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THE RESULTS OF UNSTRUCTURED IMMERSION EDUCATION IN BRUSSELS:

Exploring Perceptions of Linguistic Proficiency among Francophone Students in Dutch-medium Higher Education

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Summary

The country of Belgium has a peculiar linguistic setting. It has three official languages (French, Dutch and English) and its capital is officially bilingual (French and Dutch). Throughout history, the Dutch-speaking region of Flanders gained the most economic power in Belgium, making the acquisition of Dutch an irrefutable advantage on the job market for French-speakers (Witte & Van Velthoven, 2011, as cited in Janssens & Vaesen, 2015). Additionally, Dutch-medium schools are renowned for being high-quality institutions (Saeys, 2021). Consequently, many Francophone families choose to enroll their children in Dutch-medium schools as a method of second language acquisition, particularly in Brussels. In the capital, children from monolingual French-speaking households represent 37.0%, 35.4% and 26.9% of the pupils from Dutch-medium kindergartens, primary schools and secondary schools respectively (*Nederlandstalig onderwijs in Brussel*, n.d.). These children are undergoing what is called 'unstructured immersion education'; they are immersed in a language of instruction of which they are not native speakers, without additional support in their mother tongue.

The present study aims to examine the perceptions of native Francophone students who are enrolled in Dutch-medium universities in Brussels. The focus lies on their perceptions of two aspects, which form the basis of the two research questions:

1. *How do native French-speaking students perceive their performance in Dutch-speaking higher education in Brussels?*
2. *How do successive French-Dutch bilinguals perceive their transition to French-Dutch bilingualism through unstructured immersion education in Brussels?*

The first research question focusses on two variables: the language skills (reading, writing, speaking and listening) and the fields of study of the participants (language-oriented and non-language-oriented fields). For the purpose of this study, a questionnaire is constructed which includes a linguistic self-assessment test and additional statements about the respondents' transition to bilingualism. The participants are asked to express their opinions on each statement by means of a 5-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree'. In total 53 questionnaires are analyzed.

The results of the self-assessment test partly fall in line with existing research on this topic. The participants attribute a mean score of 4.59 out of 5 to their listening skills, 4.38 out of 5 to their reading skills, 4.03 out of 5 to their writing skills and 3.89 to their speaking skills. They rate their reception skills (reading and listening) higher than their production skills (writing and speaking). This is not surprising because this trend is found in most L2 learners (Krashen, 1982; Richards, 2008; Webb, 2008). When asked to compare their proficiency level to that of their

native Dutch-speaking counterparts, their average self-assessment scores drop, but still lean towards a 'positive perception'. The participants attribute lower mean rating to their production skills, in comparison with native Dutch-speakers, than reception skills. These findings fall in line with existing literature (Jansses, 2008; Housen, Mettewie & Pierrard, 2002). Regarding the analysis of the variable 'field of study', the findings show that Francophone students from language-oriented fields (N = 11) of study have a different perception of their oral communication skills (speaking and listening) than students from non-language-oriented fields (N = 42). When it comes to written production skills (reading and writing), the differences in self-assessment between both groups are not statistically significant.

The second section of the study shifts the focus to the perceptions of native Francophone students on their transition to French-Dutch bilingualism through unstructured immersion education in Brussels. These results show that the participants are quite critical of their proficiency level in Dutch, agreeing that there is room for improvement when it comes to their language skills. In their opinion, being a non-native speaker of Dutch has caused them to encounter obstacles during their school careers in Dutch-medium schools. When asked to determine whether they believe to have reached a similar level of proficiency in Dutch to that of native Dutch-speakers, there is a divergence in opinion. Despite the difficulties that the participants of the study faced on their way to becoming French-Dutch bilinguals, they would feel ready to enter a fully Dutch-speaking work environment after graduating. In addition, they claim that they would advise Francophone parents to enroll their children in Dutch-medium schools. This is the statement that received the highest mean score, indicating that they would recommend others to go through unstructured immersion education, too. The participants agree that, overall, their transition from being a dominant French-speaker to becoming a French-Dutch bilingual was successful.

In conclusion, the perceptions of the native Francophone students on their academic performance in Dutch and their transition to French-Dutch bilingualism seem rather 'positive'. In their opinion, it is possible to become a full-fledge French-Dutch bilingual after years of unstructured immersion education. Hopefully, these findings can offer some valuable insights to students who find themselves in the same situation, their parents and their teachers. Additionally, the limitations encountered within the context of this study offer potential avenues for future research.

Abstract

This study examines the perceptions of linguistic proficiency in Dutch among native Francophone students who attend Dutch-medium schools in Brussels. The focus lies on their perceptions of the following two aspects: their performance in Dutch-medium universities regarding the four language skills (reading, writing, listening and speaking) and their transition to French-Dutch bilingualism through unstructured immersion education. This is examined by means of a questionnaire, which includes a linguistic self-assessment test and additional statements about the respondents' transition to bilingualism. 53 questionnaires are analyzed. The results indicate that overall, these students perceive themselves as proficient in Dutch, having reached a similar proficiency level to that of their native Dutch-speaking counterparts, especially regarding receptive skills. Furthermore, they deem their transition to French-Dutch bilingualism to be successful. These findings suggest that unstructured immersion in Brussels has the potential of being used as a second language acquisition method to produce full-fledged French-Dutch bilinguals.

Keywords: second language acquisition, linguistic perception, linguistic self-assessment, successive bilingualism, unstructured immersion.

Cette étude examine les perceptions de la compétence linguistique en néerlandais chez les étudiants francophones natifs qui fréquentent des écoles néerlandophones à Bruxelles. L'accent est mis sur leurs perceptions des deux aspects suivants: leurs performances dans les universités néerlandophones en ce qui concerne les quatre compétences linguistiques (lecture, écriture, écoute et expression orale) et leur transition vers le bilinguisme français-néerlandais par le biais d'un enseignement d'immersion non-structuré. Cet aspect est examiné au moyen d'un questionnaire, qui comprend un test d'auto-évaluation linguistique et des déclarations supplémentaires sur leur transition vers le bilinguisme. 53 questionnaires ont été analysés. Les résultats indiquent que, dans l'ensemble, ces élèves se perçoivent comme compétents en néerlandais, ayant atteint un niveau de compétence similaire à celui de leurs homologues néerlandophones natifs, en particulier en ce qui concerne les compétences réceptives. En outre, ils considèrent que leur transition vers le bilinguisme français-néerlandais est réussie. Ces résultats suggèrent que l'immersion non-structurée à Bruxelles a le potentiel d'être utilisée comme méthode d'acquisition d'une langue seconde pour produire des bilingues français-néerlandais à part entière.

***Mots clés**: acquisition des langues étrangères, perception linguistique, auto-évaluation linguistique, bilinguisme successif, immersion non structurée.*

1. Introduction

With its three official languages (French, Dutch[1] and German) and inhabitants originating from all over the world, the small country of Belgium possesses a fascinating and complex linguistic setting. The Brussels Capital-Region is officially bilingual; which creates an intricate dynamic between French and Dutch. In the capital, many Francophone families enroll their children in Dutch-medium schools, as a method of second language acquisition. They hope that French-Dutch bilingualism will give their children more opportunities in the future, specifically on the job market (Witte & Van Velthoven, 2011, as cited in Janssens & Vaesen, 2015). Additionally, Dutch-medium schools in Belgium are renowned for their high-quality education (Saeys, 2021). Janssens (2008) refers to this method of language acquisition as 'non-structured immersion education'.

For these children, being immersed in a language of instruction that is not their native language creates obstacles. They are expected to fulfill 'double demands'; learning course material and simultaneously acquiring a foreign language (Gersten & Jiménez, 1998, as cited in Waxman, Padrón & García, 2007). Despite these challenges, many of these Brussels-educated children become highly competent French-Dutch bilinguals after years on unstructured immersion education (Bulté & Housen, 2008; Janssens, 2008). This phenomenon is called 'successive bilingualism' (Zink & Schaerkaerkens, 1998).

The goal of the present study is to investigate the situation of these successive French-Dutch bilinguals now that they have reached university level. Were they able to overcome the obstacles created by their linguistic background and to reach a similar level of proficiency to that of their native Dutch-speaking classmates? Do they now consider themselves as full-fledged successive French-Dutch bilingual? This thesis aims to examine how these bilinguals perceive their own performances at Dutch-medium universities and whether they consider their transition to bilingualism to be successful.

The abovementioned questions are studied by means of a questionnaire that is sent out to native French-speaking students who are currently attending Dutch-medium universities in Brussels at master's level. They are asked to fill out a self-assessment test about their four language skills (reading, writing, listening and speaking) and to express their opinion on their transition to French-Dutch bilingualism through unstructured immersion education.

Although there exists some research on the academic performances of native Francophone students in Dutch-medium schools in Brussels, the existing literature does not seem to address these students' perceptions of their performance. The present study intends to address

[1] Throughout this thesis, the word 'Dutch' refers to Flemish Dutch, which is spoken in Belgium.

that gap in the scientific literature. Hopefully, the results can offer some valuable insights to Francophone students who are transitioning to French-Dutch bilingualism through means of unstructured immersion in Brussels. The findings could potentially inform Francophone parents who are considering enrolling their children in Dutch-medium schools – or the ones who already have – about the results of this unstructured immersion.

The thesis is organized as follows: first, a literature review around the subject is presented. It provides a short overview of the history of language use in Belgium, then delves into the present language use in Brussels and its schools, and the performance of native Francophone student in the city's Dutch-medium schools. Additionally, the key concepts of this research are defined and contextualized. This is followed by the main research questions of the present study, accompanied by their corresponding hypotheses. Then comes the methodology employed in this work, describing the participants, data collection, procedure, instruments and data analysis. Afterwards, the results of the study are presented, along with a thorough discussion of the implications of the findings. Finally, a general conclusion is formed, and the limitations of the study are presented, along with suggestions for future research.

2. State of the Art

Before presenting the executed study, it is important to provide the context around the subject. The county of Belgium has a peculiar history when it comes to its language use. This is all explained in a short history lesson below. Then, the unique linguistic situation of the capital city – Brussels – and its schools, is described. This is accompanied by the contextualization of the concept of unstructured immersion education. After that, the focus shifts to the situation of native Francophones who attend Dutch-medium schools in Brussels. The literature review concludes with a section about self-assessment of linguistic proficiency, first framing the concept and then presenting an already-existing self-assessment tool. Finally, the concept of linguistic self-assessment is addressed.

2.1 Language use in Belgium: a short history lesson

The country of Belgium was founded relatively recently, in the year 1830. It consisted of a French-speaking region (Wallonia) and a Dutch-speaking region (Flanders). From the start, the Belgian constitution included freedom of language choice. However, it didn't take long before this principle was broken. French started being used in all official functions, leaving Dutch

behind. The French language was associated to modernity and prestige, while Dutch was mostly used for private purposes by its native speakers (Vogl & Hüning, 2010).

During the second half of the nineteenth century, the economy of Flanders was in decline, and it left many Flemings unemployed. During the same period, Wallonia's coal and steel industries were booming, which attracted many Flemings to the region. This uneven situation created a gap between both linguistic communities. The 'Gelijkheidswet' ('Law of Equality') was introduced in 1898 as an attempt to reduce this linguistic inequality. It established the legal equality between French and Dutch (Vogl & Hüning, 2010).

It is said that Belgium was operating on 'de facto territoriality'. The territoriality principle – meaning that one official language should be tied to one territory – was applied without any explicit laws (Schutter, 2021). In 1873, this started changing when the first language law was implemented. Criminal justice proceedings were now required to be conducted in Dutch in Flanders, with an option to ask for a French proceeding (Raskin, 2012, as cited in Schutter, 2021). Throughout the years, more and more languages laws were introduced as an attempt to solve the language conflict.

Up until the end of World War II, however, there were still no Dutch-medium schools in Belgium. The overwhelming majority of schools were French-speaking, with a small number of French-Dutch bilingual schools (Janssens & Vaesen, 2015). The 1960s brought a lot of change. Flanders underwent so much economic growth that it ended up overtaking Wallonia. The region had a lot of economic power and jobs to offer and thus, Dutch started gaining status (Mettewie & Mensel, 2023). This is also when the linguistic boundaries were officially set in Belgium. In 1962, the country was divided in four areas: the French-speaking region (Wallonia), the Dutch-speaking region (Flanders), the bilingual French-Dutch region (Brussels-Capital Region) and the German-speaking region (Vermeire, 2012). Further, the 'Onderwijstaalwet' ('Educational Language Act') was introduced in 1963 to define the language of instruction in kindergarten, primary and secondary schools in Brussels and Flanders. This ought to be Dutch in Flanders and French in Wallonia, following the territoriality principles. Subsequently, two parallel educational systems were created. In Brussels on the other hand, the personality principle is applied: the inhabitants have the choice between French and Dutch instruction, in line with their mother tongue (Vermeire, 2012; Vogl & Hüning, 2010).

In the 1988, the Belgian constitution was revised to create two autonomous regional governments in Flanders and Wallonia. Both regions gained authority over their economic and social issues. This also meant that they were responsible for organizing their educational system. Belgians could not decide on which of the two governments Brussels should fall under, so it remained the responsibility of the central parliament (Deprez & Persoons, 1984). Additionally, 7 municipalities around the Brussels-Capital Region – which are officially located in Flanders –

were categorized as 'facility municipalities'. This means that administrative and scholar services must be provided in French as well as Dutch, creating and exception to the Educational Language Act (Mettewie & Mensel, 2023).

All of this created a complex linguistic and legal situation in Belgium, which still transcends to the present. An example of this that is presented by Mettewie & Mensel (2023) is Belgium's inability to form a new government after the 2010 elections. The country remained 'governmentless' for 526 days, because the French-speaking and Dutch-speaking officials could not come to a consensus.

2.2 The language use in Brussels and its schools

More than one in three inhabitants of the Brussels-Capital Region is a foreigner (35,5% in 2021) (Hertogen, 2021). With people originating from 189 countries, this leads to a diverse linguistic makeup. The following table represents the language spoken at home by Brusselers[2] in 2018:

Language spoken at home	% of inhabitants of Brussels-Capital Region
French	52.2%
Dutch	5.6%
French & Dutch	10.7%
French & Other	10.1%
Other	21.4%

Table 1: Languages spoken at home by inhabitants of Brussels-Capital Region in 2018 (Data from: Janssens, 2018).

French is clearly the dominant language in Brussels, with 52.2% of French monolinguals and 20.8% speaking French in combination with other languages. Although only a minority of Dutch-speakers live in the city (5.6% monolinguals and 10.7% French-Dutch bilinguals), there are many schools where Dutch is the language of instruction. Between the years 2005 and 2020, the number of students in Dutch-speaking schools (kindergarten, primary and secondary school) increased by 34,2%, accompanied by a rise in the number of Dutch-medium schools (Saeys, 2021). In 2019-2020, there were 175 Dutch-speaking kindergarten, primary and secondary schools in Brussels. Additionally, there are four Dutch-speaking colleges and universities (Saeys, 2021). But how come there are so many Dutch-medium schools in the city, when only a minority of the population speaks the language?

As previously mentioned, the Brussels-Capital Region follows the 'personality principle'; meaning that its inhabitants are free to choose their language of education (Vogl & Hüning, 2010). This freedom allowed many French-speaking Brusselers[2] to enroll their children in Dutch-medium schools; which is a trend that has increased over the years. This increase already started around the 1980s and was boosted by different factors. Firstly, after World War II, the region of Flanders gained economic power. This made French-Dutch bilingualism a clear advantage in Belgians' search for a job (Witte & Van Velthoven, 2011, as cited in Janssens & Vaesen, 2015). In a study conducted by Mettewie & Janssens (2007), 89 out of the 91 French-speaking participants claimed that mastering Dutch is important to get a job. Additionally, many PR campaigns were held by policy makers in the 1980s to promote bilingualism and thus attract more students to Dutch-medium schools (Martin & Parmentier, 1987, as cited in Janssens & Vaesen, 2015). Furthermore, Dutch-medium schools have gained the reputation of being high-quality institutions, which drove more parents to enroll their children (Saeys, 2021).

In 1979, right before the increase in Francophone enrollments in Dutch-medium schools in Brussels, 85.9% of these schools' students came from monolingual Dutch households. This percentage was only 2.3% for monolingual French households and 1.7% for allophone families (Janssens & Vaesen, 2015).

Nowadays, it is said that: "The Dutch-speaking minority in Brussels became a minority in its own Dutch-medium system" (Janssens & Vaesen, 2015, p. 271). This means that there are more non-native Dutch-speaking students than actual native Dutch speakers in Dutch-medium schools. The following table represents the linguistic backgrounds of the students attending Dutch schools in Brussels:

	Two Dutch-speaking parents	**One Dutch-speaking parent**	**Two French-speaking parents**	**Multiple languages spoken at home, different from Dutch**
Kindergarten	6.7%	18.1%	37.0%	38.2%
Primary school	8.0%	18.7%	35.4%	37.9%
Secondary school	16.2%	25.2%	26.9%	31.7%

Table 2: *Linguistic background of students from Dutch-medium school in Brussels in 2020-2021 (Data from: Nederlandstalig onderwijs in Brussel, n.d.).*

[2] The inhabitants of Brussels, Belgium.

As can be observed, most pupils in Dutch-medium schools in Brussels - across the three educational levels – speak multiple languages at home which are different from Dutch (but can include French). The second biggest group is the students from monolingual French-speaking households. This phenomenon is the focus of the present thesis.

2.3 Unstructured immersion education

Native Francophone students who are enrolled in Dutch-medium schools undergo a peculiar method of second language acquisition. From an early age – around the start of kindergarten or primary school - they enter institutions that have a language of instruction that is different from their mother tongue(s). Often times, they have little to no prior knowledge of Dutch. Within the context of the present study, this phenomenon is referred to as 'unstructured immersion education'. The term is borrowed from Janssens (2008), who refers to this phenomenon as 'non-structured immersion'. In their study on Francophone students in Dutch-medium schools, Housen, Mettewie and Pierrard (2002) use the term 'wilde immersie' (wild immersion).

This is contrasted with the concept of regular 'structured' immersion education, which is defined as: "[...] a form of bilingual education that provides students with a sheltered classroom environment in which they receive at least half of their subject-matter instruction through the medium of a language that they are learning as a second, foreign, heritage, or indigenous language (L2)" (Lyster & Genesee, 2012). The students are partly immersed in the L2, but still receive support in their first language (L1). This is not the case for unstructured immersion education; the students are expected to integrate fully and only use the language of instruction of the school. These children have to tackle the 'double demands' of acquiring a new language, whilst processing course material (Gersten & Jiménez, 1998, as cited in Waxman, Padrón & García, 2007).

Brussels is not the only place where this phenomenon is observed. Another example of people commonly using unstructured immersion education as a method for language acquisition can be found in the United States. Because there is a large Hispanic population, a lot of Spanish-speaking children are enrolled in English-medium schools, without being native speakers of English. It is estimated that half of the teachers who have native Spanish-speakers in their class have not received any training to deal with this situation and offer adequate support to these students (Waxman, Padrón & García, 2007). This lack of training of the school staff is also an issue in Dutch-medium schools in Brussels.

Despite the obstacles faced by Francophone students undergoing unstructured immersion in Brussels, a majority ends up becoming full-fledged French-Dutch bilinguals (Bulté & Housen,

2008; Janssens, 2008). Because a lot of these children already get enrolled in Dutch-medium schools at kindergarten or primary school level (see Table 2 below), this high success rate of successive bilingualism may be linked to the Critical Period Hypothesis. This hypothesis claims that there may be a critical period that is ideal for language acquisition; after this period, learning a language becomes more challenging and requires more effort (Penfield & Roberts, 1959). This idea has been highly debated in literature, and especially the specific age at which this period ends has been questioned. Penfield & Roberts (1959) who introduced this hypothesis, propose the age of 9. Other academics draw the line at the ages of 12, 15, 16 or 18 years old (Muñoz & Singleton, 2014, as cited in Vanhove, 2012). Despite the divergence in opinions, there seems to be a consensus in the research around SLA; L2 learners who are put into immersion contexts at an early age "undisputedly tend to outperform later learners" (Vanhove, 2012, p. 1). Following this logic, Francophone children who were first enrolled in Dutch-medium schools at an early stage (kindergarten or start of primary school) have the potential to become successful French-Dutch bilinguals after years of unstructured immersion education.

2.4 Performance of French-speakers in Dutch-medium education in Brussels

The presence of French-speaking students in Dutch-medium schools in Brussels is a topic that has received a substantial amount of attention within the field of language acquisition and bilingualism. It is often argued that students' proficiency in Dutch is put in danger by the overwhelming dominance of the French language in Brussels and its schools. Multiple researchers tried to examine whether this claim is true by examining these students' proficiency. The majority of research that has been done on this subject is focused on secondary schools. One research project by Zink & Schaerlaeken (1998) inspects the vocabulary of successive French-Dutch bilinguals that are enrolled in Dutch-medium kindergartens. It seems that these children's vocabulary is weaker than their native Dutch-speaking counterparts. The authors claim that it takes about 6 to 7 years for the successive bilinguals to reach a comparable level.

Bulté & Housen (2008) proved the latter. They executed an analysis of secondary school students' writing skills by assigning a writing task to third- and sixth-year students. Their results showed that Francophone students seem to reach a similar level of proficiency in Dutch after years of immersion in Dutch-medium education. They attained the same level as their Dutch-speaking counterparts with regards to complexity and productivity. The only aspect that they seemed to lag behind on is the accuracy of their language use. The authors offer the following phenomenon as a possible explanation: although a second language learner might learn about

many structures of that language, they will only learn to use these structures correctly through experience. In other words, the French-speakers might have an extensive knowledge about Dutch structures, but they do not apply them correctly because they haven't had enough experience or exposure to the language.

In a similar study, Janssens (2008) assigned reading, writing, listening and speaking exercises to her test subjects, alongside a questionnaire about their attitudes and motivations towards the Dutch language. The findings fall in line with Bulté & Housen (2008) regarding the claim that Francophone students seem to reach a similar level to their Dutch-speaking counter parts in Dutch schools. Their listening and reading skills (reception skills) are very close to the native group. When it comes to production skills however, they tend to produce some errors, which are less common among native Dutch-speakers. The areas in which they seem to make a few mistakes are the following: the use of articles, demonstrative pronouns, verb conjugation, word order and some lexical errors. The latter mostly encompasses the incorrect use of prepositions, relative pronouns and articles.

A similar trend is found in a study by Housen, Mettewie and Pierrard (2002) executed on high schoolers in Brussels. Native Francophone students have satisfactory receptive skills (listening and reading) in Dutch, but exhibit an insufficient level of proficiency when it comes to productive skills (writing and speaking). It seems that, during their first years of Dutch-medium education, these new successive bilinguals have difficulties with receptive skills, but these disappear after a few years of unstructured immersion education. On one hand, their production competences exhibit a similar productivity, complexity morphology and vocabulary to that of their native Dutch-speaking counterparts. On the other hand, their language use lacks accuracy and is accompanied by reoccurring grammatical and lexical errors. Additionally, these students seem to struggle with metalinguistic awareness. However, the researchers conclude that the unstructured immersion that these students went through had an "undeniable positive influence" on their acquisition of Dutch (Housen, Mettewie & Pierrard, 2002 p. 117).

The difference in proficiency between the reception skills and production skills of these successive bilinguals is not surprising, according to research on second language acquisition. When introducing his famous Input Hypothesis, Krashen (1982) acknowledges that, when acquiring a new language, productive abilities arise from the reception and comprehension of linguistic input. It is said that: "All language users have greater receptive competence [...] than productive competence [...]" (Richards, 2008, p. 4). A study by Webb (2008) found that L2 learners' receptive vocabulary was larger than their productive vocabulary.

2.5 Self-assessment of L2 proficiency

It is important to define what is understood as 'perception of performance' in the title of this thesis. Within this work, this term is considered as a synonym for linguistic 'self-assessment' of a foreign language. The latter can be defined as: "[…] the language learner's evaluation of his or her own language skills, usually in connection with a language course or as part of other forms of language assessment" (Luoma, 2012). Within the context of the present study, the focus lies on the evaluation of language skills in relation to an academic setting.

It is said that self-assessment assignments "encourage students to become more reflective" (Peden & Carroll, 2008). The respondents are asked to reflect on and be critical of their language skills. A plethora of linguistic self-assessment tests have been created for various purposes and languages. For example, Little (2009) offers a self-assessment test for the reading, writing, listening and speaking skills of Irish adults and children learning English (as mentioned in Brantmeier et al., 2012). Chalhoub-Deville and Deville (1999) created a self-assessment tool to examine the language skills of American adults learning different languages (as mentioned in Brantmeier et al., 2012). There exist many different ways to execute linguistic self-assessment. The tools that are used in linguistic self-assessment depend on the particular language skills that are being assessed and the context of the actual assessment (Galeandro, Poglia, Stoks & Bernasconi, 2010).

There is not much existing research on self-assessment of Francophones in Dutch-medium schools in particular, so it is essential to explore similar existing studies that have been executed with a focus on different languages. Brantmeier, Vanderplank & Strube (2012) created a self-assessment test for native English speakers in the United States who are learning Spanish as a foreign language. For this purpose, the researchers analyzed multiple tools for second language self-assessment and concluded that many of these are not entirely accurate and possess limitations. With this in mind, the authors created "an SA instrument of language learning achievement […] designed according to specific course content to take into consideration the direct experience learners have had in practicing reading, listening, speaking, and writing" (Brantmeier et al., 2012, p. 148). For this, they used items from a well-known self-assessment test designed for European languages called the 'DIALANG test' and adapted them to the objectives of multiple stages in language acquisition.

It is important to note that the situation of successive French-Dutch bilinguals after years of unstructured immersion education is a very specific method of second language acquisition. Their acquisition journey is often not comparable to the typical way of learning a foreign language (i.e. foreign language classes or structured immersion). For this reason, the items of the test need to be adapted to this special situation when used in this thesis.

3. Research Questions & Hypotheses

Although research has been made about the performances of Francophone students in Dutch-medium schools, there seems to be a lack of research on their perceptions of said performance. The aim of this thesis is to address this gap in scientific literature.

The first main research question that is explored in this thesis is the following:

1. *How do native French-speaking students perceive their performance in Dutch-speaking higher education in Brussels?*

Regarding Research Question 1, two variables are considered: linguistic skill types (reading, writing, listening and speaking) and field of study. Within the variable 'field of study', a distinction is made between language-oriented fields - like linguistics and literature studies, for example - and non-language-oriented fields, like law, psychology, mathematics, etc. Three hypotheses are formed based on the four linguistic skill types:

Francophone students in Dutch higher education perceive their reception skills (listening and reading) as satisfactory and comparable to their native Dutch-speaking counterparts.
This hypothesis is based on research by Janssens (2008) and Housen, Mettewie and Pierrard (2002). The authors found that the reception skills of native Francophone children attending Dutch-medium schools was close to those of their native Dutch-speaking counterparts.

Francophone students in Dutch higher education perceive their production skills (writing and speaking) as inferior to those of their native Dutch-speaking counterparts.
This is possibly due to the lack of vocabulary and accuracy of their language. This hypothesis is based on research by Housen, Mettewie and Pierrard (2002), which states that native Francophone students have satisfactory receptive skills in Dutch, but exhibit an insufficient level of proficiency when it comes to productive skills. This is also supported by Bulté & Housen (2008) claim that these students exhibit a lack of accuracy regarding their language use, compared to Dutch-speaking students. Janssens (2008) also showed that native French-speakers seem to make a list of grammatical and lexical errors (see section '2.2.2.: French-speakers in Dutch-medium education in Brussels').

Native Francophone students from language-oriented fields of study have a different perception of their academic performance at Dutch-medium universities regarding the four language skills (reading, writing, listening and speaking) than students from non-language-oriented fields.

This difference could go in two different directions. On one hand, successive bilinguals studying language-oriented study programs, might have a better (more 'positive') perception of their performance than the non-language-oriented students, given their given their extensive language-driven coursework. On the other hand, they might be unsatisfied with their performance because their linguistic skills are scrutinized more than those of non-linguistic students. At the KU Leuven – one of the biggest Dutch-medium universities in Belgium, which has a campus in Brussels – a level of Dutch which is equivalent to B2 suffices to enroll in the majority of programs. However, if a student wishes to enroll in a Master's in Translating, the proficiency level C1 in Dutch is required (*Master in Het Vertalen (Brussel)* - KU Leuven, n.d. & *Taalvoorwaarden voor wie wil starten aan het Vlaamse hoger onderwijs*. n.d.)

The second main research question that is central in this thesis is:

2. *How do successive French-Dutch bilinguals perceive their transition to French-Dutch bilingualism through unstructured immersion education in Brussels?*

Regarding Research Question 2, the following hypothesis can be applied:

A majority of successive French-Dutch bilinguals find their transition from monolingualism to bilingualism through unstructured immersion education to be successful.
This is based on the four studies in section '2.2.2.: French-speakers in Dutch-medium education in Brussels', which all state that native French-speakers end up reaching a comparable level of proficiency to their native Dutch-speaking counterparts.

4. Methodology

The aim of the present study is to examine the perceptions that Francophone students who attend Dutch-medium schools have of their academic performance and their transition to French-Dutch bilingualism. The following subsections describe the participants, data collection method and data analysis procedures employed in this study to answer the two abovementioned research questions.

4.1 Participants

The participants for this research are native French-speaking students who became French-Dutch bilinguals by attending Dutch-medium schools throughout their whole academic career and are now attending Dutch-medium universities in Brussels. They are all currently at master's level, so that they can reflect on their whole school careers. They are students of language-oriented (e.g. linguistics, literary studies or translation) as well as non-language-oriented fields (e.g. law, psychology or mathematics).

As mentioned in section '1. Introduction' there exists a Critical Period Hypothesis, which hypothesizes about the ideal age for language acquisition. This hypothesis is highly debated, with researchers drawing the line at different ages. In order to minimize the interference of this, all selected respondents were first enrolled in Dutch-medium schools between the start of kindergarten (around the ages of two or three) and the start of primary (around five or six years old). Including participants that made their transition later than that, could cause the inclusion of an additional variable: age of acquisition. This variable might have an impact on the students' perception of their linguistic performance. Regarding the sample of the present study, the majority of the participants were first enrolled in a Dutch-medium school at the start of their school career; 45 out of 53 started attending Dutch-medium schools during their first year of kindergarten. Two participants made the transition during their second year of kindergarten, and two others during their third year. Moreover, there are four participants in the sample who only switched to Dutch-medium schools at the start of primary school (first year).

The participants were found by convenience sampling, meaning that they were recruited in my direct environment. In total, 75 questionnaires were filled in, but only 53 were selected for analysis. This sample consists of 34 female participants and 19 male participants. Five questionnaires were excluded from the dataset because the participants indicated that they were not currently studying at a Dutch-medium university at master's level, which immediately ended the interrogation. Four other questionnaires were eliminated because the transition to Dutch-medium education had been done after the first year of primary school. Only participants who made their transition to Dutch-medium school before the age of six or seven are chosen for this study so that they are not influenced by the Critical Period Hypothesis. Furthermore, thirteen more questionnaires were ruled out because the participants had Dutch among their mother tongues or as one of the dominant languages spoken at home.

Within this questionnaire, 'mother tongue' is defined as the language(s) that someone speaks since birth. The sample of the present study mirrors the diversity of the city of Brussels. Three continents of origin are represented by their language use: Europe (Italian, Romanian, Albanian, Spanish and Turkish), Africa (Lingala and Arabic) and Asia (Turkey and possibly Arabic). The following table represents the linguistic backgrounds of the 53 participants:

Mother tongue(s)	Number of participants
French	38
French & Arabic	7
French & Lingala	3
French & Italian	1
French & Romanian	1
French & Albanian	1
French & Turkish	1
French & Spanish	1

Table 3: Mother tongues of the 53 participants.

Because of the high diversity present in Brussels, finding purely monolingual French-speaking households presents a challenge. For this reason, participants with additional mother tongues - besides French - are kept in the analysis, but only if French is still one of the dominant languages spoken at home. The question: "What is (are) the dominant language(s) of your household?" is added to the questionnaire in order to investigate this. In most cases, the dominant language(s) are the same as the participants' mother tongue(s):

Dominant language(s) at home	Number of participants
French	38
French & Arabic	9
French & Lingala	2
French & Italian	1
French & Albanian	1
French & Turkish	1
French & Chinese (Mandarin)	1

Table 4: Dominant language(s) of the households of the 53 participants.

When it comes to the participants' field of study, they are divided into two categories: language-oriented fields (e.g. linguistics, literary studies, translation, etc.) and non-language-oriented fields (e.g. mathematics, physics, law, etc.). The relatively low number of students in language-oriented fields in this study is presumably due to the fact that these fields represent a minority compared to all existing fields. The Vrije Universiteit Brussel, for example, offers a total of 85 different masters. Among these, only five are considered as language-oriented fields: 'Linguistics and Literary Studies' in English, 'Taal- en Letterkunde' (Linguistics and Literary Studies) in Dutch, 'Tolken' (Interpreting), 'Vertalen' (Translating) and 'Educatieve Master Talen' (Educational Master's in Languages) (*Bachelor- En Masteropleidingen Aan De VUB*, n.d.).

Field of study	**Number of participants**
Language-oriented fields	11
Non-language-oriented fields	42

Table 5: *Fields of study of the 53 participants.*

4.2 Data collection, procedure and instruments

The study is approached quantitatively. This allows a higher number of participants than a qualitative study on this subject could permit. A larger sample can lead to finding potential trends or patterns in the participants' perceptions of their linguistic performance at university. Moreover, a self-assessment test (created by Brantmeier et al., 2012) is used as a basis for this study, which inherently requires a quantitative analysis.

The data are collected by means of a questionnaire (Appendix 2). Questionnaires allow for a multitude of questions to be presented in a clear and organized way, which makes them easily accessible for the participants. Additionally, it is a practical way of collecting data using modern technology; the questionnaire can be sent out online and reach a high number of potential participants. They can be filled out quickly, at any place and any time of the day. The fact that the data collection happens online also diminishes the influence that the researcher could have

on the participants. This way, the participants are not steered in any direction when they're answering the questions.

This questionnaire was originally constructed in English and then translated to French. The population of this research are native French-speakers. Thus, the French version was sent out to the participants to ensure full comprehension of all the questions and statements. The original version accompanied by its translation can be found in Appendix 2. The questionnaire was made on Google Forms and encompasses three main sections. In section 1, the participants are asked to provide some meta-data, like gender, level of education, field of education, mother tongue(s) and dominant language at home.

Section 2 is a linguistic self-assessment test. It consists of a list of statements about each language skill (reading, writing, listening and speaking), alongside 5-point Likert scales, ranging from 'Strongly Disagree' to 'Strongly Agree'. These items are based on the self-assessment test by Brantmeier et al. (2012) (Appendix 1). In their original work – which has been cited by over 120 academic papers - the authors created three different lists of statements about one's proficiency level in four skills (reading, writing, listening and speaking). These statements are adapted to three proficiency levels: beginner, intermediate and advanced. The statements are presented along with a 5-point Likert scale, ranging from 'Strongly Disagree' to 'Strongly Agree'. More information about this test can be found in section '2.5. Self-assessment of linguistic proficiency'. In this thesis, only the 'advanced' section is used, following the assumption that Francophone students who have reached university-level in Dutch-medium schools, are advanced speakers of Dutch. At the famous Flemish university KU Leuven, for example, students are required to attain level 5 of the 'taalcursus Nederlands voor anderstaligen' (language course Dutch for non-native speakers) if they want to enroll in a Dutch-medium program. Level 5 is called 'Gevorderde kennis 2' (advanced knowledge) (*Taalvoorwaarden Voor Wie Wil Starten Aan Het Vlaamse Hoger Onderwijs*, n.d.).

For the present study, a selection of relevant items from the self-assessment test of Brantmeier et al. (2012) are duplicated. Statements are deemed 'relevant' when they can be applied to the academic performance of native Francophone students in Dutch-medium universities. Furthermore, some items of this test – which are deemed less suitable - are adapted to the special situation of these bilinguals, becoming more focused on academic performances, or they are completely replaced. For example, the statement from the self-assessment test by Brantmeier et al. (2012): "*I can read short stories, following the flow of thoughts and actions and thus understanding the overall meaning and many details*" is adapted into the following: "*I can read a course syllabus, following the flow of thoughts and given information and thus understanding the overall meaning and many details*".

This results in five statements for each language skill. Almost all these statements are formulated in a way that refers to a high level of proficiency (in a positive way); e.g. statement 1.1. "*When I write, I can speculate about causes, consequences and hypothetical situations"*. Being able to perform the acts described in the statement, indicates that the speaker has a high level of proficiency.

One statement is added to each skill to investigate the students' perception of their level compared to their native Dutch-speaking counterparts. All this adds up to a total of 24 statements about language skills.

In section 3, the questionnaire concludes with six statements about the participants' perceptions of their transition to French-Dutch bilingualism through unstructured immersion education in Brussels. These statements are more general and not based on existing literature. The aim of this section is to obtain a general idea of the participants' opinions on their own transition to bilingualism. This includes statements about topics like their current level of Dutch, the potential obstacles they faced during their school career and whether they would recommend unstructured immersion to parents.

The questionnaire can be found in Appendix 2.

4.3 Data analysis

The quantitative data from the online questionnaire are consolidated using the program Excel. Within the data analysis, the two main variables are considered: language skills (reading, writing, speaking and listening) and field of study (language-oriented and non-language-oriented fields).

Almost all the statements of the questionnaire are formulated in a positive way and indicate a positive perception of one's: 1) proficiency level, 2) level compared to their native Dutch-speaking counterparts and 3) transition to bilingualism. Within the context of the present study, the term 'positive perception' refers to a perception that is characterized by a high level of proficiency. If a participant 'strongly agrees' with a statement, that means that they attribute a high rating to their proficiency level and their level compared to native Dutch-speakers. If a participant 'strongly agrees' with a statement, that means that they attribute a high rating to those three elements. Consequently, each point of the 5-point Likert scale is associated with a numeric value from one to five. 'Strongly agree' is equated to five points, while 'Strongly disagree' is equated to one point.

While the majority of the statements are associated with a high level of proficiency -like being able to understand complex vocabulary or read academic journals in Dutch – two statements are the opposite. They encapsulate difficulties with the Dutch language:

4.4.: *"When answering a professor in class or having group discussions, I have a hard time producing particular words and phrases."*

5.2.: *"There have been points in my school career where I have felt like not being a native Dutch-speaker was an obstacle."*

For these two statements, the Likert-scale is flipped upside down; equating 'Strongly agree' to one point and 'Strongly disagree' to five points.

After associating each point of the Likert scale to a numeric value, mean scores are calculated for each statement. The choice of computing means and not medians is deliberate. Firstly, an analysis of the raw data revealed no specific outliers which may disproportionally impact the mean. Further, this is also the procedure adopted by Brantmeier et al. (2012), whose methodology forms the basis of the present study.

For the purpose of answering Research Question 1, the focus lies on the first five statements that have been formulated for each language skill. The mean scores of all 53 participants are calculated for each statement. All those means are added up for each of the four language skills. Then, a mean is computed based on those mean scores, to be able to provide a general view of the participants' rating of their language skills. Additionally, mean scores are also calculated for the sixth statement that was formulated for each language skill (about the participants' perception of their performance *in comparison to their native Dutch-speaking counterparts*). These offer an insight into whether the participants believe that they have reached a similar proficiency level to their native Dutch-speaking counterparts.

When it comes to the comparison of perceptions between students from language-oriented and non-language-oriented fields of study, inferential statistics are implemented. An independent t-test is executed in order to examine whether the difference in mean scores (for the four language skills) between the two groups is statistically relevant. A t-test is "a statistical technique used to quantify the difference between the mean (average value) of a variable from up to two samples (datasets)" (*The Ultimate Guide to T Tests* - Graphpad, n.d.). The two-sample test executed in the present study is an unpaired t-test with 52 degrees of freedom *(df).* This is because the two groups that are compared are independent from each other; one group does not have an influence on the other. Additionally, the t-test is two-tailed because the aim of calculating this statistic is to examine the potential differences between the two groups. This t-test is performed using the website Graphpad.com, which offers a "T Test Calculator" accompanied by a thorough guide on the choice of the appropriate test (T Test Calculator, n.d.). The results of the t-test are calculated on the basis of the mean scores attributed to the four

language skills, the standard deviations of those means and the sample sizes of both groups (language-oriented vs. non-language-oriented). The selected significance threshold is a p-value of 0.05.

To provide an answer for Research Question 2, the mean scores are calculated for the six statements about the participants' perception of their transition to French-Dutch bilingualism. These means are presented separately for each statement to provide a clear overview of the participants' perceptions.

All the calculated mean scores (*M*) can be found under their respective statement in Appendix 2.

5. Results

This section presents the findings of the study, which explored the perceptions of Francophone students in Dutch-medium schools on their academic performance and their transition to French-Dutch bilingualism. The results are organized according to the two main research questions and the variables outlined in the methodology section. The results regarding all the statements of the questionnaire are presented in the form of mean scores. First, the self-assessment of the four language skills (reading, writing, listening and speaking) is presented, followed by the self-rating of those skills in comparison to native Dutch-speakers. Then, the variable of 'field of study' (language-oriented vs. non-language-oriented) is explored and analyzed with regards to statistical relevance. Finally, the statements regarding the students' transition to French-Dutch bilingualism through unstructured immersion education in Brussels are presented one by one.

5.1 Research Question 1

The first research question of this study is the following:

1. How do native French-speaking students perceive their performance in Dutch-speaking higher education in Brussels?

5.1.1. Self-assessment of the four language skills

A first general way of answering this question is by looking at the scores (out of 5) that all the 53 selected participants attributed to the statements about their own performance when it comes to the four language skills (reading, writing, listening and speaking). The full breakdown of mean scores per statement of the questionnaire can be found in Appendix 2. The following histogram

provides a visual representation of the mean scores per language skill, which are calculated on the mean scores that all participants have attributed to the five first statements that have been formulated for each language skill in the self-assessment test:

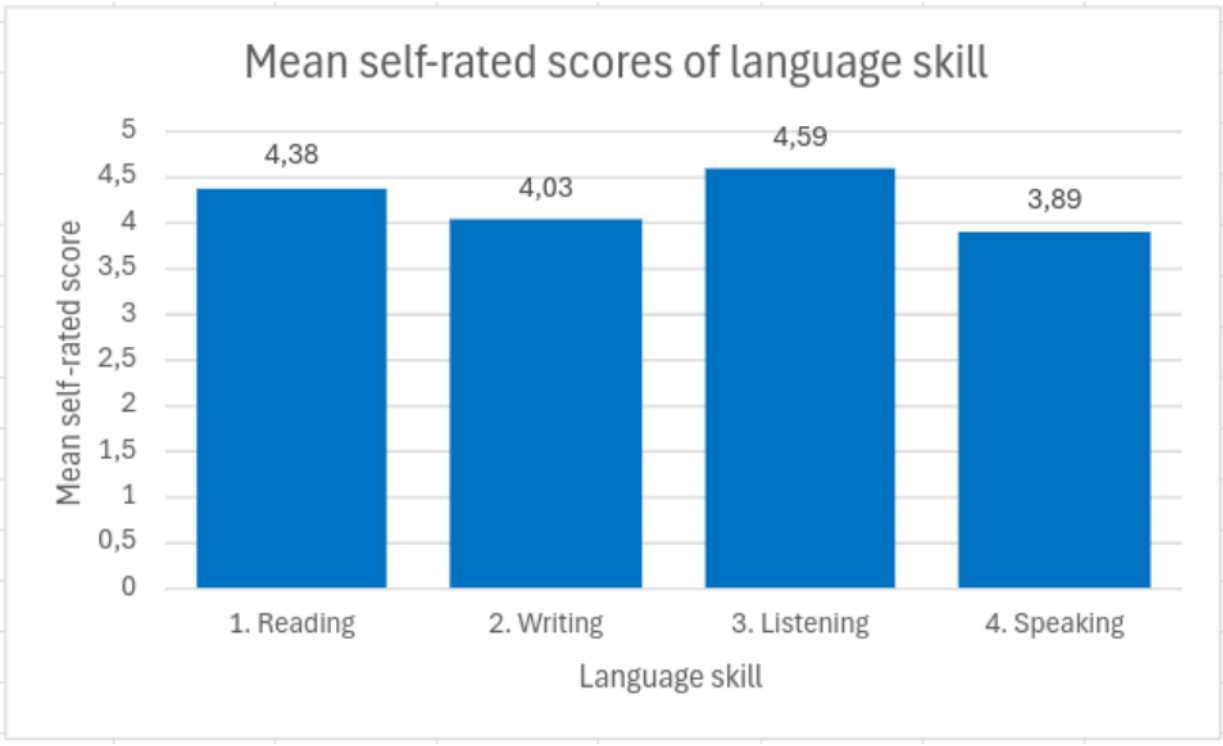


Figure 1: *Mean self-rated scores of language skill for all 53 participants.*

The listening skills are rated the highest, with a score of 4.59 out of 5. This is followed by reading skills, which obtain a 4.38. Then, there seems to be a significant drop when it comes to production skills; writing skills are rated at 4.03 and speaking skills at 3.89. The mean of these four mean scores is 4.22 out of 5, which means that - on average – the participants 'Agree' (fourth point on the Likert-scale) with the statements from the questionnaire. Because the statements of the self-assessment test are formulated in a way which indicates a high level of proficiency, the latter means that the participants agree that their language skills are characterized by a high proficiency.

Overall, the participants evaluate their reception skills higher than their production skills. The upcoming table shows the minimum and maximum mean scores that were attributed to the first five questionnaire statements for each language skill:

	Minimum	**Maximum**	**Range**
1. Reading	3.72	4.74	1.02

2. Writing	3.15	4.36	1.21
3. Listening	4.34	4.85	0.51
4. Speaking	3.42	4.3	0.88

Table 6: Minimum, maximum and range of the mean scores attributed to the first five questionnaire statements per language skill.

The questionnaire statement which received the lowest mean score of 3.15 out of 5 is a statement about writing skills: *"2.5. I can usually write without using online tools like dictionaries, spelling correctors or translation software".* The statement which has the highest mean rating (4.85 out of 5) is about the participants' listening abilities: *"3.5. I can understand conversations with university staff (professors, assistants or administrative staff)".* The participants' perceptions of their reading skills seem to be the most divergent, with the mean scores per statement having a range of 1.21. On the other hand, the opinions about listening skills show the most convergence, having the lowest range of 0.51. Overall, there are no statements which receive an average score that falls under 3 out of 5, which can be seen when looking at the 'Minimum' column of Table 6. This means that no statement generated disagreement ('Disagree' or 'Strongly disagree), on average.

5.1.2. Self-assessment of language skills in comparison to native Dutch-speakers

For the purpose of answering Research Question 1 more thoroughly, there is another aspect than must be looked at: the way the participants perceive their proficiency level *in comparison to their native Dutch-speaking counterparts.* To examine this, the focus is shifted to the sixth questionnaire statement that was formulated for each language skill (statements 1.6, 2.6, 3.6 and 4.6), which states: "*I feel like I've reached a level of [reading/writing/listening/speaking] skills similar to that of my native Dutch-speaking counterparts*". The following histogram represents the mean ratings that all 53 participants attributed to these statements:

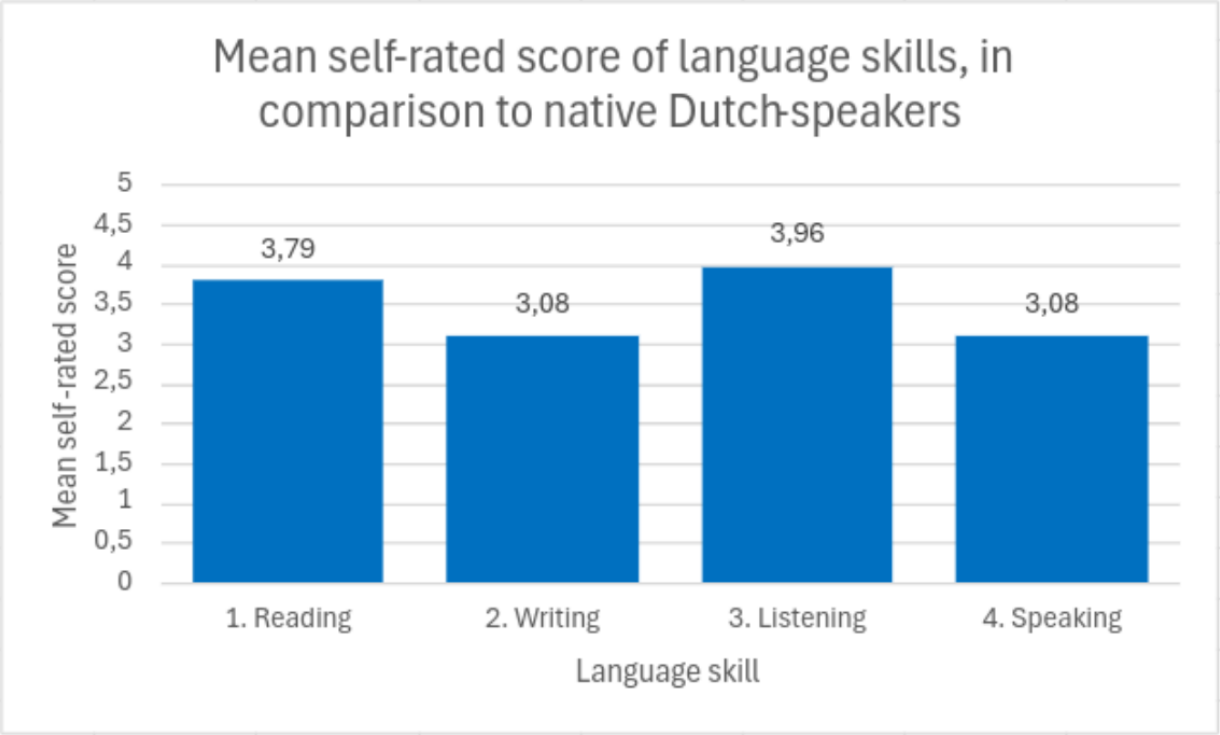


Figure 2: Mean self-rated scores of language skills in comparison to native Dutch-speakers for all 53 participants.

For all four language skills, the mean score attributed to the statements lies between 3 and 4 out of 5. This means that the participants' average opinion ranges between 'Neutral' and 'Agree' when it comes to feeling like they have reached a similar level to their native Dutch-speaking counterparts. The two statements about production skills – writing and speaking – obtain the same score of 3,08 out of 5, which indicates a stance which lies closer to neutrality. When it comes to reception skills, the statement about reading is rated at a mean score of 3,79 out of 5, and listening receives the highest score of 3.96, indicating more agreement. When looking at all four language skills together, a mean of 3.48 is generated.

5.1.3. Students from language-oriented vs. non-language-oriented fields of study

A third element that is examined under Research Question 1, is the potential differences between students from language-oriented fields of study and non-language-oriented fields of study. For this, data of the participants who are enrolled in language-oriented and non-language-oriented programs are separated. The first group encompasses 11 participants, while the second group comprises the remaining 42 participants. The mean self-rated scores for each language skill – for each group – are visualized in the graph bellow:

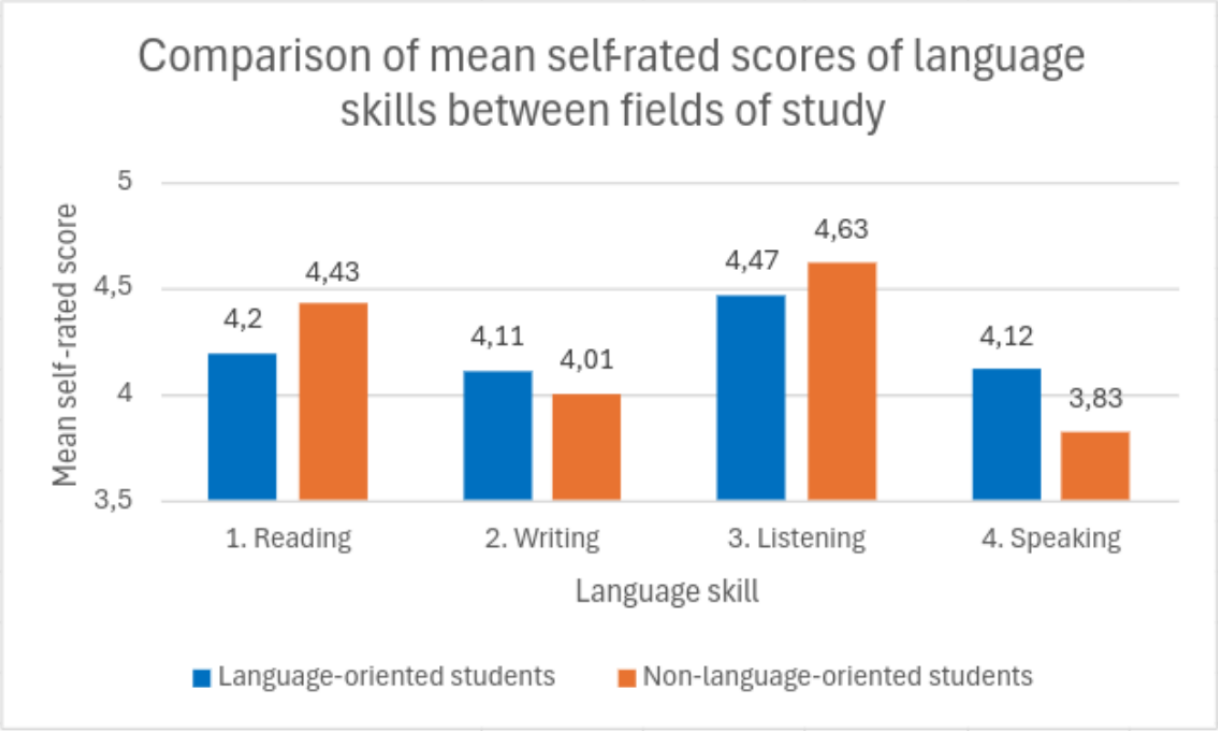


Figure 3: Comparison of mean self-rated scores of language skill between participants from language-oriented and non-language-oriented fields of study.

These 'mean self-rated scores' are means calculated on the means of the scores that the participants of each group have attributed to the five first statements of each language skill. Students from language-oriented fields rate the statements about their production skills writing and speaking) higher than the students from non-language-oriented fields. The groups' mean ratings of speaking skills represent the biggest difference (out of the four language skills): 4,12 out of 5 for the language-oriented students, compared to 3,83 for the other group. This represents a drop of 0.29 points out of 5. Regarding writing skills, the first group attributes a mean score of 4,11 to the statements, while the non-language-oriented group rates them at 4,01.

The opposite occurs for reception skills: the non-language-oriented participants seem to rate their reading and listening skills higher than the language-oriented participants. Their reading skills receive a mean score of 4.43 out of 5 from the first group, compared to a 4.2 from the second group. When it comes to listening, the language-oriented students attribute a mean rating of 4.63 to the statements, while the non-language-oriented group gives them a 4.47.

In order to compare the general rating that the two groups attribute to their proficiency level in Dutch (all language skills combined) two means are calculated on the mean scores of the four language skills. Interestingly, this results in exactly the same mean score of 4.23 out of 5 for both groups.

The following table provides a breakdown of the minimum and maximum mean scores that the five first statements per language skill have received, accompanied by the range of those means:

	Language-oriented participants (N=11)			**Non-language-oriented participants (N=42)**		
Language skill	Minimum	Maximum	Range	Minimum	Maximum	Range
Reading	3,36	4,64	1,28	3,81	4,76	0,95
Writing	3,18	4,55	1,37	3,14	4,43	1,29
Listening	4,18	4,82	0,64	4,38	4,86	0,48
Speaking	3,63	4,45	0,82	3,36	4,26	0,90

Table 7: Minimum, maximum and range of the mean scores attributed to the first five questionnaire statements per language skill: a comparison between language-oriented and non-language-oriented participants.

Regarding the exact statements that have received the highest mean scores for each group, the results follow the trend observed for all participants (in section 5.1.1.) and the exact same two statements are rated the highest and the lowest by both groups. Statement 3.5. about listening skills *("I can understand conversations with university staff (professors, assistants or administrative staff"*) obtain the highest mean scores of 4.82 out of 5 from the language-oriented students, and 4.86 from the non-language-oriented students. Statement 2.5. about writing skills ("*I can usually write without using online tools like dictionaries, spelling correctors or translation software"*) is the one which the participants seem to struggle the most with; attributing the mean ratings of 3.18 (language-oriented group) and 3.14 (non-language-oriented group).

The disparity in perceptions is most visible in the statements regarding writing skills, for both groups, with a range of mean scores of 1.37 for the language-oriented group and 1.29 for the non-language-oriented participants. On the other hand, both groups show more internal convergence of opinions when it comes to listening skills. The mean scores produced by the students of language-oriented fields have a range of 0.64, while those of the students of non-language-oriented fields have a range of 0.48.

In order to examine whether the difference in results between the two groups is statistically significant, an unpaired, two-tailed, two sample t-test with 51 degrees of freedom (*df*) is executed. This t-test is calculated on the mean scores that both groups attributed to the four language skills, which are given in Figure 3. The following p-values are found:

Language skill	T-value	Two-tailed p-value	Statistically significant difference?
Reading	t =1.6385	p = .1075	No (p>.05)
Writing	t = 0.5834	p = .5622	No (p>.05)
Listening	t = 2.1516	p = .0362	Yes (p<.05)
Speaking	t = 2.4228	p= .0190	Yes (p<.05)

Table 8: Results of the t-test executed on the mean scores of the four language skills per group (language-oriented vs. non-language oriented), including t-values, two-tailed p-values and statistical significance.

Regarding reading skills, the difference in results between the language-oriented group (M = 4.2; SD = 0.51) and the non-language-oriented group (M = 4.43; SD = 0.38) produces a two-tailed p-value of 0.1075. This value lies above the selected significance threshold of 0.05, thus, the difference is not statistically significant. The same conclusion can be made about the difference between the first (M = 4.11; SD = 0.55) and second group (M = 4.01; SD = 0.51) when it comes to their writing skills, which generates a p-value of 0.5622. There is no statistically relevant difference to be found here either.

However, the two other language skills do generate statistically significant differences. The difference in results of the language-oriented participants (M = 4.47; SD = 0.30) and the non-language-oriented participants (M = 4.63; SD = 0.18) concerning their listening skills yields a p-value of 0.0363, which is lower than the significance threshold (p = 0.05). This means that the difference between the two groups is considered statistically relevant. The same goes for the speaking skills. A p-value of 0.0190 is found when analyzing the difference between the language-oriented group (M = 4.12; SD = 0.34) and their counterparts (M = 3.83; SD = 0.33), which represents a statistically relevant difference.

The results around written communication skills (reading and writing) do not produce statistically relevant differences in these two samples, while the differences in results regarding oral communication skills (listening and speaking) are statistically relevant.

5.2 Research Question 2

The second main research question that is examined in the present study is:

2. How do successive French-Dutch bilinguals perceive their transition to French-Dutch bilingualism through unstructured immersion education in Brussels?

The third section of the questionnaire is constructed to answer this question. Mean scores were calculated for the six statements (statement 5.1 to 5.6) about the participants' transition to French-Dutch bilingualism through unstructured immersion education based on the ratings of all 53 participants. The breakdown of the opinions of all 53 participants for each statement is represented in this frequency table:

Statements:	**5.1**	**5.2**	**5.3**	**5.4**	**5.5**	**5.6**
Strongly Agree	26	13	7	23	36	29
Agree	23	27	17	19	13	18
Neither Agree nor Disagree	0	6	12	2	4	4
Disagree	4	2	13	6	0	1
Strongly Disagree	0	5	4	3	0	1

Table 9: *Frequency table of the six statements of section 3 of the questionnaire (statements 5.1 to 5.6), for all 53 participants.*

Based on the above-mentioned results, mean scores (out of 5) are calculated for each statement:

Statement	**Mean-score (N = 53)**
5.1	4,34
5.2	3,77
5.3	3,19
5.4	4
5.5	4,6
5.6	4,38

Table 10: *The mean scores attributed to each questionnaire statement about the participants' transition to bilingualism (statement 5.1 to 5.6), for all 53 participants.*

Statement 5.1. (*"Regarding my level of Dutch, I think there is still room for improvement"*), received a mean score of 4.34 out of 5, which indicates that on average, the participants 'agree' - with the majority even 'strongly agreeing' - that they could still develop their proficiency in Dutch further. This strong trend of agreement with the statement is countered by four participants who claim to disagree.

The second statement, about the disadvantage of being a non-native Dutch-speaker (*5.2. "There have been points in my school career where I have felt like not being a native Dutch-speaker was an obstacle"*) is attributed a mean rating of 3.77 out of 5, with more diversity of opinions. This statement receives the most 'strongly disagreeing' answers out of the six statements.

Statement 5.3. (*"After almost completing my whole school career in Dutch-medium schools, I feel like I have reached a similar proficiency level to my native Dutch-speaking counterparts"*) sparks the highest divergence in opinions of the participants. This divergence leads to the lowest mean score – out of the six statements of section 3 – of 3.19. out of 5. Out of the 53 selected participants, 24 lean towards the agreeing side ('Agree' and 'Strongly Agree'), 12 adopt a neutral position ('Neither Agree nor Disagree') and 17 lean towards the disagreeing side ('Disagree' and 'Strongly Disagree').

When it comes to the idea of entering the labor market and using Dutch, the participants agree - on average – that they feel ready for this. Statement 5.4 (*"I feel capable of entering a purely Dutch-speaking work environment"*) generates a mean rating of exactly 4 out of 5.

With a mean score of 4.6 out of 5 and no one 'disagreeing' or 'strongly disagreeing', statement 5.5 (*"If Francophone parents were to ask me for advice, I would recommend enrolling their children in Dutch-medium schools"*) shows that on average, students that became French-Dutch bilinguals through unstructured immersion education in Brussels would recommend parents to do the same with their children.

The final – more general – statement (*"5.6. Generally speaking, my transition from being a dominant French-speaker to becoming a French-Dutch bilingual was successful"*) receives a mean rating of 4.38 out of 5, indicating that on average, the selected students agree that their transition to French-Dutch bilingualism was successful. However, two out of the 53 participants are on the disagreeing side.

6. Discussion

Now that all the results of the research have been presented, it is important to interpret these findings and place them within the context of existing literature and the framework of the study. This section delves into the potential reasons behind these findings and their implications. This section is structured according to the two main research questions and ends with a general discussion.

6.1 Native French-speaking students' perceptions of their academic performance in Dutch-medium universities (Research Question 1)

The first research question to be discussed is:

1. How do native French-speaking students perceive their performance in Dutch-speaking higher education in Brussels?

Overall, the 53 participants of the study seem to perceive themselves as proficient when it comes to their four language skills (reading, writing, listening and speaking). On average, the statements about each language skill received mean ratings that range between 3.89 and 4.59 out of 5. This means that the selected students' opinions on the statements range between the third point of the Likert scale (corresponding to 'Neither Agree nor Disagree') and the fifth point (corresponding to 'Strongly Agree'). As explained in section 4.3. 'Data Analysis', the statements of the questionnaire are formulated to convey a high level of proficiency. The more the participants agree with the statements, the higher they rate their performance regarding their language skills. The calculation of a mean of the four mean scores that were attributed to each language skills results in a general mean rating of 4.22 out of 5 (for all the language skills together). This provides a general representation of the Francophone participants' perceptions of their performance at Dutch-medium universities.

On average, the reception skills are rated the highest, with the listening skills arriving on top, followed by reading. The production skills (writing and speaking) on the other hand, obtain lower mean scores, with speaking skills arriving last. This dynamic is not surprising. Within second language acquisition, L2 learners generally acquire reception competences first, and then come production skills (Krashen, 1982). As a result, these learners perform better regarding reception skills than production skills (Richars, 2008; Webb, 2008). These findings also fall in line with the existing research on the academic performances of native French-speaking students who attend Dutch-medium schools. The study by Janssens (2008) shows that these students perform better on tasks related to reception skills than those requiring production skills. It seems that these Francophones make specific grammatical mistakes, which is not found in native Dutch-speakers (Janssens, 2008; Housen, Mettewie & Pierrard, 2002). Additionally, their language use lacks accuracy (Bulté & Housen, 2008; Housen, Mettewie & Pierrard, 2002). The participants of the present study appear to exhibit the same pattern, at least according to their perception.

This can be linked to the hypotheses that were constructed for Research Question 1, as mentioned in section '3. Research Questions & Hypotheses'. The first hypothesis goes as follows:

Francophone students in Dutch higher education perceive their reception skills (listening and reading) as satisfactory and comparable to their native Dutch-speaking counterparts.

This hypothesis is constructed on the basis of research by Janssens (2008) and by Housen, Mettewie and Pierrard (2002), which claims that the listening and reading skills of children from Francophone households that attended Dutch-medium schools are close to the native Dutch-speakers. The findings of the present study partly fall in line with this; thus, this hypothesis is supported by the results.

Firstly, it can be said that the participants seem to deem their reception skills to be 'satisfactory'. As mentioned above, they give the statements about their reading skills a mean score of 4.38 out of 5 and their listening skills a 4.59 out of 5. Although 'satisfactory' is a rather subjective term, these mean scores that fall between agreement and strong agreement irrefutably indicate a 'positive perception' (see section 4.3) about the participants' reception skills. However, statement 5.1 ("Regarding my level of Dutch, I think there is still room for improvement") obtains a mean rating of 4.34 out of 5, indicating that the students are critical of their proficiency level. They 'Agree' to 'Strongly Agree' that their Dutch is not perfect, and that they could ameliorate it.

Regarding the comparison of their proficiency level to that of the native Dutch-speaking students, the Francophones attributed a mean score of 3.79 out of 5 for reading and 3.96 of 5 for listening. This generates a mean (of the mean scores) of 3.88 out of 5 for both production skills. This means that, on average, the selected students' opinion on the statement regarding falls between neutrality ('Neither Agree nor Disagree') and agreement ('Agree'), leaning more towards the latter.

It seems that the selected students have a rather 'positive perception' of their reception skills in Dutch overall, but when they are asked to compare themselves to their native Dutch-speaking counterparts, their ratings drop, but continue leaning towards the agreeing side.

The second hypothesis that was formulated for Research question 1 is:

Francophone students in Dutch higher education perceive their production skills (writing and speaking) as inferior to those of their native Dutch-speaking counterparts.

This hypothesis is built on existing research which found that the language use of native Francophone students in Dutch often lacks accuracy – in comparison to their native Dutch-

speaking counterparts - and it exhibits specific grammatical and lexical errors (Bulté & Housen, 2008; Janssens, 2008; Housen, Mettewie & Pierrard, 2002). The hypothesis is partly supported by the results of this study.

In the present study, the two statements of the questionnaire about whether the participants believe they have reached a similar level to their native Dutch-speaking counterparts when it comes to production skills (writing and speaking), both obtain a mean score of 3.08 out of 5. This means that, on average, the Francophone students' opinion ranges between 'Neither Agree nor Disagree' and 'Agree', leaning more towards neutrality. Therefore, it becomes complex to draw a conclusion about the participants' opinion on these statements. Concluding that native Francophone students perceive their production skills as lower than their Dutch-speaking counterparts would be incorrect because the mean scores do not fall on the disagreeing side of the Likert scale. The participants seem to 'slightly agree' (between neutrality and agreement) that they have reached a similar level to the Dutch-speakers.

With respects to the comparison of the participants' general Dutch proficiency level (for all types of language skills) to that of their native Dutch-speaking counterparts, there seems to be a divergence in opinions. This can be found in the rating of statement 5.3. ("After almost completing my whole school career in Dutch-medium schools, I feel like I have reached a similar proficiency level to my native Dutch-speaking counterparts"). This statement generates high divergence in opinion among the participants, which leads to a mean score of 3.19 out of 5. Thus, many participants agree that they have reached a similar proficiency level, while many others disagree. The potential reasons for this will be discussed below, under Research Question 2.

Overall, it can be concluded that, in the participants' perception, the production skills are rated lower – in comparison with native Dutch-speakers – than the reception skills. This means that they agree more with the claim that they have reached a similar level to their native Dutch-speaking counterparts when it comes to their reception skills than when it comes to their production skills. This parallels the research by Janssens (2008) and by Housen, Mettewie and Pierrard (2002) which claims that native Francophone students seem to reach a similar proficiency level to their native Dutch-speaking counterparts regarding reception skills. As for their production skills, they produce a list of grammatical errors, which Dutch-speakers tend to produce less. The participants of the present study seem to be aware that their production skills are less 'up to par' than their reception skills.

The third hypothesis that is formed for the purpose of answering Research Question 1, shifts the focus on a different variable: the fields of study of the participants (language-oriented vs. non-language-oriented fields):

Native Francophone students from language-oriented fields of study have a different perception of their academic performance at Dutch-medium universities regarding the four language skills (reading, writing, listening and speaking) than students from non-language-oriented fields.
This difference could go in two different directions. On one hand, successive bilinguals studying language-oriented study programs, might have a better (more 'positive') perception of their performance than the non-language-oriented students, given their given their extensive language-driven coursework. On the other hand, they might be unsatisfied with their performance because their linguistic skills are scrutinized more than those of non-linguistic students.

This hypothesis is partly supported by the results related to oral communication skills (listening and speaking) but rejected regarding written communication skills (reading and writing).

On average, the group of language-oriented students (N = 11) attributed a mean score of 4.23 out of 5 to their proficiency level in Dutch, for all four language skills. Interestingly, the non-language-oriented group (N = 42) ascribe the exact same mean rating to their proficiency level the exact. Overall, the order in which the four language skills are rated (from highest mean score to lowest mean score) is the same for both groups when it comes to their reception skills, which arrive on top; the listening skills are number one, followed by the reading skills. But then, the production skills are ranked differently by both groups. The students from language-oriented fields of study position their speaking skills third and their writing skills last. This is the opposite for the non-language-oriented students, who seem to be struggling significantly the most with speaking.

To determine whether these differences in results for the between the two samples (language-oriented vs. non-language-oriented) are statistically relevant, an unpaired t-test is executed. It turns out that the differences in rating of the written communication skills (reading and writing) between the two groups are not statistically relevant in this sample. The abovementioned hypothesis is rejected when it comes to these skills; the language-oriented group does not perceive their reading and writing skills statistically differently than the non-language-oriented group. However, the differences that arise surrounding oral communication skills (listening and speaking) are in fact statistically significant. This means that, when it comes to these skills, the hypothesis is not rejected. The language-oriented students do have different perceptions of their oral proficiency than the non-language-oriented students, but the direction in which this difference goes (higher or lower perceived proficiency level) is different for the speaking and listening skills.

When examining the oral communication skills, an interesting pattern arises. The oral production skill (speaking) is rated the lowest by the non-language-oriented group, out of the

four language skills. However, the language-oriented students do not rate this the lowest, and even attribute this a significantly higher mean score than the other group. This is interesting because overall – for all 53 participants – the participants attribute lower mean scores to their production skills, which indicates that the native Francophones in general seem to struggle the most with these aspects of their Dutch proficiency. This is also supported by the existing literature (Bulté & Housen, 2008; Janssens, 2008; Housen, Mettewie & Pierrard, 2002). Although all participants rate their production skills the lowest, the language-oriented students seem to dominate the other group in their ratings of these skills. The fact that students from language-oriented fields have a more 'positive perception' of their production skills could be tied back to the first part of the abovementioned (lack of) hypothesis. The idea is that these students' perception of their proficiency level might be higher (or more 'positive') because their academic programs explicitly focus on language use and language skills. They have benefitted from more language-driven courses and thus, they have had more opportunity to enhance their language skills. This might result in better academic performances regarding speaking tasks, which in turn causes these students to have more 'positive perceptions' of their performance.

In conclusion, native Francophone students from language-oriented fields of study in Dutch-medium universities have a different perception of their academic performance than their non-language-oriented counterparts when it comes to oral communication skills (listening and speaking), but not regarding written communication skills (reading and writing). On one hand, they have a more 'positive perception' of their speaking skills, and evaluate their listening skills lower than the non-language-oriented group. On the other hand, no statistical difference was found between the ratings of the two groups' written communication skills.

6.2 Native Francophone students' perceptions of their transition to French-Dutch bilingualism through unstructured immersion education in Brussels (Research Question 2)

The second research question of the present study is:

2. How do successive French-Dutch bilinguals perceive their transition to French-Dutch bilingualism through unstructured immersion education in Brussels?

The findings generated by statement 5.1. indicate that the selected native Francophone students who have become French-Dutch bilinguals through unstructured immersion education in Brussels are critical of their own proficiency level in Dutch, and believe that there is still room for improvement. The participants exhibit a quite critical perception of their linguistic performances, considering that most research around their academic performance shows that

after years of unstructured immersion education, most successive French-Dutch bilinguals end up attaining a similar proficiency level to that of their native Dutch-speaking counterparts (Bulté & Housen, 2008; Janssens, 2008). One might hypothesize that the participants were mostly thinking about their production skills (writing and speaking) when rating this statement. In that case, their belief in a possibility of enhancing their proficiency level aligns with the research by Bulté & Housen (2008), by Janssens (2008) and by Housen, Mettewie and Pierrard (2002) which found that after years of unstructured immersion education in Dutch-medium schools in Brussels, native Francophones still produce some grammatical and lexical errors and lack accuracy in their language use.

This critical self-assessment might also be linked to a potential comparison of their own performances in Dutch to that of their native Dutch-speaking counterparts. The participants of the present study portray a high divergence in opinions when it comes to the idea of having reached a similar proficiency level to native Dutch-speakers (statement 5.3). About 45% of the participants (N = 24) agree that they have reached a similar level, while 32% (N = 17) are on the disagreeing side. As mentioned above, research shows that most of these successive bilinguals in fact have reached this (Bulté & Housen, 2008; Janssens, 2008), but again, some of the participants have a different perception of their performance, which is more negative. Statement 5.3 ("After almost completing my whole school career in Dutch-medium schools, I feel like I have reached a similar proficiency level to my native Dutch-speaking counterparts") is a generalization of the four statements which were formulated separately for each of the four language skills *("I feel like I've reached a level of [reading/writing/listening/speaking] skills similar to that of my native Dutch-speaking counterparts").* Interestingly, statement 5.3, which can be interpreted more generally, receives a lower mean rating (3.19 out of 5) than the mean of the four separate statements about the language skills (3.48 out of 5).

There is another statement of the questionnaire in the present study (statement 5.2.) which sheds light on the more negative side of not being a native speaker of Dutch. On average, the participants lean towards agreeing with the fact that not being a native Dutch-speaker was an obstacle during their school careers in Dutch-medium schools. This disadvantage could have caused these bilinguals to attribute lower ratings to their proficiency level. Indeed, research shows that at the beginning of their school careers in Dutch-medium kindergartens, their vocabulary is significantly weaker than that of native Dutch-speaking children. According to Zink & Schaerklaeken (1998), once a Francophone child is enrolled in a Dutch kindergarten, it takes them about 6 to 7 years to catch up with the native Dutch speakers when it comes to their vocabulary. Once in high school, these native French-speaking students still seem to exhibit specific grammatical and lexical errors, which are not found in native Dutch speakers (Janssens,

2008). Additionally, their language use often seems to lack accuracy (Bulté & Housen, 2008; Housen, Mettewie & Pierrard, 2002)

Although the participants of the present study might be quite critical of themselves and have somewhat negative-leaning perceptions of their own academic performances and overall proficiency level in Dutch, the three following statements generated more positive perceptions. On average, the selected Francophone students agree that they feel ready to enter a purely Dutch-speaking work environment after they graduate university (statement 5.4). Being a French-Dutch bilingual in Brussels is an advantage, especially on the job market. Since World War II, the Dutch-speaking region of Flanders has the most economic power in Belgium, meaning that mastering Dutch became a clear advantage (Witte & Van Velthoven, 2011, as cited in Janssens & Vaesen, 2015). In more recent times, Francophone Belgians seem to still believe that is the case (Mettewie & Janssens, 2007). This might have contributed to the participants' parents' decision to enroll their children in Dutch-medium schools; they want their children to be perfect French-Dutch bilinguals in order to have more job opportunities. The results of the present study show that, on average, this goal was accomplished for the students that were questioned.

Another statement also sheds a more positive light on the students' transition to French-Dutch bilingualism. Statement 5.6 (*"If Francophone parents were to ask me for advice, I would recommend enrolling their children in Dutch-medium schools"*) is the statement which generated the highest level of agreement among the participants. Not a single participant places themselves on the disagreeing side. This shows that, although they experienced obstacles by not being native Dutch-speakers and believe that they could still improve their proficiency level in Dutch, they would still recommend others to follow the same path. Their satisfaction of having become successful French-Dutch bilinguals (see statement 5.6) and consequently having a lot of opportunities, is presumably at play here. Another element which might contribute to the participants' positive opinion, is the fact that Dutch-medium schools have the reputation of being high-quality institutions (Saeys, 2021).

This brings the discussion to the last, most broad statement of the questionnaire, which aims at examining the participants' general opinion on their transition to French-Dutch bilingualism (*5.6. "Generally speaking, my transition from being a dominant French-speaker to becoming a French-Dutch bilingual was successful"*). This sparks a positive response among the participants – on average – with about 89% of them siding on the agreeing side. In their opinion, unstructured immersion education was rather successful method of becoming a French-Dutch bilingual, despite the obstacles that they faced. This, again, falls in line with existing research which shows that native Francophone students reach a similar proficiency level in Dutch after years of unstructured immersion education in Brussels (Bulté & Housen, 2008; Janssens, 2008).

In summary, the native Francophone students selected in the present study seem quite critical of their own proficiency level in Dutch, admitting that not being a native speaker of Dutch created obstacles throughout their school careers. Their opinions diverge greatly when it comes to judging whether they have reached a similar proficiency level to that of their native Dutch-speaking counterparts. However, they feel ready to enter the Dutch-speaking job market and would recommend Francophone parents to enroll their children in Dutch-medium schools. Overall, the majority of the participants deems their transition to French-Dutch bilingualism through unstructured immersion education to have been successful.

6.3 General Discussion

The abovementioned findings provide a thorough response to the two main research questions presented in the present study. To summarize, native Francophone students who became successive French-Dutch bilinguals through unstructured immersion education in Brussels have an overall 'positive perception' of their language skills (reading, writing, listening and speaking) and feel like they have reached a similar proficiency level to that of their native Dutch-speaking counterparts. Additionally, these students consider their transition to French-Dutch bilingualism to have been successful, despite the challenges that they faced during their school careers.

The method of second language acquisition that these successive bilinguals go through – which is referred to as unstructured immersion education – is a quite unusual phenomenon. Thus, there is a limited amount of research around the subject, especially when it comes to Francophones in Dutch-medium education, specifically. The present study aims to shed light on these successive bilinguals, examine their perceptions on their own linguistic proficiency and hopefully address the gap in research around their situation. Overall, the participants have a rather 'positive perception' of their proficiency level in Dutch and seem generally satisfied with their transition through French-Dutch bilingualism through unstructured immersion education in Brussels.

Hopefully, the findings can provide some insight for Francophone parents in Brussels who are considering enrolling their children in Dutch-medium schools with hopes of making their children successful French-Dutch bilinguals. The results show that it is possible for their children to become a successful bilingual through unstructured immersion education, according to students who have gone through that experience themselves. They claim that they feel ready to enter a Dutch work environment and they would even recommend this method of second language acquisition to Francophone parents. Additionally, the findings have the potential of giving hope to younger Francophone students who are currently in the process of becoming successive French-Dutch bilinguals. Although they might encounter obstacles throughout their

school careers because they are not native speakers of Dutch, they have the potential of becoming full-fledged French-Dutch bilinguals and of performing well at university level.

Moreover, this research can provide information to institutions which have a high number of students who are non-native speakers of the language or instruction. The findings might open a discussion about unstructured immersion education, specifically in Brussels in this case. In places where a lot of people chose this method of second language acquisition, there might be a need to give more structure to this version of immersion education. The educational system could provide more support for the students who are not native speakers of the language of instruction, and their teachers. However, this does not seem to be self-evident everywhere. In the US, for example, half of the teachers who have native Spanish-speakers – who represent a large group - in their class have not received any training to deal with this (Waxman, Padrón & García, 2007). In the case of Brussels, research shows that native Francophone students struggle more than their native Dutch-speaking counterparts when it comes to production skills (writing and speaking) (Bulté & Housen, 2008; Janssens, 2008; Housen, Mettewie & Pierrard, 2002). Offering more support to non-native speakers of Dutch in schools, in the form of extra-curricular language classes for example, might reduce the gap in proficiency between the native and non-native speakers. The potential efficiency of this support is exhibited in the results of this study generated by the students enrolled in language-oriented programs at their universities. They rate their production skills higher than the non-language-oriented students, possibly because they have received more language-driven classes and support. A little bit of support might allow the native Francophone students in Dutch-medium schools in Brussels to enhance their language skills and catch up to the native Dutch-speakers.

Another suggestion would be to offer more support to the teachers of non-native speakers of Dutch in Dutch-medium schools, especially Dutch teachers. Having to teach children who are not native speakers of the language of instruction presumably poses a challenge for the teachers, who are generally not trained for this. Thus, offering specific training could equip these teachers with the necessary tools to support and guide their students who are struggling with Dutch proficiency issues.

7. Conclusion

The results of the present research provide an answer to the two main research questions. The first section examines native Francophone students' perceptions of their academic performance at Dutch-medium universities. The findings show that these successive bilinguals

perceive themselves as proficient when it comes to the four language skills (reading, writing, listening and speaking). Additionally, students from language-oriented fields of study have a significantly different perception of their oral communication skills (listening and speaking) than students from non-language-oriented fields. The second part of the study focuses on native Francophone students' perceptions of their transition to French-Dutch bilingualism. The results indicate that despite the obstacles that these students faced during their school career and the fact that their proficiency level in Dutch is not perfect, they still deem their transition to bilingualism through unstructured immersion education to be successful.

The present study represents an attempt at addressing the gap in literature when it comes to the perceptions of native Francophone students who attend Dutch-medium schools. The aim is to contribute to the limited scientific discussion around the situation of these successive bilinguals in Brussels and shed light on their achievements. Hopefully, the findings can provide pertinent insights to native Francophones who are undergoing unstructured immersion in Dutch-medium schools, their parents and their teachers.

Although unstructured immersion education is a rather unusual method for second language acquisition, the findings of the present study show that Francophone students who have done their school career in Dutch-medium schools in Brussels have the potential to become full-fledged French-Dutch bilinguals. They are capable of attaining a proficiency level that is close to that of their native Dutch-speaking counterparts. Generally, they deem this language acquisition method to be rather successful.

7.1 Limitations

While this study provides valuable insights into native Francophone students' perceptions of their performances in Dutch-medium universities and transition to French-Dutch bilingualism, it is important to acknowledge the limitations of the research. These are either linked to the chosen methodology, or to the scope of the study.

The first limitation that was encountered during the data collection is the sample size. Originally, 75 questionnaires were collected, but only 53 fulfilled all the criteria to be selected. It is important to acknowledge that this small sample size does not allow for generalizations to be made about the whole population of native Francophone students who attend Dutch-medium schools. Another limitation that is tied to the sample size is the limited diversity in fields of study (language-oriented vs. non-language-oriented) among the respondents. The fact that language-oriented fields only represent the minority within all the existing fields of study is reflected in

the sample. Out of the 53 participants, 42 are enrolled in non-language-oriented programs, while only 11 represent the language-oriented group. However, to obtain more statistically relevant results, it would have helped to have a larger number of students from language-oriented fields of study. The differences in findings between the two groups when it comes to the self-assessment of their written communication skills (writing and reading), turned out not to be statistically significant, for example. This issue could be avoided by expanding the sample size, which falls outside of the scope of this study.

Another limitation arises from the concept of 'self-assessment', which is inherently subjective. After all, the participants were asked about their perception of their academic performances and their transition to bilingualism, which are merely opinions. There is a risk that self-reported data might not align with objective measures. However, this risk was considered by Brantmeier et al. (2012) when developing their self-assessment test, which the questionnaire of the present study is based on. They made sure to examine how accurately foreign language learners self-assess their own performance. For this they investigate the relationship between participants' self-assessment of their language skills and their results on an online abilities test. The findings show a positive relationship between the two variables for advanced learners. Additionally: "The associations for SA ratings for all four skills and scores for each component of the test are approximately the same strength" (Brantmeier et al., 2012, p. 152). This shows that, although self-perception has a subjective basis, advanced learners seem to be able to assess their own linguistic performance quite accurately. In the present study, the participants are highly advanced learners of Dutch, as they've been enrolled in Dutch-medium schools for (almost) their whole school career. An additional attempt at tackling this limitation is the formulation of highly specific and focused statements in the questionnaire. This is because literature shows that: "[...] self-assessment instruments yield higher correlations with measures of proficiency if the self-assessment items are specific and focused" (Pierce & Swain, 1993, as cited in Brantmeier et al., 2012, p. 152). This reasoning forms the basis of the self-assessment test created by Brantmeier et al. (2012). Thus, the same logic is followed in the construction of the questionnaire of the present study.

A further limitation is that participants with different cultural backgrounds might assess their own performances in different ways, which is mentioned by Brantmeier et al. (2012). The authors present the examples of Japanese EFL students, who seem to be harsher when rating their performances (Matsuno, 2008 as mentioned in Brantmeier et al., 2012). As the present study is based on participants who have grown up in Brussels and originate from a multitude of cultures, there might be differences in the way they self-assess, compared to the American participants in the research by Brantmeier et al. Although the majority of the statements from the self-assessment test by Brantmeier et al. (2012) are adapted to fit the particular situation of

the participants of this study, it is important to acknowledge this potential difference in the accuracy of self-assessment.

The differences in cultural backgrounds among the participants are also tightly linked to their linguistic backgrounds. The selected sample presents diversity in mother tongues and dominant languages at home (Table 3). This variable is not examined further in the present research but can potentially have a significant impact on the respondents' perceptions. If a participant speaks a Semitic language – like Arabic - as a second or third language, for example, they might have encounter different obstacles in Dutch than participants who only speak Romance languages. However, the focus of the present study is not crosslinguistic influence or the notion of transfer. Although this would be interesting to examine further, it falls outside of the scope of this research.

Finally, it is important to acknowledge that the divergence in opinions among the participants, when it comes to all the statements of the questionnaire, might be caused by external variables, which are not examined in the present study. This would require extensive research with a wider scope and more resources. Elements like the participants' attitudes towards the Dutch language, the goals they wish to achieve with this language or their parents' involvement in their school careers might be at play. This is something that could be examined by means of qualitative research. Originally, the present study was intended to include a qualitative part, taking the form of interviews. The idea was to select five participants out of the 53, and interview them to obtain more thorough insight into their perceptions. Unfortunately, this section could not be executed due to lack of time.

7.2 Suggestions for Future Research

The limitations of the present study have the potential to create interesting avenues for future research. Firstly, a study executed on a larger sample might yield different – more statistically relevant - results. This would presumably involve a higher diversity when it comes to fields of study of the participants (language-oriented fields vs. non-language-oriented fields), which would generate more statistically relevant differences in analysis between the two groups.

Furthermore, as mentioned in the 'Limitations' above, this topic could be approached in a qualitative way, by conducting interviews for example. This would allow to explore the bilinguals' perceptions more thoroughly, with the opportunity to examine many different variables. This way, it would be possible to find out more about the external variables that cause differences in the participants' perceptions of their academic performance and transition to French-Dutch bilingualism. An aspect that has been the topic of research in the past, is the attitudes of Francophones in Brussels towards the Dutch language. It would be interesting to

determine in which ways the students' attitudes towards Dutch have an impact on their perceptions.

Another variable that could be centered in future research is the relationship between the successive French-Dutch bilinguals' linguistic background (mother tongues and dominant languages at home) and their perceptions of linguistic proficiency.

Word count: 16.006

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9. Appendices

9.1 Appendix 1: Self-assessment test by Brantmeier et al. (2013).

Reading

1. I can understand a personal letter in which the writer describes events, feelings and wishes.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. I can understand in detail a wide range of long, complex texts provided I can reread difficult sections.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. I understand a broad range of vocabulary, but I sometimes experience difficulty with less common words or phrases.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. I can read short stories, following the flow of thoughts and actions and thus understanding the overall meaning and many details.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I can understand in a narrative the motives for the characters' actions and their consequences for the development of the plot.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Writing

1. When I write, I can speculate about causes, consequences and hypothetical situations.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. I can write clear and well-structured texts and express my points of view at some length, and presenting relevant supporting detail.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. When I write, I can give clear detailed descriptions of complex subjects.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. When I write, I can synthesize information and arguments from a number of sources.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I can usually write without consulting a dictionary.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Listening

1. I can understand longer stretches of speech and lectures and follow complex lines of argument, provided the topic is reasonably familiar and the speech is clear and in standard language.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. In TV and current-affairs programs or programs of personal or professional interest, I can understand the main points provided the speech is relatively slow and clear and/or the visual material supports the commentary.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. I can understand simple directions relating to how to get from X to Y, by foot or public transit.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. I can guess the meaning of occasional unknown words from the context and understand sentence meaning if the topic discussed is familiar.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I can follow clear speech in everyday conversation, though in a real life situation I will sometimes have to ask for repetition of particular words and phrases.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Speaking

1. I can speak about topics that are reasonably familiar by using standard language.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. I can discuss TV and current-affairs programs or programs of personal or professional interest.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. I can ask for simple directions relating to how to get from X to Y, by foot or public transit.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. I can participate in everyday conversation, though in some situations I am unable to produce particular words and phrases.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I can talk about causes, consequences and hypothetical situations.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

9.2 Appendix 2: Statements of the questionnaire of the present study + their obtained mean scores

1. Reading :

1.1. I can read academic journal articles and books, understanding the arguments, discussion and conclusion.

Je suis capable de lire des articles et des livres académiques et de comprendre les arguments, la discussion et la conclusion.

[*M* = 4.74]

1.2. I can understand in detail a wide range of long, complex texts provided I can reread difficult sections.

Je suis capable de comprendre en détail des textes longs et complexes, à condition de pouvoir relire les sections difficiles.

[*M* = 4.30]

1.3. I understand a broad range of academic vocabulary, but I sometimes experience difficulty with less common words or phrases.

Je comprends un large éventail de vocabulaire académique, mais j'éprouve parfois des difficultés avec les mots ou les phrases moins courants.

[*M* = 3.72]

1.4. I can read a course handbook, following the flow of thoughts and given information and thus understanding the overall meaning and many details.

Je suis capable de lire un manuel de cours universitaire, suivre le fil des idées et des informations données et ainsi comprendre le sens global et de nombreux détails.

[*M* = 4.47]

1.5. When reading a research paper, I am able to detect the most important elements and thus understand the overall ideas of the text.

En lisant un article de recherche, je suis capable de détecter les éléments les plus importants et ainsi comprendre les idées générales du texte.

[*M* = 4.68]

1.6. I feel like I have reached a similar level of reading skills as my Dutch-speaking counterparts in school.

J'ai l'impression d'avoir atteint un niveau de compétences en lecture similaire à celui des néerlandohpones (langue maternelle) à l'école.

[*M* = 3.79]

2. Writing :

2.1. When I write, I can speculate about causes, consequences and hypothetical situations.

Lorsque j'écris, je peux spéculer sur les causes, les conséquences et les situations hypothétiques.

[*M* = 4.17]

2.2. I can write clear and well-structured texts and express my points of view at some length, and presenting relevant supporting detail.

Je peux écrire des textes clairs et bien structurés et exprimer mes points de vue de manière étendue, en présentant des détails pertinents.

[*M* = 4.09]

2.3.When I write I am able to use jargon that is specific to my field of study.

Lorsque j'écris, je suis capable d'utiliser un vocabulaire académique complexe spécifique à mon domaine d'étude.

[*M* = 4.36]

2.4. When I write, I can synthesize information and arguments from a number of sources.

Lorsque j'écris, je peux synthétiser des informations et des arguments provenant de plusieurs sources.

[*M* = 4.36]

2.5. I can usually write without using online tools like dictionaries, spelling correctors or translation software.

Je peux généralement écrire sans utiliser d'outils en ligne tels que des dictionnaires, des correcteurs orthographiques ou des logiciels de traduction.

[*M* = 4.15]

2.6. I feel like I have reached a similar level of writing skills as my Dutch-speaking counterparts in school.

J'ai l'impression d'avoir atteint un niveau de compétences en écriture similaire à celui des néerlandophones (langue maternelle) à l'école.

[*M* = 3.08]

3. Listening :

3.1. I can understand longer stretches of speech and lectures and follow complex lines of argument.

Je suis capable de comprendre de longues étendues de discours et de conférences et suivre des lignes d'argumentation complexes.

[*M* = 4.51]

3.2. I am able to understand the use of academic vocabulary in lectures and conferences.

Je suis capable de comprendre l'utilisation du vocabulaire académique dans les cours universitaires et les conférences.

[*M* = 4.53]

3.3. I understand course instructions that are given orally by the teaching staff.

Je comprends les instructions de cours données verbalemen par le personnel enseignant.

[*M* = 4.74]

3.4. I can guess the meaning of occasional unknown words from the context and understand sentence meaning.

Je suis capable de deviner le sens de mots inconnus à partir du contexte et comprendre le sens des phrases.

[*M* = 4.34]

3.5. I can understand conversations with university staff (professors, assistants or administrative staff).

Je suis capable de comprendre les conversations avec le personnel universitaire (professeurs, assistants ou personnel administratif).

[*M* = 4.85]

3.6. I feel like I have reached a similar level of listening skills as my Dutch-speaking counterparts in school.

J'ai l'impression d'avoir atteint un niveau de compétences en écoute similaire à celui des néerlandophones (langue maternelle) à l'école.

[*M* = 3.96]

<u>4. Speaking :</u>

4.1. I can give a presentation on a specific topic using academic language, without making a significant number of mistakes.

Je peux donner une présentation sur un sujet spécifique en utilisant un langage académique, sans faire un nombre significatif d'erreurs qui feraient obstacle à la communication.

[*M* = 4.00]

4.2. I can have conversations with fellow students without feeling uncomfortable about my language skills.

Je suis capable d'avoir des conversations avec d'autres étudiants sans me sentir mal à l'aise à propos de mes compétences linguistiques.

[*M* = 3.89]

4.3. I can communicate effectively and fluently with university staff (professors, assistants or administrative staff) and make myself understood.

Je suis capable de communiquer efficacement et couramment avec le personnel universitaire (professeurs, assistants ou personnel administratif) et me faire comprendre.

[*M* = 4.30]

4.4. When answering a professor in class or having group discussions, I have a hard time producing particular words and phrases.

Lorsque je réponds à un professeur en classe ou que j'ai des discussions de groupe, j'ai du mal à produire certains mots et phrases pour me faire comprendre.

[*M* = 3.42]

4.5. I can talk fluently about causes, consequences and hypothetical situations during an oral exam, a group discussion or a presentation.

Je suis capable de parler couramment des causes, des conséquences et des situations hypothétiques los d'un examen oral, une discussion de groupe ou un exposé.

[*M* = 3.83]

4.6. I feel like I have reached a similar level of speaking skills as my Dutch-speaking counterparts in school.

J'ai l'impression d'avoir atteint un niveau de compétences en expression orale similaire à celui des néerlandophones (langue maternelle) à l'école.

[*M* = 3.08]

5. Successive bilingualism through unstructured immersion:

5.1. Regarding my level of Dutch, I think there is still room for improvement.

Concernant mon niveau en néerlandais, je trouve qu'il y a encore une marge d'amélioration potentielle.

[*M* = 4.34]

5.2. There have been points in my school career where I have felt like not being a native Dutch-speaker was an obstacle.

Dans ma scolarité, il y a eu des moments où j'ai eu l'impression que ne pas avoir le néerlandais comme langue maternelle était un obstacle.

[*M* = 3.77]

5.3. After almost completing my whole school career in Dutch-medium schools, I feel like I have reached a similar proficiency level to my native Dutch-speaking counterparts.

Après avoir fait toute ma scolarité dans des écoles néerlandophones, j'ai l'impression d'avoir atteint un niveau de néerlandais similaire à celui des étudiants néerlandophones natifs.

[*M* = 3.19]

5.4. I feel capable of entering a purely Dutch-speaking work environment.

Je me sens capable d'entrer dans un environement de travail purement néerlandophone.

[*M* = 4.00]

5.5. If Francophone parents were to ask me for advice, I would recommend enrolling their children in Dutch-medium schools.

Si des parents francophones me demandaient conseil, je leur recommanderais d'inscrire leurs enfants dans des écoles néerlandophones.

[*M* = 4.60]

5.6. Generally speaking, my transition from being a dominant French-speaker to becoming a French-Dutch bilingual was successful.

Globalement parlant, je trouve que ma transition de francophone (langue dominante à la maison) à bilingue français-néerlandais est 'réussie'.

[*M* = 4.38]