF, specifically in terms of three competences: linguistic, sociolinguistic and pragmatic competences. Although the notion of language proficiency entailing other aspects in addition to linguistic abilities is recognized in the present study, it should be noted that comprehensive tests measuring all the aspects of language proficiency, i.e. communicative competence as defined above, do not yet exist. In fact, as Sajavaara (2000: 131) points out, exhaustive testing of all aspects of language proficiency in the wide terms it is presently viewed is impossible because of, among other things, the varying circumstances of language use situations. Nevertheless, as will be discussed next, language testing still takes place in working life and it has certain benefits to the test takers but also to at a more general level in working life.

### ***3.2 Testing language proficiency in working life***

The previous section concentrated on defining the term language proficiency and what it entails in terms of academic professions. Next, different ways of testing language proficiency in working life will be described. This section begins by considering different approaches to language testing that takes place in working life and is concluded with the introduction of the DIALANG test used in the present study. As was discussed in Chapter 2, ELF usage is present in working life and especially in the work of academic professionals. However,

ELF, due to underdeveloped models and theories defining ELF proficiency, has not been subjected to testing not even nearly to same extent as native English has (McNamara 2012).

To begin with, a brief account on the differences between various concepts referring to the process of determining language proficiency is in order. Generally speaking, the concepts of *evaluation*, *assessment* or *measurement* and *testing* are used to refer to somewhat different aspects when examining language proficiency (Douglas 2014: 5; CEF 2001: 177). The concept under which both assessment and testing belong, is evaluation (CEF 2001: 177). Douglas (2014: 5) describes evaluation as the process of “making qualitative judgments about people or events”. Assessment, on the other hand, involves the use of a measurement by a teacher in considering performance, typically grades (ibid). A test, as noted in the CEF (2001: 177), is one assessment type among others. Essentially, according to Douglas (2014: 2), “a language test is an instrument for measuring language ability”. This process of measurement involves making inferences about the tested subjects’ language performance indirectly as direct observations about language ability are an impossibility (Douglas 2014: 18). In other words, through interpretations about the amount and type of language performance, an analysis of language abilities of informants in different situations of language use is possible.

Language testing is a central factor in the process of developing learning skills: by establishing the stage in which a language learner is at a given moment, monitoring the learner’s development and directing the focus of teaching becomes easier (Alderson 2005: 4). Moreover, according to Alderson and Bachman (2000: x), the motivation behind language testing is to capture the essence of language behavior to be able to examine and assess it. Douglas (2014: 1), on the other hand, emphasizes the equal treatment of students as well as the consistency in the assessment procedure at different points in time by using language tests. Language tests are not used solely by professionals in education but as Alderson and Bachman (2000: x) note, language tests are useful to

“anybody who uses language or needs to know how well somebody else uses language”.

There are numerous ways to assess the language skills a person has. As noted in CEF (2001: 177), using language tests, as is done in the present study, is only one approach to the matter. There are differences between assessment types. To illustrate some of the most significant ones, here is a list provided by CEF (2001: 183):

- 1 Achievement assessment/Proficiency assessment
- 2 Norm-referencing (NR)/Criterion-referencing (CR)
- 3 Mastery learning CR/Continuum CR
- 4 Continuous assessment/Fixed assessment points
- 5 Formative assessment/Summative assessment
- 6 Direct assessment/Indirect assessment
- 7 Performance assessment/Knowledge assessment
- 8 Subjective assessment/Objective assessment
- 9 Checklist rating/Performance rating
- 10 Impression/Guided judgement
- 11 Holistic assessment/Analytic assessment
- 12 Series assessment/Category assessment
- 13 Assessment by others/Self-assessment

From these various forms of assessment listed above, most of them can be used to refer to language tests but not all. The central differences in defining language assessment carried out in the present study, are the difference between *norm-referenced* and *criterion-referenced* as well as between *formative* and *summative* assessment. The norm-referenced language assessment refers to the process of arranging students according to their performance and comparing that performance against the performance of others, usually for language course placement purposes. (CEF 2001: 184.) In criterion-referencing assessment, the focus on the performance by an individual against certain criteria. Further, formative, or diagnostic, assessment refers to the continuous process of obtaining information on the weaknesses as well as strengths of a learner’s language skills whereas summative assessment, is concerned with providing a summary of learning results subsequent to language courses. Usually summative assessment involves grading students and it is commonly linked to achievement tests, which are norm-referenced and fixed in terms of assessment execution days (CEF 2001: 186). The opposite form of achievement

assessment, which is concerned with measuring the comprehension of particular contents of courses, is the assessment of learner's proficiency in language use. Proficiency assessment aims at finding out if and to what degree a learner is capable of applying the use of language skills in authentic situations. (CEF 2001: 183; Douglas 2014: 1-2.)

According to Alderson (2007: 28), the six main purposes assigned to language tests are proficiency, achievement, progress, diagnosis, placement and aptitude. The proficiency and achievement assessment were briefly introduced above. One aspect of language testing is a central one in the present study, namely diagnosis. According to A. Huhta (2010: 39), what is essential to the diagnostic form of assessment is the way it "aims to support learning, either by providing the learners themselves with information that can influence what they do, or by providing their teachers with information that can help them adjust teaching in order to improve their students' language proficiency" (A. Huhta 2010: 39). However, the role of diagnostic assessment is not completely clear within the language testing field. It is often viewed in similar terms as placement tests, as noted by A. Huhta (2010: 40). The main difference between diagnostic and proficiency tests is the attention paid to skills in detail; in diagnostic language tests the aim is to identify different skills and the strengths and weaknesses of learners in them whereas proficiency tests aim at providing a summative description of the learner's skills (A. Huhta 2010: 40). Further, Alderson (2005) aimed at asserting diagnosis a clearer position among other assessment forms as well as illustrating the possibilities language diagnosis can offer conducting tests.

Generally speaking, in working life, the interest towards revealing a worker's language proficiency is most commonly connected to the recruitment process. An employer might require certain skills for the position in question and therefore an assessment of language proficiency might be needed. In some cases, the applicants' work history and achievements might provide sufficient evidence of the language skills. Occasionally the applicant might also be

interviewed partly in English during job interviews. In the Finnish working life, testing language proficiency can be done by using two assessment systems: National Certificates of Language Proficiency and Competence-based Qualification systems (Härmälä 2011). The latter, although relevant in terms of assessing work related language skills, is not exactly relevant for the context of the present study so they will not be discussed further. The former is a criterion-referenced test used for, among other things, measuring language proficiency at work (Finnish National Board of Education, n.d.). Both productive skills, i.e. writing and speaking as well as receptive skills of reading and listening are included in this testing system. The proficiency in these skills is reported on a scale of six levels, which are equivalent to the levels of the CEFR (ibid.). The test can be completed in three levels in terms of difficulty: basic, intermediate and advanced. The test taker self-assesses his or her level of proficiency and then completes the test based on that assessment. (ibid.)

As one of the aims of the present study was to make a comparison between the participants' language proficiency and language needs in relation to their work tasks and thereby identify possible discrepancies between those two aspects, a formative assessment was deemed more suitable than summative assessment. The test used in the present study will be introduced and described in the following section. In terms of different assessment types discussed in this section, A. Huhta (2010: 40) explains the DIALANG being a criterion-referenced form of assessment as it is largely constructed with the help of the CEFR.

In addition to discussion on language tests, self-assessments need to be mentioned in this section, as they were used in the present study to support the information gathered with the language test to be presented next. In CEF (2001: 191), self-assessment refers to the individual's own beliefs about his or her language skills. The self-assessments in the present study were formulated based on global self-assessment grid provided by the CEF (2001: 24).

### 3.2.1 DIALANG and other tests

Here I will introduce in more detail the test employed in this study. I will additionally describe some of the other language tests widely used. The reasons for using the DIALANG test will also be explained.

DIALANG, the product of joint efforts of several actors in the European higher education, is a system intended for diagnosing language proficiency (Lancaster University, n.d.). The system provides information of proficiency based on the language performance in the tests along the CEFR scale to the test taker. Test takers are also provided with feedback on their performance in terms of what their weaknesses as well as strengths are according to the system. With DIALANG, individuals can test their skills in reading, writing, listening, grammar and vocabulary. There are 14 languages in which these skills can be tested: Danish, Dutch, English, Finnish, French, German, Greek, Icelandic, Irish-Gaelic, Italian, Norwegian, Portuguese, Spanish and Swedish. (Lancaster University, n.d.)

As mentioned above, DIALANG analyzes five skills in a chosen language and language use: vocabulary, grammar, reading, listening and indirect writing. The test provides the test taker a result according to the six CEFR levels from the lowest level of A1 to the most advanced level of C2 (detailed descriptions are provided in Appendix 2) after each section rather than simply summing the all the results from each section into one result (A. Huhta 2010: 302). The self-assessment is available in the reading, listening and writing sections but not in the vocabulary and grammar sections (Alderson 2005: 30). As stated by A. Huhta (2010: 161-162), although DIALANG divides language proficiency according to a rather conventional view on language competence into separate skills of listening, (indirect) writing, reading, grammatical structures and lexicon, the currently prevailing concept of communicative competence, as defined in the CEFR, is partly implemented in DIALANG. In fact, in addition to linguistic competence, DIALANG incorporates aspects of sociolinguistic competence (A. Huhta 2010: 162). In terms of content specificity, i.e. how the

test takes different contexts of language use into consideration in the test tasks, the DIALANG test refers to contexts in the public and private spheres, including work related situations at a more general rather than at a highly-detailed level (A. Huhta 2010: 42).

As can be inferred from the description of DIALANG provided above, the role of the CEFR is a central one in both what is reported to the test taker, in the form of the proficiency levels, as well in how the test is in fact constructed. The most relevant parts from the CEF were compiled into a document called DIALANG Assessment Framework (A. Huhta 2010: 41). According to Alderson (2005: 30), diagnosis in DIALANG is multidimensional. From a wide perspective, a test taker is informed of the level of proficiency according to CEFR scale. From a more detailed perspective, the diagnosis in DIALANG is revealed through the analysis of strengths and weaknesses in more specific areas within for instance writing skills (*ibid.*).

Other language tests frequently used in verifying English proficiency include TOEFL, IELTS and TOEIC, to name a few. In contrast to DIALANG, they are commercial, high-stakes tests and are available in certain test centers that have specific dates when the tests can be taken. TOEFL, Test of English as a Foreign Language is widely recognized and is in fact the most influential English-language test in the world. It offers skills to be tested in reading, listening, speaking and writing. (ETS.org, n.d.) Much like TOEFL, IELTS is another widely-appreciated language test for English. IELTS, The International English Language Testing System tests four language skills: listening, reading, writing and speaking. IELTS can be used for testing the English communication abilities of an individual for instance for professional purposes (IELTS.org, n.d.). Another language test, TOEIC (Test of English for International Communication) produced by ETS (Educational Testing Service) is designed for global workplace language assessment. The test is useful for employers wanting to recognize potential employees for certain job positions in terms of language proficiency. (ETS.org, n.d.).

The selection of the DIALANG test over the tests mentioned above was based on the fact that the other tests are commercial language tests and therefore could not be used in the present study. Moreover, because the aim of the present study was not to issue certificates to the participants' English language proficiency, DIALANG was chosen for the purpose of diagnosing the language used in the participants' work tasks. As discussed in the previous section, diagnosing language skills involves examining the strengths and weaknesses of the language learner instead of simply providing the information about overall proficiency. Those strengths and weaknesses were one of the central interests of the present study. In other words, due to the diagnostic aspect of the DIALANG test, it was considered suitable for purposes of the present study. Moreover, the DIALANG test is accessible to everyone at any time, since it is free and available online. This was an important reason behind the selection of the test in question because of the restricted resources available for the present study. Also, the test results are provided on the CEFR scale which is widely used in evaluating language proficiency in Europe. This means that understanding and comparing the proficiency levels between different systems is easier and more transparent (CEF 2001: 182).

### ***3.3. Language needs and language needs analysis***

In this section the one of the central concepts of the present study, language needs, will be described and reasons behind the interest to study them will be elaborated on. Also, the process of analyzing language needs is explained. Lastly, an overview is provided on the previous studies on language needs of academics in the Finnish context. The interest towards studying language needs and conducting needs analyses in order to reveal these needs, exists especially in the English for Specific (ESP) purposes teaching tradition, where needs analysis is considered as the starting point for constructing language courses bearing the specific needs of learners in mind (M. Huhta 2010: 31).

As discussed in Chapter 2, the significant role of English in Finnish working life has created certain expectations for workers concerning the use of languages. These expectations can be subjective, experienced and expressed by the language user, or objective, defined by the nature of work tasks and environment (Vandermeeren 2005: 159). In fact, as Vandermeeren (*ibid.*) explains, the term language need can be assigned with at least two meanings: first, individuals expressing their own view on the abilities they ought to have when studying and using languages, are considered as subjective needs. Also, according Vandermeeren (*ibid.*), language need can be used to refer to the objective view of the needs a language user should have, i.e. it is not based on the language users' own opinions about their language needs. Although a division between subjective and objective needs exists, Vandermeeren (*ibid.*) highlights the fact that when considering language needs, there is always some degree of subjectivity involved as the choice which needs are examined is always a subjective decision. Presently, a trend moving from subjective needs analysis to examining objective needs in order to generate comprehensive accounts on language needs can be detected (M. Huhta 2010: 210).

The reasons for exploring on language needs vary, but essentially, as Long (2005: 1) states, identifying learner's language needs is a key component in being able to determine the suitable focus and content of teaching. Moreover, according to M. Huhta (2010: 31), the significance of analyzing language needs is the greatest in teaching languages to people with specific needs concerning language use as well as in the process of revising language policies. In the context of Finnish academic working life, i.e. the context of the present study, it is perceived that exploring language needs is useful because of the increasing usage of English as a lingua franca in the academia creates demands for the workers' language use and by examining issues in language use, the ways to aid workers perform better in terms of language use can be identified.

The needs analysis practice, in the Finnish context, originates from the fields of industry and commerce, where the need for foreign languages became apparent

due to global influences over 40 years ago (M. Huhta 2010: 31). In fact, these sectors have been among the most examined ones in terms of language needs in Finland (see for example M. Huhta 2010: 36).

According to Dudley-Evans and St. John (1998, as quoted by M. Huhta 2010: 33-34), several aspects are involved when obtaining information about language needs:

- A. professional information about the learners – *target situation analysis* (TSA) (Richterich & Chancerel 1977; Munby 1979) and **objective needs**
- B. personal information about the learners – factors that may influence their learning such as learning experience, cultural information – *wants, means, subjective needs*
- C. target language information about the learners – *present situation analysis* (PSA), which allows the analyst to assess
- D. the learner's lacks: gap between (C) and (A).
- E. language learning information, how to learn effectively – *learning needs*
- F. professional communication information about A: *linguistic analysis, discourse analysis, genre analysis*
- G. what participants want from the course – *learner preferences*
- H. information about the environment in which the course will be run – *means analysis* (Dudley-Evans & St. John 1998, as quoted by M. Huhta 33-34. Emphases are added.)

This comprehensive description above reveals the relevant concepts in needs analysis. Although this description of what need analysis involves in principle is considered as the starting point for analyzing needs, as M. Huhta (2011) states, in reality there is little or no coherence between various needs analyses in the way they are conducted. There have been differences in defining language needs as well as in the way the need for languages is measured (*ibid.*). In fact, M. Huhta (*ibid.*) expresses that a certain degree of underdevelopment characterizes the language needs analysis methodology presently.

However, as pointed out by M. Huhta (2010: 140) Some of them describe the informants the language needs are collected from, such as expert practitioner and non-expert intuitions. Others refer to the ways information on the language needs is gathered, for example, surveys, unstructured and structured interviews, language audits, ethnographic methods as well as participant and non-participant observations. There are also categories which refer to the techniques which enable the gathered information to be processed and

analyzed, including diaries, journals, content analysis, discourse analysis, rhetorical analysis/register, computer-aided corpus analysis, genre analysis, task-based, criterion-referenced performance tests and triangulated methods.

According to M. Huhta (2010: 56), the most commonly used instrument for needs analysis have been both quantitative and qualitative questionnaire surveys. Interviews in their various forms take the second place as the most used method among the ones used in conducting needs analyses (ibid.). In the present study, interviews were used as the method for gathering necessary information about the needs of the informants. As M. Huhta explains (2010: 211), for making decisions on the content and layout of a language course for informants in the working life, the data gathered with the method of qualitative interviews is considered to be sufficient. Additional advantages of conducting interviews are detailed in section 4.2. Other needs analysis methods include, ethnographic methods, language audits as well as content and discourse analyses (M. Huhta 2010: 41). Language needs can be approached from different angles with these methods, as pointed out by M. Huhta (2010: 39-40).

The language needs focused on in the present study are subjective needs, i.e. the needs expressed by the informants. As M. Huhta states (2010: 34), it is generally acknowledged among need analysts that learners are somewhat unreliable when it comes to the knowledge they have of language abilities required of them in working life. In other words, they do not necessarily know what they do not know. However, as pointed out by M. Huhta (2010: 35), "those who do know the needed communication at the workplace are the domain experts who operate in the relevant language at work" and by "domain experts" she (ibid.) refers to the "members of target workplace community". In other words, the informants in the present study, applying M. Huhta's definition of domain experts, are the ones that are aware of the issues in language use in their work and are therefore used as the source of the needs analysis. Additionally, as noted by M. Huhta (2010: 211) learners at different educational levels benefit more from the investigation of objective needs than

learners already in working life as the latter group already possesses information about the actual language use at work. According to Dudley-Evans and St. John (1998: 125, as quoted by M. Huhta 2010: 57), revealing subjective language needs entails examining learners' current skills in the language in question. Also, what needs to be inquired of the informants are the details concerning the skills they want to learn in relation to the target language as well as the details of the learning circumstances (ibid).

### **3.3.1 Previous research on language needs and proficiency of academics**

As was noted by M. Huhta (2011) in the previous section, there is no uniform way in which language needs analyses have been conducted in Finland, or elsewhere. This became clear when looking into the needs analyses carried out in the Finnish context focusing on the needs and proficiency of academic workers. There have been numerous studies examining the language needs of Finnish workers in different fields, for instance in business contexts (see for example M. Huhta 2010). However, the nature of business professionals' work differs from the work of academic researchers and as the language needs of academic professionals from the field of natural sciences, similar to the needs examined in the present study, in Finland have been less studied, the focus in this section is on the studies on language needs and proficiency of academics outside the business sector.

Additionally, the focus in the previous studies on testing language proficiency in the Finnish context has often been, on the one hand, on students, and, on the other hand, business and service industries in working life. Also, based on information about the previous studies, the most common approach to assessing language proficiency in working life has been self-assessments. Again, in comparison to the language proficiency of business professionals as well as service industry employees, the proficiency of academic professionals has been less studied. The studies considered to be the most relevant ones in light of the present study will be introduced next.

Sajavaara (2000) examined the foreign language skills of Finnish government officials participating in the language training in preparation to Finland's EU presidency period in 1999. The focus in Sajavaara's study was on the language proficiency before and after the training as well on the progress made during the program. An additional interest in her study was to observe the actual effects of the language training to the officials' abilities to perform their tasks by using foreign languages (Sajavaara 2000: 9). Altogether 1,500 government officials participated at least partly to the study (Sajavaara 2000: 3). The aims of Sajavaara's study were approached from several angles: conducting language tests, interviews, questionnaires as well as observing the participants (Sajavaara 2000: 9). The language tests revealed that the government officials on average were on the level 6 which was one of the levels based on the older scale of the National Certificate of Proficiency system, equivalent to the level 4 of the newer version of the system and to the B2 CEFR proficiency level (Sajavaara 2000: 148). Some language skills on average were slightly better than others: skills in writing and reading as well as grammar and vocabulary were stronger than skills in oral production and listening (*ibid.*). Sajavaara's (2000: 112) findings on the work tasks the officials show that reading was a frequent activity almost every official faced. The types of work activities involving the use of English which were perceived as demanding by the officials included writing work-related documents and formal spoken situations such as giving speeches, lectures and presentations as well as negotiation. The less demanding activities included reading work-related documents, casual spoken interaction with colleagues, email correspondence with foreign colleagues as well as conversations over the phone. (Sajavaara 2000: 117).

The University of Helsinki's (2005) language center investigated the language needs of Helsinki university graduates in working life. The aim of the project was to discover the language needs beyond the mother tongue at work. (Karjalainen and Lehtonen 2005: 8). Additionally, the perceptions of the employers from the Helsinki Metropolitan Area of the language skills demanded by academic work was of interest to the study (*ibid.*). The study was

considerably large scaled: altogether 1190 graduates from every faculty, humanities excluded, of the University of Helsinki participated in answering the questionnaire that was sent out (Karjalainen and Lehtonen 2005: 19). The study showed that English is frequently used as a foreign language in a variety of tasks, which were already partly discussed in section 3.1. The results of the study of Karjalainen and Lehtonen (2005) concerning the informants who had graduated from the faculty of mathematics and natural sciences and who were during the study working in the university sector are examined here as the work of those informants closely resembles the work of the participants in the present study. The most common tasks involved the use of receptive skills; reading a wide range of texts and listening to presentations and speeches were among the most common work tasks in which English was present. Further, short texts such as emails were written by every worker and a clear majority wrote both pragmatic and scientific texts at work. (Karjalainen and Lehtonen 2005: 94.) In comparison to receptive skills and written productive skills, the findings of Karjalainen and Lehtonen (*ibid.*) revealed that the productive skill of speaking English had a smaller role at work. English was spoken most commonly in informal conversations with colleagues but to a lesser extent in formal circumstances such as meetings (*ibid.*).

In the study of Karjalainen and Lehtonen (2005: 37), all the informants that participated in the study (N=1190) assessed their own language proficiency based on the descriptions of different language skills formulated by using the CEFR. The informants assessed their skills in listening, spoken interaction, oral production, reading and writing with the help of the CEFR scale ranging from A1 to C2 (*ibid.*). Listening skills were assessed based on two situations: understanding talk related to usual work tasks and understanding field-specific presentations. Moreover, oral production skills were assessed in terms of giving guidance for instance to clients and giving field-specific presentations and speeches. Further, spoken interaction skills were assessed in terms of negotiations and meetings as well as small talk. Additionally, reading abilities were assessed in terms of understanding emails and scientific texts. Finally,

skills in writing emails but also in writing scientific texts were assessed by the informants. Those informants that had expressed using English at least monthly, assessed their skills in all of the work tasks mentioned above to be on the C1 level, the second highest level on the CEFR scale referring to effective language users. (Karjalainen and Lehtonen 2005: 38-47.) According to the employers, there was room for improvement in the skills related to oral production and especially in giving speeches and participating in formal meetings (Karjalainen and Lehtonen 2005: 167). On the other hand, the workers regularly employing English at work felt they needed to expand their vocabulary size, to have better knowledge of characteristic English expressions as well as to have more fluency when speaking English (Karjalainen and Lehtonen 2005: 49).

The study of Martin et al. (2013) was also partly discussed in section 3.1. Martin et al. (2013: 30) point out that although due to the varying forms of work in different sectors, a clear overall picture of the language needs was difficult to form based on the employer interviews, some aspects were considered important by all; Their findings (2013: 63) revealed that the graduates from the University of Vaasa faced some challenges in using English in their work: especially the employment of terminology of their field in addition to participating in conversations and negotiations with insufficient skills created challenges. Martin et al. (2013: 69) note in order for students upon graduation to have the skills demanded in working life, more emphasis needs to be put on strengthening oral communication skills during university studies. Although the informants in the study of Martin et al. were not from the same field as the participants in the present study and the study examined the specific needs in the bilingual Vaasa region, it focuses on the larger group of academic professionals and sheds light on the common aspects of language use of academics.

To sum up, language needs analyses and assessment of language proficiency have focused on different areas of Finnish working life, most prominently

however on the business sector. The most relevant study of the ones described above in terms of the present study, has been the studies of Sajavaara (2000) as well as Karjalainen and Lehtonen (2005), as these studies examined the language needs and proficiency of informants similar to the ones under examination in the present. Based these previous studies, the language proficiency of academic workers is quite good, especially in reading, listening and writing but the oral production skills are somewhat weaker. Correspondingly, English was encountered and used more at work in written form and also listening to English was more common than speaking English. What these studies do not reveal, is whether English is spoken less at work due to limited proficiency or limited possibilities to use the language. Unlike the previous studies, the present study focuses on examining the specific needs concerning English language alone in the academic profession of researchers, since it is undeniably the most used language in the field of science.

## 4 SET-UP OF THE PRESENT STUDY

In the previous chapters, the theoretical framework for the present study was presented. Moving from theory to practice, the research design used in the present study will be presented in the following chapter. I will first describe the aims and research questions of this study. Next, the focus will be on the participants and their selection criteria. Finally, the research methodology and the process of analyzing the data will be presented and reasoned.

### *4.1. Aims and research questions*

As discussed in Chapter 2, economic globalization, among other things, has increased the demand to employ English in different fields of work. The motivation for the present study came from the interest to see how academic professionals, environmental researchers in this study, actually are able to use English in their work. Specifically, the purpose of this study is to examine the relationship between the English language needs related to work and the English language proficiency of Finnish academic researchers. By comparing these two aspects, some suggestions for improving and developing the target group's language skills will be made. The language need analysis will be executed through interviews and the proficiency will be explored by completing the DIALANG language test as well as self-assessments. The aim is to answer the following research questions:

- 1) How do the language needs of academic researchers compare to their language proficiency?
  - a) In which areas of language competence and use do their needs and proficiency meet?
  - b) If there are discrepancies between their needs and proficiency, what are they like?

The purpose of this question is to reveal differences and correlations between the language needs and language proficiency of academic researchers. This means that the language proficiency will be examined in relation to the need analysis responses concerning language needs in work tasks. If, for instance, the participants do not perform well in their written part of the language test, and they have assessed their written language proficiency to be good but they have expressed that their work tasks require good written skills, a discrepancy between language proficiency and needs has occurred.

2) How can the target group's language needs be better taken into account through language training?

The second research question is concerned with the possible differences that may be revealed from looking at the correspondence between the informants' language proficiency and language needs. If discrepancies between language needs and language proficiency occur in some areas of language use, they will be discussed and some suggestions for improving language proficiency according to language needs will be made.

## ***4.2 Research methods***

According to Seale et al. (2007: 5), at the heart of qualitative research lies the aim to examine closely individuals' point of view to a topic. Moreover, qualitative research is characterized by the pursuit to discover what happens in practice rather than examining what should happen in theory (Hirsjärvi, Remes & Sajavaara 2009: 161). To gain an in-depth view of the topic and to hear the participants' own voices face-to-face, a qualitative approach was adopted in the present study. Additionally, the qualitative approach to the topic was selected because there were only a small number participants and surveys or questionnaires might have not provided enough data to produce a master's thesis scale work. Although the nature of the study is qualitative, some quantitative information is also provided for the purposes of reporting the language test results, as will be explained in section 4.4.2.

Interviews, among others, are tools for conducting qualitative research. Their objective is to reach an understanding of the aspects under investigation from the interviewees' point of view. In the present study, the focus in the interviews was on the members of a specified organization, and thus the present study can be called a case study. (Kvale & Brinkmann 2009: 117). Research interviews, such as the ones carried out in this study, aim at producing knowledge about the topic under examination. Moreover, the interviews in the present study had a specific purpose of acting as a needs analysis tool. As pointed out by M. Huhta (2010: 120), as interviews enable detailed examination of a topic, they are useful needs analysis tools.

Although there are different types of interviews, they can essentially be categorized into three different types according to how structured both the questions and the interview situation are: structured interviews, semi-structured or theme interviews and unstructured interviews (Hirsjärvi & Hurme 2014: 43-44). Structured interviews are typically preset in terms of questions and their order. They are used, for instance, when a researcher has formal hypotheses and they wish to test them or when the generalizability of previous qualitative research results is tested (Hirsjärvi & Hurme 2014: 45). According to Hirsjärvi et al. (2009: 208), structured interviews resemble questionnaire surveys in terms of question characteristics. Unstructured interviews, on the other hand, are much more free in terms of structure. The terms which are used to refer to it are also less uniform; it is referred to as open interview, deep interview and informal interview and clinical interview, to name a few (Hirsjärvi et al. 2009: 209; Hirsjärvi & Hurme 2014: 45). This interview type makes use of open questions on which the interviewer bases the discussion during the interviews. In fact, open interviews are typically discursive in nature (Hirsjärvi & Hurme 2014: 47). Traditionally, open interviews have been employed by clinical researchers of psychology but also by sociology researchers (Hirsjärvi & Hurme 2014: 46). Between these interview types described above, are semi-structured, or thematic interviews. The terms

semi-structured interview and thematic interview refer to interviews where a certain theme or a set of themes is preset but the content and the structure of the questions are not (Hirsjärvi & Hurme 2014: 47). Moreover, in thematic interviews the interviewee's answers are not bound to any specific set of options, as in structured interviews. This allows the interviewees to voice their own answers freely (ibid.). In the present study, semi-structured interviews were seen as the most appropriate data gathering method as they are among the most common methods for conducting needs analyses. Also, as noted by Saaranen-Kauppinen and Puusniekka (2006), if there is little need to provide the interviewees with freedom in respect to the topics covered in the interview due to the earlier decisions made on the content of information needed from the interviewees, the use of semi-structured interviews is considered suitable. This was the case in the present study as the interviews were used to collect certain information relating to language needs.

#### **4.2.1 The participants: Academic professionals**

The eight participants of this study are researchers at the Finnish Environment Institute (SYKE) Jyväskylä office. The interest towards the selected group of participants and their use of English arose when I was completing an internship in the same research institute as the participants. I discovered that the researchers faced different situations at work where they needed to employ English. Environmental researchers collaborate with people from all over the world and in most cases the counterpart does not speak English as a first language. In other words, these researchers are mostly employing English in ELF situations and therefore I was interested in examining more closely their needs as well as their performance concerning English use at work. These particular participants were selected because they all employed English frequently at work, which was revealed in a preliminary interview with the team leader of one of the units the informants worked in and they were thus perceived to possess knowledge of the issues concerning English use as researchers.

**Table 1.** Participant information

Participant	Gender	Age	Mother tongue	Education	Work title
A	Male	36-45	Finnish	Master's degree	Researcher
B	Male	over 55	Finnish	Ph.D.	Research manager
C	Male	36-45	German	Ph.D.	Senior research scientist
D	Male	46-55	Finnish	Ph.D.	Senior research scientist
E	Male	46-55	Finnish	Ph.D.	Senior research scientist
F	Female	36-45	Finnish	Master's degree	Researcher
G	Female	25-35	Finnish	Ph.D.	Researcher
H	Female	25-35	Finnish	Master's degree	Researcher

As illustrated in Table 1, altogether eight participants, five men and three women, were interviewed and tested with the DIALANG test. The average age of the participants was 42. The mother tongue of seven of the participants was Finnish and the native language of one participant was German. At the time of the data gathering three of the informants had a master's degree in their respected field of study in natural sciences and five had a Ph.D. degree. Their educational background was included as part of the information gathered from them since it was reasonable to assume that the informants who had finished their Ph.D. studies worked in slightly different positions compared to the informants who at the moment of the data collection had not completed a post graduate degree. Four of the informants worked in senior researcher positions and four participants worked under the title researcher.

The Finnish Environment Institute (SYKE) is a research and expert institute that investigates the phenomena related to changes in the environment as well as focuses on developing tools for managing these changes. SYKE's operations are situated in Joensuu, Jyväskylä and Oulu, the largest section of the organization being located in Helsinki. SYKE has seven centers focusing on research and

development activities as well as on producing environmental services: freshwater, marine environment, natural environment, consumption and production, environmental policy, laboratories and information center. Additionally, each of these centers operate further in multiple specified areas. SYKE has research programs that assess environmental problems such as climate change. Moreover, various national and international actors receive expertise related to environmental issues from SYKE. In addition to local and regional collaboration, SYKE cooperates with international actors in the environmental sector. SYKE's regional office in Jyväskylä and the University of Jyväskylä have shared research activities. (SYKE.fi, n.d.)

### ***4.3 Data collection***

The data of the present study were collected with the help of interviews and the DIALANG language test. The overall data consist of eight transcribed interviews and eight test result summaries. The interviews are described first and then the language test is explained.

#### **4.3.1 Interviews**

The interviews in the present study acted as the tool for needs analysis. The basis of the interview was adapted with minor changes from the CEF Professional project (2010). The project resulted into a needs analysis tool for designers of courses on language and communication for professional purposes in the industries of business, law, technology and health care (CEF Professional Website Handbook 2007). The particular part adapted from the project for the purposes of the present study was the needs analysis interview outline for domain experts, or "members of target workplace community" (M. Huhta 2010: 35). The interview outline used in the present study was originally created as one of the methods for compiling professional profiles of business and industry workers in terms of English language use. However, as noted by M. Huhta (2010: 106), the CEF Professional Profile concept can be applied to other fields of professional work in addition to law, technology, health care and commerce. In

this study, although the informants were not from the above-mentioned fields, and the aim was not to compile professional profiles, the domain expert interview outline was considered to be a useful tool for investigating the language and communication needs of academic researchers as the outlined questions in the interview generated both general and specific information about the language use and language needs at work.

The semi-structured interviews in this study were based on three themes related to the informants' language use in their profession. The interviews were outlined according to the interview schedule to domain experts from the CEF professional project. The outline was modified by leaving some questions out as well as adding some questions so that the interview would better match the aims of the present study. The full interview outline of the present study can be found in Appendix 1. The interviews followed the order of the questions moving from the more general information to the more detailed aspects of English language use at work. Altogether 25 questions formed the schedule of the interviews in the present study. The first five questions aimed at establishing a general picture of what is involved in working as an academic researcher and which languages they encounter at work. The following nine questions concentrated on creating an overview of the language and communications situations the researchers face at work. After this, nine questions on language course objectives and important language skills were presented to the informants. Finally, the last two questions dealt with the views on general communication and sociocultural factors in the informants' work.

The interviews in the present study were semi-structured in the sense that specific questions were formulated beforehand for the purposes of the needs analysis but allowed some room in terms of order in which they were presented. This was the case in the present study as the needs analysis interview adapted from the CEF Professional project covered the essential aspects under examination. The interviews and tests were executed on January 30<sup>th</sup> and 31<sup>st</sup> and on February 8<sup>th</sup> 2013. With each informant, the interview and

the test were both completed in a single session for time and other practical reasons. The interviews, which were conducted in Finnish, were recorded on mp3 file format so that the data would later be available for a closer analysis. The interviews were transcribed with the help of the *SoundScriber*-program. The average length of the interviews was 34 minutes, the total length the interview data being 272 minutes.

### **4.3.2 The language test**

A general description and reasons for using the DIALANG test in the present study was provided in section 3.2.1. The tested aspects of language proficiency in the present study were vocabulary, grammar and writing. The DIALANG system did not offer a test for spoken language skills due to technical issues in testing spoken output and thus speaking was not tested at all, and the time constraints of this study did not allow reading and listening skills to be tested either. However, the informants' abilities for spoken communication, listening and reading aspects were addressed in the needs analysis interview and in the self-assessments. On average, the test, including the three tested skills, took one hour and 45 minutes to complete. At the time of the data gathering DIALANG test results could not be saved by the system. For this reason, screen shots of the results were taken after each skill section of the test so that the results could be analyzed later.

The DIALANG test could have been completed in one of the three different levels according to the result of the pre-word test, i.e. Vocabulary Size Placement Test (VSPT). The VSPT was included in the actual test so that the difficulty level was neither too low nor too high for the participants and thus the results are as accurate as possible. Additionally, the self-assessment provided by DIALANG in the writing skill section was completed by the participants and this resulted, together with the VSPT result, in a different number of questions for one participant in the writing section, as will be explained at the beginning of section 5.1. Finnish was chosen as the language of

the instructions which were provided to the test takers by DIALANG during the test in order to ensure that the participants understood what needed to be done in each test task.

The DIALANG writing test assessed the informants' knowledge in the following skills: register/appropriacy, accuracy and textual organization. These skills were tested indirectly, as the participants were only required to write short texts consisting of two word phrases in some of the tasks in the writing test. The vocabulary test focused on different aspects of words: word formation, semantic relations, denotative meaning and combinations. Alderson (2005: 193) explains the four aspects further as being able to:

- 1 recognize/produce word meanings, including denotation, semantic fields, connotations and appropriateness;
- 2 recognize/ produce semantic relationships between words, including synonymy/antonymy/converses, hyponymy/hypernymy, polysemy;
- 3 recognize/ produce word combinations, including collocation and idiomaticity
- 4 recognize/ produce words by compounding and affixation.

The vocabulary test thus focused on the recognition and production of these aspects described above. Moreover, the grammar section tested the knowledge of forming words and arranging them, i.e. morphological and syntactic rules. The knowledge of these rules was tested in terms of the main word classes: nouns, verbs, pronouns, numerals, adjectives and adverbs (Alderson 2005: 172). Moreover, punctuation and word order were among the aspects tested in the grammar section. The grammar test also entailed a sub-section named other structures. These other structures are not specified by the DIALANG system but they were nevertheless related to vocabulary knowledge.

There are a number of language tests available but only few were considered appropriate for the purposes of the present study, as explained in section 3.2.1. The DIALANG test was used as it provided the test taker with results along the CEFR levels of foreign language learner as well as diagnoses strengths and weaknesses in more specified language sub-skills.

## ***4.4 Methods of analysis***

The methods for analyzing proficiency tests and needs analysis interviews are elaborated on next.

### **4.4.1 Needs analysis interviews**

The data in the present study collected with semi-structured interviews is analyzed by using a qualitative analysis method of content analysis. Content analysis has a considerable history as a method for analyzing texts (Holsti 1968; Silbermann 1974, as quoted by M. Huhta 2010: 52). According to Hirsjärvi et al. (2009: 166), content analysis is the examination of communication content. They also point out that there are different views on the true nature of content analysis: some view it as separate discipline and other view it as an analysis method (Hirsjärvi et al. 2009: 153). Nevertheless, what characterizes content analysis is the notion of systematicness in the analysis process, as expressed by Krippendorff (2013: 3): “[c]ontent analysis entails systematic reading of a body of texts, images, and symbolic matter --”.

The content analysis method is generally divided into to three approaches: inductive, deductive and theory-based content analysis (Saaranen-Kauppinen and Puusniekka 2006). In the inductive approach, the examination of the data begins by searching for frequently occurring categories or themes which are then applied to the rest of the data. In other words, the data itself is the source for creating categories. The deductive approach, on the other hand, uses existing theories, labels or categories and the analysis is based on organizing the data according to them. (Saaranen-Kauppinen and Puusniekka 2006.) A combination of the inductive and deductive approaches was deemed the most suitable as some of the categories stemmed from the data itself and some categories from the needs analysis interview schedule. In the present study, the analysis began with the meticulous process of transcribing the interview data with a special focus on content. In fact, the data was transcribed word for word, but as the intention was not to examine the language used by the informants

during the interviews. Therefore, it was perceived of secondary importance to apply transcription conventions to the data. After transcribing, the data was read thoroughly several times and making preliminary notes. Then, the data was considered in terms of the categories stemming from the needs analysis interviews: spoken interaction, written communication, language training needs in different skills as well as general communication objectives.

#### **4.4.2 The language test**

The analysis of the data from the DIALANG test entailed both quantitative and qualitative aspects. The results, i.e. the CEFR level achieved in the test, of each tested skill are reported and the scores of each sub-skill were calculated and they are represented in tables. More precisely, each sub-skill was examined in terms of the number of questions each of the skills were tested with and how many of these questions the participants answered correctly. Moreover, average percentages of correct answers in each sub-skill were calculated in order to see possible differences between sub-skills, i.e. if other sub-skills were more difficult than others. In addition to this quantitative examination, the results were discussed in terms of the significance of the performance in each sub-skill within the writing, grammar and vocabulary test to the overall performance.

## 5 RESULTS

After having presented the methods used in gathering the data and analyzing it, the results of the DIALANG test, self-assessment forms and interviews will be described next. First, the DIALANG language test results will be presented in detail. Then, the results of the self-assessment forms will be reported followed by needs analysis interview results. The Results chapter will be concluded with a summary of the DIALANG test results and the needs analysis data.

### *5.1 Proficiency based on the DIALANG test*

The DIALANG test was completed in three language skills: writing, vocabulary and grammar. Each of the sections entailed 30 questions. The questions presented to the participants were multiple-choice, short-answer, drop-down menus and text-entry questions. The writing test presented self-evaluation questions with yes/no statements to the test takers and provided them with results according to the CEFR scale (A1, A2, B1, B2, C1 and C2). All the tests provided information about the test takers' level of language proficiency according to the CEFR scale.

The first step in the DIALANG test was the vocabulary size placement test (VSPT), which determined the difficulty level (easy, intermediate or hard) of the grammar and vocabulary tests. In the VSPT the informants were asked to decide from 75 verbs the test provided which of them were real words and which were not. The following information was provided to the informants prior to the VSPT:

This test is used to estimate the size of your vocabulary in the test language. It is used to determine which test items to present to you subsequently for an assessment of your language level. In the test, you will be presented with a collection of `words', some of which are real, and some of which are invented. All the `words' are verbs, for example, `to speak', `to run', `to eat', and so on. For each word, you must press the Yes button if you think the word exists. If you think it is an invented word, press the No button. You do not have to take the placement test, and you may abandon it part way through, but if you do abandon it, you may later get a test which is too hard or too easy. Therefore we strongly advise you to finish the test. (DIALANG.)

The writing test section took into account the result of the VSPT but also the self-assessment result. For one participant, in the writing test section, this meant that he or she got a different number of questions than the other participants in each writing sub-skill: nine word-register/appropriacy questions, ten textual organization questions and eleven language accuracy questions. The other participants got eight word-register questions, nine questions related to textual organization and thirteen questions testing language accuracy. The explanation for the variance in the number of presented questions was a result of two factors. Firstly, the VSPT result for this one participant was 622 (see Table 2 for a description of the scores, Huhta 2007: 47) and secondly his/her self-assessment result was the higher level of the independent user on the CEFR scale, B2. These factors resulted in the test offering this participant the intermediate difficulty level in the writing section. Another participant also received a roughly equivalent score of 639 in the VSPT, but this participant estimated his/her level of proficiency in writing skill to be at the highest level on the CEFR scale, C2 (mastery of the language and proficient user). This high estimation of written language skills signified that this participant completed the writing test on the hardest level. If the writing test questions would have been presented on the basis of the VSPT result, this informant would have received the same proportion of questions for each writing sub-skill as the informant F. In other words, the level of difficulty in the test for participant B was determined on the basis of the self-assessment. In the grammar and vocabulary tests the two informants referred to above completed the test on the intermediate level, as there were no self-assessments in these sections and the test in these sub-skills were completed on the difficulty level based on the VSPT results. The other six informants completed all the tests on the difficulty level hard.

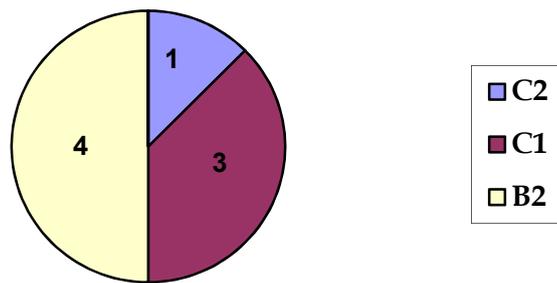
**Table 2.** Vocabulary size placement test levels

Score band	Band descriptions
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<b>901-1000</b>	Very high score, typical of a native speaker, or a person with near-native proficiency.
<b>601-900</b>	People who score at this level are typically advanced learners with a very substantial vocabulary. Learners at this level are usually fully functional and have little difficulty with reading, though they may be less good at listening.
<b>401-600</b>	People who score at this level typically have a good basic vocabulary, but may have difficulty handling some material that is intended for native speakers.
<b>201-400</b>	People who score at this level have a limited vocabulary which may be sufficient for ordinary day-to-day purposes, but probably doesn't extend to more specialist knowledge of the language.
<b>101-200</b>	This level indicates a very basic knowledge of the language, probably good enough for tourist purposes or getting by, but not for managing easily in many situations.
<b>0-100</b>	This level indicates a person who knows a few words, but lacks any systematic knowledge of the basic vocabulary of the language.

As mentioned earlier, the writing skills section of the test provided the participants with the possibility of assessing their language proficiency. Their assessed language level was then compared with the actual test result (see section 5.2.1). The actual DIALANG writing test measured three different aspects of language proficiency: assessment of word appropriateness, awareness of text structure and language accuracy. However, these aspects were not equally extensively tested since more questions focused on measuring language accuracy than word appropriateness.

The overall average result of the writing tests was the C1 level, i.e. effective operational proficiency (the full descriptions of the Common European Framework of Reference (CEFR) levels are provided in Appendix 2.) Three of the participants received a score equivalent to the C1 level (lower level of proficient user), four reached the B2 level (independent user) and one participant received the C2 level (higher level of proficient user), as illustrated in Figure 3 below.



**Figure 3.** Distribution of writing test results

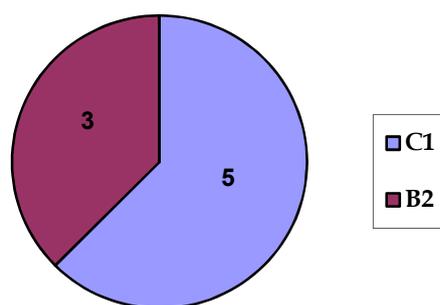
As described previously, the number of questions in each tested sub-skill depended on the VSPT result, and with one participant the self-assessment, each informant completed in the beginning of the test. Word register and appropriacy were hence tested either with eight or nine questions, textual organization with nine or ten questions and language accuracy with eleven or thirteen questions. Table 3 reports all the right answers by each participant in relation to the questions asked.

**Table 3.** DIALANG writing test results by sub-skill

Participant	Word register/appropriacy	Textual organization	Language accuracy	CEFR level
A	7/8	9/9	11/13	C2
B	5/8	6/9	5/13	B2
C	8/8	6/9	11/13	C1
D	7/8	6/9	9/13	C1
E	7/8	1/9	7/13	B2
F	5/9	7/10	8/11	B2
G	5/8	5/9	8/13	B2
H	5/8	7/9	7/13	C1
Average score	6.125/8.125	5.875/9.125	8.25/12.75	C1
Right answers	75%	64%	65%	-

In general, the participants had most difficulties with language accuracy questions: none of them answered all the questions correctly. In the textual organization and word register skills two different participants got all the answers right. All the participants answered correctly to at least half of the questions with two exceptions: participant C only got one out of nine textual organization question right and participant E answered correctly to five out of thirteen language accuracy questions. Text structure related questions and language accuracy related questions generated roughly the same percentages (64% and 65%) of right answers whereas questions testing word appropriateness skills generated ten percentages more right answers. Overall, the participants performed well considering they received scores equivalent to the two highest CEFR levels apart from the

The second area of language skill tested was grammar. Unlike the writing test, the grammar section did not include a self-assessment component. The overall average result of the grammar tests was C1, the lower level of proficient user. Five of the participants reached the C1 level and three received a score equivalent to the B2 CEFR level, as illustrated in Figure 4.



**Figure 4.** Distribution of grammar test results

The grammar test entailed eight different categories: verbs, numerals, nouns, adjectives and adverbs, pronouns, word order and combining words, the use of punctuation marks and other structures. The number of questions presented in each sub-skill of the grammar test varied according to the result of the VSPT

completed at the beginning of the test: the higher the VSPT score, the more difficult the test level. The mastery of verbs was tested with three or seven questions, numerals with two or four questions, nouns with four questions, adjectives and adverbs with one or three questions, pronouns with three or four questions, word order and word combinations with five or seven questions, punctuation with two questions and other structures with four or five questions. Verbs, nouns, word order and other structures were among the most tested sub-skills. They are numerically speaking the largest components of most languages; hence it is logical they were the main areas of focus in the grammar test. The use of punctuation marks, numerals and adjectives and adverbs on the other hand, which were tested with fewer questions could be seen as sub-skills not crucial for language users' proficiency compared to for instance to mastery of verbs and nouns. The detailed results of the grammar test are presented in Table 4 below.

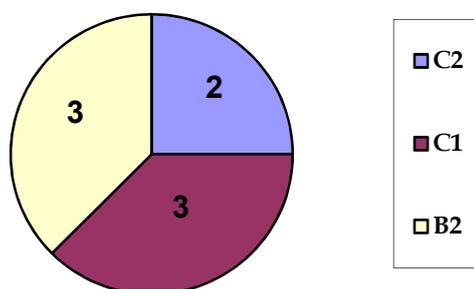
**Table 4.** DIALANG grammar test results by sub-skill

Participant	Verbs	Nouns	Pronouns	Numerals	Adjectives and adverbs	Punctuation	Word order	Other structures	CEFR level
A	5/7	4/4	3/4	2/2	1/1	2/2	5/5	5/5	C1
B	3/3	4/4	3/3	4/4	3/3	0/2	6/7	3/4	B2
C	5/7	4/4	3/4	2/2	1/1	2/2	5/5	5/5	C1
D	5/7	4/4	4/4	1/2	1/1	1/2	4/5	4/5	B2
E	6/7	4/4	4/4	2/2	1/1	1/2	3/5	4/5	C1
F	3/3	3/4	3/3	4/4	3/3	1/2	5/7	4/4	B2
G	5/7	4/4	4/4	2/2	1/1	2/2	4/5	4/5	C1
H	5/7	4/4	3/4	2/2	1/1	2/2	3/5	4/5	C1
<b>Average score</b>	4.625/6	3.875/4	3.375/3.75	2.375/2.5	1.5/1.5	1.375/2	4.375/5.5	4.125/4.75	C1
<b>Right answers</b>	77%	97%	90%	95%	100%	69%	80%	87%	-

As illustrated in Table 4, in the grammar test the easiest sub-skills were adjectives and adverbs since all of the participants received full scores in this

section. However, the number of questions testing the participants' skills concerning adjectives and adverbs was relatively low in comparison to other tested sub-skills which might have had an effect on the degree of success with adjectives and adverbs. The lowest overall average score and percentage of right answers was found in the verbs and the use of punctuation marks where the percentages of right answers were 77% and 69%. Questions related to nouns, pronouns and numerals were relatively easy for all participants. Word order generated 80% right answers and other structures 87%. All in all, the participants performed well in the grammar test as indicated by the overall average level of proficiency of C1, the second highest level of proficiency according to CEFR.

The third aspect of language proficiency tested with DIALANG was vocabulary. In this section the following sub-skills were tested: word formation, semantic relations, denotative meaning and combinations. The participants' overall average performance in the vocabulary test was at C1 level. Two of the participants reached the C2 level of proficient user, three received a score equivalent to the C1 level of effective operational user and B2 level of independent user was reached by three participants. The proficiency levels achieved in the vocabulary test are illustrated in Figure 5.



**Figure 5.** Distribution of vocabulary test results

The vocabulary skills were tested with six questions focusing on word combinations, seven and eleven on word meaning questions, seven on word

formation and six or ten meaning relationship related questions. Table 5 shows all the individual scores of the participants in each sub-skill. None of the categories generated full scores but the participants answered questions related to word meanings with almost 90% accuracy. Word formation and semantic relation questions generated 84% and 80% of correct answers. Word combining questions however generated a slightly lower overall percentage of right answers, i.e. 71%.

**Table 5.** DIALANG vocabulary test results by sub-skill.

<b>Participant</b>	<b>Combination</b>	<b>Meaning</b>	<b>Word formation</b>	<b>Semantic relations</b>	<b>CEFR level</b>
<b>A</b>	6/6	11/11	7/7	6/6	C2
<b>B</b>	4/6	6/7	7/7	9/10	C1
<b>C</b>	5/6	11/11	6/7	6/6	C2
<b>D</b>	4/6	10/11	5/7	4/6	C1
<b>E</b>	3/6	6/11	6/7	5/6	B2
<b>F</b>	5/6	7/7	6/7	8/10	B2
<b>G</b>	4/6	8/11	5/7	3/6	B2
<b>H</b>	3/6	11/11	5/7	4/6	C1
<b>Average score</b>	<b>4.25/6</b>	<b>8.75/10</b>	<b>5.875/7</b>	<b>5.625/7</b>	<b>C1</b>
<b>Right answers</b>	<b>71%</b>	<b>88%</b>	<b>84%</b>	<b>80%</b>	<b>-</b>

On the whole, based on the tested written skills the participants' English language proficiency appears to be at the C1 CEFR level which means they have an effective operational proficiency in English. The effective operational proficiency is described as follows:

Can understand a wide range of demanding, longer texts and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed texts on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices. (CEF: 2001: 24)

As the DIALANG test states, the difference between C1 and C2 proficiency levels is very subtle and is most commonly reached by native speakers of a language, it could be argued that the SYKE researchers have an advanced

proficiency in English. The easiest test the informants completed with DIALANG based on the achieved CEFR levels was the vocabulary test where two of the participants received a score equivalent to the proficient user C2 level. Conversely, in the DIALANG grammar test the highest CEFR level C2 was not achieved by any of the informants and in the writing test half of the scores achieved were in the intermediate user level. Moreover, the range of achieved CEFR levels in the vocabulary test was the widest whereas in the grammar test the range of the levels achieved was the narrowest. This indicates that grammar is a sub-skill of written language skills the participants are the most equally proficient. Vocabulary on the other hand is a sub-skill in which the informants have the most differing proficiencies.

## ***5.2 Proficiency based on the self-assessments***

The participants assessed their language proficiency in the following skills: writing, listening, reading, spoken interaction and speech production. Since the DIALANG writing test included a self-assessment section, in this study writing skills were evaluated twice. The participants completed the self-assessments prior to the interview and the test. The self-assessment form included five statements about the participants' proficiency in each language skill. The statements were descriptions of the six CEFR levels from the elemental to the most advanced level (see Appendix 2).

**Table 6.** The participants' self-assessments of their writing skills

<b>Participant</b>	<b>DIALANG</b>	<b>Self-assessment form</b>	<b>Difference</b>
<b>A</b>	C1	C1	Same
<b>B</b>	C2	C2	Same
<b>C</b>	C1	C1	Same
<b>D</b>	C2	B2	<i>Discrepancy</i>
<b>E</b>	C2	C2	Same
<b>F</b>	B2	B2	Same
<b>G</b>	C2	C1	<i>Discrepancy</i>
<b>H</b>	B1	B2	<i>Discrepancy</i>

On average, the participants assessed their writing skills to be at the second highest, C1 level (effective operational proficiency), both in the test and in the self-assessment form. As is illustrated in Table 6, three of the participants assessed their skills differently in the test's self-assessment and in the self-assessment form. In two of these cases the participants evaluated their writing skills to be at a higher level in the DIALANG test self-assessment than in the self-assessment form. One participant estimated his or her writing skills in the test's self-assessment to be at a lower level than in the self-assessment form. Five participants were consistent with their assessments i.e. evaluated their abilities to be on the same level in both self-assessments. Although there were differences in how the self-assessments were formulated in the DIALANG system and in the self-assessment form, the participants were mostly able to assess their skills consistently in these two self-assessments.

Some of the differences in the self-assessments in the DIALANG system and in the self-assessment form might have resulted from the options presented in them. Some of the participants pointed out during the completion of the self-assessment form that the options presented were somewhat strict, and that, if a description did not apply to them completely, they probably estimated their abilities to be on a lower level than they actually were. For instance, in the listening skill section the choice between options e) and f) which correspond to the CEFR levels of C1 and C2:

e) I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signaled explicitly. I can understand television programs and films without too much effort.

f) I have no difficulty in understanding **any kind of spoken language**, whether live or broadcast, even when delivered at fast native speed, provided. I have some time to get familiar with the accent. (emphasis added).

might have been a question where every statement in those descriptions applied to them completely. In doing so, they might have chosen an option

which was one level lower than their actual level.

The second language skill the participants self-assessed was listening. Here their overall self-assessed CEFR level was C1. Similarly, the overall estimation of reading skills was C1. Both spoken interaction and speech production skills overall, on the other hand, were assessed to be on the B2 level. Table 7 summarizes the writing skill self-assessments and DIALANG writing test results.

**Table 7.** The DIALANG writing results compared with the DIALANG writing skills self-assessments

Participant	DIALANG writing test	DIALANG self-assessment	Difference
A	C2	C1	Underestimation
B	B2	C2	Overestimation
C	C1	C2	Overestimation
D	C1	C1	Same
E	B2	C2	Overestimation
F	B2	B2	Same
G	B2	B1	Underestimation
H	C1	C2	Overestimation

Based on the information in Table 7, four of the informants overestimated their writing skills. The difference between the DIALANG writing test result and the self-assessment was the biggest with participants B and E. Participants A and H, on the other hand, underestimated their skills in writing. Interestingly, the actual proficiency levels of these two informants were the highest and the third highest on the CEFR scale: C2 and B2. This indicates that underestimation of language skills can occur even on the highest level of proficiency. Lastly, two informants had realistic views of their language skills in writing as their test writing test result and self-assessment corresponded with each other.

### ***5.3 Language needs at work***

This section of the results examines the content of the Needs Analyses which in the present study aimed at creating a comprehensive picture of the participants'

language needs. The needs analysis interviews which was divided into four themes. These themes were background information, language-specific description and general communication. The language-specific description question theme was further divided into two categories: context information and objectives of learning courses, materials methods and assessment. The background information was used to get a sense of the professional skills that these informants based on their education had. It was not used to analyze the actual language needs but they provided an understanding of what they in theory should be able to do as academic professionals. The language-specific questions focused on English and the contexts of its use in the informants' work. Information about needs related to language training were used to determine which language skills needed improvement and how language proficiency according to the informants could be improved. Lastly, general communication was discussed in terms of how the participants viewed general communication skills affecting their English language use.

Firstly, the aim in the needs analysis was to establish a general picture of the participants' work tasks in their current positions with their current employer. Also, the informants were asked about other possible work tasks, positions and employers they could be working for in order to make sense of the range of language use they could be subjected to. Secondly, a more detailed description of the actual situations and tasks where the use of English is present was created. Moreover, each of their skills in English and the ways for improving these skills were discussed. Lastly, the general communication objectives relating to communicative activities between users of English were considered.

The needs analysis interview began by establishing the outlines of the participants' language use and needs they had, concerning language use in their current jobs and in other possible positions they could be working in. As mentioned in section 4.2.1, the participants in this study all worked as researchers at SYKE. In addition to working as researchers, the informants, depending on their educational background, could work as consultants,

engineers, scientific advisors or as teachers. The participants could be employed by other research institutes, universities, government and municipalities. Although this information was not directly relevant for the purposes of the present study, this examination on the range of potential jobs and employers of the participants illustrates the need for the participants to have a variety of language skills when entering working life.

Additionally, the participants were asked to consider a list of typical task descriptions provided for them. These included fieldwork, writing articles, research process, participating in projects and seminars. On the whole, the informants viewed that the above-mentioned work tasks are the core activities they face in their work as researchers. A few participants mentioned, however, that fieldwork is not a part of their work tasks. Other activities that were not mentioned on the list of typical task descriptions, but the informants pointed out that their work included engineering work, and official negotiations as a representative of SYKE or the ministry and advising clients.

Moreover, the informants were asked to which degree they needed different languages in their work. One of the informants commented on the frequency of using English at work:

- (1) Ööö . koko ajan, päivittäin. Mä luen luen englanninkielisiä raportteja, englanninkielisiä tieteellisiä julkasuja mä käyn kirjeenvaihtoa sähköpostitse englanniks, päivittäin oikeastaan ja ja tota pidän yhteyttä tutkijakollegoihin, osittain käytän myös ohjelmia joissa on englanninkieliset valikot.

Um all the time, daily. I read reports, scientific publications written in English I write emails in English, daily actually and I keep in touch with research colleagues, I also sometimes use programs with English menus.

In fact, all informants expressed that they used English daily in their work. Two informants mentioned that every fourth email exchange is in English. Another participant stated the following:

- (2) No siis kyllä tekstit on oikeastaan kaikki kaikki lähdetekstit on englanniks. Se on niinku ihan selkeesti et ei ilman englantia pärjää ollenkaan.

Well all the texts are all the source texts are in English. It's clear that you cannot cope without English.

This informant highlighted the presence of English in relevant literature which is used in conducting research. Moreover, one informant uses English even more than Finnish in his or her work:

- (3) Koko ajan, mun niinkun työajasta melkein väittäisin että reilu puolet on englannin kielellä tapahtuvaa. Että tota mä käytän sitä päivittäin aika kaikenlaisissa yhteyksissä.

All the time, I would say I use English more than half the time I'm at work. I use it every day in all kinds of situations.

When asked about the different languages the informants needed in their work, seven of the informants expressed that they only needed English, in addition to Finnish. Only one informant stated using another language alongside Finnish and English, namely Swedish but only to a very small extent. The informants' English language proficiency was tested in the job interviews they went to before entering SYKE. The job interviews entailed a short section during which the conversation took place in English. Most of the informants stated that good language skills were expected of them in their current positions.

### 5.3.1 Spoken interaction

The Needs Analysis interview was divided into two parts when examining the language needs: spoken and written interaction. The needs concerning spoken interaction were dealt with first. The informants were provided with a list of most common situations where they would need to speak English and they were asked to categorize the situations according to their importance. The list included the following situations: meetings, seminars, fieldwork, visits, video conferences, phone calls and presentations. The term importance was used here to refer to the frequency of the situations where they used English as well as to the importance of the situations in which they had to make themselves understood or understand others. One of the informants commented on the list of situations:

- (4) Kyl nää kaikki on. No ei nyt tällä hetkellä tuu mieleen tossa aika kattavasti on. No ehkä voisin lisätä että päivittäin toimistollakin että kyllä meillä on ulkomaalaisiakin töissä.

Yes these all are. I can't think of any right now but this is pretty extensive. Maybe I could add that daily at the office, we do have foreigners working here as well.

The most important situations concerning spoken interaction according to the informants were meetings, giving and understanding presentations, visits and seminars. Meetings were mentioned by all, except one informant, whereas presentations, seminars and visitations were mentioned by five informants. Making phone calls was mentioned by two informants as being among the most important spoken situations. One informant pointed out that daily conversations and interaction at work was one of the most important spoken situations. In addition, one participant mentioned video meetings as an important spoken situation at work. As one informant pointed out in Example 5, researchers' work tasks entail a fair number of meetings, seminars and conferences, which would explain why they were mentioned by the majority of the informants.

- (5) Täähän ei oo mitään muuta kun projekteja ja sitten niihin liittyviä seminaareja ja workshopeja.

This is nothing but project related and seminars and workshops.

Phone calls might not be the most convenient or cost-effective way to keep in touch when it comes to foreign partners and this could explain why they were not perceived as important as meetings. Moreover, daily interaction with foreigners might not have been perceived as relating directly to work tasks which can explain why it was not perceived as important. One informant explained the importance of spoken interaction in meetings and video meetings:

- (6) Mut et kokouksissa täytyy pystyä tekemään itsensä ymmärrettäväksi. Videokokous on astetta haastavampi. Siinä on tuota usein teknisiä häiriöitä ja sit sosiaalista niinku semmosta kommunikaatio-ongelmaa ku ei tunne sitä eikä saa lukea sitä vastapuolta ruumiinkieltä ni.

But in meetings you have to be able to make yourself understood. A video meeting is more challenging. There are often technical difficulties and some like social you know communication problems when you don't know him/her and you can't read their body language.

Other situations the informants mentioned, which were not on the list provided for them, were teaching and guiding responsibilities such as dissertation guidance to foreigners.

After having considered the importance of spoken interaction scenarios, the aim was to establish an idea of the physical environment where these situations take place. Meetings are by nature slightly less formal than seminars and conferences and they tend to involve fewer people. Meetings take place both at the informants' work place or at other facilities at the university where the SYKE office is located as well as outside the SYKE facilities. According to the participants, seminars and conferences where English is used are held more often than not outside their actual work environment. They take place at SYKE's head office in Helsinki or at partners' facilities. In some cases, meetings, seminars and conferences require traveling abroad. Work tasks carried out in English which do not oblige the informants to be at a specific location were phone calls or Skype-calls and video-meetings. Daily spoken interaction was the most location independent of the spoken situations.

When considering the part takers in the spoken interaction situations, all the informants mentioned coworkers, partners from collaborating organizations and parties from the scientific community they worked in. In fact, a strong connection between parties doing research together was present in all of the informants' answers. The number of people participating in meetings, seminars and conferences varied. This variation is due to the nature of these situations; meetings involve a smaller number of people than seminars and conferences

because they are more informal by nature. Meetings can be arranged on a short notice whereas seminars and conferences are usually not. The informants stated that a maximum of 20 people and normally approximately ten to fifteen people are present in meetings. In most occasions, less than ten persons take part in a meeting. Seminars and conferences on the other hand were said to involve 30-100 people.

Acknowledging the challenging spoken interaction situations was yet another aspect of revealing the informants' language needs. An issue which was generally viewed as challenging was engaging in spontaneous conversation. One participant mentioned that casual conversations and small-talk caused difficulties in the sense that a small vocabulary in English made it difficult to follow and contribute to a conversation. A related comment was made by another participant: in his/her view, unfamiliar conversation topics made participating in conversations difficult. Moreover, four participants mentioned the difficulties in comprehending native English speakers and speakers with poor English proficiency. Two of the informants found it sometimes difficult to understand a native speaker if they, for instance, presented questions to the informants after a presentation at a seminar or a conference. Another participant said that native speakers might sometimes emphasize their linguistic competence, i.e. used complex language, so that the actual message in a conversation would get lost. Furthermore, the tones and nuances of spoken communication were perceived as difficult to interpret. On the other hand, non-native English speakers might have difficulties in expressing themselves clearly and, as a result, the communication may not be successful. It would seem that situations where the informants feel that the others have the same level of proficiency as they themselves are ideal spoken interaction situations. Conversely, the easiest spoken situations were said to be casual conversations with colleagues who are experts in the same area as the informants. Casual spoken interaction was perceived easy, because the participants more or less share the same language skills and vocabulary. Two of the informants said that,

in particular, conversing with familiar people makes speaking English seem an easy task.

To sum up the findings on the needs analysis interviews concerning spoken communication, it would seem that the more formal situations, such as meetings, seminars and conferences, are perceived as important due to the number of parties involved and issues covered. In these situations, the pressure to understand and make oneself understood appears to be greater than in one-on-one phone calls or in casual conversations with coworkers. The physical environment of the spoken interaction situations in English changes according to the type of situation: meetings take place close to the actual work place, while seminars and conferences often demand that the researchers travel to Helsinki or abroad and daily spoken interaction at the work place. Similarly, the participants and their number in the spoken situations varied from one situation to another. In most meetings collaborating partners are present in small groups of less than ten people. Seminars and conferences can involve up to 100 people. The informants face challenges in spontaneous talk especially when the topic is unfamiliar to the informants, talking and listening to native speakers when they talk fast or when a non-native counterpart's output is difficult to understand.

### **5.3.2 Written communication**

Written communication situations, similar to spoken interaction, were listed beforehand, and the list was given to the informants during the interview. Email correspondence, conducting research, applying for research funding and reading and writing academic publications formed the core of written communication activities the researchers encounter in their work. The informants faced all of the situations on the list to varying degree in their work. Some additional written activities were also mentioned, such as writing reports for different purposes and reading literature in English for professional use. In fact, one participant emphasized the point that reading academic publications

and literature in English was necessary in researcher's work. Overall, the informants stated that writing emails and reading, evaluating and writing academic articles were the most common written communication situations in their work. Writing applications for research grants was also mentioned as being a typical written activity for researchers. The target group for these most typical documents was defined by one of the informants as follows:

- (7) Noh artikkelit ja raportit on pääasias suunnattu tietysti omalle tieteelliselle kansainväliselle tieteelliselle yhteisölle mutta myös sitten rahottajille jotka voi olla kansallisia tai kansainvälisiä ja sitten tietysti kaikki tässä omassa tutkimuksessa ja yhteistyössä olevat yhteistyötahot joiden kanssa sitten käydään esimerkiksi sähköpostiviestihän on niinku normaali tapa kun ei suomeksi voi puhua niin täytyy kirjoittaa englanniksi.

Well articles and reports are mainly meant for our own scientific international scientific community but also for parties funding our research that can be national or international and then of course all the collaborating parties in our research with whom we email when we can't use Finnish so we write in English.

The scientific community and professionals from the field of natural sciences were mentioned by all informants as being the main target group of the different written documents. In addition, the parties funding the research were mentioned as being a significant target group for certain documents such as grant and research funding applications. Moreover, decision-makers of various organizations, stakeholders in the environmental field and end-users of products are among the target groups of written texts.

As for the purpose of these texts, most documents according to the informants aim at providing a clear picture of future, ongoing and finished research projects. In the beginning of a new project the research grant applications need to be polished to the extent that the future parties funding the research project understand what the project is about. After receiving funding, the progress made in the projects needs to be reported to the involved parties. Finally, the outcome and results of the research are expressed in the final report. Furthermore, the informants stated that scientific articles and publications they write aim at sharing information among the academic and scientific community.

One approach to the written communication aspect of language use was to reach an understanding of what the informants thought would be a very good text written by a researcher. A characteristic that every informant seemed to appreciate in a very good academic text was logical structure. This characteristic was linked to the idea that in a very good text the purpose would become apparent straight away, i.e. it would be clear what has been done, how it has been done and with what results. As a matter of fact, one of the participants mentioned that in a good text the abstract is the key element in informing the reader of its content. In addition to clarity, the informant stressed the ability to write readable text. The focus, according to the informants, should not be on the linguistic gimmicks but on the simple and clear structures. Interestingly, as is illustrated in Example 8, one of the informants commented on the qualities of good text

- (8) Soljuva ja helppolukuinen, tota, siis ei monimutkainen sillä tavalla että olis kovin kryptisesti tai vaikeesti vaan lyhyitä helposti ymmärrettäviä lauseita ilman että on tylsä. Sen näkee, se on kyllä taitolaji ja itsekin toivoisin välillä pystyvänä siihen että mutta natiivien kirjoittamiahan ne on ne parhaat jutut.

Fluent and readable, um I mean not complicated in the sense that it would be very cryptic or difficult but short easily understandable sentences without it being boring. It is obviously a matter of talent and I would like to achieve that but let's face it, the best texts are written by natives.

Another participant stated the same:

- (9) No mun mielestä mun alan on kyseessä sitten tieteellinen artikkeli, raportti, kirjeenvaihto tai esimerkiksi englanniksi tehty tarjouspyyntö, sen pitäis olla selkeä, tiivis, helposti ymmärrettävä. Ja luettava siis kuitenkin ymmärrettävä mutta tietyis teksteis on parempi tällasen niin kun kirjallisen tyylin sijasta tehdä eksaktia mielummin vaikka vähän töksähtävää tekstiä mutta joka on yksiselitteistä.

I think a text in my field be it scientific article, report, correspondence or an offer made in English should be clear, to the point, easy to understand. And readable yet understandable but in certain texts it is better instead of writing in an intricate way to write in a more exact way, rather a little awkward text but which would be unambiguous.

It was collectively agreed that a text should not entail language that somehow disguised the actual meaning. Also, the participants stated that research results

should be presented in a way that people who are not too familiar with the subject in question, would be able to read and understand what is being said.

As with the spoken communication situations, the challenges with written communication were established. Challenges with written communication varied from difficulties with grammar to problems caused by cultural differences in language use. These cultural differences in language use, according to the informants, stemmed from the lack of a shared meaning of certain words as well as from the delicate task of detecting all the nuances and tones in the way in which they were meant to be understood. This perceived difficulty in interpreting all the finer shades of language used, for instance in academic articles, could be linked to the point the informants made about the properties of a very good academic text; they expressed that a very good text should not entail very complicated linguistic elements and that the text should be straightforward. Interestingly, one of the properties appreciated in a very good academic text is one of the most challenging aspects of written communication for the informants. The effect of cultural differences in language use is expressed by three participants in Examples 10, 11 and 12:

- (10) Nämä on joskus tämmöset kulttuurierot tulee joskus kun ne vaikeuttaa joskus enemmän kun sanavarasto vielä että me saatetaan puhua samoilla sanoilla mutta tarkoittaa täysin eri asiaa, että ne niitä haastavimpia tilanteita suullisesti. Ja vois sanoa että ne on melkein kirjallisestikin haastavimpia nimenomaan kulttuurierojen tuomat erot siinä kielenkäytössä.

These are sometimes these cultural differences they can even more than vocabulary make things difficult we might be speaking with the same words but mean totally different things, those are the most challenging spoken situations. And you could say that the cultural differences in language use are the most challenging written communication situations as well.

- (11) No . se ei oo niinkään kielijuttu se on enemmän just tää se on just tää näin että tota mitä siellä niinku ajetaan takaa et mikä tän tekstin niinku oikee sanoma on. Sekavan englanninkielisen monitaustaisen moni- monen kulttuurin konsensusena syntyneiden tekstien ymmärtäminen-

Well it's not a linguistic thing it is more like what they are trying to accomplish like what the message in this text is. Understanding an incoherent English text which is a result of a multicultural consensus-

- (12) Ja ainahan tietysti sitten omaa omaa riemua ja vääntöä on sit kun tehdään tieteellisiä artikkeleita joista on monesta maasta kirjottajia ja et löydetään se konsensus siihen esitystapaan ja myös et kaikki on tyytyväisiä sit siihen siihen kirjoitustyyliin ja -asuun. Ja painotuksiin.

And always the joy and compromising that follows writing scientific articles where the writers come from various countries and finding a consensus with the way it is presented and that everyone is content with the writing style and spelling. And with the emphasis.

In these examples, the multicultural aspects in writing an article seem to be challenging because the collaborating parties have different views and aspirations concerning the text. Moreover, two of the informants stated that they encountered challenges in writing scientific articles in the sense that they did not, in their opinion, know how to write an article in a compact way so that all the essential things are said. Moreover, making the aim of a scientific article clear to readers was perceived challenging by one informant. Another informant mentioned that writing an article to the point leaving unnecessary things out of the text was demanding. Lastly, situations where two parties are negotiating over a contract and the opposing side has a poor proficiency in English or they are insecure users of English were seen as challenging. In contrast, the easiest written communication situation according to all participants was email correspondence. This fact could be linked to the informal nature of writing emails in contrast to writing articles and official research reports or negotiating contracts. As a matter of fact, adjectives such as relaxed, informal and effortless were used when talking about writing emails. The relaxed attitude towards emails was expressed by one informant:

- (13) No sähköpostissa ei hirveesti panostaa siihen ulkomuotoon kunhan se nyt oikeesti on asiaa tai silleen et se tulee ymmärretyksi oikein.

Well with emails you really don't have to put that much effort into it as long as it you are actually saying something or that it is understood in the right way.

In other words, it is the content that is the most important thing in an email and not the spelling.

To sum up the findings related to written communication, emails and writing and reading scientific articles and commenting on them, i.e. peer-reviewing were the most common written activities the informants face in their work. These documents were mainly targeted for the scientific community as well as collaborators in different organizations. The articles were mainly aimed to share information among the scientific community and reporting to parties involved in the research process. The informants thought good academic texts were logically structured, readable and straightforward. The informants appreciated a simpler way of using language in an academic text in contrast to a very linguistically complicated text. Moreover, challenging written situations varied from grammar difficulties to cultural aspects in written communication. These cultural aspects related to certain words which were used differently. Negotiating situations were among the challenging scenarios, too. Email correspondence, in contrast, was said to be the easiest written communication activity.

### **5.3.3 Language training needs: focus on formal spoken interaction**

The informants were asked to consider aspects of language use they would include in a language course if they were to organize one. All of the participants expressed that they would focus on spoken interaction with varying emphases. Two participants would concentrate on how to interact in a more formal academic conversation with non-native speakers who share English as a work language. The need for cultural sensitivity and knowledge of different cultures in language interaction was mentioned by two informants as an important aspect to enhance. In contrast, another informant expressed s/he would like to focus on improving the informal spoken interaction, i.e. small talk skills. In addition, two informants said that developing negotiation skills would be a key aspect in their language courses. This was justified by the stating that negotiation skills are essential in promoting important issues in the field of science and thus they aid development in the field. Additionally, one participant would concentrate on pronunciation in a language course. Furthermore, three informants said they would, in addition to the oral

production, focus on aspects which would improve both receptive and productive skills: vocabulary and grammar. All in all, based on the responses of the participants, the focus on a language courses would be on spoken interaction aspects. This can be explained by the fact that when the informants were asked what the proportion was to which they used English in spoken and written communication in their work tasks and all the informants said that written communication is employed the most. The proportion on average in percentages was 76% written and 24% spoken.

As a part of the language needs analysis, the participants were asked to consider the important skills they in their opinion needed to have in listening and speaking as well as in reading and writing. The informants thought that understanding a speaker's main point was more important than identifying each individual word in someone's speech. Two of the participants however also highlighted the skill to detect the nuances and tones in the opposing side's speech and the importance of this skill especially in negotiation situations. The views about important skills in reading and writing were divided into two groups: others thought understanding the bigger picture was more important than paying attention to details whereas the other group thought things can be more delicately expressed in written communication. The latter opinion is expressed in slightly different ways in Examples 14 and 15.

- (14) Siinäkin että nimenomaan sähköpostiviestittelyssä on äärimmäisen tärkeää tuo että hyvin helposti menee metsään jos ei varo että miten asiat ilmaisee ja ei niin kun mieti lukijan kannalta vastaanottavan tahon kannalta se viesti että miten se voidaan nähdä. Et kyl tää on niin kun nuoralla tanssimista toisinaan kun se voi mennä hyvin tärkeä kontakti tai yhteistyötaho voi sanoutua irti huonosti valitun sanavalinnan takia tai sitten joutuu paikkaamaan hirvittävästi että pystyy välttämään sitä just että menee sukset ristiin.

It is like in email exchanges where it is extremely important that it can easily go wrong if you aren't careful with how you express things and if you don't think it from the perspective of the receiver how they might interpreted it. This is like walking on thin ice from time to time because you could lose a very important contact or collaborating partner can terminate a contract due to a poor choice of words or you might have to make an effort not to upset the opposing side.

- (15) Kirjotettuun tekstiin ehkä pätee vähän eri säännöt mun mielestä että sen pitäis olla sellasta tarkempaa eikä siihen tarvita sellasta toistoa tavallaan niin kun puheeseen. Toistoahan tulee tietysti tulee siihen väkisin ku mietitää jotain et on eri osat tiivistelmät ja tulokset ja muut. Niin siinä mä toivosin semmosta niinku tarkkaa ja selkeätä.

With written texts I think different rules apply I think it should be more detailed and you don't need all the repetition that you need when you speak. Of course you have repetition when you have all the different elements abstracts and results and those things. That is the part where I think the text needs to be precise and clear.

The role of vocabulary and terminology in professional language skills was yet another aspect under examination. All the informants acknowledged their importance but had different views on the degree to which euphemisms can be used in replacement of the specialist vocabulary. According to the informants, it would be more appropriate to use euphemisms in casual written communication and in spoken interaction than in formal written documents such as articles and publications as well as in formal seminar presentations. As illustrated in Example, one informant commented on using euphemisms and the ability to understand them:

- (16) Kiertoilmauksia voi hyödyntää muun muassa silloin jos tulee tilanne et ei itse löydä sitä oikeeta sanaa ja esimerkiksi nyt tietysti näissä tietyis tilanteissa joissa itekki on ollu niin ni huomaa et välillä jotkut ihmiset joutuu paljonkin hakeen kiertoilmauksia ja must tuntuu että etu on olla silloin itse ei-natiivi englannin kielen puhuja ne ymmärtää paremmin ne kiertoilmaukset ja myös mahdolliset sellaset muusta kielestä lainatut sanat kuin yleensä englantilaiset putoo kärryiltä helpommin jolloin sitten nää muut ei-natiivit kertoo et mitä tää äskenen henkilö tarkoitti.

Euphemisms can be used for instance when you're faced with a situation where you can't find that right word and for example in these situations, where I've been myself, where you occasionally see some people have to rely on euphemisms and I think it's an advantage being a non-native speaker of English because they understand better the euphemisms and other words borrowed from other languages you use whereas natives are lost with what you are trying to say and then the other non-natives will tell them what the other one meant.

The informant noted that it is in fact easier and more common for non-native parties having a conversation to use and understand euphemisms because their way of using language structures is more creative than that of native speakers. This statement suggests that in ELF contacts new norms concerning language use are developed to ensure successful communication, as noted earlier by

Canagarajah (2006: 234). Moreover, in field specific communication the informant said they used field specific terminology and vocabulary but in interdisciplinary interaction the terms are no longer exactly the same. Therefore, euphemisms are most commonly encountered in non-field specific interaction.

Correct pronunciation, according to the informants, was seen as a positive factor influencing first impressions when meeting new colleagues. However, in general, flawless pronunciation was not perceived as an imperative feature of a researcher's language skills. The participants said that a good pronunciation supports the comprehension of the opposing side but that different accents exist and are allowed to exist. In fact, most of the participants stated that the content of a conversation is more important than a perfect pronunciation. One participant commented on the positive effects of having good language skills, including good pronunciation when interacting with native speakers:

- (17) Sanotaan näin että mä oon huomannu että hyvästä kielitaidosta on se hyöty että natiivipuhujat ottavat helpommin ihmisen vakavasti, siinä alkutilanteessa.

Let's put it this way that good language skills come in handy when talking to a native speaker because they tend to take you more seriously then, in the beginning.

Based on the informants' views on pronunciation it could be said that in the scientific field the occupational achievements weigh more than the abilities to pronounce immaculately. The informants also mentioned that after having established a relationship with a new colleague, pronunciation did not matter as much as initially because they have accustomed to their way of speaking.

- (18) No siis mitä näit kuuntelee ni ei se kyllä oo mutta toisaalta ite haluais ääntää oikein mutta . toisaalta mun mielestä on hienoo että ku ihmiset puhuu englantia ku Tommi Mäkinen et se on niinku nii sillee eikä se toisaalta haittaa mitää et tulee kuitenkin ymmärretyks. Mut ehkä se on suomalaisilla vähän semmonen et pitäs olla täydellinen englannin kieli että uskaltaa avata suunsa.

When you listen to everybody they say it isn't a big deal but on the other hand I'd like to be able to pronounce correctly but then again I think it's great we have people like Tommi Mäkinen who speaks English in his own

way and it doesn't matter because people understand him anyway. But I think Finns have this thing that they should speak perfect English before they dare speak it at all.

In example 18, one of the participants expressed having, on the one hand, admiration towards a good pronunciation and, on the other hand, respect towards the courage of Finns speaking with their distinct accents. This further strengthens the researchers' general view on pronunciation; it is perceived as a secondary aspect in a meaningful conversation.

In addition to considering the important skills in listening, speaking, reading and writing, the informants reflected on the most effective means for improving or maintaining these skills. All the informants stressed the value of using the language as often as possible, i.e. actively practicing language skills. Four participants mentioned that attending a language course would be a good way to improve their language skills. One participant said that especially a language course abroad would motivate to practice the language. Furthermore, two informants stressed the important relationship between reading and writing skills; fluent writing skills are improved by reading relevant literature.

The participants were asked to consider possible authentic-like exercises which would help improve the important skills in different areas of language proficiency. One form of exercise was mentioned by all informants: conversing with others. One participant said that conversations which are constructed so that they result in a conflict and provoke the participants to solve the conflict by negotiating are the most useful in improving oral language skills. Another participant stated that oral exercises need to be set up so that participants are equally skillful, or otherwise, more experienced speakers will be the only ones participating in conversations. In addition, talking for the sake of talking is seen unimportant whereas speaking so that others understand your point is appreciated more in the scientific scene. One informant, in contrast, stressed the importance of written exercises and more precisely getting feedback from a language expert on the texts written by the informants. Rehearsing and preparing for seminars and presentations was also seen as a crucial exercise.

The final aspect of examining the language skills needs of the participants was to consider the best way to test language proficiency according to the informants. Two informants said that following how a researcher performs his or her work tasks in actual situations could be one way of testing language skills. Another two informants thought analyzing previously written documents and texts could be the way to determine if a researcher is a skillful language user. A majority, five informants, however, thought the best way to measure language proficiency is to conduct a formal language test with elements like reading and hearing comprehension included in it and an interview section with a native speaker of English. The native speaker, according to the participants, does not have to be from the field of science, because the focus in the interview would be on the linguistic aspects, rather than on professional topics. This interviewer could simultaneously determine the informant's current language proficiency and the needs for future language training.

To conclude the language needs and language training needs section, a brief overview will be given next. The language skills that the informants felt needed attention on a language course were oral skills. The areas in which they thought that they needed better skills were formal conversations such as negotiations, small talk and pronunciation. In their view, both written and oral language skills could be improved by studying grammar and vocabulary.

#### **5.3.4 General communication objectives**

After having considered issues concerning the informants' language use and language needs, the focus of the needs analysis interview shifted to the topic of general communication. The informants were provided with the description of general communication below:

General communication consists of:

- How we put together a message/communication for this purpose and person/ group
- What kind of discourse we use (face-to-face talk, letter, phone, body language)
- What kind of content we choose to include and exclude
- How we listen, comment, summarize, inquire and facilitate
- What communication strategies (e.g. direct/indirect, persuasion) we use. (M. Huhta 2010.)

The participants were asked which of these general communication competencies they should have as academic researchers. One of the competencies described above was mentioned by six informants as being a very important skill to have: this was the ability to listen, comment, summarize, inquire and facilitate. Especially listening and understanding what is being said were seen as an important part of conversing with others. Another important skill, according to the participants, was the ability to include the right content and exclude unnecessary content from communication. Moreover, considering the receiver in creating a message was seen as an important, yet challenging, part of communicating on a general level.

Related to general communication, the participants were also asked, if they thought language training in general could help improve these important skills which they mentioned. All, except one participant, replied that according to them, language training could enhance general communication competencies, such as choosing the right message content and detecting nuances in others' communication. In addition, one informant stated that, on the one hand, language training would bring more confidence in communicating in English, but, on the other hand, the training would need to be carefully targeted to benefit the participants in question. This point about language training and how it needs to be planned bearing in mind the skills each participant has was mentioned by other informants as well. They thought that not all language

training would result in good general communication skills, but carefully specified language training would enhance those skills.

The final section of the Needs Analysis Interview aimed at finding out if and how certain socio-cultural factors were present in the encounters between the researchers and their foreign counterparts. The socio-cultural factors that were considered were social rank markers, dress code, body language, politeness practices, respected qualities of a professional the informants' field and appreciation of values. This question was included in the interview to find out what non-linguistic factors affect interaction between researchers when using English.

First, social rank markers were considered. Most of the informants thought social rank is not a significant factor in interaction with foreign colleagues. According to one informant, the scientific field appreciates a researcher's academic achievements more than work titles. However, a few informants mentioned that social rank is present in the scientific field to some extent, and it has an effect on how colleagues see each other. Nevertheless, the general consensus seemed to be that substance is more important in interaction between colleagues than the status a researcher has.

The second socio-cultural aspect the informants considered was dress code. Similar to social rank, most informants saw dress code as an insignificant factor in the informants' interactions. However, some participants recognized the impact of formal dress code in situations where a researcher wants to be taken seriously, as, for example in seminars and conferences. Additionally, according to the informants, first encounters with new colleagues or partners are situations where formal dress code is useful. Another aspect of first impressions and interaction, in addition to dress code, is body language. Body language, unlike social rank and dress code, was seen as important to interaction where the informants communicate in English. Body language was considered to be especially important in situations where the actual verbal communication is not

fully understood by one party and the final understanding is reached after body language has been interpreted.

Politeness practices, on the other hand, were perceived as difficult to master in encounters with new people. Again, formal situations were mentioned as being difficult considering the right amount of politeness and informal behavior. Research is rarely done in complete isolation from other researchers and research fields and is by nature collaborative and therefore researchers need to have the ability to work with others. The informants thought good researchers had certain qualities that are generally appreciated: efficiency, expertise in one's field, integrity, the ability to collaboration and respect for others. Moreover, appreciated values among researchers were also integrity and sincerity.

To sum up, in this chapter the results of the language tests, self-assessments and the needs analysis interviews were presented. The overall proficiency level of the informants in terms of writing, vocabulary, grammar, listening and reading was on the C1 level which is the lower level of proficient user. The areas of language use which on average were assessed to be poorer than the above-mentioned skills were spoken production and spoken interaction. The overall average estimation for these skills was the B2 proficiency level, the higher level of independent user. Based on the Needs Analysis interview, a clear difference between needing English in the written mode and spoken mode was revealed. Next, these results will be discussed in terms of the research questions of this study.

## 6 DISCUSSION AND CONCLUSIONS

The purpose of the present study was to examine the English proficiency of academic researchers in relation to the language needs posed by their work. The topic was explored through concepts such as academic lingua franca English, language needs and language proficiency from the perspective of working life. More specifically, the dominating role of English in the world, Europe and in Finland was discussed in addition to the definitions of language proficiency in working life.

The present study was qualitative in nature, with some quantitative elements in it, and the data was gathered with the help of DIALANG language test where participants of this study completed language tests for writing, grammar and vocabulary. Also, self-assessments were used to gather information about the participants' language proficiency. Moreover, the informants were interviewed in order to carry out language needs analysis. The data from the tests were analyzed by examining each tested skill and their sub-skills in terms of how well the participants performed. The interviews were analyzed qualitatively with a combination of inductive and deductive content analysis. This process involved examining the data as the main source of information and answering the research questions on the basis of that information combined with the test and self-assessment results.

The results of the DIALANG tests, self-assessments and the Needs Analysis Interview were presented in the previous chapter. Next, the results of these two parts are compared and discussed in relation to the research questions of this study:

- 1) How do the language needs of academic researchers compare to their language proficiency?
  - a) In which areas of language competence and use do their needs and proficiency meet?

- b) If there are discrepancies between their needs and proficiency, what are they like?
- 2) How can the language needs of the focus group be better taken into account through language training?

The presentation of the Needs Analysis Interview results was divided into two sections in terms of the ways in which the informants encountered and used English at work: spoken and written interaction. Since the spoken interaction skills could not be tested with the DIALANG test and were only assessed by the informants themselves, an actual correspondence between the proficiency and language needs concerning spoken skills could not be objectively determined. This is due to the fact that sometimes overestimations as well as underestimations of language skills occur when people judge their own language abilities, as noted by Karjalainen and Lehtonen (2005: 37). An objective assessment of the participants' spoken language skills would have required a test on the oral production skills. The results of the self-assessments of spoken skills in comparison to the needs analysis will be discussed next. More specifically, the language needs concerning spoken interaction expressed by the participants and their own evaluations of spoken skills will be examined in terms of correspondences and discrepancies. Then, the focus will shift to examining possible correspondences and discrepancies between written work related language needs and proficiency.

The participants' overall average self-assessment result of oral communication and speech production skills was the B2 level, i.e. the higher level of an independent user. This level was among the three levels of proficiency which were called for by academic employers from academic employees in the study of Karjalainen and Lehtonen (2005: 143). The abilities of a B2 level language user are described in CEFR as follows:

Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. **Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party.**

Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. (CEFR 2001: 24. Emphasis added).

As was reported in Chapter 5, the informants found spontaneous talk involving unfamiliar topics to be the most challenging spoken scenario for them. When comparing the description of the B2 level user to the needs expressed by the informants in the needs analysis interview, it would seem that there is a minor discrepancy between the two. When examining the description of the B1 level language user below, it would seem to correspond better with the result of the needs analysis.

**Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc.** Can deal with most situations likely to arise whilst traveling in an area where the language is spoken. **Can produce simple connected text on topics which are *familiar* or of personal interest.** Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans. (CEFR 2001: 24. Emphasis added).

However, the informants expressed that they speak English most often in meetings where fewer than ten people are present. Since meetings are generally less formal and involve a smaller and a more specific group of people than seminars and conferences and occur more frequently, they can be considered less demanding spoken situations.

Further, English was used and encountered more in the written mode (76%) than in the spoken mode (24%). Similar findings were made by Karjalainen and Lehtonen (2005: 94): workers used English more in work tasks which entailed writing or reading texts than in work tasks entailing speaking or listening. Considering that the informants expressed using spoken English in their work considerably less than written communication, their greatest challenges in using English, as indicated by the needs analysis and the self-assessment, lie in spoken interaction. Specifically, skills in formal negotiations were not only considered important but, according to the informants, they needed improvement. This finding is, in fact, in line with the study by Sajavaara (2000: 117) on Finnish government officials' foreign language proficiency which

discovered that formal situations in English seem to create the greatest challenges for academic professionals. More specifically, in the present study, negotiation situations as well as interacting in English in seminars and conferences were perceived as challenging. Interacting with speakers from non-English speaking countries was also mentioned as challenging for cultural reasons, such as differences in pronunciation and word semantics.

The apparent need for improving oral competency is also reflected in the language training needs mentioned by the informants. According to them, exposure to English is a key in strengthening oral skills. In fact, most of the informants mentioned that the opportunities to use English regularly in spoken interaction in Finland are scarce, which is implied in the proportion to which spoken English is used compared to written English in these participants' work: 24% versus 76%. In addition, listening to speeches by speakers with different accents was considered as an aid in accustoming to lingua franca communication. A possible explanation behind this statement could be the increased sensitivity to different cultures through this exposure to lingua franca output. As expressed by the informants, the substance in spoken interaction weighs more than the grammatically or phonetically flawless output. This finding is similar to the Hynninen's discovery: mistakes were seen of secondary importance in comparison to comprehension in ELF (Hynninen 2010: 38).

Further, Sajavaara's (2000: 117) findings show similar needs concerning work tasks among government officials, as the most difficult work tasks were related to oral production: giving lectures, presentations and speeches. Moreover, in the present study, negotiation situations were reported to be among the most difficult work tasks. In other words, the oral work situations which were more official in nature cause difficulties concerning English language use.

Grammar and vocabulary are areas of language proficiency which contribute to both productive as well as receptive skills. The overall average proficiency level of the participants was the second highest level on the CEFR scale, C1.

Although, in addition to previous studies of for instance Karjalainen and Lehtonen (2005: 142) and Virkkula (2008: 411), the substance of output over grammatically perfect language use was highlighted by the participants in the present study, their proficiency in terms of grammar and vocabulary seems to be at a good level. Writing scientific texts, in any field, demands control of vocabulary and terms used in a given field. Moreover, as was noted when discussing the proficiency and its definitions concerning academic English language use in Chapter 2, it was perceived as connected more to the norms of native English (Canagarajah 2006: 234) and this applies specially to writing academically. As written work tasks were common for the informants, it seems the grammar and vocabulary knowledge is at a sufficient level considering the informants written needs.

As mentioned above, the informants all use English in the written form more than in spoken interaction in their work. Correspondingly, the proficiency was better in both writing and reading skills (C1) than in speaking (B2). This emphasis on written mode work tasks is closely related to the nature of conducting research; written documents such as articles, research plans, drafts of research papers, different kinds of reports and emails are the main tools the researchers work with to convey information among each other as well as to wider audiences. Especially in international cooperation the written documents are the most important and perhaps the only means for communication. Additionally, writing and reading as communication activities are less bound to the immediate contexts in which the communication is taking place. Also, written mode of communication allows more freedom in terms of time of producing and possibilities in editing output. Moreover, what further highlights the role of written mode in the informants' work, is the fact that relevant literature at work is most commonly English. In other words, the exposure to English, either by writing texts or by reading texts is greater than exposure to English in the spoken mode. Most commonly English was used in the written mode in emails, writing articles and commenting on the works of others.

Based on the examination of relationship between researchers' English proficiency and work related language needs, it is obvious that their work tasks, in terms of frequency of use, require them to have more skills related to producing and understanding written output than spoken productions skills. Therefore, as the informants' overall average of written language skills, writing, reading, grammar and vocabulary was effective operational proficiency, CEFR level (C1), their language proficiency can be seen to correspond with their written mode language needs. The informants' language proficiency in spoken production and interaction in terms of frequency of use also corresponds with their language needs. However, as spoken skills are not employed frequently in demanding situations such as giving speeches and presentations as well as in negotiations, there is a discrepancy between the level of proficiency and the language needs concerning demanding spoken situations.

To the reach the aim of the second research question, options for language training for the purposes of suggesting solutions which create a good correspondence between the focus group's language proficiency and language needs are explored next. ELF usage in the academic domain is highlighted more in spoken situations in comparison to for instance to writing articles in English. Although English is spoken less at work by the participants, the importance of spoken skills, as expressed by the participants, is emphasized on the one hand in first encounters with foreign partners and on the other hand in demanding negotiation situations. In other words, although the frequency of oral situations at work is small, they are demanding. The informants' self-assessed language proficiency for oral production and interaction was B2 which in relation to the demanding nature of their spoken work activities could be improved. By improving spoken skills, the informants would gain more courage to use English especially in social interactions but also more confidence in negotiations. The focus in improving the productive skills of speaking, based on the language needs indicated by the participants, could be on formal communication skills, cultural differences in language use but also on the

positive effects of having the confidence to use English despite limited self-perceptions in its mastery.

There are several limitations to the present study. Firstly, the scope of the study was small and only the subjective language needs, i.e. the language needs perceived by the informants, were examined. Moreover, only written aspects of language proficiency were tested with DIALANG as the test did not offer the option for spoken proficiency testing and due to time and other resource constraints, spoken proficiency was not tested. The spoken proficiency levels of the participants in the present study were based on their own estimations of their spoken skills. As a result, the comparison of spoken language skills and language needs was not as reliable as the comparison between written language skills and written language needs. Similarly, reading and listening were not tested due to time constraints and were only assessed by the participants. For a more reliable and comprehensive analysis on the correspondence between language needs and skills would require assessment of all language skills.

Also, language testing in the form it was done in this study, has its limitations to what is actually being tested. As explained by A. Huhta (2010: 162), the DIALANG testing system tests language proficiency in a traditional way by categorizing language proficiency into separate skills. Communicative view on language proficiency is present in DIALANG, but only to a limited extent. Further, DIALANG measured general language proficiency as it is intended to be used by a more wider audience than scientific researchers. In other words, the specificity of the test was rather limited.

With these limitations in mind, a more accurate image of the challenges and strengths of ELF interactions amongst academic researchers could be generated, for example, through an ethnographic investigation on the relationship between lingua franca language needs and lingua franca usage. This, of course, would require a common understanding of what proficiency in ELF entails and how it can be assessed. The results of the present study show that there is a need in

language education and in working life for paying closer attention to the challenges concerning workers' spoken communication skills. The positive effects of using lingua franca English, in my opinion, should be emphasized especially in Finland where speakers tend to avoid using languages they feel they do not master.

In conclusion, the present study aimed at examining the English language proficiency of environmental researchers who all use English at work as well as at comparing the measured proficiency with the language needs the informants expressed they had. The comparison was used as a basis for suggestions for language training possibilities. All in all, the work of the informants of the present study, environmental researchers, would benefit from strengthening their spoken skills in English.

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## **APPENDIX 1. Needs Analysis Interview questions** (adapted from the CEF Professional profile, Huhta 2010)

### **A. BACKGROUND INFORMATION**

1. What are some typical examples of professions/jobs/occupations for professionals in your field in your experience?
2. What type of employers/organizations/companies employ professionals in your field?
3. Let us go through a list of job descriptions these professionals typically do? Would you like to add something to this listing?
  - field work
  - writing articles
  - doing research
  - projects
  - seminars
4. To what extent are foreign languages needed in your view? Which languages?
5. Where there any language requirements entering your current position?

### **B. LANGUAGE-SPECIFIC DESCRIPTION**

#### **1. Context information**

We need to create an overview about the oral/ spoken communication situations professionals in your field face at work.

Here is a general list, based on the information available for the interviewer:

- meetings
- seminars
- field work
- visits
- video conferences
- phone calls
- presentations
- Other, please specify?

5. Which of these spoken communication situations are essential in your view? (priority)
6. Where does this communication take place? (location)
7. Which people would be involved? (persons, communities, companies, (partner) institutions)
8. Can you see some other relevant situations that you see missing here? A preliminary list for written texts:
  - email exchanges
  - research papers (including plans, different drafts)
  - applications for grants

- articles in journals
- Other, please specify?

9. What kind of texts/genres do professional in your field need to write?

10. Which of the texts/genres are common in your view?

11. Who is this document written for? (target group)

12. What is the purpose/aim of such a document?

13. What would make a really good text in your field? (background information)

14. Which English language usage situations (oral/written) in your view are the most challenging ones? Which ones are the easiest?

## **2. Objectives of learning courses, materials methods and assessment**

15. If you were to give professionals in your field a language course, what skills should it concentrate on in your experience of how well persons communicate? (aim, objective)

16. Is English language needed more for oral or written skills? (proportion: 50%/50%)

17. What skills would be important components of oral performance or listening?

18. What skills would be important in the writing and reading?

19. How important is terminology/specialist vocabulary in professions in your field -or is it possible in your field to get away with roundabout explanations?

20. How important is the perfection of pronunciation in x professions -or is it possible in your field to get away with roundabout explanations?

21. Can you think of methods that you would recommend for improving the skills you have described? (learning methods)

22. Can you think of authentic assignments you would give to the learners to improve the skills you described? (learning tasks)

23. What would be the best ways of demonstrating the communication skills of professionals in your field?  
(assessment)

### C. GENERAL COMMUNICATION OBJECTIVES

With general communication, we mean

- How we put together a message/communication for this purpose and person/ group
- What discourse you use (face-to-face talk, letter, phone, body language)
- What content you choose to include and exclude
- How we listen, comment, summarize, inquire and facilitate
- What communication strategies (e.g. direct/indirect, persuasion) we use.

24. Concerning general communication, what do you think are the most important general competencies/skills that a professional in your field should have? Can language practice improve some of the general competencies?

25. What can you say about (cultural and socio-cultural factors)

- Social rank markers in your field?
- Dress code?
- Body language?
- Politeness practices?
- Respected qualities of a professional in your field?
- Values highly appreciated? Not appreciated?

## APPENDIX 2. The self-assessment form

(The self-assessment statements are adapted from the CEFR 2001: 26-27)

### KIELITAIDON ITSEARVIOINTI/SELF-EVALUATION OF LANGUAGE PROFICIENCY

#### Taustatietoja vastaajasta/ Background information about the participant

Ikä/ Age: 1) 25-35 2) 36-45 3) 46-55 4) 56-

Sukupuoli/ Gender: 1) Mies/ Male 2) Nainen/ Female

Äidinkieli/ Mother tongue: 1) Suomi/ Finnish 2) Ruotsi/ Swedish

3) Muu, mikä/ Other, please specify \_\_\_\_\_

Koulutus/ Education:

Ympyröi se kuvaus kunkin kielitaidon osa-alueen osalta, joka mielestäsi parhaiten kuvaa taitojasi kyseisellä osa-alueella./ Please circle the description that is the most compatible with your view of your abilities in each of the language skills detailed below.

#### Listening

a) I can understand familiar words and very basic phrases concerning myself, my family and immediate concrete surroundings when people speak slowly and clearly.

b) I can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). I can catch the main point in short, clear, simple messages and announcements.

c) 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 programs on current affairs or topics of personal or professional interest when the delivery is relatively slow and clear.

d) I can understand extended speech and lectures and follow even complex lines of argument provided the topic is reasonably familiar. I can understand most TV news and current affairs programs. I can understand the majority of films in standard dialect.

e) I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signaled explicitly. I can understand television programs and films without too much effort.

f) I have no difficulty in understanding any kind of spoken language, whether live or broadcast, even when delivered at fast native speed, provided. I have some time to get familiar with the accent.

### **Reading**

a) I can understand familiar names, words and very simple sentences, for example on notices and posters or in catalogues.

b) I can read very short, simple texts. I can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and I can understand short simple personal letters.

c) I can understand texts that consist mainly of high frequency everyday or job-related language. I can understand the description of events, feelings and wishes in personal letters.

d) I can read articles and reports concerned with contemporary problems in which the writers adopt particular attitudes or viewpoints. I can understand contemporary literary prose.

e) I can understand long and complex factual and literary texts, appreciating distinctions of style. I can understand specialized articles and longer technical instructions, even when they do not relate to my field.

f) I can read with ease virtually all forms of the written language, including abstract, structurally or linguistically complex texts such as manuals, specialized articles and literary works.

### **Spoken interaction**

a) 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.

b) 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.

c) I can deal with most situations likely to arise whilst travelling in an area where the language 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).

d) I can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views.

e) I can express myself fluently and spontaneously without much obvious searching for expressions. I can use language flexibly and effectively for social and professional purposes. I can formulate ideas and opinions with precision and relate my contribution skillfully to those of other speakers.

f) 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.

### **Spoken production**

a) I can use simple phrases and sentences to describe where I live and people I know.

b) 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.

c) 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.

d) 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.

e) I can present clear, detailed descriptions of complex subjects integrating subthemes, developing particular points and rounding off with an appropriate conclusion.

f) 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.

### **Writing**

a) I can write a short, simple postcard, for example sending holiday greetings. I can fill in forms with personal details, for example entering my name, nationality and address on a hotel registration form.

- b) I can write short, simple notes and messages. I can write a very simple personal letter, for example thanking someone for something.
- c) I can write simple connected text on topics which are familiar or of personal interest. I can write personal letters describing experiences and impressions.
- d) I can write clear, detailed text on a wide range of subjects related to my interests. I can write an essay or report, passing on information or giving reasons in support of or against a particular point of view. I can write letters highlighting the personal significance of events and experiences.
- e) I can express myself in clear, well-structured text, expressing points of view at some length. I can write about complex subjects in a letter, an essay or a report, underlining what I consider to be the salient issues. I can select a style appropriate to the reader in mind.
- f) I can write clear, smoothly-flowing text in an appropriate style. I can write complex letters, reports or articles which present a case with an effective logical structure which helps the recipient to notice and remember significant points. I can write summaries and reviews of professional or literary works.

## **APPENDIX 3. Descriptions of the Common European Reference Levels**

(CEFR 2001:

### **Proficient User:**

C2

Can understand with ease virtually everything heard or read. Can summarize information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.

C1

Can understand a wide range of demanding, longer texts, and recognize implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

### **Independent User:**

B2

Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

B1

Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.

### **Basic User:**

A2

Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar

and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.

A1 Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

(Common European Framework of Reference for Languages: Learning, teaching, assessment. Cambridge University Press. Council of Europe 2001.)