The Minority Option

International degree students in a bilingual region and their knowledge of the local languages: the case of Helsinki

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International degree students sojourning in Finland’s Helsinki Capital Region may acquire skills in two official languages: Finnish and Swedish, respectively spoken natively by 79.9% and 5.8% of the region’s population. This study uses 114 web survey responses from students enrolled in English-medium Master’s programmes to determine whether they report knowledge of Finnish and especially of Swedish, a minority language.

The likelihood a respondent reports knowledge of a local language is predicted by a model of language acquisition used on immigrant populations in bilingual countries, a model in which local language skills are considered to be a source of both social and economic capital.

Over 90% of participants stated they had Finnish abilities while 21% reported having non-native Swedish skills. Almost all of those who declared being able to speak some Swedish could also speak some Finnish, a language for which they generally reported higher skills. Knowledge of Finnish was primarily associated with having a Finnish-speaking partner, living outside of a student neighborhood and originating from Russia or Central Asia. Knowledge of Swedish was mainly associated with studying in a primarily Swedish-language institution, being male and regarding as likely to live in a Nordic country in 5 years.

While Finnish dominates most spheres of social life in the Helsinki Capital Region, it appears an institution of study provided sufficient exposure to the minority language of Swedish to explain in part its acquisition by international degree students. While learning Swedish was not compulsory in their study programme, respondents enrolled at a Swedish-language institution were as much as 16 times more likely than those studying at a Finnish-language institution to report knowledge of Swedish. Consequently, for newcomers like international degree students to adopt the minority language of their bilingual host community, involvement in institutions where the language is dominant might be key.

Avainsanat – Nyckelord – Keywords
International student, language, migration, immigrant, local, minority, Finnish, Swedish, Helsinki, sociology
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1. Introduction

If you would like to find a job in Finland, study the Finnish or Swedish language (Infopankki 2016a).

When you are considering whether to study Finnish or Swedish, take the language that is spoken in your place of residence and neighbourhood into consideration (Infopankki 2016b).

Above are excerpts from the government-sponsored resource Infopankki, which offers online advice to newcomers about life in Finland. In this case, job-seeking is connected to skills in the two official languages of the country, but the relevance of each language is also portrayed as varying from place to place. The question of which language one must learn in order to find employment remains without a clear response.

International degree students in the Helsinki Capital Region are likely to be enrolled in a study programme taught in English, but they are also likely to inhabit a locality where Finnish and Swedish hold co-official status. Engaging with a local language seems to be an important prerequisite for entering the local labour market, but where there are two local languages, which one to choose, if any? The one that offers the most opportunities, the one that dominates the public sphere? Why bother learning a minority language?

International degree students are temporary migrants, living in a new community for a period of time delimited by their study programme. But they may choose to extend their stay, holding the potential to become highly-skilled immigrants. Their abilities in local languages thus becomes relevant; for their career path, of course, but also for the local community.

This situation leads to the formal research questions formulated below:

- Do international degree students engage with the languages of their bilingual host locality?
- What makes an international degree student more likely to have skills in a local language, especially in a local minority language?
This thesis attempts to respond to these questions by analysing web survey responses submitted by a group of international degree students enrolled in two universities of the Helsinki Capital Region. The main part of the analysis consists of models predicting the likelihood a participant has knowledge of the majority language of Finnish and of the minority language of Swedish, based off existing language acquisition models that have been applied to immigrant populations. Accordingly, relevant literature on student migration, language acquisition of immigrants, and the adoption of Swedish by newcomers in Finland receive attention. Furthermore, dimensions of capital are portrayed as determinant in explaining local language acquisition by newcomers, with the assumption language skills provide both social and economic capital.

Before delving into these matters, more context is called for. The following section portrays briefly who are international degree students in Finland, followed by additional paragraphs on official bilingualism in the Helsinki Capital Region and a portrait of the impacts of immigration for official minority language communities.

1.1 International Degree Students in Finland

Who are international degree students? It is first important to stress they are not exchange students. Exchange students stay in a destination country for one or two semesters, and complete their degree at a university located in their home country. International degree students, on the other hand, are non-Finnish nationals on a path to receive a degree from a Finnish university in which they are enrolled. They thus can be expected to remain in Finland at least for the whole duration of their study programme, which is counted in years rather than semesters.

In 2015, the Finnish Center for International Mobility (CIMO) reported there were 10,618 foreign degree students enrolled in Finnish institutions of higher education. They formed 6.7% of the student body. Ten years before, only 2.8% of degree students came from abroad, which is illustrative of an increasing internationalization of Finnish universities.
International degree students in Finland come from diverse backgrounds: about 43% are from Asia while 40% originate from Europe. The five most common countries of origin are China, Russia, India, Pakistan, and Iran (CIMO 2015).

Both European students and those from outside the European Union may work during their studies. They may also seek a one-year extension of their residence permit after graduation in order to find work. Those who succeed in obtaining a job can then apply for permanent residence (Finnish Immigration Service 2017). There is thus a way from studies to long-term settlement, specifically through employment. In 2014, 13% of Finnish citizens who were born abroad mentioned studies as the main reason behind their initial migration, compared to 36% who came for family reasons, 36% who were refugees and 12% who came for work (Sutela and Larja 2015). While not the most common reported reason, student migration definitely is a non-negligible and increasing phenomenon.

The minimal cost of education is among the top reasons for international students to undertake a degree at a Finnish university. Tuition fees will be introduced for non-European Union students starting their studies in fall 2017, but previously there were generally no tuition fees for students regardless of their nationality (Infopankki 2016a). Among other reasons for choosing Finland as a study destination is the language of teaching. Several study programmes are offered in English, more so than in many European countries where English is not a native language. These programmes cater to foreign students, but also to Finnish students attracted by international opportunities associated with English proficiency. For international students, knowledge of the local languages of Finnish and Swedish is not required to fulfill the requirements of their studies (Saarinen 2012). Nonetheless, international degree students cannot avoid the bilingual reality of the Helsinki Capital Region, which receives attention in the next section.
1.2 Bilingualism in Finland and the Helsinki Capital Region

The state of Finland is officially bilingual, with both Finnish and Swedish recognized as equal, national languages. This status has deep historical roots: Finland was part of Sweden for hundreds of years, up until the early 19th century. Swedish, while spoken by a minority, was the language of the elite and the administration. However, by the time Finland became a sovereign state, in 1917, Finnish had come to dominate both in terms of number and power (Sjöholm 2004), while Swedish retained formal officialdom.

Finnish and Swedish are quite different languages: Finnish is a Finno-Ugric language unrelated to most other languages of Europe, with the exception of Estonian and Hungarian. Swedish, on the other hand, is a North Germanic language, very similar to other languages spoken in Scandinavia, and relatively close to English (Latomaa and Nuolijärvi 2002: 100-107). The Swedish spoken in Finland is distinct from the Swedish spoken in neighboring Sweden due to strong dialects and the presence of many Finnish loanwords (Sjöholm 2004).

While the Finnish state is bilingual, only a minority of municipalities share this status. The Language Act stipulates that the local linguistic configuration determines whether a municipality is unilingual or bilingual, with Finnish or Swedish as the dominant language. In order for a language to be official in a municipality, native speakers must form 8% of its population, or should amount to 3,000 individuals (Ministry of Justice of Finland 2003). Municipalities with bilingual status are concentrated in the coastal regions of southern Finland and Ostrobothnia, where some municipalities have Swedish as a majority language and others where it is in a minority situation (Latomaa and Nuolijärvi 2002: 98-99).

Official bilingualism means that a variety of public services offered by municipalities are available in both Finnish and Swedish. The Language Act also mandates that public signs in bilingual municipalities must appear in both official languages (Ministry of Justice of Finland 2003). The ubiquity of those bilingual street signs counts among the most salient markers of official bilingualism in the public sphere.
International degree students in universities located around Helsinki are very likely to live, study, and work in a bilingual municipality. Except peripheral suburbs, most municipalities in the region are officially bilingual, a status held by the four municipalities comprised in the Capital Region: Helsinki (Helsingfors), Espoo (Esbo), Vantaa (Vanda) and Kauniainen (Grankulla). In 2016, these municipalities had a combined population of over 1.1 million inhabitants: 79.9% were native Finnish speakers, 5.8% were native Swedish speakers and 14.3% were native speakers of a non-official language, according to the population registry. The proportion of Swedish speakers ranged from a low of 2.6% in Vantaa to a high of 34.4% in Kauniainen, as detailed in Table 1 below.

Table 1. Mother tongues in the Helsinki Capital Region, 2016.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Finnish</th>
<th>Swedish</th>
<th>Other</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helsinki</td>
<td>504,072</td>
<td>36,004</td>
<td>88,132</td>
<td>628,208</td>
</tr>
<tr>
<td>Helsingfors</td>
<td>80.2%</td>
<td>5.7%</td>
<td>14.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Espoo</td>
<td>211,261</td>
<td>20,216</td>
<td>38,325</td>
<td>269,802</td>
</tr>
<tr>
<td>Esbo</td>
<td>78.3%</td>
<td>7.5%</td>
<td>14.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Vantaa</td>
<td>175,844</td>
<td>5,676</td>
<td>33,085</td>
<td>214,605</td>
</tr>
<tr>
<td>Vanda</td>
<td>81.9%</td>
<td>2.6%</td>
<td>15.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Kauniainen</td>
<td>5,637</td>
<td>3,265</td>
<td>584</td>
<td>9,486</td>
</tr>
<tr>
<td>Grankulla</td>
<td>59.4%</td>
<td>34.4%</td>
<td>6.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>896,814</td>
<td>65,161</td>
<td>160,126</td>
<td>1,122,101</td>
</tr>
<tr>
<td></td>
<td>79.9%</td>
<td>5.8%</td>
<td>14.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


As a relatively small minority, the native Swedish speakers of the Helsinki Capital Region are surrounded by the dominant language of Finnish. This means they are highly likely to know Finnish and use it on a daily basis, especially in the public sphere (Sjöholm 2004). But the community remains sizeable: over 65,000 native Swedish speakers inhabit the Helsinki Capital Region, and they benefit from a strong network of Swedish-language institutions, in part because the current linguistic configuration has not always prevailed. In 1880, Swedish speakers formed the majority of the population of the city of Helsinki. A combination of the internal
migration of Finnish speakers, language transfers towards Finnish and intermarriage all explain in part the sharp decline in the community’s relative importance (Tandefelt and Finnäs 2007: 45-47). This strong historical presence in the Helsinki region helps explain why, in spite of its smaller size, the Swedish language community boasts strong media and educational institutions (Latomaa and Nuolijärvi 2002). Furthermore, current projections for the city of Helsinki indicate that the proportion of Swedish speakers is stabilizing and the total amount of declared native speakers may increase in the near future (Vuori and Laakso 2016: 26). The position of the Swedish-speaking community in the Helsinki Capital Region may not be unrelated to international migration, as suggested in the next section.

1.3 Minority Language Communities and Immigration

Immigration may bring benefits and challenges for societies as wholes, including minority language communities. In the Swedish-language media of Finland, the language adopted by newcomers settling in bilingual municipalities is an issue raised from time to time (Suni 2014, for example). While there is an emphasis on rendering possible that Swedish be learnt by immigrants, it remains a marginal phenomenon in the Helsinki Capital Region (Latomaa and Nuolijärvi 2002: 137-138).

An official status for a language confirms its use is legitimate within a territory – for locals and foreigners alike. In addition to endorsement by governments, I identify two reasons why official minority language communities would support immigrants learning their language.

The first reason pertains to filling gaps in the minority language labour market. Some jobs require skills in the local minority language, especially in the public sector in the case of Swedish in Finland, as services in Swedish may be provided in the administration, education or healthcare. Lehtonen and Karjalainen (2008) report that the majority of a group of university graduates from Helsinki declared using Swedish at work at least a few times a year. Moreover, interviews conducted with employers
suggest they view Swedish skills as an asset lacking in many Finnish job applicants. This situation is illustrative of the necessity of having individuals with Swedish abilities on the job market to respond to the needs of the minority language community.

The second reason relates to a demolinguistic perspective. Demolinguistics are the study of the demographic evolution of speakers of a language community, gauging how natality, mortality, the adoption of another language and migration shapes the amount of speakers of a given language within a polity (de Vries 1990). In other words, this view supports that immigration may contribute to maintain, grow, or reduce the salience of a minority language within a locality. The decline of Swedish in the Helsinki Capital Region described in the previous section is an example of how internal migrations contributed to change the local linguistic configuration. The same phenomenon can apply to international migrations. When newcomers adopt the local majority language, its salience in the public sphere may be reinforced, but if enough new residents opt for the local minority language, it may contribute to maintain its relative importance.

However, it is important to highlight that this perspective has been criticized for portraying linguistic communities as hermetic and mutually exclusive. Language choice in a bilingual locality is not a dilemma and newcomers may learn an official language, or both, and use them interchangeably when required. For instance, a study by Lamarre (2013) of young immigrants in the bilingual city of Montreal highlights how a foreign mother tongue and the two local official languages can all be parts of an individual’s life. Immigrants in the Helsinki Capital Region learning Swedish does not preclude them from learning Finnish, and vice versa.

Language is essentially a tool for communication. However, it can also be paramount to the identity of individuals, especially minority language speakers for whom it is a distinctive marker (Coulmas 2005: 192-199). The survival of a language community is therefore relevant for its members, to communicate and to belong. The adoption of the local minority language by newcomers, including international degree
students, is thus of interest, so the minority language community may retain its demographic capital, and so that positions that require knowledge of the minority language may be filled. The following chapter builds on this context by exploring relevant literature on newcomers adopting Swedish in the Finnish context. But before, evidence of the migration potential of international students and models of language acquisition among immigrants are introduced.
2. Students, Immigrants and Local Languages

To my best knowledge, there have not been studies specifically investigating whether international degree students acquire the local language(s) of their host community. There exists, however, literature framing these students as likely immigrants, connecting their settlement potential to their language skills. This is the topic of the first of three sections composing this chapter. The second section introduces models of language acquisition among immigrant populations, and the last section describes studies of immigrants engaging with Swedish in Finland.

2.1 International Students as Immigrants

International degree students living in Finland may decide to extend their stay beyond the duration of their studies, and consequently become labelled as immigrants. But this label might apply to these students already before they render a settlement decision. According to King and Raghuram (2012), since international degree students sojourn in a host country over one year, their journey is already analogous to the one of a “regular” migrant. This view is shared by Tremblay (2005), who portrays international students as highly skilled immigrants who contribute to the research efforts of the host country and join the workforce before the end of their studies by completing internships. International students are also portrayed as more successful in their integration of the local labour market: they are highly educated, have accumulated knowledge of their host society during their studies, and have gained local educational credentials, which are viewed positively by employers.

In Finland, the traditional approach not to charge tuition fees from international students came with implicit expectations. It was implied students would benefit the country in other ways than balancing the budget of their host university, for example by joining the local labour market or by becoming positive ambassadors for Finland abroad (Cai and Kivistö 2013: 60-62). This perspective posits that international students are not consuming the scarce resources of the Finnish state without
eventual compensation; a compensation that can also take the form of permanent migration.

The aforementioned portrayal of international students as immigrants is complementary to studies of the settlement decision of students at North American universities. For instance, Hazen and Albert (2006) surveyed international students enrolled at a Minnesota University, aiming to understand their decision to settle or not in the United States. Among those who reported having a specific idea in mind about their settlement, a little under two thirds declared they undertook their studies with the initial intention of extending their stay after they graduate. Less than 8% of all respondents declared they intended to settle permanently. However, the survey reveals over a third of participants changed their mind over the course of their studies, half of which deciding to remain in the U.S. at least a few years after graduation, and a quarter deciding to shorten their stay. The researchers explain intentions to lengthen one’s stay by a desire to acquire American work experience.

Hazen and Albert (2006) conclude that students may consider a permanent move mostly because of economic and employment-related incentives. Personal ties, as well as characteristics of the host and origin societies, were more associated with a willingness to return to the country of origin upon the completion of studies.

A study with a similar design by Lu, Zong and Schissel (2009) involves a survey of Chinese students at a university in the Canadian province of Saskatchewan. The researchers specifically aimed to describe the reasons behind the students’ intentions to migrate permanently.

Family characteristics and gender were associated with the intention to settle in Canada: female respondents were more likely to consider their personal relationships and families when assessing their potential migration, while male respondents were more likely to consider career opportunities. Economic considerations were thus not alone in explaining migration decisions: social ties to China and Canada also appeared to matter greatly. These conclusions are echoed by King and Raghuram (2012), who argue that international students are not only
students, but are also part of families as much as they are current or potential members of the workforce.

The purpose of this thesis is not to explain the settlement decision of international degree students. Their potential migration is rather a reason to focus on their language skills, since proficiency in the local language is crucial to the incorporation of immigrants into the workforce, affecting hirability and the position one can achieve on the labour market (Tremblay 2005: 204). As the connection between international degree students’ migration and their local language skills becomes apparent, the next section concentrates on local language acquisition by immigrants.

2.2 Language Acquisition in Bilingual Localities

According to Tunger et. al. (2010), to navigate smoothly in their new bilingual region, temporary and permanent migrants alike are strongly encouraged to adopt the local majority language. The local minority language is generally overlooked in migration policy, seen as facultative or of lesser relevance. Nonetheless, many sojourners and permanent immigrants do engage with the minority language of their host locality.

The adoption of local languages by immigrants in bilingual regions has received attention under the form of models of local language proficiency. A first attempt is found in a 1994 study by Chiswick and Miller. Using data from the 1981 Canadian Census, the researchers used multinomial logit estimates to assess the likelihood a male adult immigrant would declare to be able to handle a conversation in one or both local official languages; English and French. The study demonstrates that those who migrated later in their life were less likely to be proficient in an official language, while knowledge of one or both official languages was greater among those who had lived in Canada for a longer period of time. Furthermore, higher levels of education were associated with greater proficiency in both official languages, albeit with stark regional variations.

French is a minority language nationwide in Canada, but its speakers form the majority of the population of one province, Québec. There, the study shows, most
immigrants knew French, and those with a higher level of education were very likely to know both official languages, even if English speakers are only a minority in Québec. In other provinces where French is a minority language, immigrants were more likely to be able to converse in English only. This asymmetrical situation reflects how incentives beyond simple exposure matter in explaining local language proficiency.

Chiswick and Miller brought modifications to their model in a 2001 study, in which they used data from the 1991 Canadian Census. In their logit models, they included variables pertaining to contact with official languages, before migration and in the immigrant’s neighborhood or family, economic opportunities on the job market, resources devoted to learn the language, place of birth and similarity between the immigrant’s mother tongue and the majority language in the host locality. These variables are said to reflect exposure to the language, efficiency at learning, and incentives for learning.

Their models used a trichotomous language proficiency variable contrasting inability to converse in an official language, knowledge of an official language but limited use at home, and a combination of knowledge and home use of an official language.

Their analysis indicates that official languages were most known and used by those who migrated earlier in their lives, who lived in Canada longer and who achieved a higher education level – similar conclusions as in their 1994 study. However, official language knowledge and use was also higher among those who had a mother tongue closer to English or French and who lived in areas with fewer speakers of their foreign mother tongue.

In a similar vein, Ortega and Verdugo (2015) modeled the language adoption of immigrants and minority language speakers in Canada, looking specifically at those settling in urban areas. Their probit estimate models assessed the likelihood a native speaker of a non-official language knows the majority language of their city of residence, looking specifically at the difference between English and French majority cities. They also payed attention to parallel processes of “sorting” and “learning”, the first implying the residence location of an immigrant will be in part determined by
their pre-existing language skills, while the second refers to the acquisition of the language while residing in a given location.

Being male, employed, educated and having lived longer in Canada were associated with a greater likelihood for immigrants to have knowledge of English when living in English-dominant cities and of French when living in French-dominant cities. Being older, married, living in a city with a sizeable official minority language population and where one’s own mother tongue is spoken by a high share of the population were associated with a lower probability to report knowledge of the local majority language. Immigrants were generally more likely to know the majority language in English-dominant cities than in French-dominant cities. Furthermore, immigrants inhabiting French-dominant cities with a large English-speaking minority were much less likely to know French compared to immigrants residing in English-dominant cities with a large French-speaking minority. Ortega and Verdugo (2015) suggest the greater attractiveness of English nationally and internationally may explain this disparity.

It appears that individual characteristics and skills learnt locally mattered most in explaining knowledge of French. On the other hand, the decision to settle in a city with a large proportion of speakers of one’s own mother tongue, or “sorting”, explained with more strength the likelihood to know English (Ortega and Verdugo 2015). Unfortunately, the acquisition of the local minority language by immigrants, by assessing, for instance, knowledge of French in English-dominant cities, is absent from this study.

Comparable research held in an European context was carried out by van Tubergen and Wierenga (2011), who explored the language acquisition of males from Turkey and Morocco who migrated to Belgium. They use survey data to construct binomial and multinomial logistic regressions assessing whether a migrant can speak or write French and/or Dutch.

As one could expect, respondents living in Dutch-dominant areas were more likely to know Dutch, and those living in French-dominant areas were more likely to be proficient in French. The analysis showed that spoken proficiency in an official
language was positively associated with a longer of stay in the country, schooling in Belgium, high mother tongue skills, language course attendance and being of the Moroccan ethnicity. On the other hand, higher age at migration, having a co-ethnic partner and the proportion of co-ethnics in the municipality of residence were generally associated with lower spoken proficiency (van Tubergen and Wierenga 2011).

Immigrants in Dutch-speaking areas where more likely to demonstrate high proficiency in French than immigrants in French-speaking areas were likely to have high skills in Dutch. While French is a minority language in Belgium, the researchers explain that French has a broader international appeal, which provides a greater incentive for immigrants in Belgium to learn French, regardless of their place of residence (van Tubergen and Wierenga 2011).

While her study did not include a model of language acquisition among immigrants, Korkman (2004) also investigated the local language proficiency of immigrants, this time in a Finnish setting. She interviewed students of immigrant background enrolled in Swedish-language vocational schools, with a special attention to their language proficiency and social networks. Higher proficiency in Swedish and Finnish were associated with residing for a longer period of time in Finland, a younger age at arrival and social network extent.

Except for this last input, this stream of studies uses a similar model structure, the application of which suggests the adoption of a minority language would be more likely in areas where it is the dominant language, and when it is more attractive than the majority language on an international scale. Whether these conclusions apply to those learning Swedish in Finland is the topic of the following section.

### 2.3 Adopting Swedish in Finland

For immigrants making their new home in a bilingual municipality of Finland, the choice of Swedish as a main local language is relatively uncommon, and has thus received special attention in the literature. A central question is what motivates
newcomers to prioritize learning what is nationwide a minority language rather than the dominant, majority language of Finnish.

In a 1997 study by Söderman, groups of Kurdish refugees who learnt Swedish when migrating to Finland were interviewed. Interviewees resided in a region of Southern Finland where the majority of residents are native Swedish speakers.

The participants formulated a desire for neutral information on their language options. Some declared their capacity to make a free decision regarding which language to learn had been limited by their host municipality, which decided for them which language course they should attend. It also appeared the immigrants who were more educated tended to learn both Finnish and Swedish (Söderman 1997).

According to the participants, labour market requirements and mobility opportunities shaped the attractiveness of each official language. Swedish was viewed positively in localities where it is a predominant language, as it becomes useful for work and education. Swedish also seemed attractive when considering mobility opportunities in Sweden, where Swedish is the dominant language, and in other Nordic countries, where similar languages are spoken. Finnish was also described in positive terms with regards to employment: Finnish proficiency was connected with opportunities for mobility in the Helsinki area and Finland as a whole (Söderman 1997: 94-95).

A comparable study was held in the region of Ostrobothnia, an area of the Upper West Coast of Finland where the majority of inhabitants are also native speakers of Swedish. Moilanen (2014) interviewed five immigrants who considered themselves integrated in the local Swedish-speaking majority. Of these, four expressed regrets and wished they had instead prioritized learning Finnish, with the dominant idea that their language skills confined them to their region. While Swedish is viewed positively as enabling mobility across Nordic countries, in Finland the language is perceived as useful only in a local setting. On the other hand, Finnish is said to be essential when considering opportunities involving Finland as a whole.

The language learnt when settling in the region was selected by the host municipality in most cases, so individuals had limited choice. Moreover, respondents did not
believe Swedish was easier to learn than Finnish, mostly due to local dialects. Opportunities to make contacts with Swedish and Finnish speakers are depicted as shaped by the local linguistic configuration, living in neighborhoods and localities where Finnish or Swedish speakers are absent diminishing potential contacts (Moilanen 2014).

Another study, concentrated on the Helsinki Capital Region, offers similar findings (Creutz and Helander 2012). However, it differs in its setting, since the Swedish-speaking community forms a minority of the population of this region, as described in the introduction of this thesis.

The researchers used several data sources: the population registry, a random-sampling survey and interviews. The latter suggested that immigrants were motivated to choose Swedish because they perceived the language as easy to learn and allowing greater mobility across Nordic countries. Over half of survey respondents declared they would be interested in learning both Finnish and Swedish, and over a quarter mentioned they would have been interested in learning Swedish during their integration process had they been offered this option (Creutz and Helander 2012: 73-74).

Some comments shared by the respondents reflect the minority situation of Swedish in the Helsinki Capital Region. Many admit that coping in Helsinki without sufficient Finnish skills is difficult. Some mention a lack of adequate information on official languages and related learning opportunities, and some respondents claim they have been discouraged by institution employees from focusing on Swedish. On the other hand, the respondents depict the Swedish-speaking community in Helsinki as distinctly welcoming towards foreigners.

All in all, these studies of immigrant involvement with Swedish in Finland shed light on comparable findings. The attractiveness of an official language appears to be shaped by the opportunities it provides for employment and mobility. Learning options are sometimes limited and constrained by institutions, and the dominance of a language in a locality or a region generally makes it more attractive.
These conclusions do bear relevance to the local languages adopted by international degree students, as were previous proficiency models and the discussion on international students as immigrants. In the next chapter, the input from these streams of research is amalgamated into a concise theoretical approach.
3. Forms of Capital and Language Skills

In the prior chapter, the potential of international degree students to become highly qualified members of the workforce was discussed, highlighting how employment is intrinsically related to settlement. Models of immigrant language acquisition were also introduced, demonstrating how both individual characteristics and locality attributes were associated with skills in the local languages. Lastly, studies of immigrants who prioritized learning Swedish when moving to Finland highlighted how access to work opportunities were shaped by language skills. It thus seems reasonable to declare that language skills are an important tool to secure employment, and that current or eventual workforce involvement matters in determining the migration of international degree students.

The association of language skills with labour market outcome is central in the 2001 iteration of the Chiswick and Miller immigrant language acquisition model, where proficiency in the local majority language is portrayed as a form of human capital enabling increased earnings or simply access to the workforce. This approach appears relevant to the goal of this thesis, which is to determine what made international degree students more likely to engage with either Finnish or Swedish during their stay in Finland.

The concept of human capital was first basically defined as a set of skills acquired by individuals through the investment of resources, with the expectation these investments were to yield benefits under the form of increased potential wages (Schultz 1961: 8). A local language unknown to a newcomer may count among those skills: it requires to dedicate time and effort to learn, and among the motivational factors for this commitment, financial gain through access to employment is central.

However, a language is not merely a tool enabling access to jobs and a chiefly economical view of the relationship between language skills and human capital requires more nuance. According to Bourdieu (1986), capital is multifaceted, economic capital being just one manifestation complemented by cultural and social
capital. All of these forms of capital are discussed in the next sections, with a special attention to their relevance to language acquisition among newcomers.

3.1 Cultural Capital

The first kind of capital explored by Bourdieu (1986) is cultural capital. It consists of knowledge perpetuated in cultural objects, like books, that is transmitted by the family and by institutions, and that may become embodied in individuals. Those who undertake self-improvement, through dedication and sacrifice, may acquire this knowledge. Once acquired, it becomes an integral part of the individuals, and as a consequence, their cultural capital is improved.

A relevant example is learning how to speak a language. An individual may acquire a language during their upbringing, in a family setting, or by attending an educational institution. Learning a language is not an easy task, and through sufficient and constant efforts, one may develop speaking abilities, as the language skills become embodied in the learner.

Various forms of cultural capital can be either useful or not according to context. This is especially relevant to immigrants, who may gain new cultural capital in their country of settlement, but who also come with pre-existing cultural capital accumulated in their country of departure. Erel (2010) argues that the skills and knowledge that compose the cultural capital of an immigrant cannot be transposed from country to country instantly. The knowledge that was acquired in the country of departure was shaped by the prevailing social structures, with gender, class or ethnicity shaping what individuals learnt, the meaning of which may be different in a receiving society with a different social structure. Furthermore, national or ethnic origin may be associated with a set of skills that do not correspond to individual cultural capital; for example, Turkish nationals may be assumed in the country of settlement to have language skills in Turkish, whereas their potential skills in Kurdish may be entirely disregarded. The cultural capital brought from the country of origin
must thus be reconceived in parallel to the specific context of the host society, with different results according to individual specificities and experiences.

Chiswick and Miller (2002) give the example of how prior education and workplace experience may not be useful for immigrants in a country where they do not master the local language(s). As their communication capacity with locals is hampered, their cultural capital cannot be used as is, and as far as the local labour market is concerned, these immigrants may be considered equivalent to unskilled labour. That is why Adserà and Pytlíková (2015) support that highly educated migrants see a greater incentive in acquiring a local language, so they can be recognized as highly skilled workers. It is thus easy to infer that international degree students contemplating settlement in Finland may also see an increased incentive for the acquisition of local language skills.

With sufficient proficiency in local languages, immigrants with a vast pre-existing cultural capital may experience better outcomes. In the American context, Nee and Sanders (2001) demonstrate that immigrants with high English skills who acquired local educational credentials are more likely to integrate the mainstream, American economy, occupying jobs in the public sector or in management. Those with lower cultural capital, on the other hand, are shown to be more likely to be self-employed and navigate ethnic economies, relying more on social capital, another form of capital that is described in the next section.

3.2 Social Capital

Social capital is another manifestation of capital described by Bourdieu (1986). It pertains to the benefits coming with membership is certain social groups, which pool their resources to the benefit of their members. Establishing and maintaining networks of strong relationships ensures such groups may exist and perpetuate themselves. In their institutional form, providers of social capital may take the form of a nation, a political party or even a language community. Moreover, as highlighted
by Portes (2000), social capital can also be understood as benefits stemming from strong familial ties, or as a basis for social control, as reaping benefits from membership in a social group contributes to the acceptance of its social norms.

Having sufficient cultural capital is essential to establish social ties. For instance, learning a local language provides networking opportunities with other speakers, and access to the benefits offered to the linguistic community. A newcomer speaking Swedish in Finland may be able to establish ties with local Swedish speakers, ties which may lead to obtain a job or receive advice about the labour market. Language skills can thus be a source of social capital.

Nee and Sanders (2001) argue that social capital is the only form of capital almost all immigrants can benefit from, be it from their family or their ethnic community. Those with lower cultural capital, with notably a lack of proficiency in local languages, may thus rely on their ethnic social capital to obtain employment. This outcome, however, is not necessarily desirable: as stressed by Li (2004), minority ethnic communities have fewer resources than the mainstream society. That is why a consequence of fostering strong ties with co-ethnics at the expense of other mainstream networks is associated, for instance, with lower earnings.

While Li’s 2004 study considers involvement of immigrants with the minority networks of the ethnic category they identify with, the argument that minority communities have fewer resources, and thus offer less possibilities, appears relevant to the learning of a local minority language by immigrants. Those integrating the Finnish-language community in the Helsinki Capital Region can be expected to gain access to more resources and more social capital than those who incorporate the minority, Swedish-language community. On the other hand, it might be easier to establish ties with local minority language speakers and benefit from ensuing social capital; as reported by Creutz and Helander (2012), some immigrants in the Helsinki Capital Region do perceive the Swedish-speaking community as more open and welcoming towards foreigners.

Still, there is indication that social capital may have only a limited effect in explaining individual outcomes. In his study on the educational performance of a group of
second generation immigrant children living in the United States, Portes (2000) demonstrated that family-based social capital, such as parental involvement in the schools, had a negligible effect on academic scores compared to English language skills (cultural capital) or socio-economic status (economic capital). On the other hand, belonging to the Chinese or Korean ethnicity was even more strongly associated with high academic performance, which was not the case for students categorized as of the Mexican ethnicity. While one may point to the effects of ethnicity-based social capital in explaining these results, the researcher suggests that a different work ethic stemming from cultural capital transmission or that the experience of discrimination by students of Mexican background may be better explanations. The extent of benefits stemming from membership in social groups may actually be only marginal.

In short, language skills are a source of social capital, as they allow to establish and maintain ties with social groups pooling their resources to the benefit of their members. These networks might have limited advantages, and may also be disadvantageous. Nonetheless, the interconnection of social capital with other forms of capital remains relevant to understand local language acquisition by newcomers.

3.3 Economic Capital

A common benefit from cultural and social capital, as described previously, is access to jobs and improved earnings. That is because both these forms of capital are intrinsically related to economic capital, which entails anything monetary, or with regards to property rights (Bourdieu 1986).

Chiswick and Miller (2002) tested how various dimensions of capital predicted earnings among immigrants. They posited that local language proficiency provides for more efficient communication with colleagues, leading immigrants with better language skills to become more productive, which in return would improve their income. In other words, their cultural capital would enable access to social capital, which would yield economic capital benefits. They demonstrated, using data from
the 1991 Canadian Census, that male immigrants who cannot hold a conversation in an official language had earnings around 10% inferior to immigrants who spoke an official language at home. Their analysis further shows that not knowing a local language diminished the impact of education in the origin country, supporting the idea that local language proficiency enables the use of pre-migration cultural capital, with ensuing economic capital benefits.

As stated before, immigrants with high cultural capital, including knowledge of a local language, are more likely to integrate the mainstream economy (Nee and Sanders 2001). Ties with the majority society is also a form of social capital associated with increased earnings (Li 2004). Language skills are thus not only cultural capital: they are a source of both social and economic capital, by enabling membership in social groups and by multiplying opportunities for employment and heightened earnings.

Through this capital lens, it becomes clearer as to why an immigrant, or a potential immigrant, like an international degree student, would undertake to learn a local language of their host community. As for the intertwining of forms of capital with the language acquisition process, it receives attention in the next section.

3.4 Predicting Proficiency

In a 1984 book, Bourdieu described in details how political domination, as asserted by institutions, is a centripetal force reinforcing the use of the dominant language within a polity. He offered at the same time hindsight on the acquisition process of an official language, as he considers the acquisition of a language to result from a market of approvals and disapprovals, which assigns a symbolical value to a language or an accent. Speaking the dominant language is valorised, whereas those speaking illegitimate languages are excluded from the social spheres, or institutions, where use of an official language is enforced.

The official status of a language serves many purposes, an obvious one being to ensure all within the community may communicate with each other, and thus ensure economic production. It also has a symbolical mean: it is illustrative of its purported
dominance, of its legitimacy in contrast to other, illegitimate languages (Bourdieu 1984: 26-28). This process parallels how membership in social groups comes with the enforcement of its social norms (Portes 2000), and in this case, the social group in question can be as vast as the nation-state.

But promoting a language and penalizing the use of others, while providing an incentive for learning, does not directly translate into language skills. It is exposure to the language, through interactions at school or in the family, that ensures one achieves fluency (Bourdieu 1984: 36-53). If usable, pre-existing cultural capital may also improve acquisition outcomes. The association of exposure with the acquisition of skills in a language relates with how cultural objects, the family and schools all may transmit knowledge that, when embodied, becomes cultural capital.

Swedish is an official language of Finland, but it is not dominant, at least in the Helsinki Capital Region. To ensure the reproduction of minority languages, the system of approvals and disapprovals described by Bourdieu must persist; sanctioned use of Swedish and rejection of other languages as illegitimate must go on. Bourdieu (1984: 45) defines as a total struggle the sustainment of a system of approvals and disapprovals for a minority language, which necessarily coexists in parallel with an analogous, dominant linguistic market for the majority language. Therefore, minority languages may subsist if they are enforced in enough social spheres.

Systems of approvals and disapprovals, coupled with language exposure, thus explain how language skills, as a form of cultural capital, may be acquired to become a source of both social and economic capital, by locals and immigrants alike. Consequently, this thesis will contribute to determine if this process also applies to international degree students moving to the Helsinki Capital Region: are they also influenced by the reinforcement of the legitimate, official local language(s) in the institutions of their locality? Are they being exposed to those languages and are they seeing incentives for learning either Finnish or Swedish?

Human capital and its forms has been used empirically to explain the language acquisition patterns of immigrants in bilingual regions (Chiswick and Miller 1994,
2001; Ortega and Verdugo 2015; van Tubergen and Wierenga 2011). These studies predict whether immigrants have achieved local language proficiency using predictors pertaining to exposure to the language, efficiency at converting this exposure into language skills and economic incentives for learning. This empirical categorization is described below:

**Language exposure**
Contact with the target language in the household, the neighborhood and institutions, both in the community of origin and destination. Relates to the transmission of cultural capital.

**Learning efficiency**
The extent to which language exposure may generate language skills. Those with a higher level of education, whose mother tongue is closer to the target language or in other words, who can make use of their pre-existing cultural capital, are hypothesized to be more efficient learners.

**Economic incentives**
The expected rise in wages when becoming proficient in the target language. It stems from both cultural capital and social capital, as language skills allow improved communication abilities, which in return permit to build networks and incorporate social groups, which provide various benefits.

This framework will be applied to a group of international degree students in the context of this study. Considering they may become immigrants, exposure to the local languages of Finnish and Swedish, pre-existing cultural capital and incentives for learning either local language will be used to predict the likelihood an international degree student in the Helsinki Capital Region reports knowledge of Finnish or Swedish. The next chapter details how this endeavour was undertaken.
4. Methodology

This chapter details how an Internet survey was used to collect data from a group of international degree students in the Helsinki Capital Region. The choice of the binary logistic regression as a method of analysis to predict local language knowledge also receives attention, as are all relevant variables included in the models.

4.1 Survey Design

Since readily available data on the language skills of international degree students in Finland does not exist, this study required that I collect my own data from this population. In order to achieve an optimal coverage and obtain data that is conducive to quantitative analysis, the most efficient tool appeared to be an Internet survey.

Online surveys cause minimal disruption to the life of respondents. They require limited time and can be answered from wherever there is Internet access, at any convenient time. Web surveys are moreover practically costless (Balch 2010: 5), which his appropriate for researchers with limited resources.

Still, web surveys are also associated with lower response rates (Shih and Fan 2008), as some may not consult their email box frequently, or might disregard the invitation email altogether for a lack of time or interest (Groves, Presser and Dipko 2004). Unsolicited emails may be considered spam, which also reduces the pool of potential respondents (Balch 2010: 10). Nonetheless, university students are more likely than most demographics to respond to online surveys (Shih and Fan 2008), and it is certain they have Internet access since their institution provides for it.

All in all, I considered the advantages of an Internet survey outweighed its disadvantages within the scope of this study. Alternatives, such as paper surveys, interviews, or focus groups, appeared costlier and more time-consuming for participants. An Internet survey also appeared most conducive to produce data that allows to respond to the research question on the likelihood international degree students have skills in the local languages of the Helsinki Capital Region.
Prior to drafting questions, an online hosting platform had to be selected, since it shapes what kind of questions can be asked, how easy it is to order and modify items and even more importantly, the input from how many respondents can be saved (Balch 2010: 20). Fortunately, the University of Helsinki offers a free, flexible and easy-to-use survey development and hosting tool: E-lomake. E-lomake handles diverse types of questions and answers, and it also allows to save the responses from a high number of participants. These qualities can be challenging to find in alternative platforms.

The survey itself was conceived *a priori* to respond to the specific questions asked in this study, but of course, the wording of some items was directly inspired from existing data collection tools. For instance, the language categories present in questions 2.1.3, 2.1.4 and 2.2.1 of the survey, which can be found in Appendix 9.1, are derived from the National Survey for Wales (Welsh Government 2015). Such a scale was deemed appropriate since it has been used in the assessment of minority language skills in bilingual Wales.

As recommended by Gillham (2008: 46-56), the first draft of the survey included a long list of questions, often on the same topic. With the advice of peers on the readability and understandability of those questions, I optimized the survey to ensure no questions were missing and that all items could be answered easily by future participants.

While this study inquires about international degree students, it was impossible to determine who is and who is not a Finnish national before actually reaching the population. The survey thus had to accommodate responses from both Finnish and non-Finnish students.

The resulting survey ranges from 20 questions for Finnish students to 25 questions for international students. It includes 5 sections: on personal information, language skills, views of official bilingualism, life goals and social ties, and lastly, contact information, with the most important sections placed in the beginning. Shorter surveys are more likely to yield a high participation rate, and the quality of data for questions answered in the beginning of a survey tends to be higher (Galesic and
Bosnjak 2009). The survey was designed accordingly, comprising few questions, and inquiring about language skills early in the survey.

4.2 Reaching the Population

International degree students residing in the Helsinki Capital Region, the population of interest in this study, could be accessed through name lists provided online by two institutions: Aalto University and the Hanken School of Economics. There are other institutions of higher education in metropolitan Helsinki, but they were not surveyed in absence of freely available admitted student lists.

Aalto University is a multidisciplinary university focused on the natural sciences, business administration and fine arts. It counts over 20,000 students and results from a 2010 merger of several schools, which form the multiple campuses of the current institution. In Aalto, the primary language of instruction is Finnish (Aalto University n.d.).

The Hanken School of Economics, as its name suggests, offers mainly classes in the fields of economics, business and administration. With around 2,000 students at their Helsinki campus, the institution was founded in 1909. Swedish is the predominant language in Hanken (n.d.).

These two universities offer public lists of students who were admitted to their English-medium Master’s programmes in 2013, 2014 and 2015 (although it is worth noting some lists from Aalto University were missing for some study programmes in 2014: only students in the fields of Business and Administration could be found). These readily available lists of student names allowed to establish a list of institutional emails to which the Internet survey could be sent. Since name lists were freely available online, I did not consider there were ethical issues in contacting those students without prior requests.
Institutional emails are formed by the combination of a student’s first name, a dot, and a student’s last name (Aalto University 2016a; Hanken n.d.). Below is an example:

Student name: Matti Meikäläinen
Institutional Email: matti.meikalainen@institution.fi

This strategy granted access to the population, but came with coverage limitations. An important caveat is that not all admitted students agreed to have their names published online. While the amount of students who refused their names be disclosed is generally low, ranging from none in some study programmes to as high as a third of those admitted in other programmes, it must be remembered those students could not be included in the frame population.

In addition to missing names, some email addresses may also be erroneous. Students with identical names would have similar email addresses, and the one included in the contact list for this study could be the wrong one. While this rare occurrence of homonyms in the student body has to be considered, it is also important to mention institutional email addresses are disabled when students graduate (Aalto University 2016b; Hanken n.d.). The probability an individual would be wrongfully included in the population frame is thus limited.

Another source of concern for name duplicates involves students who were admitted to study programmes at both target institutions. Also, not all students admitted to these Master’s programmes accepted their study place, which means not all individuals listed online actually are students, nor do they have an institutional email address. Some of these students may have abandoned their studies or already graduated. These issues were solved by thoroughly testing the validity of each email with MailTester, an online tool that simply ensures an email address exists.

The proportion of valid emails is generally higher for those admitted recently: 64% of emails returned as valid for the 2015 cohort, compared to only 37% in the 2013 cohort, which is not surprising considering those who were admitted earlier in time are more likely to have graduated or dropped out. Overall, 52% of all collected email
addresses were operational, with little difference between institutions. This equals to 816 students who could be invited out of 1,569 names listed online.

Coverage is among the main sources of error in surveys, as differences arise between the population of interest and the frame population (Fricker 2008: 198). In this case, the strategy used to build a population frame could not allow to reach all of the population of interest: all international degree students in the Helsinki Capital Region. Email lists were drafted for only two institutions, and some programme admittance lists were missing. This restricted population frame limits the potential conclusions which can be drawn from analysing the survey data. With this consideration in mind, the sufficiently large and well defined population frame was used for surveying.

4.3 Data Collection

The collection of data took place between April 25, 2016 and May 19, 2016. Response implied informed consent, since both the invitation email and the survey heading detailed the implications of answering the survey (see Appendix 9.1 and 9.2).

I invited participants with a generic email sent via E-lomake. This approach did not accommodate for person-specific invitations, which could have boosted the response rate (Balch 2010: 87-88). However, the E-lomake invitation tool had notable advantages. It allowed to send simultaneously a massive amount of emails while making sure these were not blocked by the recipient servers, which can be a challenge for web surveys (Balch 2010: 10). E-lomake also allowed to track who replied to the survey and who did not, so that reminder emails were only sent to those who had not responded yet.

This functionality was used a full week after the first invitation, as I sent a reminder email to those who had not replied yet (Appendix 9.2). Reminders are consistently mentioned as an easy way to increase participation levels (Balch 2010: 87-88).
Data collection took place smoothly. Very few invalid emails bounced since they had all been tested when building the population frame. Very few respondents emailed me with questions regarding the survey. That is why less than a month after the first invitations had been sent, the collection of data was over.

The overall participation rate reached 23% of those invited, for a total of 184 respondents. Compared to similar online surveys, this response level is somewhat low, but not exceptionally so. Online surveys may produce a wide range of response rates: in a 2008 meta-analysis of published survey results, Shih and Fan found that on average, Internet survey participation hovered around 35%, with a lowest reported rate of only 8%. Another comparison point is the 19% participation rate reported in Hazen and Albert’s 2006 study of a sample of international students, which is comparable to the one undertook in this thesis.

Low participation may be an important source of error impacting the validity of data (Fricker 2008: 198). In this case, since the participation levels are modest, it must be considered that self-selection may have played a role and that some members of the population frame disregarded the survey because of a lack of interest or incentives to respond (Groves, Presser and Dipko 2004).

The participation levels are similar for students at both target institutions: 23% for Aalto and 22% for Hanken. While response rates are alike for those admitted in 2013 and 2015 (19% and 22%), I notice a slightly higher participation of students admitted in 2014 (31%). This difference may stem from a greater disposition to fill surveys when students reach a certain stage of their Master’s degree, but a more likely explanation could include that, as previously mentioned, the 2014 cohort of respondents includes solely students of Business and Administration, whom may have been more likely to respond.

Since this study has international degree students for focus, only the responses from those who do not hold Finnish citizenship were retained for analysis. Of the 184 received questionnaires, 121 came from foreign nationals, who equal to about two thirds of all respondents. It is unfortunately impossible to verify if this proportion is representative of the share of international students among those enrolled in the
Master’s programmes involved, since this information is not revealed by institutions. It is furthermore regrettable that the responses from Finnish students are too few to be incorporated in the analysis.

The survey completion rate is just above 94%, which means there were 7 returned surveys from international students where item nonresponse was a concern. Excluding observations with missing values from the analysis is a common strategy, but it may cause biased estimates if information is not missing randomly (Rässler and Riphahn 2006). Alternatives, such as weighting, do not appear appropriate within the scope of this thesis since population parameters are unknown and the sample is small. A total of 114 completed surveys were thus included in the analysis.

In sum, while the response rate is somewhat low, it varies little between institutions and year of admission, and the completion rate is satisfactory. It thus seems that the data collected with this survey is suitable for analysis in spite of acknowledged limitations.

4.3 Binary Logistic Regression

Survey data is conducive to quantitative analysis. The elaboration of a statistical model should allow to determine what makes international degree students likely to have local language skills, a core question raised in this thesis. All calculations, visualization of data and modeling done for this purpose were performed via the software SPSS.

The model built in this study echoes the one of Chiswick and Miller (1994, 2001), Ortega and Verdugo (2015) and van Tubergen and Wierenga (2011). In the latter, binary logistic regressions are used in the analysis and the same strategy was adopted for this thesis. The choice of the binary logistic regression is explained in this section, as well as its logic, possible interpretations, advantages and limitations.

The models of language acquisition among immigrants listed above consist of multivariate regressions with a categorical dependent variable, so that independent
variables pertaining to language exposure, learning efficiency and economic incentives may be associated with different language proficiency categories. In the context of this study, the dependent variables are dichotomous: whether a respondent has ability in Finnish, or not, and whether a respondent has knowledge of Swedish, or not. This type of dependent variable is accommodated by a binary logistic regression.

For each independent variable, or predictor, an odds ratio is computed to indicate whether occurrence of the event (knowledge of Finnish/Swedish) is likely or unlikely. For predictors that are continuous variables, only one such ratio is necessary: it indicates change in probability the event occurs for an increase of one in the value of the independent variable. For categorical predictors, odds ratios are computed in relation to a reference category, which is assigned a value of 1. Interpretations are thus made on the likelihood an event occurs for a given category, in comparison to the reference category (Gorard 2003: 219-220). For example, the gender predictor may have two categories: male and female. If male is assigned as the reference category, an odds ratio will be computed for females.

The odds ratio results from a division of the odds the event is present for a predictor category over the odds the event occurs in the reference category. These odds are the ratio of observations where the event is present versus observations where the event is absent (Hilbe 2011). Therefore, if 1 out of 10 females experience the event, versus 3 out of 10 males undergoing the event, males remaining the reference category, the odds ratio would be calculated as follow:

\[
\text{Odds Ratio} = \frac{1}{10} / \frac{3}{10} = 0.33
\]

An odds ratio over 1 indicates a higher likelihood the event of interest is present, whereas an odds ratio under 1 points to a lower probability the event is occurring (Menard 1995: 49). In the example above, the resulting odds ratio is under 1. It suggests females are less likely than males to experience the event assessed by the dependent variable, whereas an odds ratio above 1 would have indicated the event is more likely to be present in females in comparison to males.
Logistic regression boasts advantages that other linear regression types do not: it can be used for categorical dependent variables, and works better for non-linear relationships, which are fairly common. On the other hand, odds ratios may vary if variables are included in the model in a different order. It is thus important to construct models with special attention that the variables are included consistently with the theoretical background of the analysis (Gorard 2003: 219-221).

The impacts of variable omission and the order in which predictors are inputted in the model are a challenge. Introducing an irrelevant variable to the model may increase error, while disregarding a relevant variable may induce bias, with systematically too high or too low coefficients (Menard 1995: 58-59). This situation becomes more likely the smaller a dataset is, as it becomes less probable a variable indicates a sufficient effect for its inclusion in the model, so the resulting coefficients may be under or overestimated. Hence, regression coefficients in small sample studies may be used in more of an exploratory spirit rather than for their quantitative indications (Steyerman, Eijkemans and Habberna 1999).

Since this thesis involves the analysis of a small sample, special care must be taken when interpreting regression results. The smaller a sample is, the higher odds ratios will tend to be, so odds ratios resulting from a binary logistic regression performed on a small dataset are systematically more susceptible to bias (Nemes, Miao Jonasson, Genell and Steineck 2009). Still, for a logistic regression to produce relatively precise results, it is estimated a minimum of roughly a hundred respondents are essential (Harrell, 2015: 233), a threshold reached in the dataset used for this thesis.

A smaller sample means there are fewer events measured by the dependent variable. General advice is to have at least 10 events for every predictor category. Otherwise, bias and unreliable confidence intervals may be present, requiring cautious interpretations. But problems only become frequent when the number of events is below 5 per category. Also, models with several variables, some of which include predictors with a low number of events, are more prone to unreliable confidence intervals (Vittinghoff and McCulloch 2006). Ensuring there are enough
events per predictor category, even if they do not respect the 10 events rule of thumb, is a way to alleviate this limitation.

Another concern is collinearity. It can be caused in situations when, for one predictor, all events are concentrated in a category, causing a “zero cell-count” for other predictor categories (Menard 1995: 67-68). Since the sample used in this study is small, the occurrence of zero or near-zero cell count appears more likely, and thus collinearity can be an issue to acknowledge.

Collinearity, while preferably avoided, is a manageable issue, easily accounted for and that will not render analysis impossible (Harrell 2015: 255). While very high coefficients may be an indicator of collinearity between the predictors, the removal of collinear variables is not recommended as it may introduce bias and theoretical inconsistencies. Consequently, when collinearity is present, it is advised to retain all variables, but to be cautious when interpreting odds ratios for predictors (Menard 1995: 66).

In sum, concerns related to the sample size are present, but not insurmountable. While the interpretation of odds ratios and confidence intervals will be tricky, logistic regression allows to deal with a relatively small sample. Using this modeling strategy in the analysis will thus allow to determine whether the application of a model of language acquisition among immigrants to a group of international degree students may explain the likelihood they acquired Finnish and Swedish abilities while sojourning in Finland.

4.4 Variables

This study includes two distinct binary logistic regressions: one assessing knowledge of Finnish and one assessing knowledge of Swedish among survey respondents. The proficiency predictors included in these models are inspired from those used by Chiswick and Miller (1994, 2001), van Tubergen and Wierenga (2011) and Ortega and Verdugo (2015). Due to the small size of the sample, I dichotomized all
independent variables to ensure the amount of events per category is sufficient, with fewer categories across which events can be distributed.

I divided predictors in three groups following the capital framework of Chiswick and Miller (2001), as detailed in chapter 3. I thus distinguish between predictors of language exposure, efficiency at converting this exposure into language skills, and economic incentives. The repartition of predictors across groups is detailed in Table 2 below. The next pages include an in-depth description of the dependent variables and each predictor. Lastly, I address the exclusion from this thesis of some variables featured in similar language acquisition models.

**Table 2. Predictors of local language knowledge.**

<table>
<thead>
<tr>
<th>Exposure factors</th>
<th>Efficiency factors</th>
<th>Economic Incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period of residence</td>
<td>Age (years)</td>
<td>Region of Origin</td>
</tr>
<tr>
<td>Partner’s language</td>
<td>Gender</td>
<td>Work</td>
</tr>
<tr>
<td>Place of residence</td>
<td>Mother tongue</td>
<td>Finland Settlement</td>
</tr>
<tr>
<td>Institution of study</td>
<td></td>
<td>Nordics Settlement</td>
</tr>
</tbody>
</table>

**Dependent Variables**

Similar models in the literature all use different dependent variables: language spoken at home (Chiswick and Miller 2001), high levels of reported spoken and written proficiency (van Tubergen and Wierenga 2011) and knowledge of a language well enough to hold a conversation (Chiswick and Miller 1994; Ortega and Verdugo 2015). In the context of this thesis, it cannot be expected from international degree students who sojourned a relatively short amount of time in Finland to speak the local languages at home or report high proficiency levels. It appears more relevant to assess whether a participant reports any knowledge of a local language, as it signals some form of engagement with either Finnish or Swedish. The actual skill level self-assessment is thus of lesser relevance. Therefore, the dependent variables
in this study comprise any respondents who has knowledge of the target language, regardless of their ability to converse. Due to the different scope of reported abilities in Finnish and Swedish, the dependent variable assessing knowledge in either language was built slightly differently.

**Knowledge of Finnish**
Respondents were asked to assess on a five-points scale their ability to speak in Finnish. As shown in the next chapter, nearly all respondents reported some knowledge of Finnish. In order for the binary logistic regression to perform adequately, those who reported being able to speak “just a few sentences” of Finnish were categorized as having no knowledge of Finnish for modeling purposes. This variable thus distinguishes students who declared speaking no Finnish at all or “just a few sentences” from those who reported they could speak at least “only a little” Finnish.

**Knowledge of Swedish**
An analogous item inquired about the participants’ skills in Swedish. As most participants who reported having Swedish abilities evaluated they could speak “just a few sentences”, as reported in the next chapter, any student who did not declare speaking no Swedish at all was categorized as having knowledge of Swedish. This variable thus differentiates between participants who declared having any skills in Swedish from those who reported speaking no Swedish at all. Also, those who declared their mother tongue was Swedish, in a write-in question for that purpose, were excluded from the knowledge of Swedish regression.

**Independent Variables**

**Period of residence**
A multiple-choice question listed ranges of time lived in Finland. Given that Master’s degrees have a prescribed duration of two years, having lived one year in Finland would mean a student is halfway through their stay, aside potential extensions. This
variable thus divides respondents who have lived Finland under one year from those who have resided in Finland more than one year.

**Partner’s language**
A single multiple-choice question inquired about whether the participant had a partner, and whether this partner could speak Finnish, Swedish, or both Finnish and Swedish. Any respondent who mentioned having a partner who is able to speak Finnish or both Finnish and Swedish was categorized as having a Finnish-speaking partner, as opposed to respondents who are not partnered or have a partner who cannot speak Finnish. Similarly, those who reported having a partner who can speak Swedish or both Finnish and Swedish were categorized as having a Swedish-speaking partner. It is important to stress this variable does not capture whether a partner is a native speaker of a local language, but simply if the participants know whether their partner is able to speak a local language or not.

**Place of residence**
Respondents entered their Finnish postal code as a numerical input. Over a third of participants lived in the same postal code area, representing the neighborhood of Otaniemi (Otnäs). This area encloses a campus of Aalto University and has a higher than average share of non-official language speakers in its population: 29.3% versus 14.3% for the Helsinki Capital Region as a whole. Also, the proportion of native Swedish speakers in Otaniemi is relatively low: 4.7% as opposed to the regional average of 5.8% (Helsingin Seudun Aluesarjat 2016). This variable thus compares Otaniemi dwellers from those who live elsewhere in the Helsinki Capital Region.

**Institution of study**
Respondents had to select whether they are enrolled at primarily Finnish-language Aalto University or the dominantly Swedish-language Hanken School of Economics.

**Age (years)**
Respondents gave their age as a numerical input. Responses ranged from 21 to 34 years old, with a mean of 25.7 and a standard deviation of 2.8 years. The age variable was thus dichotomized in “25 and below” and “above 25” categories.
Gender
The survey included a multiple choice question on whether participants are male, female or of another gender. All respondents were either male (54%) or female (46%).

Mother tongue
Participants were asked to write their mother tongue, defined as the first language they learnt and could still speak at the time of answering the survey. Since very few participants had a mother tongue in the same language family as Finnish, this variable is excluded from the regression model of Finnish knowledge.

The mother tongue variable could however be included in the other regression, assessing knowledge of Swedish. As Swedish is a Germanic language, this variable assesses whether the mother tongue of the respondents is from this language family or not. Among respondents, the most common Germanic mother tongues were English and German.

Region of origin
Participants wrote in their country of birth. Their responses were very diverse, the most common reported countries being Russia, China and India. Grouping disparate countries of origin in meaningful categories was difficult, so this variable distinguishes between participants from Russia and Central Asia (22%) from those who originate from elsewhere (78%).

In the literature, region of origin is associated with local language knowledge due to both language exposure and economic incentives. In Chiswick and Miller (2001), immigrants coming from distant countries are posited to be more likely to know the local languages. Since they had to invest more resources into their migration, immigrants from distant regions are less susceptible to return, and would thus see a greater incentive in engaging with local languages. In parallel, region of origin could be used as an indicator of pre-migration language exposure. For instance, in van Tubergen and Wierenga (2011), Moroccans are depicted as more likely to be proficient in French due to the former colonial ties of Morocco with France. Within
the context of this thesis, since neither Finnish nor Swedish were used extensively as colonial languages, this variable is used as an indicator of geographical proximity measuring economic incentives.

**Work**
A question allowed participants to check any applicable responses with regards to their employment situation. Any respondent who did not select they did not work and who selected either a language spoken at work or a number of hours worked weekly was categorized as employed, while others were considered not employed.

**Settlement: Finland**
A Likert scale with six options inquired about how likely the participants believed they would still reside in Finland in 5 years. Settlement in Finland was categorized as probable for those who selected “probably”, “very probably” or “definitely”. For others, settlement in Finland was categorized as improbable.

**Settlement: Nordics**
This variable follows the same logic as the variable above on settlement in Finland, except that it is based on a Likert scale item inquiring about how likely a respondent would still live in a Nordic country in 5 years. A Nordic country was defined as including Denmark, Finland, Iceland, Norway and Sweden.

**Excluded and Omitted Variables**
There are other independent variables present in analogous models that are absent from this study. Some were measured in the survey but could not be included in the regressions for reasons explained below. In the last case, omission from the survey prevented a variable from being included.

**Education level**
All respondents declared to have the same level of education as they all still were Master’s students at the time of responding to the survey. A variable assessing education level was therefore not relevant.
Prior knowledge of the target language

The dependent variables in this study assess whether participants report knowledge of a local language; not whether they have achieved high levels of proficiency. Therefore, it does not appear pertinent to include a variable indicating knowledge of the target language prior to moving to Finland, since respondents are very likely to still have knowledge of the target language when responding to the survey, except if their language abilities declined to none during their stay in Finland.

Language course

As mentioned previously, proficiency levels are not central in this study. As one could expect, nearly all of those who have followed a Finnish course declared knowing at least “only a little” Finnish, while all respondents who were on a Swedish course reported speaking at least “just a few sentences” of Swedish. Due to the occurrence of zero cell counts and due to the questionable relevance of this predictor for the dependent variables used specifically in this study, this variable was not included.

Co-ethnic partner

Lastly, a variable assessing whether a participant’s partner is of the same ethnicity could not be included simply because the survey did not include a question on the respondent’s partner’s mother tongue or ethnicity. This omission prevented the inclusion of this variable, but as the language abilities of a potential partner remain part of the models, the absence of a co-ethnic partner variable is not dramatic, while worth mentioning.
5. Results

The findings presented in this chapter have two purposes: brush a tentative portrait of the Finnish and Swedish skills of a group of international degree students and try to explain what made them more likely to report skills in those languages. The characteristics of survey respondents are reported in Table 3. There appears to be slightly more male (54%) than female (46%) participants. Also, the majority of respondents declared to have lived in Finland over a year (59%), and most were enrolled at Aalto University (86%), with only 14% studying at the Hanken School of Economics.

This study is set on the premise international degree students may become full-fledged immigrants, so their reported settlement and mobility intentions receive attention in this chapter. The engagement of participants with local languages is explored through responses given to opinion questions on local languages and English, through language use at work and through language course attendance. Follows a pivotal description of the self-reported language skills of participants, as well as their proficiency goals for the next year. The two last sections focus on the likelihood a student reported having knowledge of Finnish and Swedish, with results from logistic regressions.

5.1 Settlement and Mobility

The migration potential of participants in this study may be assessed by how probable they judge they will still inhabit Finland and the Nordic countries in 5 years. Their responses appear in Figure 1. It is important to note that the Nordic countries are inclusive of Finland, thus participants who consider probable they will inhabit Finland in 5 years logically also judge likely they will live in a Nordic country in that time frame.

The majority of respondents (74%) thought it was at least possible they will reside in Finland in 5 years. Some participants reported with more certitude their intentions: 16% declared they would “definitely” or “very probably” still live in Finland, as
opposed to 26% who selected they would “definitely not” or “probably not” remain there in 5 years. While most respondents did not think extending their stay in Finland was impossible, they were more to believe with certainty it is unlikely they stay in the country than they were to think it is highly likely they will reside in Finland in 5 years.

Table 3. Frequency distribution.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Categories</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Under 25</td>
<td>60 (53%)</td>
</tr>
<tr>
<td></td>
<td>25 and over</td>
<td>54 (47%)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>62 (54%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>52 (46%)</td>
</tr>
<tr>
<td>Mother tongue</td>
<td>Germanic</td>
<td>17 (15%)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>97 (85%)</td>
</tr>
<tr>
<td>Period of residence</td>
<td>Under 1 year</td>
<td>47 (41%)</td>
</tr>
<tr>
<td></td>
<td>Above 1 year</td>
<td>67 (59%)</td>
</tr>
<tr>
<td>Partner’s language (1)</td>
<td>Finnish</td>
<td>35 (31%)</td>
</tr>
<tr>
<td></td>
<td>Other, N/A</td>
<td>79 (69%)</td>
</tr>
<tr>
<td>Partner’s language (2)</td>
<td>Swedish</td>
<td>14 (12%)</td>
</tr>
<tr>
<td></td>
<td>Other, N/A</td>
<td>100 (88%)</td>
</tr>
<tr>
<td>Place of residence</td>
<td>Otaniemi</td>
<td>38 (33%)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>76 (67%)</td>
</tr>
<tr>
<td>Institution of study</td>
<td>Aalto</td>
<td>98 (86%)</td>
</tr>
<tr>
<td></td>
<td>Hanken</td>
<td>16 (14%)</td>
</tr>
<tr>
<td>Region of origin</td>
<td>Russia/Central Asia</td>
<td>25 (22%)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>89 (78%)</td>
</tr>
<tr>
<td>Work</td>
<td>Employed</td>
<td>66 (58%)</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>48 (42%)</td>
</tr>
<tr>
<td>Settlement: Finland</td>
<td>Improbable</td>
<td>70 (61%)</td>
</tr>
<tr>
<td></td>
<td>Probable</td>
<td>44 (39%)</td>
</tr>
<tr>
<td>Settlement: Nordics</td>
<td>Improbable</td>
<td>60 (53%)</td>
</tr>
<tr>
<td></td>
<td>Probable</td>
<td>54 (47%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>114 (100%)</strong></td>
</tr>
</tbody>
</table>
A different portrait emerges for intentions to settle in the Nordic countries. A slightly higher proportion of respondents, 79%, declared as at least possible they live in a Nordic country in 5 years. Among those responding with more certainty on their settlement intentions, 24% reported as definite or very probable they would still inhabit a Nordic country, while 21% held opposite views. Participants who asserted with more certitude their intentions to settle in the Nordic countries are thus more or less as numerous as those who judged unlikely they will live there in 5 years.

All in all, some participants may very well become immigrants according to their stated intentions, while others visibly do not anticipate to remain in Finland nor in the Nordic countries. What is clear is that most leave the door open to long term settlement, judging possible or probable they inhabit Finland or the Nordic countries in 5 years. It also seems that more respondents judge likely they will live in the Nordic countries than in Finland. This must be indicative of the attractiveness of other Nordic countries in which some participants may desire to settle. At the question of whether one would be ready to move to Sweden or another Nordic country for a job, they were 68% to respond it was at least possible they would do it and over a quarter to reply they would “definitely” or “very probably” move for such an opportunity.

The possibility of a long term settlement in Finland for international degree students leads to the question of their involvement with local languages. The next section portrays how respondents view and engage with Finnish and Swedish.
5.2 English versus Local Languages

The international degree students surveyed for this study were enrolled in study programmes taught in English. Their engagement with the local languages of the Helsinki Capital Region may then be assessed by comparing how English is perceived in comparison to Finnish and Swedish.

In Figure 2, the participants shared their beliefs on whether knowledge of a given language is important to find work in Finland. It appears the majority of respondents agreed that knowing English (82%) and knowing Finnish (93%) is important to obtain employment. However, only 21% thought the same about Swedish. It is worth noting many respondents were unsure about the importance of Swedish on the Finnish labour market: 33% declared being unsure whether Swedish is important to find a job, whereas only 4% were similarly unsure for Finnish and 5% for English.

Participants were also asked whether they believe given languages are easy to learn. Their responses are summarized in Figure 3. A little under 81% of respondents declared believing English is an easy language to learn. The portrait is opposite for the local majority language of Finnish: 90% disagreed Finnish is an easy language to learn. Swedish fares somewhat better: 33% believed it is easy to learn, as opposed to 9% who disagreed. However, the majority (58%) of respondents declared being unsure whether the local minority language of Swedish is easy to learn.

Another obvious form of involvement with local languages are language courses. 83% of respondents declared having attended a Finnish language course during their stay in Finland. On the other hand, only a minority of participants studied English (25%), Swedish (10%) or another non-specified language (13%) on a course.

Language use is another way to assess the penetration of local languages in a respondent’s life. An employment status question inquired about languages used at work. 66 participants, or 58% of surveyed students, reported being employed. Of
them, 97% used English at work, as could be expected, while 20% used Finnish and only 3% used Swedish in the context of their job.

The ubiquity of English as a working language, the belief expressed by respondents it is an easy language to learn, that only a minority perfected their English on a course and that the majority agreed that knowledge of English is important to find work in Finland all are reflective of its use as a study language, known already at the time of moving to Finland. It might also hint at the importance of this non-official language in the Helsinki Capital Region.

Figure 2. **Knowing this language is important to find work in Finland.**

![Figure 2](image1)

Figure 3. **This language is easy to learn.**

![Figure 3](image2)
Knowledge of the local majority language of Finnish is also generally perceived as important to find work in Finland by students involved in this study. While they mostly disagreed it is an easy language to learn, the majority of respondents did study Finnish on a course, and among those who worked, a mention-worthy minority used the language in that context. This seems to indicate the participants are not indifferent to the local language of Finnish, as they are numerous to report enrolling in language courses and expressing an opinion on its easiness and its importance on the local labour market.

On the other hand, most participants stated that the local minority language of Swedish is not important to obtain work in Finland. Many more respondents appeared to be unsure when questioned about Swedish than when questioned about Finnish or English. They were few to have studied Swedish on a course or to use the language at their workplace. These results appear to indicate that only a minority of participants engaged with this local minority language, contrasting with a more widespread involvement with Finnish. This observation becomes clearer in the next sections, where the language skills of respondents are described.

5.3 Finnish Skills

Has the stay in the Helsinki Capital Region of surveyed international degree students translated into Finnish skills? This section portrays the self-assessed capacity of respondents to speak the local majority language, as depicted in Figure 4. The skill levels are represented at three different times: when moving to Finland, at the time of answering the survey, and a one-year goal.

The large majority of respondents (78%) declared speaking no Finnish at all when first moving to Finland. Nearly none reported high skills, with the bulk of participants who remembered having knowledge of the language stating they could speak “just a few sentences”.

The portrait is dramatically different at the time of answering the survey. Only 10% reported having no Finnish skills, hinting at a near-universal acquisition of the
language among respondents, albeit to varying extents. A plurality (46%) of participants declared they could speak “only a little” Finnish and 25% reported minimal skills. Still, a sizeable minority reported high proficiency in the language. 16% of participants declared speaking “a fair amount” of Finnish while under 3% reported having reached fluency.

When projecting themselves one year ahead in the future, the majority of respondents expected to have high proficiency in Finnish. 11% intended to be fluent in the language and 49% wished to be able to speak “a fair amount” of Finnish. Remaining respondents intended to have a more modest capacity to speak Finnish, save about 4% who did not intend to have any skills in Finnish in one year from answering the survey.

All in all, while 22% of respondents had some ability in Finnish when moving to Finland, 90% declared having various skills in the language at the time of surveying, and over 96% of participants expected to be able to speak Finnish to some extent in one year. A sizeable minority (18%) reported they could speak at least “a fair amount of Finnish”, while the majority intended to reach this high skill level in one year (60%). These proportions confirm the massive engagement of respondents with the local majority language of Finnish. Not only did almost all participants have some ability in the language, but many also declared to have achieved high levels of proficiency.

5.4 Swedish Skills

Respondents were also asked to report their ability to speak Swedish at different points in time: when they moved to Finland, when answering the survey, and their one-year proficiency goal. Their responses are presented in Figure 5.

Nearly no participant knew how to speak Swedish when moving to Finland, 95% reporting no ability in the language. Also, Swedish was the mother tongue of 2% of participants, who thus reported being fluent in the language at the time of their arrival in Finland. All proportions reported in this section exclude these native speakers.
Figure 4. Finnish skills; when moving, today and one-year goal.

Figure 5. Swedish skills; when moving, today and one-year goal.
At the time they answered the survey, the majority of respondents remained without Swedish skills (79%). Still, about 16% of participants reported they could speak “just a few sentences” of the language, a substantial minority. Those who reported higher skill levels are few: 5% of respondents could speak Swedish “only a little” or more.

One year ahead in the future, fewer participants reported they would not have any Swedish skills (67%), but they remained the majority. Nonetheless, some expected to reach high proficiency levels: 6% of participants declared they intend to speak “a fair amount” of Swedish or be fluent. They were 9% to believe they will have the ability to speak “only a little” Swedish and 17% declared they intend to have minimal skills in the language.

It appears that a minority of participants gained skills in Swedish during their stay in Finland. While just 4% of participants had skills in the language when moving to Finland, 21% reported knowledge of Swedish when answering the survey, and a third expect to have at least some knowledge of the local minority language in one year. While they were few to report high skill levels at the time of surveying, they were 7% to expect to be able to speak at least “a fair amount” of Swedish in one year.

In spite of its minority status, Swedish is indeed a language many participants engaged with while sojourning in Finland. Some even reported intentions to reach high proficiency levels. Still, Swedish acquisition among respondents appears marginal compared to the scope of acquired Finnish skills. A comparison of the competence of participants in both languages is presented in the next section.

5.5 Preferred Local Language

While knowledge of Finnish is more pervasive than knowledge of Swedish among respondents, comparative proficiency and the occurrence of students with knowledge of both local languages also deserve attention. It appears that those who can speak some Finnish reported higher proficiency levels than those who can speak some Swedish. At the time of responding to the survey, 72% of those with Finnish
skills declared speaking more than “just a few sentences”. Meanwhile, among those with Swedish skills, only 25% reported a similar proficiency level. Therefore, more participants can speak Finnish, and can do so at a higher skill level.

The data further show that, at the time of answering the survey, almost all of those with Swedish skills could speak some Finnish (88%). Among participants with non-native knowledge of Swedish, 63% reported higher skills in Finnish, 25% considered their ability in both languages to be equivalent and 13% reported higher skills in Swedish. Of all participants, native speakers included, 7% declared they could not speak any local language, 83% reported their highest skills in Finnish, 5% declared the same ability in both local languages and 4% responded they spoke Swedish best. It appears that most respondents who know Swedish know the language in addition to Finnish, and tend to consider their Finnish skills to be higher. Still, for a small minority of participants, Swedish is the local language for which they report the highest proficiency level.

Knowledge of Swedish is a marginal phenomenon in comparison to knowledge of Finnish among participants to this study. Nearly all surveyed students responded they could speak Finnish to some extent, and for the majority of respondents, Finnish is the local language they know best. What makes a participant more likely to report knowledge of a local language is explored in the next two sections.

### 5.6 Predicting Knowledge of Finnish

While a strong majority of participants reported they could speak some Finnish, the difference between those with knowledge of the language and those without remains of interest. As there were too few respondents who reported having no Finnish skills at all to perform a successful logistic regression, this section attempts to unveil what made respondents more likely to report they could speak at least “only a little” Finnish, rather than no Finnish at all or “just a few sentences”.

The distribution of participants according to their Finnish knowledge, for every predictor category, is presented in Table 4. For three predictors, partner’s language,
institution of study and region of origin, there is a category where the number of events is inferior to 5, which may lead to unreliable confidence intervals when performing the logistic regressions (Vittinghoff and McCulloch 2006).

As demonstrated in Table 4, the chi-square test yields a statistically significant value for five predictors. This suggests a different propensity to know Finnish between those with a partner who can speak Finnish and those without (p < 0.001), between participants residing in Otaniemi and those who live elsewhere (p < 0.001), between men and women (p = 0.001), between Russians or Central Asians and students originating from elsewhere (p = 0.001), and between those who judge as probable they live in Finland in 5 years and those who think it is improbable (p = 0.028). The chi-square test also produces a marginally significant value for period of residence (p = 0.072), suggesting knowledge of Finnish may differ between those who resided in Finland below one year and over one year.

All predictors are inputted in logistic regression models appearing in Table 5. Model 1 only considers exposure to Finnish. With an odds ratio of 0.13, participants without a partner who can speak Finnish are about 8 times less likely than those with a Finnish-speaking partner to declare knowing Finnish “only a little” or more (95% confidence interval: 0.04 to 0.49). Also, Model 1 shows that respondents living outside of Otaniemi are more likely than those residing in Otaniemi to have knowledge of Finnish. Reported ability in Finnish does not appear to differ between respondents who lived below and over one year in Finland, and between those studying at Aalto and Hanken. Therefore, only accounting for exposure, a participant is more likely to declare speaking at least “only a little” Finnish if they have a partner who can speak Finnish and if they live outside of the neighborhood of Otaniemi.

Also presented in Table 5 is Model 2, which considers variables pertaining to efficiency at acquiring language skills. The odds ratio indicate that female respondents are 3.96 times more likely than male participants to report knowledge of Finnish (95% confidence interval: 1.38 to 9.33). On the other hand, being aged 25 years old and above does not appear to be associated with speaking Finnish “only a little” or more.
Economic incentives for learning Finnish are assessed in Model 3. Respondents born in Russia/Central Asia appear more likely than those born elsewhere to declare having competence in Finnish. On the other hand, being employed or intending to settle in Finland or the Nordic countries do not seem to be associated with the likelihood to know Finnish.

Model 4, the final model depicted in Table 5, evaluates the interaction of all predictors in explaining the likelihood a respondent reported speaking at least “only a little” Finnish. Respondents with a Finnish-speaking partner, those originating from Russia or Central Asia and participants residing outside of the neighborhood of Otaniemi all appeared more likely to know Finnish. However, women no longer seem more likely than men to report knowledge of Finnish when exposure and economic incentive predictors are considered (95% confidence interval: 0.71 to 5.68).

In summary, the binary logistic regressions portrayed in Table 5 seem to suggest that exposure and economic incentive variables matter most in explaining the likelihood a participant has knowledge of Finnish.

5.7 Predicting Knowledge of Swedish

Exceptional among the international degree students surveyed in this study are those with knowledge of the local minority language of Swedish. The response to one of the main research questions of this thesis is here: why do these participants have skills in a local minority language while others do not? Since most respondents reported they could speak “just a few sentences” of Swedish, this section assesses the likelihood a participant declared having any knowledge of Swedish.

Table 4 details the repartition of respondents across predictor categories following their knowledge of Swedish. In one case, for the mother tongue variable, the number of events in a category is under 5. As previously mentioned, such a low amount of events for a category may bias the confidence intervals (Vittinghoff and McCulloch 2006), which should be interpreted with caution when consulting the logistic regression results.
Chi-square tests produced a statistically significant relationship for two predictors, as reported in Table 4. Respondents who lived under 1 year in Finland appear to differ from those whose stay exceeded 1 year with regards to their knowledge of Swedish ($p = 0.023$). Similarly, a difference in Swedish knowledge seems to exist between Aalto and Hanken students ($p = 0.001$). Work also yielded a marginally significant chi-square value ($p = 0.071$), which indicates that knowledge of Swedish may differ between employed respondents and those without a job.

Logistic regressions predicting knowledge of Swedish among participants are presented in Table 6. Model 1 includes variables of exposure to the language. It appears that those who lived in Finland above 1 year are more likely than those who lived there under 1 year to report knowledge of Swedish. Also, the odds ratio indicates that students enrolled at Hanken are more likely than Aalto students to declare having competence in the local minority language. Model 1 does not appear to suggest having a Swedish-speaking partner or living in Otaniemi is associated with the likelihood to report knowledge of Swedish.

Variables assessing efficiency at gaining language skills are considered in Model 2. Neither being aged under or over 25, being male or female nor having a Germanic language as a mother tongue appear to be associated with the likelihood to report knowledge of Swedish.

Model 3 only considers the association of economic incentives with reported knowledge of Swedish. Originating from Russia/Central Asia, being employed or judging probable to settle in Finland or the Nordic countries is not associated with the probability to have abilities in Swedish in this model.

Lastly, in Table 6 can be found Model 4, which combines all predictors of Swedish knowledge. The association of period of residence with knowledge of Swedish is no longer statistically significant, as those who have lived in Finland over a year no longer appear more likely to speak the local minority language (95% confidence interval: 0.76 to 17.71). On the other hand, the odds ratio indicates that those enrolled at Hanken are above 16 times more likely than those studying at Aalto to report knowledge of Swedish (95% confidence interval: 3.15 to 85.52).
Table 4. Local language knowledge, by predictor.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Categories</th>
<th>Finnish knowledge (N = 114)</th>
<th>Swedish knowledge (N = 112)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Minimal or none</td>
<td>Little or better</td>
</tr>
<tr>
<td></td>
<td></td>
<td>χ²</td>
<td>p</td>
</tr>
<tr>
<td><strong>EXPOSURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period of residence</td>
<td>Under 1 year</td>
<td>21 (45%)</td>
<td>26 (55%)</td>
</tr>
<tr>
<td></td>
<td>Above 1 year</td>
<td>19 (28%)</td>
<td>48 (72%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partner's language</td>
<td>Finnish/Swedish</td>
<td>3 (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimal or</td>
<td>3 (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>better</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place of residence</td>
<td>Otaniemi</td>
<td>22 (58%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other</td>
<td>18 (24%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Institution of study</td>
<td>Aalto</td>
<td>36 (37%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hanken</td>
<td>4 (25%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>Under 25</td>
<td>18 (30%)</td>
<td>42 (70%)</td>
</tr>
<tr>
<td></td>
<td>25 and over</td>
<td>22 (41%)</td>
<td>32 (59%)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>30 (48%)</td>
<td>32 (52%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>10 (19%)</td>
<td>42 (81%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother tongue</td>
<td>Germanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region of origin</td>
<td>Russia/Central Asia</td>
<td>2 (8%)</td>
<td>23 (92%)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>38 (43%)</td>
<td>51 (57%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>Employed</td>
<td>19 (29%)</td>
<td>47 (71%)</td>
</tr>
<tr>
<td></td>
<td>Not Employed</td>
<td>21 (44%)</td>
<td>27 (56%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement: Finland</td>
<td>Unlikely/uncertain</td>
<td>30 (43%)</td>
<td>40 (57%)</td>
</tr>
<tr>
<td></td>
<td>Likely</td>
<td>10 (23%)</td>
<td>34 (77%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement: Nordics</td>
<td>Unlikely/uncertain</td>
<td>25 (42%)</td>
<td>35 (58%)</td>
</tr>
<tr>
<td></td>
<td>Likely</td>
<td>15 (28%)</td>
<td>39 (72%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INCENTIVE</strong></td>
<td></td>
<td>40 (35%)</td>
<td>74 (65%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>88 (79%)</td>
<td>24 (21%)</td>
</tr>
</tbody>
</table>

[55]
Table 5. **Logistic regression of Finnish knowledge (“only a little” or better, N = 114).**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Categories</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXPOSURE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period of residence</td>
<td>Under 1 year</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Above 1 year</td>
<td>1.47 (0.61 – 3.53)</td>
<td>1.37 (0.39 – 4.83)</td>
<td>1.37 (0.39 – 4.83)</td>
<td>1.37 (0.39 – 4.83)</td>
</tr>
<tr>
<td>Partner's language</td>
<td>Finnish</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Other, N/A</td>
<td>0.13** (0.04 – 0.49)</td>
<td>0.17* (0.04 – 0.71)</td>
<td>0.17* (0.04 – 0.71)</td>
<td>0.17* (0.04 – 0.71)</td>
</tr>
<tr>
<td>Place of residence</td>
<td>Otaniemi</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3.46** (1.36 – 8.78)</td>
<td>3.20* (1.11 – 9.19)</td>
<td>3.20* (1.11 – 9.19)</td>
<td>3.20* (1.11 – 9.19)</td>
</tr>
<tr>
<td>Institution of study</td>
<td>Aalto</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Hanken</td>
<td>0.58 (0.14 – 2.41)</td>
<td>0.70 (0.14 – 3.43)</td>
<td>0.70 (0.14 – 3.43)</td>
<td>0.70 (0.14 – 3.43)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>Under 25</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>25 and over</td>
<td>0.61 (0.27 – 1.38)</td>
<td>0.43 (0.14 – 1.31)</td>
<td>0.43 (0.14 – 1.31)</td>
<td>0.43 (0.14 – 1.31)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.96** (1.68 – 9.33)</td>
<td>2.00 (0.71 – 5.68)</td>
<td>2.00 (0.71 – 5.68)</td>
<td>2.00 (0.71 – 5.68)</td>
</tr>
<tr>
<td>Region of origin</td>
<td>Russia/Central Asia</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.10** (0.02 – 0.49)</td>
<td>0.17* (0.03 – 0.89)</td>
<td>0.17* (0.03 – 0.89)</td>
<td>0.17* (0.03 – 0.89)</td>
</tr>
<tr>
<td>Work</td>
<td>Employed</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>0.48 (0.21 – 1.14)</td>
<td>0.66 (0.21 – 2.06)</td>
<td>0.66 (0.21 – 2.06)</td>
<td>0.66 (0.21 – 2.06)</td>
</tr>
<tr>
<td>Settlement: Finland</td>
<td>Improbable</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Probable</td>
<td>1.93 (0.55 – 6.69)</td>
<td>2.44 (0.57 – 10.51)</td>
<td>2.44 (0.57 – 10.51)</td>
<td>2.44 (0.57 – 10.51)</td>
</tr>
<tr>
<td>Settlement: Nordics</td>
<td>Improbable</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Probable</td>
<td>1.19 (0.37 – 3.83)</td>
<td>0.91 (0.24 – 3.52)</td>
<td>0.91 (0.24 – 3.52)</td>
<td>0.91 (0.24 – 3.52)</td>
</tr>
</tbody>
</table>

** = Significant at the 0.01 level  
* = Significant at the 0.05 level
Table 6. Logistic regression of Swedish knowledge (“just a few sentences” or better, N = 112).

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Categories</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPOSURE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period of residence</td>
<td>Under 1 year</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Above 1 year</td>
<td>3.52* (1.12 – 11.00)</td>
<td>3.68 (0.76 – 17.71)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner’s language</td>
<td>Swedish</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other, N/A</td>
<td>0.40 (0.10 – 1.61)</td>
<td>0.33 (0.05 – 2.17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of residence</td>
<td>Otaniemi</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.40 (0.12 – 1.27)</td>
<td>0.56 (0.15 – 2.07)</td>
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<td></td>
</tr>
<tr>
<td>Institution of study</td>
<td>Aalto</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hanken</td>
<td>7.41** (1.96 – 28.02)</td>
<td>16.41** (3.15 – 85.52)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFFICIENCY</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>Under 25</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 and over</td>
<td>1.44 (0.57 – 3.59)</td>
<td>1.54 (0.44 – 5.36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>0.54 (0.21 – 1.40)</td>
<td>0.17* (0.04 – 0.70)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother tongue</td>
<td>Germanic</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.79 (0.22 – 2.82)</td>
<td>0.48 (0.09 – 2.54)</td>
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<td></td>
</tr>
<tr>
<td>REGION OF ORIGIN</td>
<td>Russia/Central Asia</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.70 (0.23 – 2.11)</td>
<td>0.54 (0.12 – 2.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCENTIVE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>Employed</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>0.41 (0.14 – 1.16)</td>
<td>0.65 (0.16 – 2.59)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement: Finland</td>
<td>Improbable</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Probable</td>
<td>0.42 (0.11 – 1.65)</td>
<td>0.22 (0.04 – 1.35)</td>
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<td></td>
</tr>
<tr>
<td>Settlement: Nordics</td>
<td>Improbable</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Probable</td>
<td>2.96 (0.77 – 11.39)</td>
<td>7.44* (1.20 – 46.21)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** = Significant at the 0.01 level  * = Significant at the 0.05 level
Respondents who consider probable they live in a Nordic country in 5 years also appear 7.44 times more likely than those who see this situation as improbable to report knowing Swedish (95% confidence interval: 1.20 to 46.21). Furthermore, in Model 4, women are also less likely than men to declare having knowledge of Swedish.

Predictors assessing learning efficiency and economic incentives appear to be associated with knowledge of Swedish only when evaluated in combination with exposure to the language. The implications of these results for international degree students and minority language communities are discussed in the next chapter.
6. Discussion

The results detailed in the preceding chapter are unequivocal: the international degree students surveyed for this thesis did engage with the local languages of the Helsinki Capital Region. Moreover, language exposure, efficiency at learning and economic incentives all could explain in part knowledge of Finnish and Swedish, albeit differently for both languages. In this chapter, I discuss the implications of these findings and how they relate to prior studies.

A core premise of this thesis is the migration potential of international degree students. It appears that, indeed, most international degree students surveyed in this study did not see as impossible they become immigrants, with 74% declaring as possible, probable or certain they will reside in Finland in 5 years and 79% declaring analogous intentions for their residence in the Nordic countries. Also in Hazen and Alberts (2006), a majority of international students reported their initial intention to remain in the country of studies after graduation, or changed their mind in favour of extending their stay. While long term settlement intentions cannot be expected to be definitive, that the majority of respondents in this study did not discard the possibility they will stay in Finland or another Nordic country seems to confirm the migration potential of international degree students.

The connection of settlement with employment is also echoed in the findings. The majority of participants reported some form of employment (58%), which supports the idea students are already involved in the local labour market even before they graduate (Tremblay 2005). The main path from studies to permanent settlement in Finland passing through employment (Finnish Immigration Service 2017), the involvement of respondents in the workforce, combined with their reported openness to remain in Finland or a Nordic country, adds evidence to the possibility of a long term settlement of international degree students.

While most participants agreed that English and Finnish are important to find work in Finland, most disagreed or were unsure about the importance of Swedish. Similarly, few respondents studied Swedish on a course (10%) while many more
studied English (25%) or Finnish (83%). English, the language participants use in their studies, is not only the world’s lingua franca, but is also important in the Helsinki Capital Region, both inside and outside of the university setting. Taavitsainen and Pahta (2003) describe how English is increasingly used in education, research, business and advertisement in Finland, and how Swedish has been displaced by English in many fields of collaboration across Nordic countries. The increasing importance of English both internationally and locally may explain why it may be perceived by international degree students as more important to find a job in Finland than the minority language of Swedish can be, regardless of prevailing official status.

While nearly all respondents viewed Finnish as a hard language to learn (90%), its dominance in the Helsinki Capital Region was reflected by the ubiquity of its knowledge. An impressive 90% of participants reported they could speak Finnish to varying extents, and only about 4% saw themselves without Finnish skills in one year from answering the survey. In contrast, only a fifth of respondents declared to have Finnish abilities when moving to Finland. It is thus clear that respondents learnt massively the local majority language during their stay in Finland.

The portrait differs for the local minority language of Swedish, as 21% of participants had non-native knowledge of the language at the time of surveying. Of them, 63% reported higher skills in Finnish. Not only are there fewer respondents who can speak some Swedish, but for most of them, Finnish is the local language they know best. Still, since the proportion of respondents with Swedish abilities was much lower at the time of moving to Finland (4%), a minority of participants did acquire Swedish skills during their studies.

On a side note, newcomers inhabiting bilingual localities may not see learning the local majority versus minority language as a dilemma, and may rather be involved with either language according to context (Lamarre 2013). Rather than stating the majority of participants engaged with Finnish while the minority learnt Swedish, it might be more accurate to state there is a minority that learnt both Finnish and Swedish.
The use of the model of language acquisition among immigrants in bilingual regions, as it appeared in Chiswick and Miller (1994, 2001), van Tubergen and Wierenga (2011) and Ortega and Verdugo (2015), fruitfully explained the likelihood an international degree student reported knowledge of Finnish or Swedish. However, different predictors of language exposure, efficiency at learning and economic incentives were associated with knowledge of either language, an expected reflection of the dominance of Finnish and the minority status of Swedish in the Helsinki Capital Region. The next sections review these differences and compare this study’s regression results with those from the literature.

6.1 Language Exposure

Exposure to a language, in the household, the neighborhood or institutions, is posited to explain in part its acquisition (Bourdieu 1984), as it enables the process of cultural capital embodiment (Bourdieu 1986). Measures of exposure to the local languages of the Helsinki Capital Region were indeed associated with local language knowledge among survey respondents. Having a partner who can speak Finnish made respondents more likely to report being able to speak “only a little” Finnish or more. Frequent contacts with someone who can speak a local language must ease its acquisition by providing opportunities to practice speaking, for instance. In the literature, marital status has an unclear relationship with local language proficiency, and the spouse’s language abilities are generally not taken into account. In Chiswick and Miller (2001), being married is associated with knowledge of a local language in English-dominant Canadian provinces, but not elsewhere. In Ortega and Verdugo (2015), being ever married is associated with a lower likelihood to know a local language well enough to have a conversation. The same association is found in van Tubergen and Wierenga (2011), as those with a co-ethnic partner are shown to be less likely to be proficient in local languages. Still, social contacts with speakers of local languages has been shown to be associated with local language proficiency (Korkman 2004). The increased likelihood of speaking a local language if one’s partner also speaks it might thus be
an interesting measure of exposure to incorporate in future models of immigrant language acquisition.

Residing in Otaniemi made participants in this study less likely to report knowledge of Finnish compared to those residing elsewhere in the Helsinki Capital Region. Otaniemi is not only a student neighborhood encompassing an Aalto University campus, it also has in its population an under-average share of native Finnish speakers and a higher than average proportion of non-official language speakers (Helsingin Seudun Aluesarjat 2016). Otaniemi dwellers would thus be less prone to encounter Finnish speakers than if they lived elsewhere in the Capital Region, and would consequently be less exposed to the local majority language. This finding is echoed in the literature, as higher proportions of majority language speakers in an area of residence has been associated with higher odds for immigrants to know a local language (Ortega and Verdugo 2015). In contrast, the proportion of co-ethnics or speakers of the same language as the immigrant in an area of residence is also associated with a lower likelihood to know a local language (Chiswick and Miller 1994, 2001; van Tubergen and Wierenga 2011). The concentration of speakers of an immigrant language in an area can be considered a good proxy for co-ethnic contacts or networking, as well as the consumption of ethnic media (Chiswick and Miller 1996). The relative predominance of a language where a newcomer resides is therefore not unrelated to local language proficiency.

The causal association of place of residence with reported language skills is arguable, since pre-existing language skills may also contribute to determine where a newcomer would choose to reside. This debate opposes “sorting”, the choice of a place of residence according to one’s language skills, versus “learning”, the acquisition of language skills while residing in a given place (Ortega and Verdugo 2015). For instance, Bauer, Epstein and Gang (2005) have demonstrated that Mexican immigrants in the U.S. who report low English skills will tend to choose to live in neighborhoods where they are less likely to have to use English. This locational choice lowers in return the likelihood they improve their English abilities while living there.
In the case of international degree students residing in Otaniemi, there are reasons to believe that their different language skills may be the result of “sorting”, since they were less likely than students living elsewhere to declare having knowledge of Finnish at the time of moving to Finland. For that time period, 11% of Otaniemi dwellers declared having Finnish skills compared to 28% of respondents residing elsewhere in the Helsinki Capital Region. This difference is statistically significant χ²(1, N = 114) = 4.330, p = 0.037. Different language skills at the time of moving to Finland suggests that Otaniemi residents may have chosen to live in an environment where exposure to Finnish is lower. However, a more probable explanation is that students with fewer contacts in Finland might have been more likely to be settled in student housing located near a University campus, which would explain the predominance in Otaniemi of students with no knowledge of Finnish at the time of moving to Finland, and ensuing reported language skills at the time of responding to the survey. Either way, a “sorting” process is apparent.

Other measures of exposure were associated with knowledge of the local minority language. When efficiency at learning and economic incentives are not taken into account, respondents who lived in Finland above one year are more likely than those who stayed in the country under one year to have competence in Swedish. An extended stay means a prolonged exposure to a language, and in the literature, a longer period of residence is commonly associated with local language acquisition (Chiswick and Miller 1994, 2001; Korkman 2004; Ortega and Verdugo 2015; van Tubergen and Wierenga 2011). This finding suggests that although it is a minority language, the presence of Swedish in the Helsinki Capital Region might be sufficient to explain that a longer time spent in the area is associated with a greater probability to report knowledge of the language. Still, the salience of this association has to be relativized, as it appears only when exposure factors are considered.

A place where Swedish is omnipresent is the Hanken School of Economics. Respondents enrolled there were much more likely to report speaking some Swedish than those attending Aalto University, where instruction occurs primarily in Finnish. But for international degree students, knowledge of Swedish is not compulsory in
Hanken, so it can be inferred that language exposure in an institutional setting led Hanken students to be more likely to acquire Swedish abilities. It may also be considered that Aalto respondents include students of both natural sciences and business and administration, while Hanken students only include the latter. Students of business and administration might have been more likely to acquire Swedish abilities due to the networking imperatives coming with their field of study.

Neighborhoods and institutions alike are public spaces where, in bilingual localities, the use of one language or another may predominate social relations (Tunger et. al. 2010). Knowledge of Finnish, the dominant language, is associated with broader areas of residence, as living outside of Otaniemi is associated with knowledge of the majority language. However, it is an institution, Hanken, that is associated with knowledge of the minority language of Swedish. This observation suggests institutions may be central in providing language exposure and consequently may foster the engagement of newcomers with a minority language.

### 6.2 Learning Efficiency

Not every individual starts with the same cultural capital when learning a new language, so not every individual is as efficient in converting language exposure into language skills (Chiswick and Miller 2001). As such, predictors assessing efficiency at learning must be considered in addition to simple language exposure.

When learning efficiency alone is considered, women appear more likely than men to report speaking at least “only a little” Finnish. As for the local minority language, men were more likely than women to report knowledge of Swedish when the interaction of language exposure, learning efficiency and economic incentives is considered. This gender difference in the propensity to have knowledge of a majority versus a minority language is interesting, but difficult to explain. This relationship cannot be explained by an overrepresentation of men among respondents studying at Hanken, since women actually formed 56% of survey participants from this institution. Also, in Ortega and Verdugo (2015), men appear more likely than women
to have skills in the local majority language. The gendered acquisition of cultural capital in the country of departure (Erel 2010) may explain why men and women may benefit differently from their body of knowledge in the country of destination when it comes to acquire a local language.

Few predictors measuring efficiency at converting language exposure into skills are associated with local language knowledge for participants in this study. While a younger age is commonly associated with knowledge of a local language (Chiswick and Miller 2001; Ortega and Verdugo 2015; van Tubergen and Wierenga 2011), it is not the case here. It may be because respondents were all relatively young, and may thus be assumed to be similarly efficient at learning. By comparison, in Chiswick and Miller (2001), only individuals older than 25 are retained for analysis, while here, the mean age of participants is around 25 years old.

Not only are they young, participants in this study also share a crucial component of learning efficiency: a common education level, and education is strongly associated with local language proficiency in the literature (Chiswick and Miller 2001; Ortega and Verdugo 2015; van Tubergen and Wierenga 2011). In short, while efficiency at learning is a core part of the language acquisition model used on immigrant populations, it might be of lesser relevance when studying local language knowledge among international degree students, a markedly young and educated segment of the population.

### 6.3 Economic Incentives

The last model dimension to be discussed pertains to expected economic capital gains when learning a local language. Local language skills not only allow to integrate local social networks, but are also associated with an improved position on the labour market, and thus more economic capital (Chiswick and Miller 2001).

The results show that being born in Russia or a Central Asian country is associated with increased odds to report speaking “only a little” Finnish or more. Russia borders Finland, and Russians form one of the largest immigrant communities in the country,
making Russian the third most spoken native language in Finland (Latomaa and Nuolijärvi 2002: 111). It is hypothesized in Chiswick and Miller (2001) that immigrants originating from nearby countries would be less likely to have knowledge of the local language, as they can afford to maintain stronger ties with their country of departure. Also, having a large proportion of co-ethnics in one’s locality of residence is associated with a lower likelihood to be proficient in the local languages (van Tubergen and Wierenga 2011). There is thus indication that Russian/Central Asian participants could have been expected to be less prone to report abilities in Finnish.

However, it is easy to speculate on why Russian and Central Asian respondents were more likely to have knowledge of Finnish. Historically changing borders and transnational contacts (Latomaa and Nuolijärvi 2002) render possible that students born in Russia had exposure to Finnish prior to moving to Finland. Accordingly, the data show that the reported pre-move knowledge of Finnish among Russians/Central Asians differed from those originating elsewhere, with 44% reporting any knowledge of Finnish at the time of moving to Finland compared to 16% of participants born in other countries. This difference between Russian/Central Asian respondents and others is statistically significant, \( \chi^2(1, N = 114) = 9.111, p = 0.003 \).

Exposure to Finnish prior to moving to Finland may thus be acknowledged, especially if Russian respondents come from regions neighboring Finland. But perceived economic incentives may still matter. It can be posited that simple push and pull factors could create an incentive for Russian/Central Asians participants to engage with Finnish. Finland is a nearby, easy to access country where average earnings are higher than in Russia, and thus where economic opportunities might be more attractive (Heikkilä 2006). Russian and Central Asian students may thus see a greater incentive in integrating the Finnish labour market, and consequently engage with the Finnish language.

Economic incentives were more clearly associated with knowledge of Swedish among participants. Those who judged as probable they live in a Nordic country in 5 years appeared more likely than others to report Swedish abilities. Among
immigrants, Swedish is often depicted as attractive because of the mobility opportunities it provides across Nordic countries (Creutz and Helander 2012; Moilanen 2014; Söderman 1997). It is important to emphasize that Swedish is not only a local minority language of the Helsinki Capital Region, but also the dominant language in the neighbouring nation-state of Sweden. The literature shows how the international status of a language shapes its attractiveness for immigrants, with newcomers tending to be more proficient in French than Dutch in Belgium (van Tubergen and Wierenga 2011), and more skilled in English than French in Canada (Chiswick and Miller 2001). Immigrants generally tend to be more likely to settle in countries where the main language is useful on the international scene (Adserà and Pytliková 2015).

While local exposure parameters may matter in predicting knowledge of a local language, non-local economic incentives may also matter. In the case of Swedish in the Helsinki Capital Region, while language exposure was somewhat limited to the institution of study, the incentives for adopting the language appear to stem from the international status of Swedish; its usefulness across Nordic countries. This situation contrasts with the acquisition of Finnish, where local exposure, and perhaps local economic incentives for Russian/Central Asians, are most salient in explaining Finnish knowledge among respondents. The implication of this difference between the adoption of a local minority and a local majority language are discussed in the conclusion.

6.4 Methodological Considerations

The conclusions reached in this study have a circumscribed scope since they stem from results that must be interpreted with caution. Limitations were present in the construction of the population frame, in data collection and the analysis of a small sample.

Participants in this study were contacted by constructing email addresses from name lists of admitted students. As not all students had their name listed and as some
email addresses may have been inaccurate, not all of the population of interest could be covered. The response rate only reached a modest 23%. Also, while the data collected for this study come from a defined population of interest, this same population has an unknown extent. Inferences to all international degree students of the Helsinki Capital Region are thus to be avoided.

It is also likely that self-selection based on interest in the survey played a part. The high share of participants with local language skills may indicate participants with an interest for bilingualism in the Helsinki Capital Region could have been more likely to submit a survey response compared to those with lower interest in the topic. The extent of local language knowledge as reported in the results thus only applies to the participants, and while nothing suggests the difference in scope between knowledge of Finnish and Swedish is due to low participation, the low figures for those with no knowledge of the local languages may actually be higher.

Working with a small sample also had consequences for data analysis. While the logistic regression accommodates small sample (Harrell 2015), very large confidence intervals are apparent in the results. They are undeniably imputable in part to the low amount of events per category. While there was caution in dichotomizing predictors to balance events across categories, within theoretical constraints, the smallness of the sample made large confidence intervals almost inevitable. The smallness of the sample also rendered difficult to use comparable dependent variables in the regressions of Finnish and Swedish knowledge. There were too few respondents declaring not having any knowledge of Finnish for a logistic regression to be performed using this measure as a dependent variable. The comparability of findings on the likelihood participants reported knowledge of Finnish and Swedish is thus limited.

While the methodology used for this study comes with the considerations detailed above, it remained advantageous as it allowed to contact the population of interest easily from publicly available records. Of course, an improved study design could include working with the concerned institutions in order to contact the whole
population of interest. While it would involve navigating several bureaucracies, it could yield results that achieve a better coverage of the population of interest, and allow to draw more generalizable conclusions.
7. Conclusion

International degree students may become permanent immigrants and integrate the workforce of their country of studies. Their local language skills are thus of interest, especially in bilingual localities where students may engage with both a majority and a minority language.

It is apparent in the results of this thesis that several international degree students did engage with the local languages of the Helsinki Capital Region during their stay in Finland. While nearly all of the 114 survey respondents reported having some knowledge of the majority language of Finnish (90%), a non negligible minority also reported non-native knowledge of the minority language of Swedish (21%). Respondents thus engaged with both local languages, but to a different degree.

Knowledge of either Finnish or Swedish was successfully predicted by adapting a model of language acquisition usually applied to regular immigrant populations settled in bilingual countries. While this study’s results indicate that language exposure and economic incentives were associated with local language knowledge, learning efficiency appeared of lesser relevance as the group of international degree students under study was young and shared the same, high level of education.

Respondents were massively involved with the majority language of Finnish. Local exposure to the language increased the odds a participant reports knowledge of Finnish, for instance by having a Finnish-speaking partner or living outside of the student neighborhood of Otaniemi. Participants originating from Russia/Central Asia also were more likely to speak some Finnish, but whether it is because of language exposure prior to moving to Finland or because of local economic incentives is debatable.

While the minority language of Swedish may be perceived as less important to find work in Finland, those who were exposed to Swedish at their institution of study appeared more likely to know the language. Those who considered likely they settle in a Nordic country were also more likely to know some Swedish. Therefore, both the international scope of Swedish and its minority status in the Helsinki Capital
Region interact in explaining why a minority of participants reported knowledge of the language.

As bilingual societies continue to welcome newcomers such as international degree students, the question of their involvement with local languages will continue to be relevant. Local language skills are not only cultural capital, but are also a source of social and economic capital, as they provide the capacity to communicate with locals, establish or integrate social networks, and reap benefits under the form of an improved position on the labour market. Local language acquisition is indeed pertinent for individual newcomers, but is also important for minority language communities that strive to maintain their demographic capital and fill positions in their language-specific labour market.

This thesis has shown that for a relatively small linguistic minority, an haven of exposure, under form of an institution of study, could increase the probability a newcomer has knowledge of a minority language. While non-local factors also played a part, in this case the international appeal of a language, having newcomers evolve in a space where the use of a minority language is valorised is likely to gain minority language communities more speakers. Further research could confirm this finding, so that minority language communities, by opening the doors of their institutions to newcomers, may benefit justly from immigration in general, and from the internationalization of higher education in particular.
8. References


Aalto University 2016a. *Short introduction to IT Services for students*. [Online]. Available at: https://into.aalto.fi/display/enit/Short+introduction+to+IT+Services+for+students [Accessed: 12 October 2016].


9. Appendix

9.1 Survey

Survey of English-Medium Master's Students in Bilingual Finland

Dear respondent,

You are invited to participate in this short survey as you were admitted to an English-medium Master’s programme between 2013 and 2015. Your contribution will take less than 8 minutes and is part of a Master’s thesis project on official bilingualism in Finland. This survey includes questions on your language skills, your projects after you graduate and your perceptions of Finnish, Swedish and English in both your municipality and Finland.

Your participation is voluntary and all your responses are anonymous and confidential. You will not be identifiable in any data published in relation to this project. Only those involved will have access to the data which will be stored on the University of Helsinki’s secure servers.

If you have any questions pertaining to this survey or this research project, do not hesitate to contact me via the following email address: etienne.lemyre@helsinki.fi

Thank you,
Étienne Lemyre
Master’s student at the Swedish School of Social Science of the University of Helsinki
Thesis supervisor: Dr Anne Kouvonen, Department of Social Research, University of Helsinki
Section 1. **Personal Information**

1.1 What is your gender?

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.2 What is your age?  

________

1.3 What is your postcode, here in Finland? *(Your postcode allows to identity both your neighborhood and your municipality)*

________

1.4 Are you a citizen of Finland?

<table>
<thead>
<tr>
<th>Finnish citizenship</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.5 Where do you study?

<table>
<thead>
<tr>
<th>Institution</th>
<th>Aalto University</th>
<th>Hanken School of Economics</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If other, please specify:

1.6 What is your current student status?

<table>
<thead>
<tr>
<th>Status</th>
<th>Bachelor Student</th>
<th>Master Student</th>
<th>Doctoral Student</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Section 1.1 Additional Information, International Students** *(If Finnish citizenship = ‘No’)*

1.1.1 What is your country of birth?  

________

1.1.2 How long have you lived in Finland?

<table>
<thead>
<tr>
<th>Lived in Finland</th>
<th>Under 6 months</th>
<th>6 months to 1 yr.</th>
<th>1 to 2 years</th>
<th>2 to 3 years</th>
<th>Over 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[80]
Section 2.1 Language Skills, International Students (If Finnish citizenship = 'No')

2.1.1 What is your mother tongue? (Please note your mother tongue is the first language you learnt and that you can still speak today)

_________

2.1.2 In which other language(s), if any, can you hold a conversation?

_________

2.1.3 Think of your ability to speak FINNISH, when you moved to Finland, today, and in one year from now (Try to remember how well you spoke Finnish when you arrived in Finland, how well you can speak now, and how well you want to be able to speak Finnish in one year.)

<table>
<thead>
<tr>
<th></th>
<th>No Finnish at all</th>
<th>Just a few sentences</th>
<th>Only a little Finnish</th>
<th>A fair amount of Finnish</th>
<th>Fluent in Finnish</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you moved to Finland</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Today</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>In one-year form now</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

2.1.4 Think of your ability to speak SWEDISH, when you moved to Finland, today, and in one year from now (Try to remember how well you spoke Swedish when you arrived in Finland, how well you can speak now, and how well you want to be able to speak Swedish in one year.)

<table>
<thead>
<tr>
<th></th>
<th>No Swedish at all</th>
<th>Just a few sentences</th>
<th>Only a little Swedish</th>
<th>A fair amount of Swedish</th>
<th>Fluent in Swedish</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you moved to Finland</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Today</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>In one-year form now</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

2.1.5 Which language(s), if any, have you studied on a course since you moved to Finland? (Please select all languages you have studied on a course.)

☐ I have not attended any language course
☐ Finnish
☐ Swedish
☐ English
☐ Other
Section 2.2 Language Skills, Finnish Students *(If Finnish Citizenship = ‘Yes’)*

2.2.1 Think of your ability to speak the official languages of Finland *(Please note your mother tongue is the first language you learnt and that you can still speak today)*

<table>
<thead>
<tr>
<th>Ability to speak</th>
<th>Finnish</th>
<th>Swedish</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is my mother tongue</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>I can’t speak it at all</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>I can say just a few sentences</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>I can speak it only a little</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>I can speak it a fair amount</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

2.2.2 In which other language(s), if any, can you hold a conversation?

Section 3. Official Bilingualism in Finland

3.1 Do you agree with the statements below on the status of FINNISH?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree Strongly</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>I am not sure</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finnish is important to find work in my municipality</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Finnish is important to find work in Finland</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Finnish should remain (or become) an official language in my municipality</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Finnish should remain an official language of Finland</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Finnish is helpful to make friends</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Finnish is a prestigious language</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Finnish is easy to learn</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
3.2 Do you agree with the statements below on the status of SWEDISH?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>I am Not Sure</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish is important to find work in my municipality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swedish is important to find work in Finland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swedish should remain (or become) an official language in my municipality</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Swedish should remain an official language of Finland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swedish is helpful to make friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swedish is a prestigious language</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swedish is easy to learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3 Do you agree with the statements below on the status of ENGLISH?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>I am Not Sure</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>English is important to find work in my municipality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English is important to find work in Finland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English should remain (or become) an official language in my municipality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English should remain an official language of Finland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English is helpful to make friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English is a prestigious language</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English is easy to learn</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 4. **Personal Goals and Ties**

*Some of the questions below refer to the Nordic countries. Please note that the Nordic countries include Denmark, Finland, Iceland, Norway and Sweden.*

4.1 How likely are the following statements about your future?

<table>
<thead>
<tr>
<th></th>
<th>Definitely</th>
<th>Probably</th>
<th>Possibly</th>
<th>Probably</th>
<th>Very</th>
<th>Definitely</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will still live in my municipality in 1 year from now</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will still live in Finland in 1 year from now</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will still live in a Nordic country in 1 year from now</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will still live in my municipality in 5 years from now</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will still live in Finland in 5 years from now</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will still live in a Nordic country in 5 years from now</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would move to another region of Finland for a job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would move to Sweden or another Nordic country for a job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2 Which of the statements below is/are true about your employment status, here in Finland? *(Please check all statements that are applicable to you.)*

- [ ] I am not currently working
- [ ] I am working less than 25 hours per week
- [ ] I am working more than 25 hours per week
- [ ] I use Finnish at work
- [ ] I use Swedish at work
- [ ] I use English at work
- [ ] I use another language at work
4.3 Do you have a partner or a spouse? If yes, can he/she speak Swedish and/or Finnish?

<table>
<thead>
<tr>
<th>Yes, he/she can speak Finnish</th>
<th>Yes, he/she can speak Swedish</th>
<th>Yes, he/she can speak both Swedish and Finnish</th>
<th>Yes, he/she cannot speak Swedish nor Finnish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner/Spouse</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

4.4 Think of your good friends. How many reside:

<table>
<thead>
<tr>
<th>In your municipality</th>
<th>None</th>
<th>Only one or two</th>
<th>Some of them</th>
<th>Most of them</th>
<th>All of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elsewhere in Finland</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>In a Nordic country other than Finland</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Elsewhere in the world</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

4.4 Think of your good friends. How many do you think can: *(Think of all your good friends, regardless of their place of residence)*

<table>
<thead>
<tr>
<th>Speak Finnish</th>
<th>None</th>
<th>Only one or two</th>
<th>Some of them</th>
<th>Most of them</th>
<th>All of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speak Swedish</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Section 5. **Contact Information**

5.1 Would you want to receive the results of this study by email?

<table>
<thead>
<tr>
<th>Study results</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

5.2 Would you agree to be contacted in the future for a follow-up survey?

<table>
<thead>
<tr>
<th>Follow-up survey</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

5.3 Would you accept to undergo a face-to-face interview to discuss your responses to this survey, at a place of your choice? *(Only a few respondents might be contacted for this purpose)*

<table>
<thead>
<tr>
<th>Face-to-face interview</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
5.4 If your responded yes to one of the questions above, please enter your personal email address:

________

5.5 If you want to add final comments on your responses or general comments on this survey, please write here:

________

*Thank you very much for your participation!*
9.2 Invitation Emails

Email 1. First Invitation

Object. Survey on Languages in Finland: Invitation

Hello,

You have been selected to participate in a short survey on languages in Finland as you were admitted to an English-medium Master’s programme between 2013 and 2015. The survey includes questions on your language skills, your projects after graduation and your perceptions of Finnish, Swedish and English.

Your anonymous contribution will take a maximum of 8 minutes and will serve in a Master's thesis project. Your participation is voluntary but your contribution would be highly appreciated. You will not be identifiable in any data published in relation to this project.

The survey can be accessed via the link below:
#url#

To log in the survey, use the following username and password:
Username: #tunnus#
Password: #salasana#

If you have any questions or concerns, do not hesitate to contact me at etienne.lemyre@helsinki.fi

Best regards,
Étienne Lemyre
Master’s student at the Swedish School of Social Science of the University of Helsinki
Thesis supervisor: Dr Anne Kouvonen, Department of Social Research, University of Helsinki
Email 2. Reminder

Object. Survey on Languages in Finland: Reminder

Hello,

This is a friendly reminder that you have been selected to participate in a short survey on languages in Finland as you were admitted to an English-medium Master's programme between 2013 and 2015. The survey includes questions on your language skills, your projects after graduation and your perceptions of Finnish, Swedish and English.

Your anonymous contribution will take a maximum of 8 minutes and will serve in a Master's thesis project. Your participation is voluntary but your contribution would be highly appreciated. You will not be identifiable in any data published in relation to this project.

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Username: #tunnus#
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If you have any questions or concerns, do not hesitate to contact me at etienne.lemyre@helsinki.fi

Best regards,
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