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Exploring content-based language teaching practices to stimulate language use in grades 7 and 8 of Frisian trilingual primary education

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**Exploring content-based language teaching practices
to stimulate language use
in grades 7 and 8 of Frisian trilingual primary education**

Eabele Tjepkema

**university of
 groningen**

faculty of arts

CLCG

The research reported in this dissertation has been carried out under the auspice of the Center for Language and Cognition Groningen (CLCG) of the Faculty of Arts of the University of Groningen

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university of
 groningen

Exploring content-based language teaching practices to stimulate language use in grades 7 and 8 of Frisian trilingual primary education

PhD thesis

to obtain the degree of PhD at the
University of Groningen
on the authority of the
Rector Magnificus Prof. C. Wijmenga
and in accordance with
the decision by the College of Deans.

This thesis will be defended in public on

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To my children

'Omdatstû my sa faak ferbettere
hast, hear ik no alle flaters dy't myn
freonen yn it Frysk meitsje'. [Because
you corrected me so many ways,
I hear all the mistakes my friends
make in Frisian.]

(Rienk Hendrik)

'By it sjen nei de bestoarming
fan it Kapitoal op CNN: curfew is
dochs *avondklok*? ...Dat wit ik om't
ik altyd Harry Potter filmkes sjoch
op Ynternet'. [Watching the Capitol
attack: curfew is *avondkok* (Dutch
word) isn't it?...I know that because I
always watch Harry Potter videos on
the Internet.]

(Dagmar)

'Yn de winkel praat ek leaver yn it
Hollânsk om't dat foar my nofliker fielt'.
[In stores I prefer to use Dutch because
it feels more comfortable to me.]

(Janieke)

'As yn in les Frysk de master
mar mei in pear bern praat yn in
klassegesprek, dan binne der dochs
net in soad bern dy't it Frysk oefenje
kinne, dochs?' [If in whole classroom
discussion in a Frisian lesson the
teacher talks with just a few children,
not many children are enabled to
practice Frisian, isn't it?]

(Mijke)

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Chapter 1

General introduction

1.1 Introduction

This dissertation is addressed to the pedagogy of trilingual primary education in the Dutch province of Friesland (Fryslân). In the trilingual primary schools Dutch, Frisian and English are taught and used as medium of instruction. From these languages, Dutch is the national language and Frisian a regional still spoken by more than half of the population as their first language, (Klinkenberg, Jonkman & Stefan, 2018; Provinsje Fryslân, 2020), but there are no known monolingual Frisian speakers (Gorter, 2005; Klinkenberg et al., 2018). Moreover, Frisian can predominantly be regarded as a spoken language in informal domains. As English is used in Fryslân in everyday life in the media and also tourism, in many ways English has to be considered as a second language in the province rather than a foreign language (Gorter, 2005).

In its Education Policy Document “Boppeslach”(Provinsje Fryslân, 2006), based on Van Ruijven’s research (2003) on the effectiveness of education in Fryslân, the provincial government of Friesland set a number of im in order to stimulate the quality of education in Fryslân in the years 2007-2014. In order to stimulate the quality of education in Fryslân, a connection is made between the domains integral language policy, the quality of the Frisian education and policy regarding special educational needs. Regarding the integral language policy, the Boppeslach-note suggest a multilingual educational system in which Frisian, Dutch and English are used as vehicle languages in content-based education. The Education Policy Document is aimed not only at schools for primary and secondary education, but also in the teacher training in the province of Friesland.

In line with (inter)national research, Van Ruijven and Ytsma (2008) found that in trilingual primary schools the use of additional languages as languages of instruction did not have a negative effect on the acquisition of the national language. Furthermore, local (De Jong & Riemersma, 1994) and international scholars (Coyle, 2008; Gorter & Cenoz, 2011) in the field of multilingual education suggest a research agenda addressed to exploring pedagogic teacher repertoires in content and language integrated learning (Coyle, 2008). Regarding the pedagogy in the multilingual classroom, holistic views taking into account the learners’ whole linguistic repertoire are getting more attention. In Cenoz and Gorter’s (2015) approach, it is argued that students should be treated multilingually in ways depending on their process from ‘becoming multilingual to being multilingual’, and in which students are enabled to use all (linguistic) resources available. Although

originally the pedagogic concept of translanguaging included planned bilingual language use for content learning, in current practices Lewis, Jones and Baker (2013) describe different patterns of teacher- and student language use. Criticism on plurilingualistic approaches is that students are not sufficiently encouraged to use the target language(s) and therefore target language development might be hindered (Cenoz & Gorter, 2017).

1.2 Languages in the Frisian context

Fryslân has a population of nearly 650,000. Except for a number of towns and some region's (e.g. Het Bildt, De Stellingwerven and the Frisian Wadden islands) in which Dutch and/or regional language are spoken, Frisian was the dominant language spoken in this province till the 1960's (Klinkenberg et al., 2018). As a result of both migration and the decline of relative isolation, from about 1967 the position of the use of Frisian as the dominant regional language is changing and the use of Frisian is declining in everyday-life (Gorter, 2005; Klinkenberg et al., 2018). Currently, Frisian is mainly spoken in the countryside and in the old small towns. In a number of towns and regions language varieties (for instance Town Frisian, Biltsk, and Stallingwarfs) are spoken (Klinkenberg et al., 2018). Furthermore, from the 1960s there is an increase of the use of immigrant languages in Fryslân as well. Those immigrant languages are predominantly spoken in the four largest towns (Leeuwarden, Sneek, Drachten en Heerenveen). From these towns, in Leeuwarden some 50 migrant languages are spoken (Gorter, 2005). As mentioned earlier, also English is used in Fryslân in everyday life in the media and tourism (Gorter, 2005).

Like other European indigenous languages such as Basque, Catalan, and Welsh, Frisian can be referred to as a regional or minority language, and from which the latter is used irrespective the number or ratio of speakers of the specific language in the region (De Bot & Gorter, 2005). As both indigenous languages and immigrant languages can be used by a minority of a population, Frisian can be labeled as a regional minority language (De Bot & Gorter, 2005; Extra & Gorter, 2008).

Regarding the use of Frisian, 57.3% of the population consider Frisian as (one of) their mother tongue(s) (Provinsje Fryslân, 2020). In 2019, 43.1% of the adults speak mostly Frisian to their partner, and 49.2% speak mostly Dutch to their partner. Regarding the language of communication with the children, 49.7% of the

parents use Dutch and 45.1% use Frisian. Since 2007 a small decline is noticed for the use of Frisian for oral communication with the partner and children. Of the children, 38.5% speaks mostly Frisian to their peers and parents against 57.6% of the children who speak Dutch to their peers and parents.

From the last decennia to 2015 there was a growing number of people who could understand and speak the Frisian language, but a slight decrease of the percentage of people who can use Frisian as a spoken language is found in 2019 (Provinsje Fryslân, 2020). 93.1% of the population can understand Frisian reasonably well, good or very good (Provinsje Fryslân, 2020). Almost 75% of the population points out to speak the Frisian language reasonably well to very good. Regarding the use of Frisian as a written language, there is a slight increase of the percentage of people who can both read and write Frisian in the last 12 years. Just over 75% of the population is able to read Frisian reasonably well to very good, and some 38% of the population can write Frisian reasonably well to very good. According to Klinkenberg et al. (2018) the self-reported increase of people who are able to write Frisian can be explained by the use of Frisian in social media, which includes generally short text messages.

1.3 Frisian and English in primary education

From 1985 Dutch primary schools include 8 grades (group 1-8), integrating preschool (or early childhood education age 4-6) and elementary schools (age 6-12). Although there is a national curriculum (in terms of learning objectives), schools are autonomous regarding the pedagogical approach.

In line with tendencies in Europe regarding the use of minority languages, in Fryslân there is a growing interest in the use of the Frisian language in society from the early 19th century (Zondag, 2011). However, legislation of the teaching of Frisian started in the beginning of the 20th century. First, from 1907 schools are allowed to offer Frisian as an extra-curricular subject, and from 1937 schools are allowed to teach Frisian as a regional language as part of the Dutch language lessons. After a short period in which nine Frisian elementary schools started to use Frisian as medium of instruction, from 1955 Frisian elementary schools are allowed but not forced to 1) offer bilingual education in the lower grades and/or 2) offer Frisian as a subject throughout the school. Finally, from 1974 Frisian schools are legalized to offer bilingual education throughout the elementary school, and from 1980 Frisian is an obligatory subject in Frisian primary schools. However, the

way Frisian is taught in Frisian primary schools varies on a continuum from Frisian as a cultural phenomenon to Frisian a language for communication and learning in education. Related to this continuum, Frisian is taught as a subject and/or Frisian is used as a medium of instruction in content lessons. Furthermore, there is variation in the focus on the teaching of language use (listening, speaking, reading and/or writing) (Varkevisser & Walsweer, 2018). Regarding the teaching of English, from 1986 Dutch primary schools are required to offer English as a subject in grade 7 and 8. However, primary schools are allowed to start offering English in an earlier grade. Therefore, usually there are three forms integrating English as a subject in the curriculum: 1) regular English in primary education (grade 7 and 8), early English (from grade 5) and early foreign language education (from grade 1). Early foreign language education (predominantly addressed to English) is a fast growing phenomenon in the Netherlands (www.nuffic.nl). From 2016 primary schools are allowed to use an additional language as medium for instruction, with a maximum of 15%. From 2014, 17 primary schools are participating in a pilot in which 30-50% of the curriculum is offered by the medium of English (www.nuffic.nl).

As research outcomes showed that primary schools are struggling to achieve the learning objectives for both Frisian language learning and English language learning, the trilingual primary school project *Trijetalige skoalle* [trilingual school] started in 1997. The aim of this project was to come to an approach involving optimal education in and of Dutch, Frisian and English respectively, and in which language learning (in all four domains) would be stimulated by 'interactive language use' in meaningful activities related to Content and Language Integrated Learning (Van Ruijven & Ytsma, 2008). The project implied a systematic approach in which:

- The three languages are taught as subject;
- The three languages are used as medium of instruction for other content by implementation of content and language integrated learning;
- Language use is separated by the following ratios:
 - Group 1-6 (age 4-10): 50% Dutch and 50% Frisian,
 - Group 7-8 (age 10-12): 40% Dutch, 40% Frisian, and 20% English.

After the experimental stage, the implementation of the trilingual system was promoted by the province as an integral part of the provincial policy *Boppeslach* to promote school improvement (Provincie Fryslân, 2006).

Partly because of that policy there is an increase of schools participating in the Netwurk Trijetalige skoalle [network trilingual school] starting a certification process, and in which 82 Frisian primary schools are participating (www.cedincentrummeertaligheid.nl). The network of trilingual schools is managed by Taalsintrum Frysk (Language Centre Frisian). Related to the implementation of the trilingual system, this language centre offers both coaching of development of school language planning policy and in-service training programmes regarding both Frisian and English language skills. Regarding the implementation of the trilingual system, a number of varieties have been developed. First, three variations have been developed in which all three languages are used from grade 1-8, but including different standards (e.g. the ratios for the use of both Frisian and English, and internationalization). Regarding the ratios for instructional language use, implementation of the trilingual system includes a minimum of 20% Frisian and a minimum of 10% English in the curriculum (www.cedincentrummeertaligheid.nl).

1.4 Earlier Research

Van Ruijven (2003) found that in comparison to the national tendency, apart from the students with higher aptitude, the progress of the Frisian students from grade 5 up to grade 7 was below the national mean progress scores. Van Ruijven furthermore demonstrates that achievement on Dutch literacy and numeracy skills are not related to the variety in the mother tongues in use, but to student aptitude and achievement motivation and the pedagogical behaviour in the Frisian classroom. Also the research addressed to language learning in the trilingual primary schools shows that more attention to additional language learning in the curriculum are at no cost for Dutch language development (Van Ruijven & Ytsma, 2008). Students in the trilingual primary school showed higher scores for technical language skills in Frisian (spelling and technical reading skills). In contrast, for both Dutch and English language development, no effects are found. Regarding English language use, students in the trilingual primary school reported to feel more able and comfortable to have a short conversation in English than students from the non-trilingual primary schools.

As part of a research directed to the *Boppeslach* project, in trilingual primary schools students in grade 6 and 7 demonstrate better oral English communicative competence than student from a regular primary school. However, no effect for oral English communicative competence was found in grade 8. Moreover, monolingual Dutch speaking students show better results on oral English communicative competence tests than bilingual (Dutch-Frisian) students (Klinkenberg, Jansma & Krol, 2017).

1.5 Problems definition

From 1997 a growing number of Frisian primary schools are in a process of adopting a model for trilingual education (Van Ruijven & Ytsma, 2008). Regardless of the model by which the ratios for language instructions, little is known about the pedagogy implemented to stimulate communicative target language use in the three target language lessons in the Frisian trilingual primary schools, and how these practices are related to development in the three target languages. Regarding these pedagogical approaches, little is known how content and language integrated learning (CLIL) is executed in the Frisian trilingual primary schools. Therefore, this dissertation is about the exploration of the content-based language teaching practices to stimulate language use in the Frisian trilingual classroom.

1.6 Thesis outline

Chapter 2 first provides a theoretical background regarding multilingualism and multilingual education. As CLIL can be related to content-based education (Cenoz, 2015), chapter 2 additionally discusses the theoretical background addressed to an overview of pedagogical theories to stimulate second language development in content-based education. In addition to the scaffolding of input, output and interaction in content-based education, the educational concept of translanguaging is presented as a holistic approach to stimulate the use the students' whole linguistic repertoire. Thirdly, the chapter provides a brief overview on the measurement of second language development.

Chapter 3 addresses the provision of a theoretical background for CLIL. First an overview is presented concerning the characteristics and pedagogical principles of content and language integrated learning, and by which integration of language learning in content-based education can be stimulated. Then some theoretical models are presented regarding the stimulation and scaffolding of student target

language use in content lessons by task planning and, classroom discourse and the provision of interactional corrective feedback. Based on the theoretical background, chapter 4 presents the six research questions for this dissertation.

Chapter 4 is devoted to the presentation of the methodological set-up of this dissertation. In this chapter background information is provided on the participants, the educational background of the students, the research design and the different research instruments used.

The empirical results are presented in the chapters 5, 6 and 7 and are used to answer the six research questions. Related to change in pedagogic practices, language development in the three target languages is of relevance for all research questions. On that account, chapter 5 the methods for data collection at both the start (T1) and the end (T2) of a period of two years.

Chapter 5 starts by presenting the test data for Dutch, Frisian and English language development. Furthermore, chapter 5 describes the results of the self-reported data for student home and schoolyard languages, how student home and schoolyard language are related, and how the differences in student home and schoolyard language are related to student language development for the three target languages. Finally, this chapter describes the observed teacher- and student language use patterns, how the observed teacher-use patterns are related to student schoolyard language, and how the differences in language use patterns are related to student language development for the three target languages.

Chapter 6 describes the observed strategies aimed at focus on meaning and focus on form respectively, and how the differences in strategies are related to student language development in the three target languages.

Chapter 7 describes the observed strategies to stimulate student target language use in *teacher-student interaction*, the observed teaching methods *to stimulate student target language use*, and how differences in the strategies *and* teaching methods respectively are related to student language development in the three target languages.

Finally, chapter 8 provides a combined reflection and discussion on the findings presented in the chapters 5-7. This chapter concludes with the presentation of the conclusions for this study and with recommendations for both possible future research and the improvement of the teaching practices in content-based education.

Chapter 2

Multilingual education, multilingualism
and second language development

2.1 Introduction

To come to an understanding of the pedagogy of trilingual education, a brief overview will be given concerning multilingual education and multilingualism, and secondly views on second language development will be described. The term second language development can include also third- (Jessner, 2008b), and/or further additional language development. In this dissertation the term additional language development is used for second and third language development.

Regarding multilingual education, the approach of Content and Language Integrated Learning is more elaborately described as a common European content-based approach in which implicit language development (foreign, regional or minority languages) is stimulated.

In the next sections, first the concept of language is described. Then an outline of views on the process and objectives of additional language learning is presented.

2.2 Multilingualism and multilingual education

Although there is some discussion about defining multilingualism from bilingualism, generally the terms bilingualism and multilingualism are seen as equivalents, but is (over the term bilingualism) the term multilingualism used as a generic term for referring to two or more languages (Cenoz, 2013; Comanaru & Dewaele, 2015; Jessner, 2006; 2008b), and does multilingualism include bilingualism (Comanaru & Dewaele, 2015). At both the individual and societal level, multilingualism is the case if two or more languages are in use, regardless if the language use levels are balanced or unbalanced and regardless whether the involved languages are passively and/or actively used (e.g. Baker, 2011; Cenoz, 2013; Comanaru & Dewaele, 2015).

Rather than seeing bilingualism as the sum of two monolingual minds in one person, Cook (1995; 2016) regards bilingualism as 'more than the sum of two languages', and Grosjean (2010) defines bilingualism as a person's use of two or more languages (or dialects) in one's everyday life. From Herdina and Jessner's (2002) dynamic model of multilingualism (DMM) multilingualism is seen as a complex system in which subsystems are interacting, and that language changes over time (Jessner, 2006). According to Herdina and Jessner (2002) multilinguals show certain cognitive skills and abilities captured in the Multilingualism-factor (M-factor), which is seen as both product of being multilingual and catalyst

for becoming (more) multilingual (Herdina & Jessner, 2002). In this M-factor, multilingual awareness is regarded as the key-factor in multilingual learning and use (Jessner, 2006; Jessner, Megens Graus, 2016). Moreover, codeswitching and code-mixing are considered as specific features of multilinguals, and not seen as hinder for additional language acquisition such as interference and negative transfer (Jessner, 2008a; Kharkurin & Wei, 2015; Wei, 2011; Stavans & Hoffmann, 2015).

On this point it is important to interpret the different views of the concept of language. In the structuralist view, each language is defined as a grammatical system including phonology, syntaxis, morphology and semantics, from which some elements can may be shared with other language(s), or as consisting of a (more or less) fixed and unique set of specific rules and elements (or standardized conventions) that has to be or which can be acquired by the language learner (De Bot, 2016). Emergentists however regard language as an evolving complex dynamic and both socially and cognitively embedded system residing in both the community and in the individual brain (De Bot, 2016; N. Ellis, 2008). In this view, the term target-language is misleading as following this paradigm the target is always moving (Larson-Freeman, 2015b). From the perspective of a language as a socially embedded system, language can be defined as a social resource with clear socially and politically defined boundaries of nation, territory, and social group (García & Lin, 2017). Usually this type of language is labeled as a national and state language, a named language (Otheguy, García & Reid, 2015) or a register (De Bot & Jaensch, 2015). Language as cognitively embedded system regards language as an individual, unique linguistic repertoire, also referred to as an idiolect (De Bot, 2016; García & Lin, 2017, Otheguy et al., 2015; Wei, 2018). As argued by Otheguy et al. (2015), idiolects of bilinguals are only quantitatively (and not qualitatively) different from monolingual's idiolects, as idiolects of bilinguals would contain more linguistic features and a more complex socio-cultural marking of which features to use when and where" (p. 292). Consequently, it is questionable if concepts such as transfer and codeswitching are valid (De Bot, 2016; Lowie & De Bot, 2015).

2.3 Typologies of multilingual education

Generally, multilingual education is described as education in which two or more named languages are involved as target language in classroom language lessons and/or languages of instruction in content classes (Baker, 2011; Busch, 2011;

Wright et. al., 2015) and/or in which in bilingual education two (home) languages are involved (Baker, 2011). Theories and typologies of multilingual education can be based on language ideologies (García & Baetens Beardsmore, 2009) and intended functions of multilingual education (García & Baetens Beardsmore, 2009; Flores & Baetens Beardsmore, 2015).

According to Baker (2011) bilingual education is not only the case if more than one target language is aimed at in an educational setting, but also if children with a home language other than the school language are submersed in school. Home languages can involve regional languages, national languages and/or immigrant languages, and so monolingual, bilingual or multilingual families can be distinguished (e.g. Baker, 2011; Hickey, Lewis & Baker, 2014). Comparably, there are monolingual, bilingual and multilingual communities (e.g. García & Baetens Beardsmore, 2009). As both regional (or indigenous) languages and immigrant languages are also referred to as minority languages, a distinction can be made by regional minority languages and immigrant minority languages (De Bot & Gorter, 2005; Extra & Gorter, 2008). Among others stimulated by the European policy of Mother tongue plus 2 (MT+2), multilingual education can include these community languages and also regional languages, national languages and foreign languages (Jessner, 2008b). In literature, multilingual education is regularly described as a complex phenomenon, in terms of different models and pedagogical principles (Busch, 2011; García & Baetens Beardsmore, 2009; Jessner, 2008b; Wright, Boun & García, 2015). These differences are caused by historical, economical and sociocultural factors (Wright et al, 2015). Diversity in pedagogical perspective are the result of both the number of languages included and the amount of tuition time needed for successful learning (Jessner, 2008b), and in which students from different linguistic backgrounds have different needs (Hickey, 2007).

Taking into account students' linguistic background(s), target language(s), societal and educational aims, and aims in language outcomes, Baker (2011) presents ten broad types of programmes subdivided in three forms: 1) monolingual forms, 2) weak forms of bilingual education and 3) strong forms of bilingual education. In these forms, different models are related to the stimulation of simultaneous and/or successive language learning in schools.

Monolingual forms of bilingual education involve submersion/mainstreaming in the majority language and segregationist approaches aiming at monolingualism

in outcome (Baker, 2011). Weak forms of bilingual education, also defined as subtractive bilingual education (Baker, 2011; García & Baetens Beardsmore, 2009), lead to a transition to the majority language (May, 2017), aiming at relative monolinguistic outcomes (Baker, 2011). Baker (2011) defines foreign language teaching also as a weak form of multilingual education with limited bilingualism as a linguistic goal. Strong forms of multilingual education are aimed at bilingualism as a linguistic goal. They include immersion programmes (Baker, 2011; García & Baetens Beardsmore, 2009), maintenance (Baker, 2011, García & Baetens Beardsmore, 2009; May, 2017) or heritage language programmes (Baker, 2011; García & Baetens Beardsmore, 2009; May, 2017), enrichment programmes (May, 2017), two-way or dual language programmes (Baker, 2011; García, 2009), bilingual mainstream programmes (Baker, 2011), and types of content and language integrated learning (García & Baetens Beardsmore, 2009). These types of content and language integrated learning (CLIL) are also described as forms of content-based language teaching (CBLT) (Lyster & Ballinger, 2011), in which incidental and implicit target language learning takes place in meaning focused contexts (Dalton-Puffer, Nikula & Smit, 2010). On a continuum from content-driven to language-driven education, Lyster and Ballinger (2011) distinguish the following CBLT curricula: 1) total immersion, 2) partial immersion, 3) content courses, 4) content courses + language classes, 5) language classes with thematic units, and 6) language classes with content used for language practice. In contrast to language-driven education, content-driven education refers to content-based education including immersion programmes. Despite some controversy (see chapter 3), the approach of content and language integrated learning can be regarded as a form of partial immersion education and can so be related to content-based education (Cenoz, Genesee & Gorter, 2014).

Trilingual education includes according to Ytsma (2001) those teaching practices where the three languages are thought as subject and/or these languages are used as target languages in immersion activities. For the classification of trilingual primary education practices, Ytsma (2001) proposed the following three criteria: 1) linguistic context, 2) linguistic distance, and 3) programme design. The first criterion includes the use of the three language in the students' every-day lives. The second criterion concerns the degree of linguistic interrelatedness between the three languages. Finally, the third criterion involves the organizational language teaching model, referring to the planning of simultaneous and/or successive language learning in schools.

2.4 Stimulation of second language development in content-based education

Immersion, content-based language learning, content and language-integrated learning contexts are considered as predominantly communicative language learning contexts in which foreign-, regional- and/or minority languages are used for content learning, and in which first language learning is imitated (Cummins, 2007). To maximize target language exposure and use, and to minimize interference of the first language, language segregation policies used to be the norm in (partial) immersion (Cenoz & Gorter, 2015), based on the following monolingual assumptions (Cummins, 2007):

- Instruction should be carried out in the target language only, and without students' first language as a resource,
- Translation between the first and the second language should be avoided,
- The two languages should be kept rigidly separate.

As the focus is on the learning of content, in content-based education language learning takes place implicitly (R. Ellis, 2009a) and is language acquired instead of learned (Krashen, 1982). Implicit learning can be described as unconscious processing of input without an intention "to find out whether the input information contains regularities and, if so, to work out the concepts and rules with which these regularities can be captured" (Hulstijn, 2005, p. 131). However, there is controversy regarding the construct of unconscious learning and that language can be acquired without awareness (see for a detailed elaboration of this discussion R. Ellis, 2009a). Conversely, implicit learning refers to incidental learning (Schmidt, 1993; Hulstijn, 2005), and which is argued as follows:

"In the areas of second-language education and pedagogy, however, the term incidental learning can still be fruitfully used as a convenient, informal, non-theoretical term referring to the more or less "unintentional", "incidental" acquisition (or "picking up") of language (grammar, vocabulary, orthography, pronunciation, etc.) during the performance of communicative tasks requiring an attentional focus on the meaning and function of language rather than on its form." (Hulstijn, 2003, p. 373)

Related to implicit versus explicit language learning, Krashen (1982) makes a distinction between language acquisition and language learning. Language acquisition is regarded as a subconscious process in which language users are usually unaware of acquiring language, and in which the language users have no explicit knowledge of the acquired language.

However, in the Dynamic Systems Theory it is argued that a language cannot be acquired (De Bot, Chan, Lowie, Plat & Verspoor, 2012; Larsen-Freeman, 2015a). First, it is argued that language cannot be developed in a linear process from no knowledge to advanced skills. Instead of a process of acquiring abstract rules, language development has to be seen as 'the emergence of language abilities through use in real time' (Larsen-Freeman, 2015b, p. 494). As reasoned by Herdina and Jessner (2002), language development is a complex process in which the multilingual repertoire changes over time in a nonlinear way with as a result language growth and/or decline. At the individual level, language development and use varies related to social, psycholinguistic, and individual factors. Second, in the Dynamic Systems Theory it is argued that language cannot be acquired, as acquisition refers to an end state in which a target language is mastered. As also a language develops over time, the target is always moving, and so language development have to be considered as a life-long process without an end state (De Bot et al., 2012). Parallel to language development, also teacher classroom behaviour develops over time related to changing needs and opportunities (Kryridakides & Creemers, 2008; Creemers & Kryridakides, 2009).

2.5 Scaffolding of input, output and interaction in content-based education

To stimulate language development in content-based language teaching, it is commonly accepted that students should be exposed to new language and that student target language use should be promoted. For the exposure and/or language use, the following three theories are widely adopted: Krashen's *input-hypothesis* (Krashen, 1982), Swain's *output-hypothesis* (Swain, 1993, 1995) and Long's *interaction-hypothesis* (Long, 1981).

From Krashen's *input hypothesis* (Krashen, 1982) it is presumed that second language acquisition can *only* take place if the learner is exposed to comprehensible meaningful messages that contain linguistic structure little beyond their current competence level. Understanding of the messages is supported by context

information, learner's general knowledge and by extra-linguistic information (Krashen, 1982). Criticism of Krashen's theory is that there is no clear description of how the input is processed by the learner (Dörnyei, 1991; Verspoor, Lowie & Van Dijk, 2008). Psycholinguistic approaches, applying information processing theories, explore the role of consciousness and metalinguistic awareness (Cenoz & Gorter, 2017). For instance Schmidt (1993) argues that language acquisition is the result of a conscious experience in which there is attention to and noticing of input features. Also Long's interaction hypothesis is addressed to the processing of input. Long's *interaction hypothesis* concerns the stimulation of language learning by conversational interaction between a competent speaker and a language learner, and in which both the input and the interaction is modified by negotiation for meaning (Long, 1981).

Based on a study in French immersion programmes in Ontario (Canada), Swain & Lapkin (1982) showed that the receptive skills of French immersion students appeared to be developed to near nativelike levels, but that the productive language skills remained less nativelike. Therefore, Swain and Lapkin argue that comprehension of input can be beneficial for receptive language development, but that stimulation of comprehensible output is important for second language learning as well for the development of second language speaking and writing skills in content-based education. Therefore, Swain's *output hypothesis*, serves three functions of pushed (or elicited) output for language development: noticing, hypothesis testing, and metalinguistic talk (Swain, 1995; 2001). Firstly, by pushing oral and/or written output learners may become aware of a gap in their linguistic knowledge producing meaning. Noticing a gap may stimulate the learners to solve the gap-problem by paying attention to relevant linguistic aspects. Secondly, learners may use their output for hypothesis testing in which learners test new language forms or language structures to meet communicative needs. Thirdly, output is assumed to have a metalinguistic function by which learners use language to reflect on language use in communicative contexts, irrespective of using metalinguistic terminology or not, and therefore by which conscious focus on language form takes place.

In a revision of his interaction hypothesis, Long suggests that provision of implicit negative feedback can draw the student's attention to mismatches between input and output in negotiation for meaning (Long, 1996). In this respect, it may be useful to mention the Selinker's (1972) concept of interlanguage as a phenomenon

in content-based second language education. Interlanguage is understood as a unique set of non-nativelike utterances of a learner attempting to express meaning in the target language (s)he is learning, which the learner is already able to express in his/her first language. Related to interlanguage, fossilization is as a mechanism by which speakers keep using linguistic items, rules and subsystems of their first language in the target language, and which can be understood as errors rather than mistakes (Selinker, 1972). Correct feedback related to the student's errors in the target language use, can facilitate target language development. Drawing the student's attention to linguistic aspects (vocabulary, words, grammatical structures, pragmatic patterns, etc.) of the target language in meaning making or communicative activities, is what Long (1991) calls focus on form. This focus on form takes place incidentally and has not to be mixed up with focus on forms, which refers to explicit language teaching with the target language as object (Long, 1991). Also Lyster (2007) suggest to draw students' attention to language in communicative settings by not only interactional feedback, but also teacher questioning.

Subsequently, psycholinguists attempt to elicit language development by planning learning activities adapted to information processing theories. From sociolinguistic and sociocultural perspectives, language development is stimulated by engaging students in meaningful activities and in which written and/or audio-visual texts are present (in the classroom) for content-learning or co-construction of knowledge (Lantolf, 2011; Mitchell & Myles, 2004). In this co-construction activities, language is regarded as a cultural tool to mediate these human meaningful mental activities, and in which knowledgeable others (teachers or knowledgeable peers) have a significant mediating role to scaffold development (Lantolf, 2007; Gibbons, 2003; Wells, 2007). Scaffolding is considered as a temporary support over time related to Vygotsky's Zone of Proximal Development to master new and more advanced comprehension strategies autonomously without undermining student engagement. As scaffolding has to be understood as a comprising of a dynamic intervention in teacher-student interaction, which is tailored and responsive to student needs in order to be able to complete a task independently. Consequently, scaffolding includes the following features: contingency, fading over time and transfer of responsibility for a task or for learning (Van de Pol, Volman, Oort & Beishuizen, 2014). According to Gibbons (2003), the feature of contingency is at the heart of teacher scaffolding, as contingency regards the quality of assistance related to the learner's need.

In the literature, numerous teacher scaffolding techniques are described. In her framework for analyses of scaffolding strategies, Van de Pol (2012) makes a distinction between the *scaffolding goals or scaffolding intentions* (regarding the support of student engagement in the learning activities) and *scaffolding means or tools* (regarding how scaffolding takes place). The scaffolding intentions include a) support of metacognitive activities regarding direction maintenance, b) support of cognitive activities regarding the cognitive structuring and reduction of degrees of freedom (task accommodation related to student current performance abilities), and c) support of student affect regarding recruitment and contingency management or frustration control. Regarding scaffolding means or tools to support student learning activities, Van de Pol lists the following six scaffolding means: feeding back, hints, instructing, explaining, modelling and questioning (Van de Pol, Volman & Beish, 2012). Scaffolding however is not unequivocally effective (Van de Pol, Volman, Oort & Beishuizen, 2015), and that the effectiveness of scaffolding is related to the contingency and fading of it (Van de Pol, Mercer & Volman, 2019). Therefore, the scaffolding support needs to meet the students' needs until the students 'have reached a suitable level of understanding to be able to apply it' (p. 236).

From sociolinguistic and ecologic accounts, scaffolding of second language use can also take place by the use of the student's whole linguistic repertoire including the student's first language (L1) (Cenoz & Gorter, 2011; Meier, 2017). The L1 can be used as a resource for second language development, classroom management, and as support in the performance of cognitively demanding subjects. Regarding language development, L1 can serve as pre-knowledge for second language learning (Butzkamm, 2011), and can be used to reflect on linguistic knowledge, and to develop language awareness (Cummins, 2007). As part of classroom management, teachers can use the student's L1 for initiating and maintaining interrelationships, and to maintain engagement (Storch & Aldosari, 2013). Addressed to cognitively demanding subjects, teachers can use the students' L1 as support for the focus on goals, instruction and/or explanation of new meaning and new material (Cook, 2001; Swain & Lapkin, 2000). Also students use their L1 for the performance of cognitive demanding tasks. At the intrapersonal level, students use their L1 to externalize one's inner speech during cognitively demanding activities (Swain & Lapkin, 2000; Storch & Aldosari, 2013). In student-student negotiation, the L1 students use their L1 to support planning,

discussion and evaluation of strategies for task execution including co-operation in collaborative problem-solving and knowledge-building activities (Swain & Lapkin, 2000).

However, accepting the use of L1 to scaffold L2-use in content-based education can provide both teachers and students with an escape to use the students' mother tongue in favour of the target language (Turnbull, 2001; Cenoz & Gorter, 2017). To stimulate language development, target language use is crucial, certainly in cases in which the target language is rarely used outside the classroom (Turnbull, 2001).

2.6 Translanguaging as a holistic approach to stimulate the use the students' whole linguistic repertoire

Related to the holistic view on language in the individuals mind, holistic approaches in multilingual education have been developed including mixed language practices in the classroom (Cenoz & Gorter, 2015).

In their holistic approach 'Focus on multilingualism' Cenoz and Gorter (2011; 2015) suggest an approach for both teaching and research that proposes 'soft boundaries between languages and relates the way multilingual students use their communicative resources in spontaneous conversation to the way languages are learned and taught at school' (Cenoz & Gorter, 2015, p. 8). Cenoz and Gorter present a model that uses a continuum from *becoming multilingual* to *being multilingual*, and in which translanguaging practices are included for different means: the learning of language and the multiple language use in everyday life. In this model, *becoming multilingual* concerns the process of the development of communicative competence in the additional language, and entails *being multilingual* the achievement of linguistic aims and the way language development is used in and outside the school context. Also from this model, translanguaging is a widely adopted and in different directions elaborated holistic approach in which the students are enabled to use their whole linguistic repertoire (Cenoz & Gorter, 2015; Wei, 2018). Depending on the position in the continuum, the students' linguistic repertoires serve different purposes including for instance: language as target, languages for use for different purposes and in different ways, and language as springboard to scaffold additional language development.

Translanguaging (in Welsh: trawsiethu) was originally introduced by Williams as a pedagogical approach emphasizing both the cognitive learning process and bilingual outcomes, tuned to the bilingual's nature of thinking, understanding and achieving (Lewis, Jones & Baker, 2012a). In this pedagogical approach, bilingual language use is systematically planned for teaching and learning within the same lesson. As such, the input of new content (listening and/or reading) is in one language, and the output of constructed knowledge (speaking and/or writing) in the other language. For this, Baker (2011) suggests four potential educational advantages:

- promotion of deeper and fuller understanding of content;
- support of development of the weaker language;
- facilitation of home-school links and co-operation;
- and support of integration of fluent speakers with early learners.

Regarding knowledge construction, Lewis, Jones & Baker (2012b.) argue that translanguaging activities stimulate learners to reprocess content, rather than copying and/or translating information, which has positive effects on learning both languages and fully understanding content meaning.

Further uptake or adaption of the original Welsh practice of translanguaging lead to both translanguaging as respectively sociolinguistic and psycholinguistic approaches (Lewis et al, 2012a; Cenoz & Gorter, 2015). From as sociolinguistic perspective, translanguaging has developed as an emancipatory approach in which students (and especially students speaking a minoritized named language) are enabled to deploy their full linguistic repertoire or idiolect (Otheguy et al., 2015). Wei's conceptualization of translanguaging is built on the psycholinguistic notion of languaging. In a cognitive process in which their full language repertoire is used for knowledge construction and problem-solving, multilinguals switch between different linguistic systems including different modalities (speaking, writing, listening, reading, gesturing) in a natural and dynamic way (Wei, 2011; 2018).

Also in current pedagogical practice, the Welsh model of translanguaging has developed into a direction in which linguistic repertoires are used in different manners. Lewis et al. (2012a) report bilingual practices including combinations

of the following planning formats using one or two languages for reading, one or two languages for classroom discussion (and thus speaking and listening), one language (either English or Welsh) for teacher explanation and summarizing, and one language (either English or Welsh) for written task-completion.

As an pedagogic approach, translanguaging is aimed at the use of the student's full linguistic repertoire. Besides, actual language use in the classroom room has to be considered as a social phenomenon. As such, related to social pressure, dominant language use can have a negative effect on minority language and foreign language use (Blackledge & Creese, 2010; Cenoz & Gorter, 2017). Therefore, Cenoz & Gorter (2017) promote the design of 'breathing spaces' (Fishman, 1991) for target language use, in which 'the minority language can be freely used and without the threat of the majority language' (Cenoz & Gorter, 2017, p. 909).

2.7 Measurement of language development

Related to views on language and language learning, there are different perspectives and different terms used to evaluate and describe language learning outcomes, and in which the term competence is used (e.g. Llurda, 2000; Xia, 2014).

Objectives from a psycholinguistic perspective emphasizes linguistic competence including linguistic knowledge and the linguistic skills: listening, reading, speaking and writing (Hulstijn, 2011). However, from a psycholinguists view language proficiency is related to the combination of knowledge about language and language use, defining linguistic competences and communicative competences (Hulstijn, Ellis & Eskildse, 2015). Linguistic competences include phonological, morphological, syntactic, lexical and pragmatic knowledge of language in oral and written communication, whilst communicative competences include oral and written language use (Hulstijn et al., 2015). A second psycholinguistic point of interest in (second) language performance is the measuring of complexity (the use of more advanced language constructions and vocabulary), accuracy (the avoidance of errors) and fluency (the speed of speech including the rate of interruptions) (Ellis, 2000; Robinson, 2011; Skehan, 2009). Specifically for second language performance, Skehan (2009) also includes the measurement of lexis as for non-native language users (as the areas of complexity and lexis are not integrated that well for non-native speakers).

Rooted in the communicative paradigm, the Common European Framework of References (CEFR) offers one of the means to assess non-native language proficiency addressing the five communication domains (speaking, dialogue, listening, reading and writing), and in which six levels (from A1 up to C2) are discriminated (Hulstijn, 2011; 2014; Gorter & Cenoz, 2017). Besides the use for assessment of foreign language proficiency, the CEFR is also used for the development of evaluation instruments regarding native language proficiency (Gorter & Cenoz, 2017).

Besides offering the basis for proficiency assessments, the CEFR-description are in use for both the planning of language curricula and the development of teaching and learning materials (Gorter & Cenoz, 2017). Cenoz and Gorter (2011, 2017) emphasize the need to look for approaches in assessment in which multilinguals are treated multilingually, instead of deficient speakers of their additional languages. Namely, language development of multilinguals is different from that of bilinguals, and multilingual speakers use language differently in social contexts. Furthermore, multilinguals use their knowledge of one language to comprehend vocabulary and text in another language (Hoff, 2013). Therefore, planning language assessment for multilinguals should take into account 1) the way languages are used for testing, 2) assessing the whole linguistic repertoire, and 3) the scoring of language development related to the student's linguistic background (Gorter & Cenoz, 2017).

2.8 Summary

Generally in multilingual education two or more languages are included whether there are two or more student home languages, and/or the education is aimed at more than one target language. Related to among others student home language(s) and the educational aims, different models and programmes are used in schools. Regarding the programmes, it is argued that students with different linguistic backgrounds have different needs.

These models and programmes can be characterized as monolingualistic, weak or strong forms of multilingual education. Secondly, language learning programmes can be characterized by the use of a continuum from language classes only to immersion programmes. On that continuum, content and language integrated learning can be seen as a partial immersion approach in which target language use is stimulated in content lessons.

The process of language development can be seen as a complex life-long non-linear process over time in which the target is moving. In this process language development is related to both psychological and social factors including the out-of-school context, which also develops over time depending on the change of student's needs and opportunities. Both teachers and peers can contribute to the individual process as interlocutors in interaction, and can scaffold the learning process by, for instance, questioning and interactional feedback. *Visa versa*, teacher and peer interactional behaviour is also related to the learners' language development. To support language use, scaffolding is considered as a temporary support related to the zone of approximate development, to master new and more advances comprehension strategies autonomously without undermining student engagement. Therefore different proactive and reactive teacher scaffolding practices are distinguished, which capture the scaffolding means listed by Van de Pol et al. (2010): feeding back, hints, instructing, explaining, modelling and questioning.

Implicit language learning contexts are regarded as content-based and communicative language learning contexts in which language use is stimulated by engaging students in meaning-making activities. To that end, language use and therefore language development is stimulated by interaction of integrating comprehensible input and modified output. Besides scaffolding support of both teachers and peers, the learner's reflection or metalinguistic awareness stimulates uptake. Consequently, to promote language development both student language use and student linguistic reflection should be encouraged.

Moreover, from a holistic view in which multilinguals cannot be regarded as individuals with two or more named languages in one mind and that multilinguals have to be treated multilingually, the students' whole linguistic repertoire can be used to scaffold language use and development. In Cenoz and Gorter's (2015) continuum from becoming to being multilingual, the students' L1 and other languages are used as resources for both scaffolding language learning and (natural) communication, and includes translanguaging practices.

Related to the problems definition referring to the exploration of CLIL practices in the Frisian trilingual primary schools, the next chapter is addressed to content and language integrated learning as a content-based language teaching approach.

Chapter 3

Content and Language Integrated Learning

3.1 Introduction

Content and Language Integrated Learning (CLIL) is an educational approach in multilingual education predominantly fostered in Europe, Asia and the South American continent (e.g. Lasagabaster & Sierra, 2010; Dalton-Puffer, 2011). In Europe CLIL is a fast growing approach related to European language policy, known as 'the Mother tongue + 2 policy', to promote multilingualism (e.g. Dalton-Puffer, 2011; Ruiz de Zarobe, 2013). Despite some initial discord, it can be assumed that the target language can involve both foreign languages and regional and/or autochthon minority languages (Cenoz et al., 2014; Pérez-Cañado, 2012; Ruiz de Zarobe, 2013). Furthermore, diversity in innovation processes (Hüttner, Dalton-Puffer & Smit, 2013; Ruiz de Zarobe, 2013; Sylvén, 2013), sociocultural settings and educational policies (Coyle, 2007) has led to a variety of practices and models (e.g. Hüttner et al., 2013; Ruiz de Zarobe, 2013; Sylvén, 2013). As CLIL can include different languages and can be carried out in various ways, CLIL is often characterized as an umbrella term (Cenoz et al., 2014; Dalton-Puffer, Llinares, Lorenzo & Nikula, 2014; Marsh, 2008).

However, it is generally accepted that CLIL concerns time scheduled content lessons parallel to language lessons and that (in secondary education) CLIL lessons are taught by content-trained teachers (Coyle, 2007; Dalton-Puffer et al. 2014). In these CLIL-lessons, additional languages are used as language of communication and instruction for academic content learning (Cenoz, 2015; Llinares & Pastrana, 2013; Ruiz de Zarobe, 2013). Therefore, CLIL can be characterized as a communicative approach stimulating both content learning and implicit language development (Heras & Lasagabaster, 2015). Reported benefits of CLIL on language development reflect this characterization of CLIL as a communicative approach. For instance, Dalton-Puffer (2011) reports that CLIL-students demonstrate larger receptive and productive lexicon, with a wider stylistic range and more appropriate use, a wider range of both lexical and morphosyntactic resources, deployed in more elaborate and with more complex structures, and a higher degree of accuracy. Also, Pérez-Cañado (2012) reports significant higher levels for global communicative competence, receptive skills, speaking fluency, morphology use, fluency of writing, lexical and syntactical complexity of writing in the target language. Additionally, positive CLIL-outcomes regarding pronunciation (Lasagabaster, 2008) and reading comprehension skills (Admiraal, Westhoff & De Bot, 2006) are reported. In the Netherlands, Verspoor &

Edelenbos (2009) found that CLIL students not only scored better on the average language skills in English, but also demonstrated more authentic language use than non-CLIL students.

Criticism concerning research outcomes in the field of CLIL are addressed to the comparability of CLIL programmes including policies (e.g. Sylvén, 2013), learner variables such as motivation, gender, intelligence and socio-economic status (e.g. Bruton, 2011, 2015), and out of school exposure (e.g. Sylvén, 2013). Apart from some methodological issues, for instance Bruton (2011; 2013; 2015) and (Cenoz et al., 2014) argue that the only benefit of CLIL is that extra time is created in the curriculum for additional language development, and that the reported benefits of CLIL-programmes can be learned in language lessons as well.

Concerned with outcomes of content-learning in CLIL, Pérez-Cañado (2012) reports that CLIL-students in primary, secondary and tertiary education achieve the same amount of content knowledge than their non-CLIL peers, and that in some cases the CLIL-students even outperform L1-students content learning-wise. Dalton-Puffer (2011) however concludes that findings on content-learning outcomes are less conclusive than those on language-learning outcomes, and that studies show neither a positive nor a negative effect of CLIL on subject knowledge learning. Concerned with outcomes of content-learning in CLIL, Dalton-Puffer (2011) concludes that findings on content-learning outcomes are less conclusive than those on language-learning outcomes. Moreover, Dalton-Puffer reports that learning in an additional language is a hindrance for active participation in the classroom and relevant subject-based language use.

Regarding the promotion of both content learning and language development, the following sections discuss the pedagogy of CLIL, the implementation of tasks and the scaffolding of language use in task completion.

3.2 The stimulation of integration in CLIL

By conducting the 4C's Framework, Coyle (2007) offers a pedagogical conceptualization of CLIL based on the sociocultural view on second language learning, and in which language is used and developed *of* learning, *for* learning and *through* learning. From the stance that language and thinking are related, and that the planning of learning environments should take into account the relation between the level of language needed and the cognitive demands of the

learning activities, Cummins' matrix of Basic Interpersonal Communicative Skills and Cognitive Academic Language Proficiency (BICS & CALP) has been adapted (Coyle, 2007). The 4C's Framework includes *culture* (at the core of the framework), *content*, *communication*, and *cognition*.

In essence, the 4Cs Framework suggests that it is through progression in knowledge, skills and understanding of the content, engagement in associated cognitive processing, interaction in the communicative context, the development of appropriate language knowledge and skills as well as experiencing a deepening intercultural awareness that effective CLIL takes place. It also suggests a much closer connection to learning and teaching research agendas in both mother tongue and second language settings. (Coyle, 2007, p. 550)

More recently, Lin (2015), Llinares (2015). Meyer (2010) and Meyer, Coyle, Halbach, Schuck and & Ting (2015) focus on the understanding and stimulation of 'integration' in CLIL. Whilst both Lin and Linares respectively focus on use of text genres for the integration of both language and knowledge development, Meyer et al.'s focus is on the stimulation of richer learning experiences by a number of pedagogic arrangements including text genres for both input and output.

Regarding the concept of integration, Llinares (2015, p. 64) assumes that it is 'necessary to identify and describe the different ways in which knowledge is shaped in academic discourse in different disciplines (genres) and how this is realized through lexico-grammar (register)'. Also Lin (2015) argues that regarding the integration of language and knowledge development students should be engaged by multimodal genres: both academic and non-academic, both written and spoken texts, and furthermore using L1 and L2. To accomplish the realization of knowledge development through language use, Llinares (2015) suggests a process including the analyses of both classroom interaction and the role of different activities or tasks. To do so, Meyer (2010) developed the CLIL-Pyramid proving a systematical sequence for successful and sustainable task-design and teaching. This sequence starts with topic selection and ends with a review of key content and language elements (the so-called CLIL workout). The task-design and teaching involves the provision of multimodal input, the stimulation of higher order thinking skills and authentic communication, the stimulation of multimodal output by the use of

different genres (Llinares, 2015) or modalities, and the provision of both input- and output-scaffolding for successful elaboration.

Further development of the CLIL-Pyramid led to the pluriliteracies approach to content and language integrated learning promoting richer learning experiences (Meyer et al., 2015). In this approach, students are offered systematic support and opportunities for co-construction of knowledge in different languages and in different genres. In such CLIL learning environments, teacher provide students:

- rich subject-specific multimodal input, built on challenging tasks to engage learners in a process of co-constructing knowledge in different languages;
- opportunities for learners to demonstrate their understanding and to apply their knowledge across languages in different styles, various modes and for different purposes;
- language learning which takes account of linguistic development but does not make assumptions that language learning development in these contexts has to be conceptualised separately or differently from subject progression;
- learning tasks and activities which seriously challenge the notion that for learners to succeed they have to already have a particular level of the CLIL language such as a grounding in BICS;
- spaces for reflection and awareness-raising;
- authentic problem-solving tasks;
- opportunities to move beyond 'knowledge about' and into 'knowledge of' and towards an education that promotes idea improvement and knowledge building (.....);
- feedback and scaffolding by literacy-aware teachers intent on empowering learners to actively and increasingly participate in the complex discourses of a globally connected world.

(Meyer et al. 2015, p. 52/53)

Central to this approach is the conduction and execution of authentic problem-solving task providing opportunities for multimodal language use for meaning making including space for reflection and feedback provision. To get more insight in the planning and use of tasks, first knowledge from the field of task-based language teaching will be presented about both task-design and task-

implementation. Additionally, at the micro-level, knowledge will be presented about the stimulation of student discourse participation and interactional corrective feedback to stimulate target language use.

3.3 What in CLIL can be learned from Task Based Language Teaching?

Task-Based Language Teaching (TBLT) is a relatively young content-based approach, in which language use and language development is stimulated in communicative and meaning focused tasks (Bruton, 2005; Bygate, 2016b; Ellis, 2014; Ortega, 2015). Similar to other types of content-based education, in TBLT the stimulation of interaction is related to the provision of input, the eliciting of modified output, and provision of corrective feedback (Pica, 2005; Robinson, 2011). As in TBLT much research has been related to the stimulation of language use by task-design (Bygate, 2016a), this section is concerned with the question what in CLIL can be learned from TBLT.

According to Candlin (2009), tasks do promote an optimal environment for communicative language learning, as in tasks students are encouraged to actively respond, explore, and participate in meaningful communication with fellow students. Therefore, to characterize such tasks Candlin (2009, p. 26) defines a communicative language learning task as:

‘One of a set of differentiated, sequenceable problem-posing activities involving learners and teachers in joint selection from a range of varied cognitive and communicative procedures applied to existing and new knowledge in the collective exploration and pursuance of foreseen or emergent goals within a social milieu.’

To come to an understanding of the concept of task, a distinction has to be made between ‘task’ and ‘exercise’ Ellis (2000, 2014). According to Ellis (2000, 2014) exercises are form focused, and is the correct display of the target feature meant for future real-world use. Conversely, tasks are meaning-focused and aim to achieve communicative abilities by engaging students in natural communicative activities.

From the socio-cultural view it is theorized that meaningful and communicative tasks can promote the students’ engagement (Van Oers, 2012). In this view,

meaningfulness refers to 'what makes personal sense for the students' or a cultural significance rather than content as rational phenomenon. Therefore, meaningful education should address learning outcomes that have a cultural significance, and so include the use of authentic (problem-solving) tasks related to 'the real-world'. Concerning authentic task, a distinction can be made between pedagogic tasks and real-world tasks, both meant to promote collaborative dialogue (Ellis, 2009b; Bygate, 2016a). Pedagogic tasks are planned to stimulate 'interactional authenticity' or 'normal target language use' in the classroom (Bygate, 2016a). In comparison, real-world tasks are aimed at 'situational authenticity' related to language use expected outside the classroom setting (Bygate, 2016a; Long, Granena & Yilmaz, 2016).

For the design of these pedagogic and/or real-world tasks, the following general task criteria listed by Ellis (2009b, p. 223) are widely recognized:

- The primary focus should be on 'meaning' (by which is meant that learners should be mainly concerned with processing the semantic and pragmatic meaning of utterances).
- There should be some kind of 'gap' (i.e. a need to convey information, to express an opinion or to infer meaning).
- Learners should largely have to rely on their own resources (linguistic and non-linguistic) in order to complete the activity.
- There is a clearly defined outcome other than the use of language (i.e. the language serves as the means for achieving the outcome, not as an end in its own right).

To stimulate particular types of interaction including negotiation and/or participants variables such as gender and familiarity, some scholars are interested in the effect of task conditions (Robinson, 2011). For instance, Pica, Kanagy & Falodun (1993) present a typology of communicative tasks related to participant roles, participant requirements in communicating and information exchange, and task-goals: jigsaw, information-gap, problem-solving, decision-making and opinion exchange. Robinson's (2011) critic at Pica's division of task descriptions is that discriminating only five task types is not detailed and it fails to provide information about how task types can be sequenced optimally for learners. Mackey (2012) accepts Pica's division of task-types, but argues that there are numerous dimensions by which

tasks can be differentiated to manipulate features of learners' interaction, the kind of interactional feedback learners receive, and kind of output learners produce. Therefore, Mackey (2012) lists the following generally discussed continuums for task design:

- one-way versus two-way tasks,
- open versus closed tasks,
- convergent versus divergent tasks,
- focused versus unfocused tasks.

The first continuum (*one-way versus two-way tasks*) concerns the information exchange between two students. In a one-way task monologic information transmission is stimulated from one student to the other. In two-way tasks, interaction is stimulated by reciprocal information exchange stimulating dialogic language use. The continuums *open versus closed tasks* and *convergent versus divergent tasks* may look quite similar. However, the former continuum is related to the type and number of answers. In closed tasks there is one correct and predetermined answer involved, and open tasks are aimed to come up with multiple answers. In comparison, the continuum convergent versus divergent tasks regards the process of negotiation. By convergent tasks the students are encouraged to come to a consensus, whilst divergent tasks are for instance aimed at different solutions or opinions. Finally, the fourth continuum is related to the stimulation of the type of language use. In focused tasks specific and predetermined target language use is stimulated, whilst unfocused tasks are aimed at the practice of general communication in the target language.

Based on the hypotheses that, opposed to simple task demands, complex task demands will lead to more accurate and more complex language use, Robinson (2011) argues that besides task conditions also task complexity and task difficulty have to be taken into account for task planning. From the latter, task complexity concerns the manipulation of firstly cognitive or conceptual demands and secondly performative or procedural demands such as planning time and task structure. Task difficulty involves the individual differences in learner factors and includes the attunement to cognitive and affective factors.

In contrast to paradigms focused on task characteristics to stimulated types of target language use, both Bygate (2016a; 2016b) and Skehan (1996; 2009) focus

on task planning and/or task structuring to stimulate academic language learning integrating complexity, accuracy, lexis and fluency.

Firstly, Bygate (2016a) suggests that task repetition, defined as 'repetition of the same or similar task' (p. 393), can help students to combine a focus on meaning and form, and to produce more complex language accurately and fluently.

Secondly, Skehan's approved three-phase lesson structure includes a pre-task, a during-task and a post-task (Skehan, 1996; 2009; Bygate, 2016a; Van den Branden, 2016). From this structure, the pre-task concerns an introduction task in which the students are informed about for instance the nature and purpose of the during-task, and in which input materials are presented and aims are shared. Regarding the planning of activities in these lesson-phases, Llinares & Dalton-Puffer (2015) lists four different formats that are more or less commonly used in CLIL-practices in three European countries (Austria, Finland and Spain): whole-class discussion, group-work discussion, student-presentation, and role-play. The format of interview (an individual oral assessment) was additionally planned as an atypical format for research purposes to stimulate student reflection on content learning. As it shows that all of these five formats have different strengths and engage students in the use of different types of language use, Llinares & Dalton-Puffer (2015) recommend using this range of tasks in the CLIL- lessons, and especially to include role-play.

The during-task concerns the second lesson phase. One condition in this phase is that students are working independently on interactive and meaning focused task, supported by the circulating teacher. The post-task is the final phase of the task structure in which presentation of the outcomes of the during-task are presented, orally and/or written and in the target language. The planning of a post-task in which students are stimulated to subsequently transcribe their own performance can effect in online-planning a second during-task condition (Skehan, 2016), and promote focus on form (Foster & Skehan, 2013). Online-planning concerns the preparation of the presentation, including preparation of formulation of utterances more carefully with positive effects on complexity and accuracy over fluency (R. Ellis, 2009a). The planning of a post-task to stimulate online-planning in the during-task, can possibly be related to Hulstijn & Laufer's (2001) Involvement Load Hypothesis (ILH). In this theory, involvement is perceived as motivational-cognitive construct which can explain and predict learners' success in incidental vocabulary learning, and which consist of three dimensions: *need*, *search* and

evaluation (Laufer & Hulstijn, 2001). The notion of need for achievement is the motivational dimension of involvement affecting both learner's elaboration of information, and "a drive to comply with the task requirements, whereby the task requirements can be either externally imposed or self-imposed" (Laufer & Hulstijn, 2001, p. 14). *Search* and *evaluation* are considered as the cognitive factors in the incidental language learning process. From these two concepts search is understood as the attempt to find the meaning of unknown vocabulary for comprehension of input or modifying output by the use of a dictionary or another authority. Evaluation refers to learner's assessing whether a word would fit its context. In the case of planning a post-tasks, it may be possible that students are provided with a need for target language use, stimulating search and evaluation acts in their online-planning.

Compared to Bygate's (1999, 2009) task-repetition theory, target language performance in third-phase can be considered as a repetition of the performance in the prior phase (Skehan, 2009). Bygate (2016a) argues that post-tasks 1) ensure that students' on-task work leads to language use which can be appraised by the teacher and re-shaped via teacher feedback or self-correction, and 2) provide opportunities for relevant form-focused language practice on features they might have had difficulty with in the context of the task.

For successful implementation and the scaffolding of language development in TBLT, following Van den Branden (2016) the teacher has a key position. To describe teacher roles in TBLT, Van den Branden (2016) makes a connection between the practices of TBLT and Hattie's (2008, 2012b) work related to research in the more general field of effectiveness of education. For both the planning and the execution of tasks, Van den Branden describes the 7 C's model as a model that captures the major findings regarding effective teacher behaviour. In this 7 C's model, teachers do

- care about students and their feelings about things;
- control behaviour by focusing on both students' time-on-task and respectful student behavior;
- clarify content by explaining topics clearly and in different ways;
- challenge students to learn a lot by stimulating their full effort and determination, and stimulating student to learn from mistakes;

- captivate students by choosing interesting topics and content, and making lessons enjoyable;
- confer student's contribution by letting students share their ideas and letting student express their thoughts regarding decision making;
- consolidate the learning by checking understanding of what has been taught, giving feedback and comments on how student work can be improved, and summarizing learning gains.

(Hattie, 2012b; Van den Branden, 2016)

Regarding the scaffolding of language development, scaffolding is recognized as a distinctive feature of excellent teaching (Van de Pol et al., 2014), and often claimed to be effective in stimulating students' engagement or on-task behavior and achievement (Van de Pol, 2012). To implement successful scaffolding in student-centered learning environments, teachers should diagnose student's needs, check the diagnoses, employ intervention strategies and check for learning (Van de Pol et al., 2014).

Van den Branden (2016) describes three main teacher roles to scaffold language development: the teacher as motivator, the teacher as organizer, and the teacher as conversational partner and supporter. Actions of the teacher as a motivator are for instance: highlighting goals, emphasizing the usefulness of the tasks in real life, and raising interesting questions or pursuing a topic introduced by students. The teacher as an organizer provides for example clear task instruction, organizes turn-taking during whole class discussions, organizes small group work, and maintains control. Lastly, the teacher as a conversational partner and supporter related to language development in content-based education. To scaffold language development, teachers have to deal with:

- engaging in the negotiation of meaning whilst the learners are trying to deal with the input and output task demands;
- producing a wide variety of questions, cues, and prompts to elicit the learners' output;
- providing feedback on the students' oral and written output, by among others explicit corrections, recasts, conformation and clarification requests, metalinguistic comments, extensions, and elaborations;

- incorporating a focus on form in learners' meaning-oriented task execution;
- providing ample input;
- modelling or practicing task performance or using a certain strategy.

Related to this list, Lyster (2007) advocates the application of both teacher questioning and teacher interactional feedback to stimulate the quality of interaction. The next two subsections are addressed to the way teacher-student-interaction can be stimulated and what interactional-feedback techniques can be used to draw student's attention to form.

3.4 Scaffolding of student target language use in classroom discourse

Discourse, the interaction between a teacher and students regarding the construction of knowledge, can take place in small group work and in whole classroom discussion (e.g. Gibbons, 1998). To explore the nature of discourse, a distinction can be made between monologic and dialogic discourse, from which it is argued that dialogic discourse is more productive for co-construction and sharing knowledge (e.g. Cazden, 1986; Wells & Arauz, 2006).

Monologic discourse is seen as an instrumental teacher-led approach, aimed at teacher goals and concerned with the transmission of knowledge to students (Lyle, 2008), considers only one valid perspective (Wells & Arauz, 2006; Wells, 2007), and provides the basis for among others Direct Instruction (Lyle, 2008). In monologic interaction often Mehan's *basic elicitation sequence* or the *initiation - response - evaluation/feedback sequence* is in use (e.g. Wells, 2007; Michaels & O'Connor, 2015). In this sequence, teachers lead students to correct answers initiated by known information questions (also display questions or test questions), and acceptance (evaluation) of expected student replies (response). Extension of this sequence can take place in case of unexpected answers by for instance teacher prompting, repetition, and/or simplification of elicitation (Mehan, 1979). Critics on the I-R-F structure argue that in a monologic model, interactive language use is hardly stimulated. To promote more interaction in a teacher-led discourse, the I-R-F-sequence was elaborated to a series of student responses, replacing feedback by follow-up (Nassaji & Wells, 2000; Wells, 2007, 2009). In case of a follow-up, the additional student responses are elicited by for instance clarification or expansion requests. Apposed to monologic discourse, dialogic discourse is aimed

at the co-creation and sharing of knowledge and taking different perspectives into consideration (Wells & Arauz, 2006; Wells, 2007). Furthermore, dialogic discourse can be initiated by both teacher and students (Walsh, 2011), usually by referential questions (Brock, 1986) or information seeking questions (Walsweer, 2015).

Walsweer (2015) describes four participation frames: the monologic participation frame, the limited interactive participation frame, the dialogic participation frame and the discussion frame. From this participation frames, in the dialogic participation frame and the discussion frame dialogic discourse is stimulated, offering students opportunities to co-construct knowledge and to achieve understanding. In the dialogic participation frame, discourse concerns predominantly teacher led interaction in which the I-R-E structure is in use now and then. However, in this frame, the discourse is initiated by information seeking questions, and the teachers reacts on student contributions by asking for clarification or expansion, by explaining, critical response, suggestions, etcetera. In the discussion frame the I-R-E structure is not in use, and the relation teacher-students is more symmetric. In the discussion frame both students and the teacher initiate, present ideas and solution simultaneously.

For the stimulation of student contributions in meaning negotiation, O'Connor & Michaels (2019) use the concept of 'talk moves', which are defined as 'roughly utterance-sized units of talk' (p. 168). To that, teacher interventions are directed to continuous student contributions or elaborations, and include teacher's eliciting on student's previous contribution and asking students to say more. Teacher techniques to increase student contributions entail for instance: asking for clarification or verification (by among others revoicing), invitation for giving examples, and simple request for saying more. Related to these teacher techniques, Van der Veen, Van der Wilt, Van Kruistum and Van Oers (2017b) describe five productive talk tools for teachers. For that, Van der Veen, De Mey, Van Kruistum and Van Oers (2017a) and Van der Veen et al. (2017b) adapted Michaels and O'Connor's (2015) categories of teacher talk moves and completed the list with a fifth move directed to the metacognitive level:

- encourage students to share, expand and clarify their thoughts by inviting them to take time to think, by stimulating students to say more, and by revoicing;
- encourage students to listen carefully to one another and taking another's ideas seriously by stimulating students to repeat or rephrase peer-students contributions;
- encourage students to deepen their reasoning by asking students for explanation and by challenging students by counterexamples;
- encourage students to think together and build on another's ideas, by asking for (dis)agreement, adding and explanation to another;
- encourage students to reflect on their communicative performance and the understandability of their oral messages, by metacognitive guidance and discussing conversational ground rules.

3.5 Interactional corrective feedback to scaffold target language use

As mentioned, classroom interaction stimulates student target language use and offers teachers opportunities to provide students with feedback on their interlanguage utterances. Moreover, interactional teacher feedback is seen as a teacher scaffold technique to promote the learner's attention to form, associated with learner's uptake, in order to stimulate language development (e.g. Ellis, 2013). Hattie and Timperley (2007) define feedback as "information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding" (p. 81), and has not to mixed up with praise (Hattie, 2012a). Regarding the distinction between positive feedback (stressed on correct target language use) and negative feedback (information provided in reaction to errors in target language use), there is a broad consensus that provision of negative or corrective feedback (CF) is more effective than positive feedback (Ellis, 2013). Corrective feedback can be provided both implicitly and explicitly, from which in explicit feedback an error is indicated overtly and in implicit feedback it is not (Ellis, Loewen & Erlam, 2006). For both implicit and explicit feedback, different types of feedback can be applied, from which according to Lyster & Ranta (1997) students are more actively engaged when the feedback sequences stimulate negotiation of form. However, comparison of the benefits of the different types of CF is problematic as there is controversy regarding

the operationalization of the measurement of uptake (the student's response to feedback). Firstly, uptake can be defined differently comprising a range of student responses to feedback, from simple acknowledgements of the feedback to corrective reformulations of errors. Secondly, research addressed to effects of feedback can concern both immediate uptake and/or long-term effects on language development (Egi, 2010). Furthermore, the quality of student's uptake is also related to contextual, instructional, discourse, and interlocutor factors (Egi, 2010; Llinares & Lyster, 2015), and also to the student's age (Ellis, 2013; Lyster & Ranta, 2013).

However, according to Ellis (2013) there is a broad consensus about the following factors of effective feedback practices:

- CF is more important than positive feedback;
- CF must not have a negative impact on learners;
- CF should not interrupt students utterances in communicative activities addressed to fluency;
- over-corrective use of CF needs to be avoided, and so CF should be provided selectively;
- a wide variety of types of CF should be employed, preferably those strategies fostering student self-correction and;
- explicit teacher correction is the least favourite technique but sometimes necessary.

Regarding the variety of CF types, the following range of interactional CF-techniques suggested by Lyster & Ranta (1997; 2013) broadly adapted in SLA education (e.g. Brown, 2016; Ellis, 2013; Llinares & Lyster, 2014): recasts, repetition, metalinguistic clues, elicitations for self-repair, clarification requests, and explicit correction. Recasts are generally implicit corrections by including translations in the teacher's response to the learner's incorrect utterance. Repetition is the technique of repeating a corrected student utterance in isolation. Metalinguistic feedback contains explicit comments, information or questions referring to the student's error, and elicitation refers to at least three strategies by which the student is explicitly prompted for self-correction. These three strategies include for instance: explicit elicitation (use a question to elicit the correct target language

use), explicit asking for reformulation, and elicit to complete a teacher's utterance. Clarification requests entail the teacher's responses to indicate (s) he misunderstood the learner's utterance, and explicit error correction refers to provision of correct form by the teacher.

These six CF techniques can be divided in implicit and explicit feedback techniques, and also in input-providing CF and output-prompting CF (Ellis, 2013). From the latter, input-providing CF (recasts and explicit correction) provide the student with information about correct target language use. On the other hand, output prompting output (repetition, elicitation, clarification and metalinguistic clues) is addressed to student self-correction and so immediate correct target language use (Brown, 2016; Ellis, 2013).

3.6 Summary

CLIL can be described as an educational approach in which implicit language development is stimulated in content-based language learning contexts. Regarding effects of CLIL-approaches on language development, in general positive effects on authentic language and/or communicative competence including more complex, more accurate and more fluent language use. Furthermore, positive effects have been found for lexis and comprehension skills (listening and reading). As far as known, no negative effects have been found for content learning. However, CLIL practice and language development in CLIL is among others related to language exposure out-of-school contexts.

To stimulate more in-depth content learning and richer language development, Meyer et al. (2015) suggest an integral pluralinguistic CLIL-approach regarding the planning authentic problem-solving tasks in which a particular language level is expected. In this pluralinguistic approach, students are encouraged to use their whole linguistic repertoire including different modalities and different genres, in which student's higher-order thinking is stimulated by promotion of reflection. Comparable to CLIL, in task-based language teaching language development is encouraged by meaning focused communicative tasks by which interaction and therefore target language use is activated. From research in TBLT can be learned that both task-types and task-structures can promote specific target language use. Regarding task-design, Ellis' task criteria are broadly adopted in which there is a kind of a gap in meaning focused tasks to stimulate the use of students' linguistic and non-linguistic resources. Regarding the nature of tasks, a distinction

can be made between pedagogic tasks (aimed at interactional authenticity) and real-world tasks (aimed at situational authenticity).

Skehan's three-phase lesson structure focuses on stimulation of communicative competence by including a pre-phase (or orientation phase), a during-phase and a post-phase (in which during-task outcomes are presented in the target language). From the three-phase lesson structure, in the post-phase repetition of during-task performance can take place. Moreover, by making requirements for target language use in the post-phase, the students' language use in the during-phase can be stimulated.

In this three-phase lesson structure, target language use can be stimulated by the following formats : whole classroom discussion, group work, student presentation, role-play, and student reflection on content learning. Regarding whole classroom discussions, in dialogic discourse richer meaning-focused interaction is stimulated, and in which teachers need to take a different role than in traditional classroom interactions following the Initiation – Response – Evaluation sequence. Besides a teacher repertoire of techniques to stimulate students' contribution in classroom discourse, interactional feedback can be regarded as a reactive support to stimulate correct target language use related to the students' interlanguage. Regarding interactional feedback, Lyster and Ranta's typology of interactional feedback techniques is a broadly adopted frame for providing interactional feedback in classroom discourse: explicit correction, recasts, clarification requests, metalinguistic feedback, elicitations, and repetition. These techniques can be subdivided in 1) more implicit feedback opposed to more explicit feedback, and/ or 2) predominantly providing input by for instance reformulations opposed to prompting students for self-correction.

Chapter 4

Research questions
and research method

4.1 Introduction

In this chapter on the research method, first the research questions will be presented, then the research design, and finally the operationalisation of variables and the instruments for data collection.

Although some research has been done regarding the linguistic benefits of trilingual primary education in the bilingual Dutch province of Friesland, no research has been done addressed to the pedagogy of trilingual education in this setting so far. As described earlier, in trilingual primary schools language development is stimulated by promoting meaning-focussed interactive language use and related to content and language integrated learning. Taking a dynamic systems perspective, it is argued that language development is a complex phenomenon in which many variables interact, in particular student language use and teacher pedagogic performance and vice versa. Accordingly, the aim of this study is to come to a further understanding of the pedagogy of content and language learning as practiced in the three language lessons in the grades 7 and 8 of the Frisian trilingual primary schools, and how these practices and language development in the three target languages (Dutch, Frisian and English) are related. Related to this aim, first 4.2 presents the research questions and the research design, then the operationalization of the variables and research group are described in 4.3 and 4.4 respectively. Information on the completeness of the dataset is presented in 4.5. Finally, 4.6 describes the methods for data analyses and information regarding a number of co-variables included in the data analyses.

4.2 Research questions and design

To explore the CLIL practices in grades 7 and 8 of the Frisian trilingual primary schools and how these practices are related to language development in the three target languages, the following research questions are formulated:

1. What languages are spoken by students at home and in the schoolyard, which language use is dominant, and how are student home language and student schoolyard language related to student language development in the three target languages?
2. Which teacher language use scores and student language use patterns can be observed in the three target language lessons, and how are the observed language use patterns related to student language development in these languages?

3. Which strategies aimed at focus on meaning can be observed in the lessons for the three target languages, and how is the variation in the focus on meaning related to student language development in these languages?
4. Which strategies aimed at a focus on form can be observed in the lessons in the three target languages, and how is the focus on form related to student's language development in these languages?
5. How is target language use stimulated in teacher-student interaction, and how is it related to student language development in these languages?
6. Which teaching formats to stimulate target language use can be observed, and how are these related to student language development in these languages?

It is assumed that both language and teaching practices develop over time, and that language development and teaching practice development are inter-related. On those accounts, for both language development and teaching practices, data are collected at two moments in a cohort of nine classes grade 7-8 of seven trilingual primary schools over a period of two school years. The data collection took place at the beginning and the end of a period of two school years (2012-2014). The first measurement (T1) took place in September of grade 7, and the second measurement (T2) at the end of June in grade 8. To collect information about the teaching practices, the so-called target language lessons (the lessons addressed to the stimulation of the use of Dutch, Frisian and English respectively) are video-recorded in each class. In line with Ytsma (2001), those target language lessons can include both content lessons and language lessons with content used for language practice.

Simultaneously to the registration of teaching practices, vocabulary and reading comprehension tests in each of the three languages are administered in the same classes. Moreover, questionnaires are used to collect self-reported data information regarding the students' home language and the language spoken with peers.

So, the following data have been collected at the start and the end of period of two school years (2012-2014):

- a video recording of Dutch, Frisian and English language lessons each;
- a vocabulary test for Dutch, Frisian and English each;
- a reading comprehension test for Dutch, Frisian and English each.

As language development can also be related to both gender and social background (Ross & Kasper, 2013; Tedick, Christian & Williams Fortune, 2011), participating primary schools are asked to share information about gender (boy - girl) and the educational background of the students' mother. Moreover, as shown by Unsworth, Persson, Prins and De Bot (2015), student language development can also be related to teacher language level. In lower grades of Dutch primary schools, student English language development can be related to self-reported teacher proficiency in English. However, it is not clear yet how student development is related to teacher English language use in the classroom, and it is not clear yet how student English language development is related to teacher English speaking level in the classroom in the upper grades of Dutch primary schools. For the decision on whether the teacher's English speaking proficiency is taken into account as a covariable, first the teacher English speaking level is assessed, and is the student English language development tested for the teacher English speaking levels. To assess the teacher's English speaking level, the video-recorded English lessons are used. As Dutch and Frisian lessons are taught by native speakers, it is assumed that the teachers' Dutch and Frisian speaking levels are at least at a C1-level, therefore the teachers' oral proficiency in Dutch and Frisian are not assessed.

For these video recordings, teachers are instructed:

- to offer a regular content-based lesson for each of the three target languages, or a classroom language lesson in case target language lessons are scheduled as language lessons only;
- to start with a whole classroom talk (without indication of content or direction).

The instruction to start the language lessons with a classroom talk is included to provide opportunities to assess the speaking level of the teacher in English lessons.

The recording of the language lessons are done by trained teacher trainees, who are instructed as follows:

- be sure teacher actions are filmed;
- in whole classroom activities, be sure the teacher and class are in the picture;

- in case of small group work and/or individual seatwork, stay with the teacher;
- In case of small group work (including working in pairs), take (random) videos of small group discussions.

For coding of the teaching practices, an observation instrument is developed (see appendix B). With the use of this instrument, pedagogical performance is tallied by event-sampling (i.e. whether an instance could be observed instead of the frequency of that observed instance). The videotapes are coded individually by trained teacher trainees (all taking part in Stenden University's degree programme Multilingualism in an International Perspective á 30 ECTS). The coding training took three sessions in which for a group of four raters, the inter-rater reliability could be increased from $\kappa = .59$ to $\kappa = .98$. Ad random post measurements confirmed the positive values for the inter-rater reliability .

4.3 Operationalization

Related to the research questions presented in section 4.2, in this section variables are operationalized. For this purpose, a distinction is made between variables at school level, teacher level student level.

4.3.1 School aspects

For this study, schools are selected which implemented a curriculum offering

- language lessons in Dutch, Frisian and English from grade 1;
- content lessons using the three target languages as languages of instruction.

In addition to these curricular aspects, schools are selected taking into account the willingness of teachers and management to participate.

4.3.2 Aspects teaching practices

In this study, the teaching practices include the following aspects in language lessons:

- teacher target language use
- focus on meaning

- focus on form
- teaching methods and formats
- stimulation of interaction
- interactional feedback

Teacher target language use

Related to the second research question addressed to the teachers' target language use in the three target language lessons, teacher target language use is operationalized as the extent to which the teacher uses the target languages (both oral and written) in content lessons. Ideally, each lesson incorporates a pre-phase, during-phase and post-phase. From these phases, the pre-phase includes classroom management, introduction of content and explanation of formats. As in the pre-phase the target language can be used for different purposes for different reasons, language use is assessed for the following categories:

- classroom management,
- introduction of content,
- explanation of formats.

To assess target language use, the following categories are distinguished, including the indicated scores:

- target language use only (3),
- mainly target language use and use of other language(s) in addition (2),
- mainly use of other language(s) and target language use in addition (1),
- exclusive use of one or two of the other languages than the target language (0).

To determine teacher target language use scores, mean scores for teacher language use in the three lessons-phases are calculated. However, as teacher target language use for the pre-phase includes three components, and teacher target language use in both the during- and post-phase just one component each, first mean scores for the pre-phase are calculated. Therefore, teacher target language use scores can vary in a range from 0-3.

Focus on Meaning

Related to the third research question addressed to strategies aimed at focus on meaning, focus on meaning is understood as attention to the learning of non-linguistic knowledge for which linguistic and non-linguistic resources are needed (Ellis, 2000). For the purposes of this study, focus on meaning is a composite variable including the following items:

- attention to content,
- rich multimodal input,
- introduction of new content,
- attention to pre-knowledge,
- the planning of real-world tasks,
- reflection on content,
- demonstration.

Introduction of new knowledge and attention to pre-knowledge are observed in the pre-phase of the video-recorded lessons. Real-world tasks concerning situational authenticity and stimulation of language use expected outside the class setting are observed in the during-phase. Lastly, reflection on content and demonstration of content through oral and/or written presentation can be observed in the post-phase (Skehan, 1996).

Each aspect of the composite variable is scored as observed (1) or not observed (0), and so the summation of scores for focus on meaning can vary in a range from 0 to 7.

Focus on Form

Regarding the fourth research question addressed to strategies aimed at focus on form, focus on form is understood as 'the switch from incidental to intentional learning' (Long et al., 2016, p. 15). From the focus of the teacher on language aspects (pronunciation, vocabulary, grammar, pragmatics and text structure), in this study we are predominantly interested in the focus on lexis (vocabulary and grammar) in the language lessons. Both reflection on form and inter-linguistic reflection refer to reflection on language and language use respectively mono-

linguistically and inter-linguistically. Regarding the last item of focus on form, feedback techniques concern the teachers' repertoires of interactional feedback techniques, in which feedback with or without prompting student self-repair can be distinguished. Teacher feedback without prompting for student self-repair includes recasts and explicit corrections, and feedback prompting student self-repair consists of: repetition, metalinguistic hints, explicit elicitation and pausing (see chapter 4).

Focus on form is also a composite variable including the following items:

- attention to vocabulary and/or grammar,
- reflection on form,
- inter-linguistic reflection on language and language use,
- feedback techniques without prompting for student self-repair,
- feedback techniques prompting for student self-repair.

Each aspect is scored as observed (1) or not observed (0), and so the summation of scores for focus on form can vary in a range from 0 to 5.

Stimulation of teacher-student interaction

The fifth research question is regarded to the stimulation of target language use in teacher-student interaction, and includes the pedagogical repertoire of teachers to stimulate student target language use in whole classroom discourse (Llinares & Dalton-Puffer, 2015). For the purposes of this study, stimulation of teacher-student interaction is a composite variable including 1) the observed dominant participation framework (Walsweer, 2015), 2) teacher repertoire to stimulate student contribution, and 3) teacher repertoire of interactional feedback techniques.

From participation frameworks, student contribution is hardly or not stimulated in the monological framework and scarcely stimulated in the limited interactive participation framework. Therefore, observation of these frameworks are scored as 0, and observation of the dialogical participation framework or the discussion framework is scored as 1.

Teacher repertoire to stimulate student contribution includes the following aspects subdivided in a) more common conversational techniques and b) techniques to stimulate more advanced language use.

More common conversational techniques include the following items:

- the use of referential questions,
- use of silence,
- verbal and non-verbal expressions of agreement,
- teacher responses on student contribution,
- the use of probing questions.
- Techniques to stimulate more advanced language use include the following items:
 - teacher summaries or elicitation of peer student summaries,
 - reformulations.

The third component of stimulation of teacher-student interaction includes interactional feedback techniques. From these techniques a distinction is made between input providing feedback and prompting students for self-correction.

Interactional feedback to provide input of information of correct language use include the following items:

- recasts,
- explicit correction.

Interactional feedback to prompt students for self-correction and thus correct language use include the following items:

- repetition,
- metalinguistic hints,
- elicitation,
- silences or pausing,
- clarification requests.

Regarding the computation of scores for the composite variable stimulation of teacher-student interaction, because of differences in ratios of the different techniques for the stimulation of student language use, simple adding of item scores would lead to a rather unbalanced summation scores. Not taking into account of the ratios of the number of aspects for the different purposes of stimulation techniques will lead to clouded outcomes of the observations.

On that account, the scoring of stimulation of teacher-student interaction includes the following items:

- dialogical participation framework or discussion framework,
- one or more of the common conversational techniques,
- one or both techniques to stimulate more advanced language,
- one or both interactional feedback techniques to provide input,
- one or more interactional feedback techniques to prompt students for self-correction.

Each item is scored 0-1, in which 0 is not observed and 1 is observed, and so the summation of scores for stimulation of teacher-student interaction can vary in a range from 0 to 5.

Teaching methods to stimulate target language use

The sixth research question is addressed to the use of teaching methods to stimulate target language use in student-student interaction. The variable teaching methods is a composite variable and includes pedagogic tasks and teaching methods. From these, pedagogic tasks are operationalized as real-world tasks which may provide “situational authenticity” (Bygate, 2016a). Within the sub-variable teaching methods, whole classroom discussion, group work, individual seatwork, role-play and demonstration can be distinguished. From these formats, group work and role-play are considered to stimulate student language use more effectively (Llinares and Dalton-Puffer, 2015). The format demonstration is in line with Skehan’s (1996) format of public performance, and can be related to presentation (Llinares and Dalton-Puffer’s, 2015). However, demonstration can also include written performance of tasks or formats.

So, the variable teaching methods includes the following items:

- pedagogic tasks,
- group work,
- role-play,
- demonstration.

Regarding the scoring of this variable, each item is scored as observed (1) or not observed (0), and so the summation of scores for teaching methods to stimulate student-student interaction can vary in a range from 0 to 4.

4.3.3 Students' language use

In this study, student aspects include student language use and student language development. Regarding the first, student language use concerns both student home and schoolyard language, and student language use patterns in language lessons.

Student home and schoolyard language

Related to the first research question addressed to student home and schoolyard language, student home language includes the language spoken at the student's home with family and acquaintances. Student schoolyard language is used as an indicator for the languages student's peer group.

To collect information about the student's home language and the students' language spoken with peers, the students are asked to complete a questionnaire (see appendix A) to elicit information about the student's language spoken at home and in the schoolyard. Regarding the student home language, data are collected for

- a. the whole repertoire of spoken language at home, and
- b. the dominant spoken home language.

Therefore, the students are asked which of the following languages (multiple answers allowed) are spoken at home:

- Dutch,
- Frisian,
- A regional language variety (for example Town Frisian, Stellingwerfs, Bildts or another dialect),
- A foreign language.

Regarding the student's language spoken in the school yard, questions referred to the dominant spoken schoolyard language(s) only. Therefore, the students are asked to indicate which of the following categories fits best:

- Primarily Dutch,
- Primarily Frisian,
- Dutch and Frisian equally,
- Other.

As regional varieties and foreign language(s) are hardly or not used in the schoolyard, these languages are included in the category 'other'.

Student language use patterns

From the second research question addressed to teacher language use and student language use patterns in the three target language lessons, student language use patterns are related to student language use in the educational approach of translanguaging. In this approach, different languages are used for input of content, co-construction of knowledge, and the presentation of content learning respectively. For the input of content, the language domains of listening and/or reading are at issue. To determine the student language use patterns, the languages used for input, co-knowledge construction and presentation are observed. Regarding the presentation of content learning, the language domains of speaking and/or writing can be at issue. Concerning co-construction of knowledge, oral interaction can take place in both teacher-student interaction and in student-student interaction. Therefore, student language use patterns regard a composite variable including scores for

- the language(s) in which input is provided (oral and/or written)
- the language(s) in which teacher-student interaction takes place
- the language(s) in which interaction between students takes place
- the language(s) in which students present the outcomes of the content learning at the end of the lesson (oral and/or written)

For each of these items the language(s) used are scored as follows:

- target language = 1
- target language and one or more other languages = 2
- one or more other languages = 3

To compile a score for the language use pattern, the scores for each item are combined to form a qualitative four-digit code. So, as an example, in case the input is exclusively in the target language (1), teacher-student interaction is the target language and one or more other languages (2), student-student interaction is in the target language and one or more other languages (2), and student presentation is exclusively in the target language (1), the four-digit code for this language use pattern is 1221.

Student language development in the three languages

The assessment of language development includes evaluation of the complexity, accuracy, lexis and fluency of language use of different aspects in different domains. To be able to collect data regarding language development (as part of a complex data assembling) for a this large group of students, the assessment for language development of the three languages is restricted to vocabulary and reading comprehension, as proxies for the development of lexis and complexity.

To assess the students' language development, in each language, vocabulary and reading comprehension tests are taken at both T1 and T2, tests are used that are especially developed for continuous testing in the Dutch primary schools. However, to not disturb the continuous evaluation of the participating schools, for the assessment of Dutch language development the latest versions of the regular school tests could not be used. Only the Frisian vocabulary test ($\alpha = .89$) is part of the evaluation system for the Frisian language developed by GRIP (a partnership

of stakeholders focussed on the promotion of education in and of the Frisian language) (Jonkman, 2017).

For the testing of Dutch Vocabulary Development, Cito Leeswoordenschat E7 [Cito Reading vocabulary E7] and Cito Leeswoordenschat M8 [Cito Reading vocabulary M8] are used (Verhoeven & Vermeer, 1995). Regarding the assessment of Reading comprehension in Dutch, Eduforce DLE-test Begrijpend lezen Groep 7 versie A and Eduforce DLE-test Begrijpend lezen Groep 8 versie A are used (De Jong, Osinga, Aalbersberg, Huistra & De Vos, 2002). As different tests are used for T1 and T2, referential scores are used. As no sufficient referential scores for Dutch reading comprehension could be determined, z-scores are computed for both T1 and T2.

To test Frisian vocabulary, Wurdschat Frysk [Vocabulary Frisian] is used for both T1 and T2. For Frisian Reading comprehension, the test Cito Begripend lêzen Frysk (groep 8) Start [Reading comprehension Frisian (grade 8) Start] is used for both T1 and T2 (Hemker & Jongen, 2011). For the assessment of Frisian vocabulary and reading comprehension proficiency for T1 and T2 one test each is used. For these tests raw data are used.

For the testing of both English vocabulary and reading comprehension, the Cito Me2!Engels (groep 7) the parts Vocabulary and Reading Comprehension are used (Alberts, Egberink, Feddema & Van Zuijlen, 2007). For T2 (end grade 8) the Cito Me2!Engels (groep 8) the parts Vocabulary and Reading Comprehension are used (Alberts, Egberink, Feddema & Van Zuijlen, 2006/2007). As different tests are used for T1 and T2, referential scores are used.

To determine language development for these three languages, to not lose variance, in the data analyses the results of T1 are taken into account as covariates.

The data are collected in accordance with the code of conduct for practice-oriented research in the Dutch universities of applied studies. At that time, no ethics committee had yet been installed at the University of Groningen.

4.4 Research group

Data are collected in 7 trilingual primary schools, amounting to a total of 165 students (aged 10-12 years) divided over 9 classes.

Six of these schools take part in the Netwurk Trijetalige skoalle [network of trilingual schools]. This network of schools and the certification of these schools is

managed by Taalsintrum Frysk [Language Centre Frisian]. The aim of this network is to implement a trilingual educational system including CLIL for content-based education. Regarding the implementation of the trilingual system, a number of variants have been developed, and includes a certification process (www.cedincentrummeertaligheid.nl).

All seven schools implemented a system in which all three languages are used from grade 1-8, applying ratios of 20% Frisian and 10% English as language of instruction in grades 7 and 8. From these seven schools, six trilingual primary schools are participating in the network, and from which three schools were certificated before the start of this study. Only one school in this sample does not participate in the network, but does fit the selection criteria. The only exception is the use of Frisian that is time scheduled less than 20% of the curriculum.

Since students generally switch teachers when they are changing grades, the grade 7 teachers and grade 8 teachers are different persons. Only in class 7 the classroom teachers are the same in both school years. However, this study is aimed at 1) the teaching practices and 2) the relation between the development of the teaching practices and student language development. So, the individual teacher pedagogical development is not of interest in this study.

Before the first measurement, the participating teachers are informed about the topic and organisation of this research project. To stimulate development of pedagogic approaches in content-based language lessons, the participating teachers are offered an in-service training programme over the period of two years in between the data-collection. This voluntary in-service training programme included the following topics:

- Provision of rich multimodal input;
- Stimulation of output by promoting both teacher-student and student-student interaction;
- Teacher techniques to provide interactional feedback;
- Pedagogic approaches of translanguaging;
- The three-phase lesson model including a pre-phase, a during-phase and a post-phase;
- Stimulation of student reflection on language and language use.

The training programmes consisted of eight sessions of two hours each: four sessions in the first running year and four sessions in the second running year. The training included the demonstration of the topics by showing examples and the planning of interactive formats. Additionally, interactive formats are planned to stimulate the sharing of knowledge, the planning of activities in their own classroom and sharing practices in the additional sessions.

Table 4.1 number of students, student gender, number of classroom teachers and school contextual factors 2012

T1 denotes first measurement and T2 denotes second measurement

School	Class	Students	Gender (boy/girl)	Teachers grade 7	Teachers grade 8	Completion in-service training	School size	Region	Appr. population village (2012)
1	1	11 ¹	5/6	1	1	All 3 teachers	144	North-east	1,100
	2	6 ¹	6/0	1					
2	3	24	11/13	2	2	Teacher DL and FL T1	353	North-east	9,500
	4	23	13/10	2	2				
3	5	28	12/16	3	2		196	South-west	13,000
4	6	7 ¹	7/0	1	1	Both teachers	63	South-west	350
5	7	19 ¹	13/6	2	1 ²	Teacher DL and FL T1 and T2	106	South-west	1,200
6	8	22	13/8	1	1	Teacher T1 and T2	208	South-west	3,300
7	9	26	15/11	2	2 ³	Teacher DL and FL T1 and T2	149	South-west	2,100

¹ Part of multi-graded classes

² Same classroom teacher Dutch and Frisian lesson first and second school year

³ Same classroom teacher Dutch and Frisian lesson and same teacher English lesson first and second school year

Table 4.1 shows information about the number of students and teachers involved, and also includes information about some contextual factors. From left to right, the different columns show data for: the number of schools and classes, the number of students per class, the students' gender, the number of teachers per class, and the number of these teachers who completed the in-service training. Furthermore, table 4.1 provides information about the school size (the total number of students), and information about the schools' regions and population

of the schools' villages. As shown in table 4.1, from schools 1 and 2, two classes each are involved in this study, and from which the class 1 and 2 (school 1) are merged in grade 8.

4.5 Missing values

Regarding student home language and schoolyard language, all respondents completed the questionnaires.

For the observations of teaching practices, in classes 3-9 all lessons could be recorded and used for observation of pedagogic performance and student language

Table 4.2 Missing values per class and for each language test
VOC denotes Vocabulary, and RC denotes reading comprehension. Superscripts T1 and T2 denote first and second measurement respectively

Class	Dutch		Frisian				English					
	VOC ^{T1}	VOC ^{T2}	RC ^{T1}	RC ^{T2}	VOC ^{T1}	VOC ^{T2}	RC ^{T1}	RC ^{T2}	VOC ^{T1}	VOC ^{T2}	RC ^{T1}	RC ^{T2}
1	2 (11)	0 (11)	2 (11)	0 (11)	11 (11)	0 (11)	11 (11)	4 (11)	2 (11)	1 (11)	2 (11)	1 (11)
2	5 (6)	0 (6)	5 (6)	0 (6)	1 (6)	0 (6)	6 (6)	2 (6)	5 (6)	0 (6)	5 (6)	0 (6)
3	1 (24)	0 (24)	2 (24)	0 (24)	24 (24)	2 (24)	24 (24)	4 (24)	1 (24)	0 (24)	1 (24)	0 (24)
4	8 (23)	0 (23)	6 (23)	0 (23)	1 (23)	2 (23)	23 (23)	7 (23)	1 (23)	1 (23)	1 (23)	1 (23)
5	1 (28)	0 (28)	3 (28)	0 (28)	2 (28)	0 (28)	2 (28)	5 (28)	3 (28)	1 (28)	3 (28)	1 (28)
6	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)	7 (7)	4 (7)	0 (7)	0 (7)	0 (7)	0 (7)
7	13 (19)	0 (19)	12 (19)	0 (19)	13 (19)	1 (19)	19 (19)	7 (19)	11 (19)	0 (19)	11 (19)	0 (19)
8	0 (21)	0 (21)	0 (21)	0 (21)	0 (21)	0 (21)	0 (21)	4 (21)	0 (21)	1 (21)	0 (21)	1 (21)
9	1 (26)	0 (26)	0 (26)	0 (26)	0 (26)	0 (26)	0 (26)	0 (26)	1 (26)	1 (26)	1 (26)	1 (26)
Total	31 (165)	0 (165)	26 (165)	0 (165)	52 (165)	5 (165)	92 (165)	37 (165)	24 (165)	5 (165)	24 (165)	24 (165)

use in the language lessons. However, because of too much noise a number of video recordings of lessons in class 2 could not be used for the coding of both teacher behaviour and student language use. Because just little information about the differences between the first and T2 of these language lessons could be

derived, these video-recordings are not used for data-analyses. Table 4.2 shows the missing values (the number of student who did not complete the test) per class for each language test.

4.6 Data analyses

Regarding data-analyses, for each research question, data are first quantitatively analyzed, then the analyses of conditional means are executed to test the relation between both student language use and teaching practices and student language development.

For the analyses including language development, to not lose variance the vocabulary and reading comprehension T2 test scores are used, taking into account the vocabulary and reading comprehension T1 test scores as covariates. Similarly, for the assessment of both student language use and teacher pedagogic performance, results of T1 for these variables are used as covariates.

As reading comprehension abilities can be related to vocabulary proficiency (Verhoeven & Vermeer, 2006), for this dataset the relation between reading comprehension development and vocabulary development is examined.

Furthermore, as language use and therefore language development can be related to both gender and social-background (Ross & Kasper, 2013; Tedick, Christian & Williams Fortune, 2011), for this dataset in the testing for the relation between both reading comprehension development and vocabulary development both gender and socio-economic status (SES) are taken into account as co-variables. To control data-analyses for SES, schools are asked to share information about the educational level of the student's mother as an approximation for SES. Related to the Dutch educational system, the following categories are included:

- No/primary education only,
- Lower vocational education,
- Intermediate vocational education,
- Higher education.

Regarding the educational background, the schools provided information for 7 of the 9 classes presented in figure 4.1 and figure 4.2.

Figure 4.1 Educational level students' mothers

Figure 4.1 shows that in this sample the majority of the students' mothers have finished vocational education and that some 30% finished higher education. Patterns of the educational levels of student's mothers per class are presented in figure 4.2.

Figure 4.2 Educational level students' mothers per class

As can be seen in figure 4.2, no information regarding the educational background is available for the classes 5 and 6. To complete analyses, for the students of classes 5 and 6 the mode of classes 7 - 9 is allocated, these classes are from the same region.

Moreover, as shown by Unsworth, Persson, Prins and De Bot (2015), student language development can also be related to teacher language proficiency. In lower classes of Dutch primary schools, student English language development can be related to self-reported teacher proficiency in English. However, it is not clear yet how in the upper-classes of Dutch primary schools student English language development is related to teacher English speaking level in the classroom. To control the analyses for teacher English speaking performance, teachers' speaking level in the classroom setting is assessed independently. As both Dutch lessons and Frisian lessons are offered by native speakers respectively, it is presumed the teachers' Dutch and Frisian speaking levels are at least at a C1-level. For that, teacher Dutch and Frisian speaking performance has not been assessed.

Regarding the English speaking proficiency in English target language lessons, teacher oral language use in the classroom is assessed by a certified assessor of Cambridge Assessment English (www.cambridgeenglish.org/nl). For the assessments, the video-taped language lessons are used, according to the following categories (Liemberg & Meijer, 2004):

- Vocabulary and vocabulary use,
- Grammatical correctness,
- Fluency,
- Coherence,
- Pronunciation,
- Rating total.

For each of these categories the English speaking proficiency in the classroom is rated on a scale from A1 - C1 from the Common European Framework of Reference for Languages (CEFR) (www.cambridgeenglish.org).

For the rating of these categories, the levels A1-C1 of the Common European Framework of Reference are used. To score more precisely, the examiner used the following format

A1	1
A1/A2	2
A2	3
A2/B1	4
B1	5
B1/B2	6
B2	7
B2/C1	8
C1	9

The outcomes of the relation between the differences measurement of teacher English speaking proficiency in the classroom T1 and T2 and students English vocabulary and reading comprehension development are presented in section 5.5.3. These analyses reveal that there is no relation between the teacher's speaking proficiency and the students' vocabulary and reading comprehension development. So, the variable the teachers' English speaking proficiency in English target language lessons is not taken into account as covariate in the analyses including teaching practices in the English target language lessons.

In the following chapters, data and results of analysis are presented related to the six research questions. For the combination of the first two research question, in chapter 7 results are described regarding both student language use at home, in the schoolyard and in school, and teacher language use in the target language lessons. In chapter 8 the results related to research questions 3 and 4 are presented: the focus on meaning and the focus on form issues. Finally, related to the last two research questions, results concerning the stimulation of teacher-student interaction and the teaching methods to stimulate student language use are presented in chapter 9.

Chapter 5

Student home- and schoolyard
language and language use
in the classroom

5.1 Introduction

In this chapter the following research questions are answered:

- What languages are spoken by students at home and in the schoolyard, which language use is dominant, and how are student home language and student schoolyard language related to student language development in the three target languages?
- Which teacher language use scores and student language use patterns can be observed in the three target language lessons, and how are the observed language use patterns related to student language development in these languages?

In this study, language development in the three languages is at issue in all six research questions. Therefore, first data are presented regarding the differences between classes in vocabulary and reading comprehension development in the three languages. Furthermore, to determine whether to take teacher's English speaking proficiency in English lessons into account as a covariate in the rest of this study, results of data-analyses for the relation between teacher's English speaking proficiency and student English language development are presented as well. Related to the first research question, data regarding student home language and student schoolyard language, and how these data are related to language development will be presented in section 5.4. Addressed to research question 2, data regarding both student- and teacher language use in the three language lessons are presented in the sections 5.5 and 5.6 respectively.

5.2 Method

It is assumed that both language and teaching practices develop over time, and that language development and teaching practise development are inter-related. As described in 4.2, on those accounts, data are collected at two moments in a cohort of nine classes grade 7-8 of seven trilingual primary schools over a period of two school years. T1 is at the start and T2 at the end of a period of these two school years.

To collect information about the student's home and schoolyard language the students completed a questionnaire (see appendix A). Based on these data the

student's home language is categorized as follows:

- Dutch only,
- Dutch-Frisian,
- Frisian-Dutch,
- Foreign language.

From these categories, the category Dutch-Frisian refers to bilingual use of both Dutch and Frisian at home, but predominantly Dutch. Frisian-Dutch refers to bilingual use of both Dutch and Frisian at home, but more but predominantly Frisian. As no regional language variety is primarily spoken, this category is not taken into account.

Concerning the second research question, teacher target language use is operationalized here as the extent to which the teacher actually uses the target languages (both oral and written) in content lessons. To determine teacher target language use scores, mean scores for teacher language use in the three lessons-phases are calculated as described on p. 35. Student language use patterns concern student language use for different means in lessons. In this, different languages can be used for input of content, co-construction of knowledge, and the presentation of content learning respectively. To compile a score for the language use pattern, the scores for each item are combined to form a qualitative four-digit code in the way described in 4.3.3.

To assess the students' language development for the three target languages, tests are used that are especially developed for evaluation in the Dutch primary schools (see 4.3.3). As for the assessment of both Dutch and English language proficiency different tests are used for T1 and T2, standardized scores are used. As no sufficient standardized scores for Dutch reading comprehension could be determined, z-scores are computed for both T1 and T2. For the assessment of Frisian vocabulary and reading comprehension proficiency for T1 and T2 one test each is used. For these tests raw data is used.

To determine language development, the results for T2 are controlled for T1. To not lose variance, in the analyses of co-variance the results of T1 are taken into account as covariates. Similarly, for the assessment of both student- and teacher

language use, results of T1 for these variables are used as covariates. However, to be able to present language development in graphs, difference score of T1 and T2 are computed.

Regarding data-analyses, for each research question first quantitative analyses of data are presented. To test the relation between both student- and teacher language use and language development, analyses of co-variance are performed.

5.3 Group differences in vocabulary and reading comprehension development

In this section the data are presented for both student vocabulary development and student reading comprehension development in the three target languages. First group differences of both student vocabulary development and student reading comprehension development in the three target languages are demonstrated, then the relation of vocabulary development and reading comprehension development in the three target languages are presented.

As language development is one central variable, first data concerning language development are presented. To be able to make graphs on language development, difference scores of T1 and T2 are computed for each language test. Figures 5.1-5.6 show, per class, the difference scores for vocabulary and reading comprehension in the three target languages per class. Due to missing data, not all language development scores could be computed for all classes.

For both Dutch vocabulary and reading comprehension development, figures 5.1 and 5.2 show the lowest mean scores in class 7, and the highest mean scores in class 6. With an exception for classes 3, 7 and 9, figures 5.1 shows a rather homogeneous picture regarding Dutch vocabulary development in the different classes. In contrast, figure 5.2 shows prominent lower mean scores for classes 4 and 7, and the highest mean scores in class 6 on Dutch reading comprehension development. For both vocabulary and reading comprehension, the scores in class 7 show the widest range.

Due to missing data, only for three classes mean scores for Frisian reading comprehension development could be computed. Therefore, no clear pattern can be observed for both Frisian vocabulary and reading comprehension development. Regarding Frisian vocabulary development, figure 5.3 shows the highest mean scores in class 7 and the widest range in class 2.

DVOC denotes Dutch Vocabulary

Figure 5.1 Dutch Vocabulary Development (means and SD)

DRC denotes Dutch Reading Comprehension

Figure 5.2 Dutch Reading Comprehension Development (means and SD)

FVOC denotes Frisian Vocabulary
Figure 5.3 Frisian Vocabulary Development (means and SD)

FRC denotes Frisian Reading Comprehension
Figure 5.4 Frisian Reading Comprehension Development (means and SD)

EVOC denotes English Vocabulary

Figure 5.5 English Vocabulary Development (means and SD)

ERC denotes English Reading Comprehension

Figure 5.6 English Reading Comprehension Development (means and SD)

For both English vocabulary and reading comprehension development, figures 5.5 and 5.6 show the highest mean scores for class 7, and the lowest mean scores in class 4. In comparison to Dutch and Frisian language development, there is a wider range of mean scores in most classes.

Table 5.1 shows the data for both vocabulary development and reading comprehension development per class.

Table 5.1 Mean scores and standard deviations language development in the three languages

Class	Dutch				Frisian				English			
	VOC		DRC		VOC		RC		VOC		RC	
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N
1	122.8 (10.45)	9	0.056 (0.42)	9			-		87.9 (18.60)	8	71.9 (11.48)	8
2	107.00 (-)	1	0.316 (-)	1	27.2 (3.27)	5	-		90.00 (-)	1	67.0 (-)	1
3	108.4 (34.83)	23	0.176 (0.70)	22			-		82.7 (8.94)	23	77.5 (19.77)	23
4	120.3 (10.46)	15	-0.689 (1.40)	17	20.5 (7.24)	20	-		89.3 (17.20)	22	72.2 (17.28)	22
5	109.4 (18.14)	27	0.380 (0.55)	25	21.5 (6.11)	26	48.3 (5.73)	22	84.4 (15.84)	24	71.1 (14.52)	24
6	117.6 (11.0)	7	0.211 (0.79)	7	24.3 (4.79)	7			82.1 (14.97)	7	66.7 (17.63)	7
7	102.3 (37.08)	6	-0.667 (1.65)	7	28.3 (2.94)	6			94.9 (18.98)	8	80.6 (19.53)	8
8	117.2 (11.07)	21	0.123 (0.60)	21	23.3 (4.47)	21	46.9 (7.06)	17	83.5 (17.74)	20	72.3 (19.32)	20
9	118.8 (29.60)	25	0.316 (0.84)	26	29.0 (4.29)	26	45.1 (9.35)	26	91.4 (18.24)	24	72.2 (20.18)	24
Total	11.44 (23.43)	134	0.746 (0.92)	135	24.2 (6.22)	111	46.7 (7.70)	65	86.7 (16.21)	137	73.1 (17.79)	137

In table 5.1 class 1 shows that the highest mean score for Dutch Vocabulary Development ($n=9$) and second in class 4 ($n=15$), and that the highest mean score for Frisian Vocabulary Development is observed in class 9 ($n=26$). For both Dutch Reading Comprehension Development and Frisian Reading Comprehension Development the highest mean scores are both observed in class 5 ($n=25$ and $n=22$ respectively). Finally, the highest mean scores for both English Vocabulary Development and English Reading Comprehension Development are both observed in class 7 ($n=8$).

Related to the data presented in table 5.1, the differences between classes in mean scores of both vocabulary and reading comprehension development in the three target languages is tested for significance. The results of these analyses are presented in table 5.2 below.

Table 5.2 Relation between class and language development in the three target languages

	F	p	df2	df2	observed power
Dutch Vocabulary	1.82	.08	8	125	.75
Frisian Vocabulary	3.89	.00	6	104	.96
English Vocabulary	.82	.59	8	128	.37
Dutch Reading Comprehension	5.27	.00	8	126	1.0
Frisian Reading Comprehension	3.07	.05	2	62	.57
English Reading Comprehension	2.48	.02	8	128	.89

Regarding vocabulary development, table 5.2 shows that only for Frisian vocabulary development significant differences are found between classes ($p = .00$). A tendency ($p = .08$) can be observed regarding the differences between classes in Dutch vocabulary development.

The lowest mean scores on Frisian vocabulary development are observed in classes 4, 5 and 8, and the highest mean scores in classes 7 and 9.

Regarding reading comprehension development, significant differences between classes are found for all target languages. Regarding Dutch reading comprehension development, the highest mean scores are found in classes 5 and 9, and the lowest mean scores in classes 4 and 7. Concerning differences between classes in Frisian reading comprehension development, higher mean scores are observed in class 5). Finally, higher mean scores on English reading comprehension development are observed in class 3 and class 7.

So, for vocabulary development, differences are found between classes in Frisian vocabulary development, and a tendency is found for differences between classes in Dutch vocabulary development. Furthermore, in all three target languages differences are found between classes in reading comprehension development. Related to these differences between the classes, in section 5.4, 5.5 and 5.6 observations of the students' home and schoolyard language, the teacher target language use in the three target language lessons, and the students language use in the three target language lessons respectively are presented, and how the

development these variables are related to the students' vocabulary and reading comprehension development. Additionally, chapter 6 describes the observations of the focus in meaning and -form in the three target languages and how the development of these teaching practices are related to the students' vocabulary and reading comprehension development. Finally, chapter 7 is addressed to the observation of the stimulation of teacher-student interaction in whole classroom discussion and the use of teaching methods to stimulate student-student interaction, and how the development of these teaching practices are related to the students' vocabulary and reading comprehension development.

5.4 Student spoken language at home and in the schoolyard

This section is focussed on student home language and schoolyard language including the relation between a) student home language and language development, b) student schoolyard language and student home language, and c) student schoolyard language and language development. Data will be presented as follows: first student home language followed by the relation between student home language and student language development in each of the target language will be described, then student schoolyard language followed by the student schoolyard language and student language development for each of the target language languages will be presented.

5.4.1 Findings student home language

Figure 5.7 shows student home language including percentages for bilingual students, either with Dutch as the dominant home language (Dutch-Frisian) or Frisian as the dominant home language (Frisian-Dutch).

In this sample, the majority of students has Frisian as (a) home language, and that 37.5% of the students are from bilingual families (either Dutch-Frisian or Frisian-Dutch). Less than 30% of the students are from Dutch only families. Information provided by the participating schools addressed to the educational background shows that the students who speak a foreign language at home do have a migrant background.

To come to a better insight, figure 5.8 demonstrates patterns of home languages per class.

Figure 5.7 Student home languages in percentages

Figure 5.8 Student home language per class in percentages

From figure 5.8 we get insight in the distribution of the home languages between classes. Except for class 6, in all classes Frisian is spoken at home (only or bilingually) by at least 60% of the students. Frisian is also the dominant spoken home language in 6 out of 9 classes. Only in class 5 both Dutch and Frisian is the dominant home language for 50% of the students each. Only in the classes 4

and 7, the majority of the students have Dutch as the dominant home language. Only classes 3 and 4 contain students with a migrant language as dominant home language. Because of the low number of students with a foreign home language, foreign home language is not taken into account for further analyses.

5.4.2 The relation between student home language and language development

The second sub-question of the research question addressed to student home languages concerns the relation between student home language and language development in the three target languages.

Related to figures 5.7 and 5.8 respectively, the relation between home language and language development is tested for significance. First, related to home language, the mean scores and standard deviations for both vocabulary development in the three target languages are presented, then the results for the testing of the relation between home language and vocabulary and reading comprehension development respectively are presented. Table 5.3 presents the mean scores and standard deviations for both vocabulary development in the three target languages for the four categories of the students' home language(s). As described in section 4.3.3, referential scores are used for the analyses of Dutch vocabulary development and both English vocabulary and reading comprehension development. For the analyses of Frisian vocabulary and reading comprehension development raw scores are used, and z-scores are used for the analyses of Dutch comprehension development.

Table 5.3 shows no patterns for both vocabulary and reading comprehension development in each of the three languages. Regarding Dutch vocabulary development, Frisian-Dutch speaking students show higher mean scores (117.3) on the Dutch vocabulary testing. Just small differences can be observed between the other home language categories in vocabulary development. In Dutch reading comprehension development, Frisian Only- and Frisian-Dutch speaking student demonstrate higher mean z-scores than Dutch Only- and Dutch-Frisian speaking students. In Frisian language development table 5.3 shows a quite similar pattern for both vocabulary and reading comprehension development, in which higher mean scores are demonstrated to the degree in which Frisian is spoken at home. In both domains Frisian Only speaking students demonstrate the highest mean scores on language development and Dutch Only speaking students the lowest

mean scores. The only exception in this pattern is the category Dutch-Frisian home speaking students. However, this category includes test results with a sample size of only 6 students. As this is a rather low number, it is questionable whether the differences for this group observed are valid.

Table 5.3 Mean scores and standard deviations home language related to language development in the three languages

	Dutch		Frisian		English	
	VOC	RC	VOC	RC	VOC	RC
	Mean (SD) n	Mean (SD) n	Mean (SD) n	Mean (SD) n	Mean (SD) n	Mean (SD) n
Dutch-Only	114.3 (17.56) 39	-0,02 (1.06) 37	19.2 (6.13) 34	45.6 (9.93) 18	89.8 (16.93) 40	73.9 (19.49) 40
Dutch-Frisian	114.6 (25.51) 18	-0,30 (1.19) 16	24.5 (4.89) 16	47.0 (8.79) 6	90.1 (17.41) 17	74.1 (20.21) 17
Frisian-Dutch	117.3 (20.50) 33	0,16 (.55) 36	25.9 (4.44) 21	46.8 (4.27) 13	86.5 (16.21) 37	75.0 (16.44) 37
Frisian-Only	114.4 (26.29) 43	0,23 (.91) 44	27.5 (4.87) 40	47.2 (7.42) 28	83.4 (16.04) 41	70.2 (16.68) 41
Total	115.1 (22.27) 133	0.08 (.92) 133	24.2 (6.22) 111	46.7 (7.70) 65	87.0 (16.1) 135	73.2 (17.87) 135

Regarding English language development, table 5.3 shows higher performances on English vocabulary development for predominantly Dutch speaking students than predominantly Frisian speaking students. Also the lowest mean scores for English reading comprehension development are demonstrated by Frisian Only. However, the highest mean score for this domain is observed for the category Frisian-Dutch.

The differences between the mean scores in table 5.3 are tested for significance. As described in chapter 4, the results of vocabulary test at T1 and both gender and educational background of the mother are taken into account as covariate for the testing of vocabulary development. For the testing of reading comprehension development, the results of reading comprehension test at T1, the results of vocabulary test at T2 and also gender and educational background are taken into account as covariate. The outcomes of these analyses are presented in table 5.4.

Table 5.4 Relation between student home language and language development in the three target languages

	F	p	df1	df2	observed power
Dutch Vocabulary Development	0.41	.75	3	129	.13
Frisian Vocabulary Development	2.24	.09	3	107	.55
English Vocabulary Development	1.12	.35	3	131	.30
Dutch Reading Comprehension Development	2.22	.09	3	129	.55
Frisian Reading Comprehension Development	0.45	.72	3	61	.14
English Reading Comprehension Development	0.39	.76	3	131	.13

In all three target languages, no significant differences are found between home language categories in neither vocabulary nor reading comprehension development. However, tendencies can be observed in both Frisian vocabulary development and Dutch reading comprehension development. Regarding the first, the data suggests that Frisian vocabulary development may be related to the amount of the use of Frisian at home, indicating a coincidence of higher mean scores for that Frisian vocabulary development and higher degrees of Frisian oral language use at home. On the differences in Dutch reading comprehension development, in the period of the grades 7 and 8, the development of the Dutch reading comprehension competences is faster by predominant Frisian-speaking students than in predominantly Dutch-speaking students.

5.4.3 Findings schoolyard language

After the presentation of student home language and the relation between student home language and student language development, the following two subsections are addressed on the examination of student oral language use in out of school peer interaction. As an approximate of this out of school peer interaction, the following two subsections are addressed to student languages spoken in the schoolyard and the relation between these schoolyard languages and student language development.

Figure 5.10 presents the data regarding schoolyard language of students involved in this study.

Figure 5.10 Student schoolyard languages

Figure 5.10 shows that Dutch is the dominant spoken schoolyard language, and that Frisian is predominantly used by less than 30% of the students. These data are different from student home language, in which the majority of the students speaks predominantly Frisian at home.

To examine how student home language and dominant schoolyard language are related, data concerning these two variables are presented in table 5.5.

Table 5.5 Relation between spoken home language and dominant spoken schoolyard language

		DOMINANT SCHOOLYARD LANGUAGE		
		Dutch	Frisian	Dutch and Frisian Equally
HOME LANGUAGE	Dutch only	93,5%	0,0%	6,5%
	Dutch-Frisian	77,3%	0,0%	22,7%
	Frisian-Dutch	35,0%	37,5%	27,5%
	Frisian only	24,1%	57,4%	18,5%
	Migrant	100,0%	0,0%	0,0%

Table 5.5 shows that no student with Dutch as (dominant spoken) home language uses Frisian as dominant schoolyard language. In contrast, a third part of the students with Frisian as dominant home language speak predominantly Dutch in

the schoolyard. Equal use of Dutch and Frisian is most common in students who speak Dutch and Frisian at home. From these students, Frisian-Dutch students are more likely to speak equally Dutch and Frisian in the schoolyard than Dutch-Frisian students.

As can be expected from table 5.5, schoolyard language and student home language are significantly related ($\chi^2 = 72,334$, $df = 15$, $n = 165$, $p = .00$).

To examine which schoolyard languages are spoken by students of each class, figure 5.11 presents patterns of how schoolyard languages are reported per class.

Figure 5.11 Student schoolyard language per class

Figure 5.11 shows a number of patterns in the use of Dutch and Frisian as schoolyard languages.

A first categorization of language use concerns the dominant language use. Figure 5.6 shows that in 6 out of 9 classes more than 50% of the students speak predominantly Dutch in the schoolyard, and that in 3 out of 9 classes predominantly Frisian is spoken by more than 50% of students in the schoolyard.

A second categorization concerns the ratios of reported schoolyard language, in which the following four patterns are defined:

1. A high percentage of predominantly Dutch speaking students, and smaller percentages of predominantly Frisian and Dutch and Frisian equally speaking students (class 3, 4, 5 and 7);
2. A high percentage of predominantly Dutch speaking students, and a smaller percentages of Dutch and Frisian equally' speaking students (class 6);
3. A pattern in which one of the two languages (Dutch and Frisian) is more spoken in the schoolyard, but where the use of both languages is rather balanced taking into account the percentages for 'Dutch and Frisian equally' (class 8 and 9);
4. A high percentage of predominantly Frisian speaking student, and smaller percentages of predominantly Dutch and Dutch and Frisian equally speaking students (class 1 and 2).

While in two out of the nine classes Frisian is the dominant home language, in six classes Dutch is the dominant schoolyard language. Only in three classes 1, 2 and 9 Frisian is mainly spoken both at home and among peers in the school yard.

5.4.4 The relation between schoolyard language and language development

This subsection is addressed to the relation between student schoolyard language and language development in the three target languages. Therefore, in table 5.6 mean scores for the vocabulary development and reading comprehension development in target languages are presented per schoolyard language subgroup.

Table 5.6 shows some patterns for how vocabulary development and reading comprehension development are related to schoolyard language. Firstly, Primarily Dutch speakers in the schoolyard have the lowest mean scores for both Dutch vocabulary and reading comprehension development, but the group primarily Dutch speakers have highest mean scores for Frisian reading comprehension development. Secondly, primarily Frisian speaking students show the highest mean scores for Dutch vocabulary development, and both categories of Frisian speaking students (primarily Frisian and Dutch-Frisian Equally) show higher scores on Dutch reading comprehension development than primarily Dutch speaking students. In line with this observation, the highest mean scores for Frisian reading comprehension are found in the group of primarily Dutch speaking

students. Finally, primarily Frisian speakers have the lowest mean scores for both English vocabulary and reading comprehension development.

Table 5.6 Mean scores and standard deviations of language development in the three languages related to student schoolyard language

	Dutch		Frisian		English	
	VOC	RC	VOC	RC	VOC	RC
	Mean (SD) n	Mean (SD) n	Mean (SD) n	Mean (SD) n	Mean (SD) n	Mean (SD) n
Primarily Dutch	113.35 (20.93) 72	-0.08 (1.06) 70	20.98 (5.74) 59	47.59 (7.22) 32	86.93 (15.21) 74	75.24 (18.38) 74
Primarily Frisian	118.51 (18.56) 39	0.21 (0.76) 40	27.66 (5.12) 32	46.68 (7.73) 25	84.16 (16.80) 38	69.89 (15.67) 38
Dutch-Frisian Equally	110.96 (35.55) 23	0.28 (0.64) 25	28.20 (3.35) 20	42.75 (9.24) 8	90.08 (18.09) 25	71.36 (18.78) 25
Total	114.44 (23.43) 134	0.08 (0.92) 135	24.21 (6.22) 111	46.65 (7.70) 65	86.74 (16.21) 137	73.05 (17.79) 127

The relation between schoolyard and language development is tested for significance. In table 5.7, first results for the analyses of the relation between schoolyard language and vocabulary development in the three target languages will be presented. Secondly the results for the relation between schoolyard language and reading comprehension development in the three target languages will be shown.

Table 5.7 Relation between schoolyard language and language development in the three languages

	F	p	df2	df2	observed power
Dutch Vocabulary Development	1.78	.17	2	131	.37
Frisian Vocabulary Development	8.00	.00	2	108	.95
English Vocabulary Development	0.23	.80	2	134	.09
Dutch Reading Comprehension Development	2.16	.12	2	132	.44
Frisian Reading Comprehension Development	2.02	.14	2	62	.40
English Reading Comprehension Development	2.16	.12	2	134	.44

Regarding vocabulary development, only in Frisian vocabulary development significant differences are found between schoolyard categories ($p = .00$). Mean Frisian vocabulary development scores are significantly lower for students who speak predominantly Dutch in the schoolyard compared to student who speak predominantly Frisian or equally Dutch and Frisian in the schoolyard.

Regarding reading comprehension development, no significant differences are found between schoolyard categories and reading comprehension development in the target languages.

To summarize, in this sample of trilingual primary schools, Dutch is the dominant schoolyard language, while the majority of the students speaks mainly Frisian at home. However, a significant relation is found between student home language and student schoolyard language.

Regarding language development, for Frisian vocabulary development differences have been found between groups. Students who speak mostly Dutch in the schoolyard, demonstrate lower mean scores for Frisian vocabulary development. So, Frisian vocabulary development is related to out of school Frisian language use among peers outside the classroom.

As home language and schoolyard language are related, and the relation between schoolyard language and language development is more prominent, only schoolyard language is taken into account as covariate in the upcoming data-analyses.

5.5 Teacher target language use in the language lessons

This section is focussed on teacher language use in the three target language lessons. First, observations of teacher language use in Dutch, Frisian and English lessons is demonstrated. Then the relation between teacher language use and student language development will be presented. Furthermore, to come to an insight of the relation between the covariate teacher's English speaking proficiency in English lessons and student English language development, data-analyses for this covariate are presented in subsection 5.5.3. In this subsection it is shown that no relation between English speaking proficiency in English lessons and student English language development is found. For that reason teacher's English speaking proficiency is not taken into account as covariate in the upcoming data-analyses.

5.5.1 Findings teacher target language use

The scores for teacher target language use in T1 and T2 are shown in figures 5.12a and 5.12b respectively. As described earlier, a score of 3 equals exclusive teacher target language use in the entire target language lesson.

Figure 5.12a Teacher target language use scores in the three language lessons per class T1

Figure 5.12b Teacher target language use scores in the three language lessons per class T2

Figures 5.12a and 5.12b show that in Dutch lessons teachers use the target language most and least in English lessons, and that in English lessons no teacher uses English as the target language exclusively. In both Frisian lessons and English lessons the scores for teacher target language use are generally higher in T2. Of the English lessons, only in class 7 a higher score for teacher target language use is observed in T1. Regarding teacher language use in English lessons, figures 5.12a and 5.12b show no teacher uses English exclusively, and more variation in teacher target language use in English lessons in comparison to teacher target language use in both Dutch lessons and Frisian lessons. Moreover, table 5.8 shows that there is more variance in teacher target language use in English lessons in comparison to teacher target language use in both Dutch lessons and Frisian lessons.

Table 5.8 Mean scores and standard deviations teacher target language use in the three language lessons T1 and T2

	Dutch lessons		Frisian lessons		English lessons	
	T1	T2	T1	T2	T1	T2
Mean	2.9	2.9	2.6	2.7	1.8	2.0
SD	.13	.15	.38	.14	.41	.45

Regarding teacher target language use in Frisian lessons, there are some differences between T1 and T2 are observed. In contrast to observations of T1, in T2 there is no or little difference between teacher target language use in Dutch lessons and teacher target language use in Frisian lessons. Only in T1 in classes 3 and 4 (the only classes including one or two students with a migrant background) less target language use in Frisian lessons is observed then in the other classes, but are the teacher target language use score not different from other groups in T2.

To examine the teacher language use scores, figures 5.12a and 5.12b show that in Dutch lessons only three teachers used (an) additional language(s). In the first measurement, the teacher of class 4 used Frisian as an additional language for explanation of formats in the pre-phase. In the second measurement, the teachers of class 3 and 7 used Frisian as an additional language in the during-phase guiding students in small group work and/or individual seatwork.

Different from Dutch lessons, in most Frisian lessons and all English lessons teachers use additional language. To come to a better insight of teacher language

use in both Frisian and English lessons, tables 5.9 and 5.10 show information about teacher language use per lesson-phase (including information about teacher language use for the three pre-phase aspects) of Frisian and English lessons respectively.

Table 5.9 Teacher language use per phase and aspect in Frisian lessons T1 and T2

CM denotes Classroom management, NwC denotes new content, DP denotes during-phase, PP denotes post-phase

First measurement						Second measurement					
Teacher	CM	NwC	Formats	DP	PP	Teacher	CM	NwC	Formats	DP	PP
3	2	2	1	2	2	3	1	1	1	2	1
4	2	2	1	2	2	4	1	1	1	2	1
5	1	1	1	1	1	5	1	1	1	2	1
6	1	1	1	1	-	6	1	1	1	2	1
7	1	1	1	2	1	7	1	1	1	2	1
8	1	2	1	2	1	8	1	1	1	2	1
9	1	1	1	1	1	9	1	1	1	1	1

1. Exclusive target language use, 2. Mainly target language use and use of other language(s) in addition, 3. Mainly use of other language(s) and target language use in addition, 4. Exclusively use of one or two of the other languages than the target language

Table 5.9 shows the increase of teacher target language use ('1' refers to exclusive target language use and '2' to mainly target language use) for both classroom management and the introduction of new content, and also for the post-phase. In T2 of Frisian lessons, all teachers used for both the pre-phase (classroom management, new content and formats) the target language only.

Regarding teacher language use in the Frisian lessons during-phase, in both measurements the majority of teachers used additional language for guiding of students in small group work and/or individual seatwork. In all cases of additional language use, teachers used Dutch as an additional language. However, as these data are observed by event-sampling, the frequency of the teacher interaction in Dutch as the non-target language is not counted and, hence, cannot be presented.

As shown in table 5.8, in T2 teachers used more English in English lessons than in T1. Table 5.10 shows, that the higher mean score in T2 can be explained by more teacher target language in both the pre-phase and the post-phase of English lessons. Furthermore, table 5.10 shows that T2 two more teachers used English

only for classroom management, and three more teachers used English only for the introduction of new content. Regarding teacher language use in the post-phase, six teachers used mainly English in T2 compared to four teachers in the first measurement.

Table 5.10 Teacher language use in English lessons T1 and T2

CM denotes Classroom management, NwC denotes new content, DP denotes During=phase, PP denotes Post-phase

First measurement						Second measurement					
Teacher	CM	NwC	Formats	DP	PP	Teacher	CM	NwC	Formats	DP	PP
3	3	2	-	2	3	3	1	1	1	2	2
4	3	2	-	2	3	4	1	1	1	2	2
5	3	2	3	2	3	5	3	2	2	3	2
6	2	2	2	2	2	6	1	1	1	2	2
7	2	1	1	2	2	7	3	3	2	2	4
8	2	2	2	2	2	8	2	1	1	2	2
9	1	1	1	2	2	9	1	1	1	2	2

1. Exclusive target language use, 2. Mainly target language use and use of other language(s) in addition, 3. Mainly use of other language(s) and target language use in addition, 4. Exclusively use of one or two of the other languages than the target language.

Furthermore, in both first and second measurements, no exclusive target language use is observed in the during-phase in which teachers guide students doing small group work and/or individual seatwork. For the guiding of students, teachers apparently use the student home language for scaffolding practices and/or teacher-student talk.

In case teachers used other language(s) than the target language, most teachers used Dutch as additional language and/or main language. Both Dutch and Frisian are used by the teacher of class 7 (first measurement) and by the teacher of class 8 (first and second measurement).

On an extra note, the relation between teacher target language use and student language use patterns, home language and schoolyard language respectively is tested for significance by comparing proportions. The results of these testing are presented in appendix C.

Table C1 (appendix C) shows that only in T2 of Frisian lessons, a relation is found between teacher target language use in the classroom and the students' home

language(s) ($p = .03$). However, table C2 shows in all three target languages lessons relations between teacher target language use and the students' spoken languages in the schoolyard. In T1 of the Dutch lessons, an indication for a relation between teacher target language use and student schoolyard language is found ($p = .06$), and a relation between these variables is found in T2 of the Dutch lessons ($p = .03$). Furthermore, table C2 shows relations between teacher target language use in both T1 and T2 of Frisian lessons ($p = .00$ for each measurement). In line with the examination of teacher target language use in the Dutch lessons, in T1 of the English target language lessons a tendency is found for a relation between teacher target language use and student schoolyard language ($p = .09$), and a relation between these variables is found in T2 ($p = .02$). So, regarding the teacher language use and student language use in everyday social contexts (at home and in peer interaction), in Dutch and English lessons, the teacher language use is related to schoolyard language only. Also in Frisian lessons, the analyses show that teacher language use is predominantly related to the students' schoolyard language.

To summarize, teacher target language use is most often observed in Dutch lessons and least in English lessons. In T2 of both Frisian and English lessons an increase of exclusive teacher target language use in the pre-phase is observed. In English lessons exclusive teacher target language use is observed in the pre-phase only. In both Dutch lessons (both measurements) and Frisian lessons (second measurement) additional language use is observed in the during-phase only, but additional Dutch language use in Frisian lessons is more common than additional Frisian language use in Dutch lessons. In Dutch and Frisian lessons additional language is mainly used for individual or small group work teacher-student interaction in the during-phase. In English lessons, additional language (generally Dutch) is used particularly in both during- and post-phase including demonstration of learning and/or reflection on content and/or language.

5.5.2 The relation between teacher language use and language development

This subsection is focused on the relation between teacher language use in the target language lessons and student language development in the target languages.

Related to teacher language use in the target language lessons, the mean scores for vocabulary and reading comprehension development in the three target languages are presented in table 5.11. To simplify the analyses for teacher language use in English lessons, the scores presented in figure 5.12a and 5.12a and 5.12b are redistributed in three categories of scores: 1.0, 1.5 and 2.0. In these categories, the score of 1.1 is simplified to 1, the scores 1.4, 1.5 and 1.6 are simplified to 1.5 and the scores 2.2 and 2.3 are both simplified to 2.0.

Table 5.11 Mean scores and standard deviations language development related to teacher target language use in Dutch, Frisian and English lessons

VOC denotes vocabulary development and RC denotes reading comprehension development

	Dutch				Frisian				English			
	VOC		RC		VOC		RC		VOC		RC	
Teacher Language Use	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD
1.0									94.9 (8)	18.98	80.6 (8)	19.53
1.5									84.4 (24)	15.84	71.1 (24)	14.52
2.0									86.5 (96)	16.00	73.1 (96)	18.91
2,7	108.4 (23)	34.83	0.18 (22)	0.70	22.5 (80)	6.02	47.7 (39)	6.29				
3.0	116.0 (95)	19.56	0.11 (96)	0.92	29.0 (26)	4.29	45.1 (26)	9.35				
Total	114.5 (118)	23.33	0.12 (118)	0.88	24.07 (106)	6.29	46.7 (65)	7.70	86.6 (128)	16.19	73.2 (128)	18.20

Table 5.11 shows that in both Dutch and Frisian lessons higher scores for vocabulary development (116.0 and 29.0 respectively) are observed in classes in which the teacher uses the target language only (teacher language use = 3.0). In contrast, regarding English language development, table 5.13 shows that the highest scores for vocabulary development (94.9) are observed in classes in which teachers use the English target language least (teacher language use = 1.0).

Regarding reading comprehension, table 5.11 demonstrates the highest scores for Dutch- (0.18), Frisian and English reading comprehension development (47.7 and 80.6 respectively) in classes in which the lowest scores for teacher language use (2.7, 2.7 and 1.0 respectively) are observed.

For both vocabulary development and reading comprehension development, the differences in teacher target language use are tested for significance. Results of these test are presented in table 5.12.

Table 5.12 Relation between teacher target language use and student language development in the three languages

	F	p	df1	df2	observed power
Dutch Vocabulary Development	4.16	.04	1	116	.53
Frisian Vocabulary Development	3.70	.06	1	104	.48
English Vocabulary Development	1.05	.35	2	125	.23
Dutch Reading Comprehension Development	0.72	.40	1	116	.13
Frisian Reading Comprehension Development	0.42	.52	1	63	.10
English Reading Comprehension Development	1.26	.29	2	125	.27

Regarding vocabulary development, significant differences ($p = .04$) are found between teacher language use scores in Dutch lessons. Higher scores for Dutch vocabulary development correspond to more teacher language use of Dutch. For both Frisian and English vocabulary development, no significant differences are found between teacher language use scores in Frisian and English lessons respectively. However, a tendency ($p = .06$) is found for the relation between teacher target language use in Frisian lessons and the students' Frisian vocabulary development. So, better performance on Frisian vocabulary development might be related to more exclusive teacher target language use in Frisian lessons.

Concerning the relation between teacher target language use and reading comprehension development, no significant relations are found between teacher target language use scores in reading comprehension development.

To summarize, the target language is most commonly used in Dutch lessons and the least in English lessons. In T2 an increase of teacher target language use is observed in Frisian and English lessons. In English lessons, exclusive target language use only exists in the lessons' pre-phase. In Frisian lessons, exclusive target language use only is observed in both the lessons' pre-phase and post-phase.

Regarding the relation between teacher target language use and language development, a significant relation is found for teacher target language use in

Dutch lessons and Dutch vocabulary development. Furthermore, a tendency is found for the relation between teacher target language use in Frisian lessons and Frisian vocabulary development. No significant relations are found between teacher target language use scores in reading comprehension development.

5.5.3 The relation between teacher English speaking level and English language development

Although the analyses of the relation between student English language development and teacher English speaking level in English lessons is not part of the research question, examination of this relation is useful as teacher English speaking level will be taken into account as one of the covariates regarding analyses of English language development. For that purpose, first data will be presented regarding the teacher English speaking level in English lessons, then the relation between teacher English speaking level in English lessons and student English language development will be presented.

Regarding the English speaking level in English lessons, for each class the teacher of grade 7 is assessed in T1 and the teacher of grade 8 in the second measurement.

The scores for English speaking level in English lessons are shown in figure 5.13.

4 = A2/B1, 5 = B1, 6 = B1/B2, 7 = B2

Figure 5.13 Teacher English speaking level scores per class T1 and T2

Regarding teacher English oral language level in English lessons, figure 5.13 shows that in T1 there is little difference between teachers of grade 7. Five teachers are assessed at a B1-level of the CEFR, and 2 teachers (class 8 and 9 are assessed at a slightly higher B1/B2 level. However, in T2 there is more variance between the grade 8 teachers regarding teacher English oral language level in English lessons. Scores vary from an A2/B1 level up to a B2 level. Regarding differences between the grade 7 and grade 8 teachers, in just two classes the teacher in T2 is assessed at a higher English oral language level than the teacher in the first measurement. In three classes the teacher in T2 is assessed at a lower English oral language level than the teacher in the first measurement.

To test the relation between the observed teacher speaking level and the students' English language development, first the mean scores for both English vocabulary-reading comprehension development are presented in table 5.13.

Table 5.13 Mean scores and standard deviations English language development related to teacher English speaking level

	English			
	VOC		RC	
	Mean (n)	SD	Mean (n)	SD
A2/B1	87.3 (53)	14.88	75.8 (53)	18.64
B1/B2	87.0 (51)	17.80	71.5 (51)	19.24
B2	84.4 (24)	15.84	71.1 (24)	14.52
Total	86.6 (128)	16.19	73.2 (128)	18.20

Table 5.13 shows that regarding vocabulary development, the highest mean score for English vocabulary development (87.30) is observed in classes in which the teacher English speaking level is rated at the lowest level (A2/B1), and that the lowest mean score for English vocabulary development (84.38) is observed in classes in which the teacher English speaking level is rated at the highest level (B2). This same pattern is observed regarding reading comprehension development. In classes in which the teacher English speaking level is rated at the highest level (B2), the lowest mean score for English reading comprehension development (71.08). In contrast, in classes in which the teacher English speaking level is

rated at the lowest level (A2/B1), the highest mean score for English reading comprehension development (75.75) is observed.

The differences between teacher English speaking levels in mean scores of both Vocabulary Development and Reading Comprehension Development in the three target languages are tested for significance. The results of these analyses are presented in table 5.14.

Table 5.14 Relation between English speaking level in English lessons and English language development

	F	p	df1	df2	observed power
English Vocabulary Development	0.08	.92	2	125	.06
English Reading Comprehension Development	0.12	.89	2	125	.07

As shown in table 5.14, no significant differences are found between teacher English speaking level in both English vocabulary- and English reading comprehension development, and so no relation is found for the development of the teachers' English speaking level and English language development. For that reason, it is decided that teacher speaking proficiency is not taken into account as covariate in the testing for relations as presented in the research questions.

5.6 Student language use in the three target language lessons

This section focusses on student language use in the three target language lessons. For that, observations of student language use (group data rather than individual student scores) in the three target language lesson is described. Then outcomes of the analyses of the relation between student language use and student language development in the three target languages are presented.

5.6.1 Student language use patterns

This subsection addresses student language use in the three target language lessons. Data for the patterns of student language use in target language lessons are presented in table 5.15. In this table, a growth of target language use is only observed in English lessons. Furthermore, a decline of target language use is observed in both Dutch and Frisian lessons.

Table 5.15 Student language use in the three target language lessons

1 = target language only, 2 = mainly target language and one or more other languages, 3 = the target language but mainly one or more other languages, 4 = only one or more other languages than the target language

Means: input = x000, teacher-student interaction = 0x00, student-student interaction = 00x0, and output = 000x

	Dutch lessons		Frisian lessons		English lessons	
Class	T1	T2	T1	T2	T1	T2
3	1112	1211	2221	2222	2232	2212
4	1221	1111	2221	2222	2232	2212
5	1111	1111	1121	1222	1231	2221
6	1111	1111	1111	2222	2222	2221
7	1111	1221	1221	2221	2222	2221
8	1111	1121	2222	2222	1222	1221
9	1111	1121	2121	1111	1221	1221

From table 5.15, a number of student language use pattern including different means (input, teacher-student interaction, student-student interaction, and output) can be deduced. In Dutch and Frisian target languages, the three most common observed patterns are: [1111], [1221] and [2221]. From these patterns, the pattern [1111], in which the target language only is used for all means, is most observed in Dutch lessons and one Frisian lesson. The second pattern [1221], by which both input and presentation are in the target language but both teacher-student interaction and student-student interaction is in the target language and one or more additional languages, is observed in all three language lessons but most in Frisian lessons (first measurement). The third more common pattern [2221], observed in Frisian lessons but most in English lessons, is the pattern by which input, teacher-student interaction and student-student interaction is in the target language and one or more additional languages and the presentation is in the target language only.

Furthermore, table 5.15 shows that the use of the target language only is most observed in Dutch lessons. In all classes, students used the target language only for input and output in both the first- and second measurement. However, compared to T1 in more classes Frisian is used in addition to mainly Dutch for teacher-student and/or student-student interaction.

Regarding student language use in Frisian and English lessons, in T1 the target language is used more in Frisian lessons than in English lessons. Compared to student language use in English lessons, in some classes the students used

the target language exclusively for the different means: input, teacher-student interaction, student-student interaction, and output. In contrast to the English lessons, in none of the classes another language than the target language is used by students.

In contrast to T1, in T2 the student language use patterns in both Frisian and English lessons generally look more similar. Only in one class (class 9) students used the target language for all means. Furthermore, in T2 exclusive use of the target language for output is more observed in English lessons than in Frisian lessons.

5.6.2 The relation between student language use and language development

In the previous section the patterns of student language use in the three target language lessons has been described. This subsection focuses on the relation between student language use in the three target language lessons and student language development in the three target languages.

Therefore, first the mean scores for the vocabulary and reading comprehension development in target languages are compared for differences in student language use. Then the differences between student language use patterns in mean scores of both vocabulary and reading comprehension development in the three target languages are tested for significance.

Table 5.16a Mean scores and standard deviations student Dutch language development related to student language use patterns in Dutch lessons

Language use pattern	Dutch			
	VOC		RC	
	Mean (n)	SD	Mean (n)	SD
1111	113.9 (49)	15.84	-0.02 (49)	1.06
1121	118.1 (46)	22.86	0.23 (47)	.74
1211	108.43 (23)	34.83	0.18 (22)	.70
1221	102.3 (6)	37.08	-0.67 (7)	1.65
Total	113.90 (124)	24.10	0.07 (125)	0.95

Table 5.16b Mean scores and standard deviations student Frisian language development related to student language use patterns in Frisian lessons

Language use pattern	Frisian			
	VOC		RC	
	Mean (n)	SD	Mean (n)	SD
1111	29.0 (26)	4.29	45.1 (26)	9.35
1222	21.5 (26)	6.11	48.3 (22)	5.73
2221	28.3 (6)	2.94		
2222	22.3 (41)	5.92	46.9 (17)	7.06
Total	24.1 (106)	6.29	46.7 (65)	7.70

Table 5.16c Mean scores and standard deviations student English language development related to student language use patterns in English lessons

Language use pattern	English			
	VOC		RC	
	Mean (n)	SD	Mean (n)	SD
1221	87.8 (44)	18.24	72.2 (44)	19.57
2221	86.1 (39)	16.57	72.3 (39)	16.38
2212	86.0 (45)	13.87	74.9 (45)	18.58
Total	87.0 (128)	17.39	72.2 (128)	18.03

Table 5.16a shows that the highest mean scores for Dutch vocabulary development (118.1) are observed in classes in which the input, teacher-student interaction and the presentation are exclusively in Dutch, and in which Frisian is used for student-student interaction. Table 5.16b shows that the highest mean scores for Frisian vocabulary development (29.0) are observed in classes in which Frisian is exclusively used for all means. For English vocabulary development, table 5.16b demonstrates the highest mean scores (78.8) in classes in which both the input and the presentation are exclusively in the target language.

Similarly to vocabulary development, in Dutch lessons the highest z-mean scores for Dutch reading comprehension development (0.23) are observed in classes in which Dutch is exclusively used for most means and in which Frisian is used as an additional language in student-student interaction. The lower z-mean scores are found in classes in which Frisian is used as an additional language in both teacher-student and student-student interaction, and in classes in which no additional language is used at all.

For Frisian reading comprehension development the highest mean scores (48.3) are observed in classes in which exclusively Frisian is used for input and Dutch is used as an additional language for all other means in Frisian lessons. Furthermore, the lowest mean scores (45.1) for Frisian reading comprehension development are observed in classes in which the target language is exclusively used for all means, and so no additional language is used at all.

Regarding English reading comprehension development, table 5.16c shows that the highest mean scores are observed in English lessons in which the students use the target language only for student-student interaction, but in which in input, output and teacher-student interaction (an) additional language(s) is or are used.

Related to the data presented in tables 5.16a-c, table 5.17 shows the results of the testing of differences between student language use patterns in vocabulary and reading comprehension development in the three target languages.

Table 5.17 Relation between student language use and language development in the three languages

	F	p	df1	df2	observed power
Dutch vocabulary development	2.89	.04	3	122	.68
Frisian vocabulary development	2.48	.07	3	104	.60
English vocabulary development	.82	.44	2	125	.19
Dutch reading comprehension development	6.03	.01	3	121	.95
Frisian reading comprehension development	2.86	.10	2	63	.38
English reading comprehension development	0.63	.53	2	125	.15

For vocabulary development, significant differences are found for Dutch vocabulary development in students language use in Dutch lessons. Higher mean scores for Dutch vocabulary development can be related to exclusively use of Dutch for input, teacher-student interaction and presentation, and the use of Frisian as an additional language in student-student interaction.

Taking into account the rather low score for the observed power (.60) and the and the small number of students in the class demonstrating the 2221 pattern, there is an indication that Frisian vocabulary development is related to student language use in Frisian lessons. In classes in which Frisian is exclusively used for all means, students may perform better on Frisian vocabulary development.

For English vocabulary development no differences between student language use patterns are found.

Regarding reading comprehension development in the three target languages, significant differences are found between student language use scores in Dutch reading comprehension development. Higher mean scores for Dutch reading comprehension development can be related to the use of Dutch only for input, student-student interaction and presentation, and the use of Frisian as an additional language in teacher-student interaction in the during-phase in Dutch lessons.

Regarding Frisian reading comprehension development, no differences are found between student language use scores in Frisian lessons. Also no relation is found for student language use scores and English reading comprehension development.

To summarize, descriptive statistics show differences in student language use in target language lessons. In the first measurement, the target language is most used in Dutch lessons, and least used in English lessons. Also in the second measurement, the target language is most used in Dutch lessons. However, not much difference is observed in student target language use between Frisian and English lessons.

In T1 in Frisian lessons the target language is used more than in English lessons. Compared to student language use in English lessons, in no Frisian lesson mainly use of another language than the (Frisian) target language is used. Furthermore, in some more Frisian- than English lessons exclusive use of the target language for one or more of the different means (input, teacher-student interaction, student-student interaction, and output) is observed.

In T2 however, the student language use patterns in both Frisian and English lessons generally look more similar. Only in one class (class 9) students used the target language for all means. Compared to T1, students used more target language in T2 English lessons. In all classes, the target language is used by students only or mainly for the different means.

Only for Dutch, relations are found between student language use and vocabulary and reading comprehension respectively. Regarding Dutch vocabulary development, data suggest that higher scores for Dutch vocabulary development are related to a language use pattern in which Dutch only is used for input, teacher-student interaction an output, and the use of Frisian as an additional language in student-student interaction. Regarding reading comprehension, data suggests also a relation between Dutch reading comprehension development and student language use in Dutch lessons. Better performance on Dutch reading comprehension development is found in classes in which a student language use pattern is observed in which Dutch only is used for input, teacher-student interaction an output, and the use of Frisian as an additional language in student-student interaction.

For Frisian, there is an indication that higher scores for Frisian vocabulary development are related to student language patterns in which Frisian is exclusively used in all three lesson phases and for all means. Secondly, there is an indication that higher scores for Frisian reading comprehension development are related to student language patterns in which Frisian is exclusively for input, and an additional language is use for teacher-student interaction, student-student interaction, and output.

No relations are found for student language use in English lessons and English vocabulary and reading comprehension respectively.

5.7 Conclusions

In this chapter the following research questions are answered:

- What languages are spoken by students at home and in the schoolyard, which language use is dominant, and how are student home language and student schoolyard language related to student language development in the three target languages?
- Which teacher language use scores and student language use patterns can be observed in the three target language lessons, and how are the observed language use patterns related to student language development in these languages?

Regarding the first research question, data show that Frisian is the only or mainly spoken home language, but that Dutch is the dominant spoken schoolyard language. Relations are found between student home and schoolyard language. Students who speak only or mainly Dutch at home, do speak predominantly Dutch in the schoolyard. Secondly, students who speak only Frisian at home, do speak mainly Frisian in the schoolyard. From the students who speak equally Dutch and Frisian in the schoolyard, the highest percentage speaks mainly Frisian and also Dutch at home.

Concerning the second part of the first research question, relations are found between home and schoolyard languages and language development. First, a relation is found between student home language and reading comprehension. Students who speak only Frisian or mainly Frisian at home, show better performance on Dutch reading comprehension development than students who speak only or mainly Dutch at home. Secondly, a relation is found between schoolyard language and Frisian vocabulary development. Students who speak mainly Dutch in the schoolyard perform less well on Frisian vocabulary development compared to students who speak predominantly Frisian or equally Dutch and Frisian in the schoolyard.

Regarding teacher target language use as part of the second research question, the data show that target language is most commonly used by teachers in Dutch lessons and the least used by teachers in English lessons. In T2 of both Frisian and English lessons an increase of exclusive target language use is observed. Only for the Dutch target language a significant relation is found for teacher language use in Dutch lessons and Dutch vocabulary development, showing that higher scores for Dutch vocabulary development are found in classes in which the teacher uses exclusively Dutch in Dutch lessons. Similarly, there is an indication that higher scores for Frisian vocabulary development are related to exclusive Frisian teacher language use in Frisian lessons.

With respect to student language use in target language lessons, in both measurements in Dutch lessons the most common pattern included the use of target language only for the different means (input, teacher-student interaction, student-student interaction and output). For student language use in Frisian lessons, the most common pattern included the use of mainly Frisian and additionally another language for both teacher-student interaction and student-

student interaction in T1. In the second measurement, the main student language use pattern included the use of mainly Frisian and additionally another language for all means: input, teacher-student interaction, student-student interaction and output. Finally, in English lessons, two main student language use pattern could be derived from the first measurement. In the first pattern, both teacher-student interaction and student-student interaction is mainly in English and in additional language(s). The second student language use pattern includes the use of mainly English and additional other language(s) for teacher-student interaction, and the use of mainly other languages and additionally English for student-student interaction. However, the most common student language use pattern in T2 includes mainly English for teacher-student- and student-student interaction and an exclusive use of English for output.

A relation is found between student language use and Dutch language development. Firstly, data suggest that Dutch vocabulary development is related to a language use pattern in which exclusively Dutch is used for input, teacher-student interaction and output, and that Frisian is used as an additional language in student-student interaction. Secondly, better performance on Dutch reading comprehension development is found in classes in which a student language use pattern is observed in which Dutch only is used for input, teacher-student interaction and output, and the use of Frisian as an additional language in student-student interaction.

For Frisian language development, there is an indication that higher scores for Frisian vocabulary development are related to student language patterns in which Frisian is exclusively used in all three lesson phases and for all means. Additionally, there is an indication that higher scores for Frisian reading comprehension development are related to student language patterns in which Frisian is exclusively for input, and an additional language is used for teacher-student interaction, student-student interaction, and output.

Chapter 6

Focus on Meaning and Focus on Form
in the three target language lessons

6.1 Introduction

In this chapter the following research questions are answered:

- Which strategies aimed at focus on meaning can be observed in the lessons for the three target languages, and how is the variation in the focus on meaning related to student language development in these languages?
- Which strategies aimed at a focus on form can be observed in the lessons in the three target languages, and how is the focus on form related to student language development in the these languages?

In addition to the presentation of the method, in 6.3 data is presented regarding the focus on meaning in target language lessons, and the relation between the differences between focus on meaning and language development. Section 6.4 is addressed to the data presentation of focus on form and how these data are related to language development.

6.2 Method

It is assumed that both language use and teaching practices develop over time, and that the development of student language use and teaching practices development are inter-related. As described in 4.2, on those accounts, data are collected at two moments in a cohort of nine classes grade 7-8 of seven trilingual primary schools over a period of two school years. T1 is at the start and T2 at the end of a period of these two school years.

Regarding the teacher strategies of focus on meaning (FoM), in the composite variable FoM the following items are included:

- attention to content,
- rich multimodal input,
- introduction of new content,
- attention to pre-knowledge,
- the planning of real-world tasks,
- reflection on content,
- demonstration.

Each item is scored 0 (not observed) or 1 (observed), and thus the summation of scores for FoM can vary in a range from 0 to 7. The higher the score, the more strategies are observed.

Regarding the research question addressed to the strategies for focus on form (FoF), the composite variable FoF includes the following items:

- attention to lexis (vocabulary and/or grammar),
- reflection on form,
- inter-linguistic reflection on language and language use,
- feedback techniques without prompting for student self-repair,
- feedback techniques prompting for student self-repair.

Each item is scored 0 (not observed) or 1 (observed), and thus the summation of scores for FoF vary in a range from 0 to 5. The higher the score, the more strategies are observed.

To assess the students' language development for the three target languages, tests are used that are especially developed for evaluation in the Dutch primary schools (see 4.3.3). As for the assessment of both Dutch and English language proficiency different tests are used for T1 and T2, standardized scores are used. As no sufficient standardized scores for Dutch reading comprehension could be determined, z-scores are computed for both T1 and T2. For the assessment of Frisian vocabulary and reading comprehension proficiency for T1 and T2 one test each is used. From these tests the raw data are used and presented.

To determine language development, the results for T2 are controlled for T1. To not lose variance, in the analyses of co-variance the results of T1 are taken into account as covariates. Similarly, for the assessment of both student- and teacher language use, results of T1 for these variables are used as covariates. However, to be able to present language development in graphs, difference scores of both measurements (T1 and T2) are also computed.

Regarding data-analyses, for each research question first quantitative analyses of data are presented. To test the relation between both student- and teacher language use and language development, then analyses of co-variance are performed.

6.3 Findings Focus on Meaning strategies in the three target language lessons

In this section the data are presented for Focus on Meaning as follows, first we begin with the total scores, then data regarding the components of the composite scores will be presented.

6.3.1 Focus on Meaning patterns

For T1 and T2, the teacher FoM scores in the three target language lessons are presented in figures 6.1a and 6.1b respectively.

Figures 6.1a and 6.1b show differences of FoM scores between the three target language lessons, between classes and between the two measurements. Table 6.1 shows that in all three target language lessons differences of FoM scores can be observed between T1 and T2. Moreover, table 6.1 shows that the largest increase of FoM mean scores are observed in Frisian lessons and that the smallest increase of FoM mean scores are observed in Dutch lessons.

Figure 6.1a FoM scores in the three language lessons per class T1

Figure 6.1b FoM scores in the three language lessons per class T2

Table 6.1 shows also an increase of FoM mean scores in all three target language lessons, that in T1 the highest mean score is observed in Dutch lessons but that in T2 the highest mean score is observed in the Frisian lessons. However, in T1 the most variance for FoM is also observed for Dutch lessons (SD 1.90). To anticipate problems with outliers in this small sample, also the median and the mode are evaluated as measures of central tendency. Regarding the mode, in T1 the highest scores FoM are observed in the English lessons. However, in T2 there is not much difference between target language lessons. Regarding the standard deviance, the least variance for FoM between teachers is observed in Frisian lessons (SD = 0.95).

Table 6.1 Measures of central tendency scores and standard deviations scores FoM in the three language lessons T1 and T2

	Dutch lessons		Frisian lessons		English lessons	
	T1	T2	T1	T2	T1	T2
Mean	4.4	4.6	3.3	4.7	4.0	4.6
Median	5	5	3	4	5	5
Mode	2 ^a	4 ^a	3	4	5	3 ^a
SD	1.90	1.40	1.70	0.95	1.29	1.27

^a Multiple modes exist. The smallest is shown.

To examine the FoM scores, table 6.2a and 6.2b show the scores for the different components.

Table 6.2a Scores FoM components in the three language lessons per class T1

Grey = similar teacher per class in target language lessons

	Attention to content			Rich Multi modal input			New Content			Pre-knowledge			Real-world Tasks			Reflection Content			Demonstration		
class	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3	x	x	x			x	x		x	x	x	x					x	x			
4	x	x	x			x	x		x	x	x	x					x	x			
5	x	x	x	x			x	x	x	x	x	x								x	
6	x	x	x	x		x		x		x		x	x		x	x		x			
7	x	x	x	x	x		x	x		x	x			x			x			x	x
8	x	x	x	x		x	x	x	x	x	x		x		x	x			x		x
9	x	x	x	x	x		x	x	x	x			x			x					x
Sum scores	7	7	7	5	2	4	6	5	5	7	5	4	3	1	2	3	3	3	2	1	3

Table 6.2b Scores FoM components in the three language lessons per class T2

Grey = similar teacher per class in target language lessons

	Attention to content			Rich Multi modal input			New Content			Pre-knowledge			Real-world Tasks			Reflection Content			Demonstration		
class	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3	x	x	x		x	x				x	x	x			x		x				x
4	x	x	x		x	x	x			x	x	x	x		x		x				x
5	x	x	x				x	x	x	x	x	x	x	x	x	x	x	x		x	
6	x	x	x	x	x	x	x	x	x	x	x	x				x		x	x		
7	x	x	x	x	x	x			x	x	x	x		x	x		x		x	x	x
8	x	x	x	x	x	x		x	x	x		x	x			x				x	x
9	x	x	x	x	x	x	x	x	x	x	x					x			x	x	x
Sum scores	7	7	7	4	6	6	4	4	5	7	6	5	3	2	4	4	4	2	3	4	5

Earlier it has been shown (table 6.1) that there is no common pattern for the way FoM scores are related to the different target language lessons. Tables 6.2a and 6.2b show that there is also no common pattern for the way FoM scores related to the different target language lessons offered by the same class teacher. Furthermore, tables 6.2a and 6.2b show that in both measurements attention to content is observed in all target language lessons. In both measurements attention

to pre-knowledge is most stimulated in Dutch lessons and least in English lessons, and that real-world tasks are least used in Frisian lessons. Regarding the variation in the provided input, table 6.2a shows that rich multimodal input is the least observed in T1 of Frisian lessons.

Regarding evaluation of content learning by reflection on content and demonstration, there is little difference between the target language lessons (and no difference between target language lessons in the second measurement). However, demonstration tasks are more used in English lessons and (in the second measurement) reflection on content is more stimulated in both Dutch and Frisian lessons.

To summarize, from descriptive statistics an increase of FoM is observed in all three language lessons. However, the largest increase has been observed in Frisian lessons.

In the first measurement, the highest mean scores of FoM are observed in Dutch lessons and the lowest mean scores in Frisian lessons. However, in T1 most variance for FoM scores is also observed in Dutch lessons. In contrast, not much difference of FoM is observed in T2 although variance between teachers is the least in Frisian lessons.

With respect to the observation of the different FoM components, it is observed that there is more attention to pre-knowledge in Dutch lessons, and that real-world tasks are least observed in Frisian lessons. Furthermore, demonstration by which students present the outcomes of the during-phase task in the target language, is most observed in English lessons. In contrast, reflection on content learning is the least observed in English lessons.

6.3.2 The relation between Focus on Meaning and language development

In the previous section the outcomes of the observation of FoM in the three target language lessons are described. This subsection focuses on the relation between FoM in the three target language lessons and student language development in these languages.

Therefore, first the mean scores for the vocabulary development and reading comprehension development in target languages are compared for differences in

FoM scores. Then the relation between FoM scores in the three target language lessons and vocabulary and reading comprehension development in these three languages are tested for significance.

Table 6.3 Mean scores and standard deviations language development in the three languages related to FoM

	Dutch				Frisian				English			
	VOC		RC		VOC		RC		VOC		RC	
	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD
score 1												
score 2	108.4 (23)	34.83	.176 (22)	0.70								
score 3									89.3 (31)	17.75	71.0 (31)	19.49
score 4	115.1 (21)	22.12	-.683 (24)	1.44	22.3 (48)	5.92	46.9 (17)	7.06	83.5 (20)	17.74	72.3 (20)	19.32
score 5	112.9 (48)	15.79	.262 (46)	0.58	29.0 (26)	4.29	45.1 (26)	9.35	86.0 (45)	13.87	74.9 (45)	18.58
score 6	118.6 (32)	26.50	.294 (33)	0.82	22.8 (32)	6.24	48.3 (22)	5.73	87.0 (32)	16.99	73.5 (32)	16.13
Total	113.9 (124)	24.10	.074 (125)	0.95	24.1 (106)	6.29	46.7 (65)	7.70	86.6 (128)	16.19	73.2 (128)	18.20

Table 6.3 shows that in both Dutch and Frisian language development, the lowest mean scores for vocabulary development (108.4 and 22.3 respectively) are observed classes in which FoM is least observed (scores of 2 and 4 respectively). Only in Dutch lessons, the highest score for FoM seems to match with the highest mean score for vocabulary development (score 6).

In both Dutch and Frisian language development, a pattern is observed in which the highest score for FoM seem to match with the highest mean scores for reading comprehension development, but in which the lowest reading comprehension score does not match with the lowest FoM score. Conversely, in English language development a pattern is observed in which the highest mean score for reading comprehension development (71.0) is observed in classes in which a FoM is least observed (score of 3), and in which the highest mean score for reading comprehension does not match the lowest FoM score.

The differences between mean scores are tested for significance. The results of these analyses are shown in and table 6.4.

Table 6.4 Relation between FoM in the three target languages and vocabulary development in the three languages

	F	p	df1	df2	observed power
Dutch Vocabulary Development	1.47	.23	3	120	.38
Frisian Vocabulary Development	3.62	.03	2	103	.66
English Vocabulary Development	0.04	1.0	3	124	.06
Dutch Reading Comprehension Development	12.43	.00	3	121	1.0
Frisian Reading Comprehension Development	0.42	.52	2	62	.10
English Reading Comprehension Development	0.29	.84	3	124	.10

For vocabulary development, only in Frisian target language lessons significant differences are found between FoM scores in Frisian lessons ($p = .03$). To examine the difference between the FoM-scores in Frisian vocabulary development, post hoc analyses are carried out. Table 8.5 shows that there are significant differences between the FoM scores of 4 and 5 ($p = .00$) and the scores of 6 and 4 ($p = .05$). However, no differences are found between the FoM scores of 6 and 5 ($p = .61$). So, higher scores for Frisian vocabulary development are found in Frisian lessons in which there is more FoM.

Table 6.5 Results post hoc analyses for the relation between FoM and Frisian vocabulary development

(I) FoM score	(J) FoM scores	Mean difference	p	SE
5	4	2.57	.03	1.13
	6	0.65	.61	1.28
6	4	1.92	.05	0.97
	5	-0.65	.61	1.28

For reading comprehension development, only in Dutch lessons differences are found between reading comprehension development scores in FoM ($p = .00$). Table 6.6 shows the outcomes of the post hoc analyses to examine the differences between FoM scores in Dutch reading comprehension development. As expected from table 6.3, students from classes in which a FoM score of 4 is observed, perform significantly worse on Dutch reading comprehension than students from other classes.

Table 6.6 Results post hoc analyses for the relation between FoM and Dutch reading comprehension development

(I) FoM score	(J) FoM scores	Mean difference	P	SE
4	2	-1.17	.00	0.24
	5	-1.65	.00	0.35
	6	-1.37	.00	0.33

For that, there is no evidence that the scores for reading comprehension development are related to FoM in any of the three languages lessons.

6.4 Findings Focus on Form strategies in the three target language lessons

In this section the data are presented for FoF in the following way, first we begin with the total scores, then data regarding parts of the composite scores will be presented.

6.4.1 Focus on Form patterns

The teacher FoF scores in the three target language lessons for T1 and T2 are presented in figures 6.2a and 6.2b respectively.

Figure 6.2a FoF scores in the three language lessons per class T1

Figure 6.2b FoF scores in the three language lessons per class T2

Figures 6.2a and 6.2b demonstrate that scores vary within the three target language lessons, per class, and per measurement, and that FoF is most commonly observed in English lessons. Regarding the comparison of scores between the three target languages, figure 6.2a demonstrates a score of zero for FoF in three Dutch- and one Frisian lessons respectively, and a score of one in one Dutch and four Frisian lessons respectively. In contrast, figure 6.2a shows a FoF score of three or five in four English lessons. For comparison, in all classes the English lessons are timetabled as language lessons, but in the classes 3, 4 and 5 the Frisian lessons are timetabled as language lessons as well.

Just as in table 6.2a, table 6.2b demonstrates the highest scores for FoF in English lessons, and commonly the lower scores in Frisian lessons. Only in Dutch lessons scores of zero for FoF are found.

For the data demonstrated in figures 6.2a and 6.2b, table 6.7 shows mean scores, median and mode for both measurements of FoF strategies in target languages lessons.

Table 6.7 Measures of central tendency scores and standard deviations scores FoF in the three language lessons T1 and T2

	Dutch lessons		Frisian lessons		English lessons	
	T1	T2	T1	T2	T1	T2
Mean	1.6	1.6	1.4	1.4	3.1	2.4
Median	1	2	1	1	3	2
Mode	0	0 ^a	1	1	2	1 ^a
SD	1.81	1.27	1.27	0.79	1.35	1.27

^a Multiple modes exist. The smallest is shown

Also table 6.7 shows that, using both mean and mode, in both T1 and T2 FoF is most observed in English lessons. Furthermore, the mean scores in table 6.7 show the lowest scores for the FoF in both measurements of Frisian lessons. However, to anticipate problems with outliers in this small sample, also other measures of central tendency are used for the data analyses. The use of mode show the highest FoF scores in English lessons, and the lowest scores for FoF in Dutch lessons.

Regarding differences of FoF mean scores between measurements, a decrease of scores is observed in English lessons only. Despite less variance (standard deviations of 1.27 and 0.79 for T1 and T2 respectively), no differences are observed in Frisian lessons. Taking into account the multiple modes in the second measurement, only in Dutch lessons a small increase can be noticed.

To examine the FoF scores per class, table 6.8a and 6.8b show the scores for the different FoF components.

Table 6.8a Components FoF in the three language lessons T1

Grey denotes similar teacher per class in the three language lessons

Teacher	Lexis			Reflection Form			Inter-linguistic reflection			Feedback			Feedback for self-repair		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
class															
3		x	x			x						x			
4		x	x			x						x			
5	x	x	x		x			x		x	x	x			
6	x		x	x		x	x		x			x	x	x	x
7		x	x			x			x			x		x	x
8	x		x								x	x			
9	x	x	x				x	x		x		x	x		
Sum scores	4	5	7	1	1	4	2	2	2	2	2	7	2	2	2

Table 6.8b Components FoF in the three target language lessons T2
 Grey denotes similar teacher per class in the three language lessons

Teacher	Lexis			Reflection Form			Inter-linguistic reflection			Feedback			Feedback for self-repair		
class	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3		x	x			x					x				x
4	x	x	x			x				x		x			x
5		x						x	x						
6	x							x		x		x		x	x
7		x	x									x			
8	x	x	x				x						x		
9	x	x	x							x	x	x	x	x	
Sum scores	4	6	5	0	0	2	1	1	1	4	1	5	2	2	3

Earlier it has been shown that there is no common pattern for the way FoF scores are related to the different classes. Tables 6.8a and 6.8b show that there is also no common pattern for the way FoF scores are related to the different target language lessons offered by the same classroom teacher.

Tables 6.8a and 6.8b also show that in both measurements, the least attention to lexis is in Dutch lessons. Data regarding the focus on the different linguistic aspects are presented in appendix D.

The provision of feedback is most commonly observed in English lessons. From the components related to student metalinguistic awareness (reflection on form, interlinguistic reflection on form and feedback to stimulate student self-repair), these components are observed in just few cases. Reflection on form is also mostly observed in English lessons. As feedback is also part of the variable teacher behaviour to stimulated teacher-student interaction (research question 5), further elaboration of data concerning feedback techniques will be presented in chapter 9.

To summarize, in both first and second measurements FoF strategies are most observed in the English lessons. Depending on the use of the measures of central tendency, using means FoF is least observed in Frisian lessons, and using modes FoF is least observed Dutch lessons. Moreover, in this respect, the least differences between classes are observed in Frisian lessons, and also the variance of FoF scores is least in T2 of Frisian lessons. The differences between FoF scores can particularly be explained by the differences in the provision of feedback which is most observed in English lessons, and least observed in Frisian lessons. Also, both

reflection on form and the provision of feedback are most observed in English lessons. Feedback is least observed in Frisian lessons.

6.4.2 The relation between Focus on Form and language development

In the previous section the outcomes of the observation of FoF in the three target language lessons are described. This subsection focuses on the relation between FoF strategies in the three target language lessons and students' language development in the three target languages.

Therefore, first the mean scores for the vocabulary development and reading comprehension development in target languages are compared for differences in FoF. Then the differences between FoF scores of both vocabulary and reading comprehension development in the three target languages are tested for significance.

Table 6.9 Mean scores and standard deviations language development in the three languages related to FoF

	Dutch				Frisian				English			
	VOC		RC		VOC		RC		VOC		RC	
	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD
Score 0	107.2 (29)	34.71	-.027 (29)	1.04								
score 1	109.4 (27)	18.14	.380 (25)	.55	22.3 (73)	6.12	47.7 (39)	6.29	84.0 (44)	16.54	71.6 (44)	16.68
score 2	119.4 (22)	10.45	-.427 (24)	1.30	24.3 (7)	4.79			92.3 (32)	18.18	74.3 (32)	20.05
score 3	118.1 (46)	22.86	.230 (47)	.74	29.0 (26)	4.29	45.1 (26)	9.35	82.1 (7)	14.97	66.7 (7)	17.63
score 4									86.0 (45)	13.87	74.9 (45)	18.58
score 5												
Total	113.9 (124)	24.10	.074 (125)	.95	24.1 (106)	6.29	46.65 (65)	7.70	86.6 (128)	16.19	73.2 (128)	18.20

Table 6.9 shows for both Dutch and Frisian vocabulary development a pattern in which higher vocabulary development scores coincide with higher FoF scores. Table 6.9 also shows that the highest mean score (47.7) on Frisian reading comprehension is found in connection with the lowest FoF scores. No pattern can

be observed for the way the scores for Dutch reading comprehension development coincide with the FoF scores in Dutch lessons. Also, no patterns can be observed for the way English vocabulary and reading comprehension development coincide with the FoF scores in the English lessons.

Related to the data presented in table 6.9, the differences between mean scores in language development are tested on significance related to the distribution of FoF scores. The results of these analyses are shown in and table 6.10.

Table 6.10 Relation between FoF in the three target languages and vocabulary development in the three target languages

	F	p	df1	df2	observed power
Dutch Vocabulary Development	2.44	.07	3	120	.59
Frisian Vocabulary Development	1.37	.26	2	103	.29
English Vocabulary Development	1.08	.36	3	124	.29
Dutch Reading Comprehension Development	4.99	.00	3	121	.91
Frisian Reading Comprehension Development	1.26	.27	1	63	.20
English Reading Comprehension Development	0.42	.74	3	124	.13

Table 6.10 shows that in only Dutch reading comprehension differences are found between FoF scores in Dutch lessons ($p = .00$). Furthermore, an indication is found for the relation between Dutch vocabulary development and FoF in Dutch lessons.

6.5 Conclusions

Based on presented data, in this chapter the following research questions are answered:

- Which strategies aimed at focus on meaning can be observed in the lessons for the three target languages, and how is the variation in the focus on meaning related to student language development in these languages?
- Which strategies aimed at a focus on form can be observed in the lessons in the three target languages, and how is the focus on form related to student's language development in these languages?

Regarding the use of strategies aimed at FoM in the three target languages, differences are observed between measurements, between teachers, and between

target language lessons. Differences between teachers are most observed in the first measurement. In T1, the highest mean scores of FoM strategies are observed in Dutch lessons and the lowest mean scores in Frisian lessons. In T2 the highest FoM mean score is observed in Frisian lessons. Furthermore, an increase of FoM strategies is observed in all three language lessons, but the most in Frisian lessons.

With respect to the different FoM components, attention to pre-knowledge is observed most in Dutch lessons and the least in English lessons. Both the use of real-world tasks and demonstrations are the least observed in Frisian lessons. Demonstrations, by which students present the outcomes of the during-phase task in the target language, is most observed in English lessons. Conversely, reflection on content is (to complete content learning) is least observed in English lessons.

Concerning the relation between FoM and language development, only in Frisian lessons a relation is found indicating that higher scores for FoM in Frisian lessons are related to higher mean scores for Frisian vocabulary development.

FoF strategies are most observed in English lessons, and the least in Dutch lessons. Only in English lessons a decrease of scores is observed from T1 to T2. In Dutch lessons little increase of FoF is observed. In Frisian lessons, except for a decrease in variance no differences between T1 and T2 are perceived. The differences between FoF scores can particularly be explained by the differences in the provision of feedback, which is most observed in English lessons and the least in Frisian lessons.

Only for Dutch reading comprehension development and maybe Dutch vocabulary development, relations are found for FoF strategies and vocabulary and reading comprehension development. However, considering the irregular pattern of scores demonstrated in table 6.9, the differences in Dutch reading comprehension development can be related to the distribution of FoF scores in the Dutch lessons. Probably, there is an intervening variable.

In the other target language lessons no relations are found.

Chapter 7

Teaching strategies to stimulate
student target language use

7.1 Introduction

In this chapter the following research questions are answered:

- How is target language use stimulated in teacher-student interaction, and how is it related to student language development the three target languages?
- Which teaching methods to stimulate target language use can be observed, and how are these related to student language development in the three target languages?

In addition to the presentation of the method in section 7.2, in section 7.3 first data is presented regarding teacher repertoire to stimulate student target language use by contribution in teacher-student interaction in classroom discourse (student language use). Then data is presented for the relation between the differences in the stimulation of teacher-student interaction and language development. Section 7.4 presents data concerning pedagogic formats to stimulate student target language use in target language lessons (student language use), and how differences in the observed pedagogic formats are related to language development.

7.2 Method

It is assumed that both languages and teaching practices develop over time, and that students' language development and the development of teaching practises are inter-related. As described in 4.2, for that reason, data are collected at two moments in a cohort of nine classes grade 7-8 of seven trilingual primary schools over a period of two school years. T1 is at the start and T2 at the end of a period of these two school years.

Regarding the stimulation of the students target language use, the teacher repertoire to stimulate student contributions in whole classroom discourse (teacher repertoire) is observed (see p. 36-38).

The scoring of the composite variable teacher repertoire includes the following items:

- dialogical participation framework or the discourse framework in the lessons
- one or more of the common conversational techniques

- one or both techniques to stimulate more advanced language use
- one or both interactional feedback techniques to provide input
- one or more interactional feedback techniques to prompt students for self-correction

Each item is scored 0 (not observed) or 1 (observed), and thus the summation of scores for stimulation of teacher-student interaction vary in a range from 0 to 5. The higher the score, the more strategies are observed.

Regarding the execution of teaching methods to stimulate target language use, the composite variable teaching methods (see p. 38) includes the following items:

- pedagogic tasks,
- group work,
- role-play,
- demonstration.

Each item is scored 0 (not observed) or 1 (observed), and thus the summation of scores for teaching methods vary in a range from 0 to 4. The higher the score, the more strategies are observed.

To assess the students' language development for the three target languages, tests are used that are especially developed for evaluation in the Dutch primary schools (see 4.3.3). As for the assessment of both Dutch and English language proficiency different tests are used for T1 and T2, standardized scores are used. As no sufficient standardized scores for Dutch reading comprehension could be determined, z-scores are computed for both T1 and T2. For the assessment of Frisian vocabulary and reading comprehension proficiency for T1 and T2 one test each is used. For these tests raw data is used.

To determine language development, the results for T2 are controlled for T1. To not lose variance, in the analyses of co-variance the results of T1 are taken into account as covariates. Similarly, for the assessment of both student- and teacher language use, results of T1 for these variables are used as covariates. However, to be able to present language development in graphs, difference score of T1 and T2 are computed.

Regarding data-analyses, for each research question first quantitative analyses of data is presented. To test the relation between both student- and teacher language use and language development, then analyses of co-variance is performed. For data-analyses SPSS is used.

7.3 Teacher interactional repertoire to stimulate student contributions

This section is focussed on the teacher repertoire. First, the observations of the teacher repertoire to stimulate student target language use in Dutch, Frisian and English lessons are described. Then the relation between the teacher repertoires and student language development are presented.

7.3.1 Teacher repertoires in the three target language lessons

The total scores for teacher repertoire to stimulate student language use (T1 and T2) are presented in figures 7.1a and 7.1b.

Figure 7.1a Teacher repertoire scores the three language lessons per class T1

Figure 7.1b Teacher repertoire scores the three language lessons per class T2

Figures 7.1a and 7.1b show the variation of teacher repertoire to stimulate student contributions between target language lessons and between measurements. Regarding the variation in the teacher repertoire, no clear pattern is observed. However, table 7.1 shows the most increase of teacher repertoires in Frisian lessons, and least increase in English lessons. In T2, the broadest teacher repertoires are observed in Dutch lessons and the smallest repertoires are observed in English lessons.

Furthermore, table 7.1 shows that in T1 most variance in teacher repertoires is observed in English lessons and that in T2 most variance of teacher repertoires is observed in Dutch lessons. Table 7.1 also shows that in T1 for teacher-student interaction the lowest mean scores (mean 1.6) and the least variance (SD .79) are observed in Frisian lessons.

Table 7.1 Measures of central tendency scores and standard deviations teacher repertoire to stimulate student target language use in the three language lessons T1 and T2

	Dutch lessons		Frisian lessons		English lessons	
	T1	T2	T1	T2	T1	T2
Mean	2.3	2.7	1.6	2.6	2.3	2.3
Median	2	3	1	2	2	3
Mode	1 ^a	4	1	2	1 ^a	1 ^a
SD	1.11	1.80	0.79	1.13	1.80	1.25

^a Multiple modes exist. The smallest is shown.

To examine the scores for the composite variable teacher repertoire, data for the different components is presented below. First the scores for the participation frameworks are shown, then the scores for the techniques to stimulate contribution, and lastly scores for teacher feedback repertoire are demonstrated.

7.3.2 Participation frameworks in whole classroom discourse

Tables 7.2a and 7.2b show the scores for the observed participation frameworks in the three target language lessons.

Table 7.2a Scores dominant participation framework in the three language lessons T1

class	monological			limited interactive			dialogic			discussion		
	D	F	E	D	F	E	D	F	E	D	F	E
3				x	x	x						
4				x	x	x						
5			x	x	x							
6	x	x		x		x						
7				x	x	x						
8		x		x		x						
9				x	x	x						
Sum scores	1	2	1	6	5	6	0	0	0	0	0	0

T1 Grey = similar teacher per classroom in TLL

Table 7.2b Scores dominant participation framework in the three language lessons T2

class	monological			limited Interactive			dialogic			discussion		
	D	F	E	D	F	E	D	F	E	D	F	E
3	x				x	x						
4				x	x	x						
5					x	x	x					
6					x	x	x					
7	x				x	x						
8					x	x	x					
9						x	x	x				
Sum scores	1	0	0	1	6	7	4	1	0	0	0	0

T2 Grey = similar teacher per classroom in TLL

As the limited interactive framework is most observed, table 7.2a shows the smallest variation in the use of the participation frameworks in whole classroom discourse in Dutch and English lessons. As in two out of the seven classes the monologic participation framework is observed, and a bit more variation for the use of participant frameworks is observed in Frisian lessons. In all three target language lessons, the limited interactive framework is most commonly used in the first measurement. For the second measurement, table 7.2b shows little variance in the use of the participation frameworks in Frisian lessons and no variance in the English lessons. Also in T2 the limited interactive framework is the most commonly used framework in Frisian and English lessons. However, more variance can be observed in T2 in Dutch lessons in which the Dialogic framework is the modal participation framework.

7.3.3 Teacher techniques to stimulate student contribution

The second component of teacher repertoire to stimulate student language use enhances the teacher techniques to stimulate student contribution in whole classroom discourse. The scores of observation of this component are presented in tables 7.3a and 7.3b.

Table 7.3a Scores teacher techniques to stimulate student contributions in whole classroom discourse in the three target language lessons T1

class	Referential questions			Silences			Agreement			Response			Summaries			Reformulation			Probing questions		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3	x						x	x	x				x			x			x	x	
4							x	x	x										x	x	
5	x			x			x	x		x	x		x			x			x		
6	x	x	x	x			x		x	x			x		x						
7		x				x	x	x	x										x		
8			x				x	x	x	x			x			x			x	x	
9	x				x		x	x			x		x			x	x		x	x	
Sum scores	4	2	2	2	1	1	7	6	5	3	2	0	5	0	1	4	1	2	5	3	0

T1 Grey = similar teacher per classroom in TLL

Table 7.3b Scores teacher techniques to stimulate student contributions in whole classroom discourse in the three target language lessons T2

class	Referential questions			Silences			Agreement			Response			Summaries			Reformulation			Probing questions		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3			x				x	x	x					x						x	
4	x		x				x	x	x	x				x					x	x	
5		x						x	x					x						x	
6	x	x	x				x	x	x	x			x	x	x	x		x	x	x	x
7		x	x			X		x	x				x		x			x		x	x
8	x	x					x	x	x	x				x			x		x	x	
9	x	x		x			x	x					x	x		x	x		x	x	
Sum scores	4	5	4	1	0	1	5	7	6	3	0	1	2	6	2	2	2	2	4	7	2

T2 Grey = similar teacher per classroom in TLL

Table 7.3a shows that in T1, teacher agreements in response to student contributions is a commonly used technique in all three target language lessons to stimulate student contributions in whole classroom discourse. Table 7.3a also shows that in Dutch lessons the broadest repertoire of teacher techniques are observed. In addition to teacher agreements, the use of the following techniques are observed in 4 or more classes:

- referential questions,
- summaries,
- reformulations,
- probing questions.

As demonstrated in table 7.3b, in T2 most teachers stimulate student contributions by both referential questions and agreements, and that most teachers in both Dutch and Frisian lessons also use probing questions to stimulate student contributions. Furthermore, summaries are also commonly used in the second measurement of Frisian lessons.

Therefore, in T1 in Dutch lessons more teachers demonstrated a broader repertoire of techniques to stimulate student contributions, whilst in T2 broader technique repertoires are also demonstrated in all three target language lessons. Also teacher reformulations of student utterances are observed in few classes, except for the Dutch lessons in T1.

7.3.4 Interactional feedback techniques to stimulate student target language use

The third and last component of teacher repertoire to stimulate student language use enhances the interactional feedback techniques to stimulate correct student contributions. This component is also part of the composite variable FoM. As shown in section 6.4, the use of feedback techniques (recasts and explicit corrections) is most observed in the English lessons and the least in Frisian lessons, and the use of feedback techniques to stimulate student self-repair is minimally observed in any target language lesson.

The scores for the observation of the different feedback techniques are presented in tables 7.4a and 7.4b.

Table 7.4a Scores interactional feedback techniques in the three language lessons T1

class	Recasts			Repetition			Hints			Elicitations			Silences			Clarifications			Explicit correction		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3																					x
4																					x
5	x	x																			x
6			x			X			x				x			x		x			
7			x			X			x			x									x
8		x	x																		
9	x						x						x			x					x
Sum scores	2	2	3	0	0	2	1	0	2	0	0	1	2	0	0	2	0	1	0	0	5

T1 Grey = similar teacher per class in the three target language lessons

Table 7.4b Scores interactional feedback techniques in the three language lessons T2

class	Recasts			Repetition			Hints			Elicitations			Silences			Clarifications			Explicit correction		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3			x			X															
4			x			X													x		
5	x																				
6	x		x					x	x			x			x			x			
7			x																		x
8							x			x											
9	x	x		x												x					x
Sum scores	3	1	4	1	0	2	1	1	1	1	0	1	0	0	1	1	1	1	1	0	2

T2 Grey = similar teacher per class in the three target language lessons

Tables 7.4a and 7.4b show that from the interactional feedback techniques, the use of explicit correction is most observed in English lessons, and that in T2 the use of recasts is most observed in English lessons. The feedback techniques to stimulate student self-repair (repetition, hints, elicitations, silences and clarifications) are observed in few or no classes of each target language.

To summarize, in T1 student language use is least stimulated in Frisian lessons. Taking into account mean and modes, no differences in the teacher repertoires are observed between Dutch and English lessons. However, most variance of the teacher repertoires scores is observed in English lessons, which means that differences between teachers in the stimulation of student language use are the largest in English lessons. In T2 student language use is most stimulated in Dutch lessons and the least in English lessons, and is also the most variance in teacher repertoires observed in Dutch lessons. Between T1 and T2, the most increase of teacher repertoires are observed in the Frisian lessons, and the least increase is observed in English lessons.

Regarding the participant frameworks, the limited interactive framework is most commonly used in T1 of all three target languages. In the second measurement, the limited interactive framework is still the most commonly used framework in Frisian and English lessons, but in Dutch lessons the dialogic framework is then the predominantly used in whole classroom discourse.

7.3.5 Relation between teacher repertoire and student language development

In the previous sections the outcomes of the observation of the different components of teacher repertoire to stimulate student language use in whole classroom discourse in the three target language lessons are described. This subsection focuses on the relation between these teacher repertoires in the three language lessons and student language development.

Therefore, first the mean scores for the vocabulary and reading comprehension development in the three languages are compared for differences in the teacher repertoire scores. Then the differences between teacher scores of both vocabulary and reading comprehension development in the three target languages are tested for significance.

Table 7.5 Mean scores and standard deviations language development in the three languages related to teacher repertoires to stimulate student target language use in whole classroom discourse

	Dutch				Frisian				English			
	VOC		RC		VOC		RC		VOC		RC	
	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD
Score 0	102.3 (6)	37.08	-.667 (7)	1.65								
score 1	108.4 (23)	43.83	.176 (22)	0.70					86.6 (68)	17.39	71.8 (68)	17.85
score 2	109.4 (27)	18.14	.380 (25)	0.55	22.3 (73)	6.12	47.7 (39)	6.29				
score 3	120.3 (15)	10.46	-.689 (17)	1.40	24.3 (7)	4.79			87.30 (53)	14.88	75.8 (53)	18.65
score 4	117.3 (28)	10.85	.144 (28)	0.63					82.14 (7)	14.97	66.7 (7)	17.63
score 5	118.8 (25)	29.60	.316 (26)	0.84	29.0 (26)	4.29	45.1 (26)	9.35				
Total	113.9 (124)	24.10	.037 (125)	0.95	24.1 (106)	6.29	46.7 (65)	7.70	86.6 (128)	16.19	73.2 (128)	18.20

Table 7.5 shows only in Frisian lessons patterns in the distribution of scores. Higher scores on Frisian vocabulary development coincide with higher scores for the teacher repertoires, and higher scores on Frisian reading comprehension development coincide with lower scores for the teacher repertoires.

No clear patterns can be observed for how teacher repertoire scores in Dutch lessons and Dutch vocabulary and reading comprehension development respectively coincide. However, table 7.5 shows that students' Dutch vocabulary development scores are higher in classes in which a teacher repertoire score of at least 3 is found.

Also, no clear patterns can be observed for how teacher repertoire scores in in English lessons and English vocabulary and reading comprehension development respectively coincide.

To test the data presented in table 7.5 for significance, analyses of co-variance are conducted. The outcomes of these analyses are presented in table 7.6.

Table 7.6 Relation between teacher repertoire to stimulate student target language use in the three target languages and language development in these languages

	F	p	df1	df2	observed power
Dutch Vocabulary Development	2.23	.06	5	118	.71
Frisian Vocabulary Development	1.37	.26	2	103	.30
English Vocabulary Development	0.04	.96	2	125	.06
Dutch Reading Comprehension Development	5.26	.00	5	119	.99
Frisian Reading Comprehension Development	0.42	.52	1	63	.10
English Reading Comprehension Development	0.05	.95	2	125	.06

Table 7.6 shows that only a relation is found between teacher repertoire in the Dutch lessons and student Dutch reading comprehension ($p = .00$). However, a relation is no likely between these variables considering the irregular pattern of scores demonstrated in table 7.5.

A tendency is found between the relation between Dutch vocabulary development and teacher repertoire in Dutch lessons ($p = .06$). Higher mean scores for Dutch vocabulary development could possibly be related to higher teacher repertoire scores.

To summarize, in Dutch lessons students' Dutch vocabulary development scores are higher in classes in which a teacher repertoire score of at least 3 is found. In Frisian lessons, higher scores on Frisian vocabulary development coincide with higher scores for the teacher repertoires. From these patterns, only in Dutch lessons an indication for a relation between teacher repertoire to stimulate student target language use in Dutch lessons and students' Dutch vocabulary development is found.

Only in Frisian lessons a pattern is observed in which higher scores on Frisian reading comprehension development coincide with lower scores for the teacher repertoires. However, no relation is found for this pattern. Contrarily, despite no coincidence of the distribution of Dutch reading comprehension development and teacher repertoires is being observed, a relation is found between Dutch reading comprehension development and teacher repertoires to stimulate student contributions in Dutch target language lessons.

7.4 Findings use of teaching methods in the three target language lessons

The data presented in section 7.3 addresses aspects of teacher behaviour in whole classroom discourse as part of the lesson's pre-phase and/or the lessons during-phase. In this section data are addressed to the teaching methods to stimulate student target language. First data are presented related to the teaching methods used in the three target language lessons, then data are shown regarding the relation between the teaching methods used and language development in the three target languages.

7.4.1 Teaching methods used in the target language lessons

Figure 7.2a and 7.2b show the total scores for teaching methods that are used to stimulate student language use in T1 and T2 respectively.

Figures 7.2a and 7.2b show differences between teachers, between target language lessons and between measurements in the use of teaching methods. Table 7.7 shows in both T1 and T2 the highest mean scores (1.6 and 2.5 respectively) but also the most variance in the use of teaching methods (SD1.28 and SD 1.30 respectively) is observed in English lessons. Furthermore, in both measurements lowest mean scores for teaching methods are observed in Frisian lessons.

Figure 7.2a Teaching methods to stimulate student language use T1 per class

Figure 7.2b Teaching methods to stimulate student language use T2 per class

Table 7.7 Measures of central tendency scores and standard deviations scores teaching methods to stimulate student language use in the three language lessons T1 and T2

	Dutch lessons		Frisian lessons		English lessons	
	T1	T2	T1	T2	T1	T2
Mean	1.2	2.4	1.1	2.1	1.6	2.5
Median	1	3	1	2	1	3
Mode	1	3	1	2	3	3
SD	1.02	0.74	0.80	1.00	1.28	1.30

^a Multiple modes exist. The smallest is shown.

To examine the scores for the composite variable teaching methods, data for the different components are presented in tables 7.8a and 7.8b. For comparison, in addition to the data for pedagogic tasks, group work, role-play and demonstration, data for whole classroom discussion, individual seatwork and the category other formats are presented as well.

Table 7.8a and table 7.8b show that there is an increase of the use of pedagogic tasks, group work, and demonstration in all three language lessons, and little decrease of the use of individual seatwork in all three target language lessons. Role-play is used in a few Dutch- and in one English language lesson, but not used in Frisian lessons. Moreover, there is a little increase of the use of whole group discussion in the English lessons' during-phase and a larger increase in Frisian

lessons. In both measurements, demonstration is most observed and individual seatwork is the least observed in English lessons.

Table 7.8a Scores teaching method components to stimulate language use in the three language lessons T1

class	Pedagogic Tasks			Groupwork			Role-play			Demonstration			Classroom discussion			Individual seatwork			Other		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3					x											x		x			
4	x				x											x		x	x		
5	x	x	x							x			x			x	x				x
6	x	x	x	x									x		x		x	x			
7		x	x		x	x				x	x					x			x		
8	x		x	x		x				x		x	x		x		x				x
9	x	x	x			x					x	x	x	x	x	x				x	
Sum scores	5	4	5	2	3	3	0	0	0	2	1	3	4	1	3	4	4	3	2	1	2

T1 Grey = similar teacher per class in the three target language lessons

Table 7.8b Scores teaching method components to stimulate language use in the three language lessons T2

class	Pedagogic Tasks			Groupwork			Role-play			Demonstration			Classroom discussion			Individual seatwork			Other		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3	x	x	x		x	x	x				x		x	x		x				x	
4	x	x	x		x	x					x		x	x	x	x			x	x	
5	x	x		x			x			x						x	x				
6	x		x	x		x				x			x	x							
7	x	x	x	x	x	x				x	x	x						x			
8	x	x	x	x	x	x			x		x	x	x		x				x		
9	x	x	x	x	x	x				x	x	x	x	x	x	x			x		
Sum scores	7	6	6	5	5	6	2	0	1	3	4	5	1	5	4	3	3	2	3	2	0

Second measurement Grey = similar teacher per class in the three target language lessons

To summarize, in T1 the use of teaching methods to stimulate student language use is most observed in Dutch and English lessons. However, from these observations the least variance is observed in English lessons. In T2 the use of teaching methods to stimulate student target language use is most observed in English lessons and the least in Dutch lessons. In all three target language lessons an increase of scores is observed for the use of teaching methods, but the most in English lessons and the least in Dutch lessons.

Of the teaching methods, the use of pedagogic tasks is most frequently observed in both measurements and in all three target language lessons. In the second measurement, also group work is quite often observed in the three target language lessons. Predominant use of demonstration is observed in only T2 of Frisian and English lessons. Role-play is observed in just three lessons over T1 and T2.

7.4.2 Relations between the use of teaching methods and students' language development

In the previous section the outcomes of the observation of the use of teaching methods to stimulate student use in the three target language lessons are described. This subsection focuses on the relation between the use of these teaching methods in the three language lessons and student language development in these languages. Therefore, first the mean scores for the vocabulary development and reading comprehension development in target languages compared for differences in the use of teaching methods are presented. Then the differences between the method use scores of both vocabulary and reading comprehension development in the three languages are tested for significance.

Table 7.9 Mean scores and standard deviations language development in the three languages related to teaching methods

	Dutch				Frisian				English			
	VOC		RC		VOC		RC		VOC		RC	
	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD	Mean (n)	SD
Score 0					24.3 (7)	4.79			84.4 (24)	15.84	71.1 (24)	14.52
score 1	120.3 (15)	10.46	-0.69 (17)	1.40								
score 2	112.6 (44)	26.41	0.15 (43)	0.65	21.0 (46)	6.57	48.3 (22)	5.73	82.1 (7)	15.00	66.7 (7)	17.63
score 3	113.3 (65)	24.75	0.22 (65)	0.90	26.7 (53)	5.00	45.8 (43)	8.48	88.6 (77)	16.00	74.7 (77)	19.08
Score 4									83.5 (20)	17.74	72.3 (20)	19.32
Total	113.9 (124)	24.10	0.07 (125)	0.95	24.1 (106)	6.29	46.7 (65)	7.70	89.6 (128)	16.19	73.2 (128)	18.20

For vocabulary development table 7.9 shows no clear patterns for the way the use of teaching methods and language development in the three languages

coincide. In Dutch lessons, the highest mean score (120.3) for Dutch vocabulary is observed in a class in which a pedagogic method score of 1 is observed. For Frisian vocabulary, the highest mean score (26.7) is observed in classes with a pedagogic method score of 3. The mean score of 24.3 is observed in one class of only 7 students which is a rather small number.

Confusing patterns are observed for the coincidence of the scores of teaching methods and reading comprehension development in the three target language lessons. For Dutch, table 7.9 shows that higher scores for reading comprehension coincide with higher scores for teaching methods. Contrarily, table 7.9 shows that higher scores for Frisian reading comprehension correspond with lower scores for the use of for teaching methods in Frisian lessons. No pattern can be observed for the relation between English reading comprehension development and the use of teaching methods in English lessons.

To test the data presented in table 7.9 for significance, analyses of co-variance are conducted. The outcomes of these analyses are presented in table 7.10.

Table 7.10 Relation between teaching methods and language development in the three languages

	F	p	df1	df2	observed power
Dutch Vocabulary Development	0.45	.64	2	121	.42
Frisian Vocabulary Development	3.12	.05	2	103	.59
English Vocabulary Development	0.75	.52	3	124	.21
Dutch Reading Comprehension Development	9.99	.00	2	122	.98
Frisian Reading Comprehension Development	3.00	.09	1	63	.40
English Reading Comprehension Development	0.20	.90	3	124	.09

Table 7.10 shows a relation between the teaching methods scores in Frisian lessons and Frisian vocabulary development ($p = .05$), indicating that higher scores for teaching methods are related to higher scores for Frisian vocabulary development. Furthermore, for Dutch reading comprehension development significant differences in teaching methods scores in Frisian lessons ($p = .00$) are found as well. This finding includes that higher scores for teaching methods and higher scores for Dutch reading comprehension development are related. In Frisian target language lessons however, an indication is found that, conversely, higher scores for Frisian reading comprehension development are related to lower pedagogic method scores in Frisian lessons.

To summarize, confusing patterns are observed for the coincidence of the scores of teaching methods and reading comprehension development in the three target language lessons. In Dutch lessons, higher scores for reading comprehension coincide with higher scores for teaching methods. Contrarily, in Frisian lessons higher scores for Frisian reading comprehension correspond with lower scores for the use of teaching methods. No pattern is observed for the way English reading comprehension development and the use of teaching methods in English lessons coincide.

A relation is found between Frisian vocabulary development and teaching methods in Frisian lessons. That indicates that higher scores for teaching methods and higher scores for Frisian vocabulary development are related. Secondly, a relation is found between Dutch reading comprehension development and the variety of the use of teaching methods Dutch lessons. This finding includes that higher scores for teaching methods and higher scores for Dutch reading comprehension development are related. In contrast, in Frisian target language lessons an indication is found that higher scores for Frisian reading comprehension development are related to lower variety of the use of teaching methods scores in Frisian lessons.

7.5 Conclusions

In this chapter the following research questions are answered:

- How is target language use stimulated in teacher-student interaction, and how is it related to student language development in these languages?
- Which teaching formats to stimulate target language use can be observed, and how are these related to student language development in these languages?

In T1, the student target language use is least stimulated in Frisian lessons, and no differences are observed in mean scores and modes of teacher repertoire between Dutch and English lessons. However, in T1 the largest differences between teacher repertoires are observed in English lessons. In T2, the broadest teacher repertoires are observed in Dutch lessons, and are the smallest repertoires observed in English lessons. However, in T2 also the most variance in teacher repertoires is observed in Dutch lessons. Between T1 and T2, the largest increase of strategies to stimulate student target language use in whole classroom discourse is observed in Frisian lessons, and the least increase in English lessons.

Although in both Dutch and Frisian lessons are observed in which the distribution of scores of teacher repertoires and vocabulary development scores coincide, only in Dutch lessons a tendency is found for the relation between Dutch vocabulary development and teacher repertoire in Dutch lessons. Higher mean scores for Dutch vocabulary development could be possibly related to higher teacher repertoire scores. Regarding reading comprehension development in the three languages, only in Dutch lessons a relation is found between teacher repertoire and reading comprehension development. However, considering the irregular distribution of the variable scores, it is likely there is an intervening variable.

Concerning the use of teaching methods to stimulate student target language use, in T1 the use of teaching methods is most observed in Dutch and English lessons, but is the least variance observed in English lessons. In T2 the highest scores for the use of teaching methods are observed in English lessons and the lowest scores are observed in Dutch lessons. In all three target language lessons an increase of scores is observed for the use of teaching methods, but most in English lessons and the least in Dutch lessons. Of the teaching methods, the use of pedagogic tasks is most frequently observed in both measurements and in all three target language lessons. In the second measurement, also group work is quite often observed the three target language lessons. Predominant use of demonstration is observed in only T2 of Frisian and English lessons. Role-play is observed in just three lessons during T1 and T2.

For vocabulary development, no clear patterns are observed for the way the use of teaching methods and language development in the three languages coincide. In Frisian lessons, the highest Frisian vocabulary development mean score is observed in classes with the highest pedagogic method, and the second highest score for Frisian vocabulary development is observed in a class with a rather small number of students. Furthermore, confusing patterns are observed for the coincidence of the scores of teaching methods and reading comprehension development in the three target language lessons. In Dutch lessons, higher scores for reading comprehension coincide with higher scores for teaching methods. Contrarily, in Frisian lessons higher scores for Frisian reading comprehension correspond with lower scores for the use of for teaching methods. No pattern is observed for the way English reading comprehension development and the use of teaching methods in English lessons coincide.

For vocabulary development, a relation is found between Frisian vocabulary development and pedagogic formats in Frisian lessons. That means that higher scores for teaching methods and higher scores for Frisian vocabulary development coincide. Also a relation is found between Dutch reading comprehension development and the use of teaching methods Dutch lessons. This finding includes that higher scores for teaching methods and higher scores for Dutch reading comprehension development are related. In contrast, in Frisian target language lessons an indication is found that higher scores for Frisian reading comprehension development are related to lower variety of the use of teaching methods scores in Frisian lessons. However, the sample size for the testing of a relation between teaching methods in Frisian lessons and Frisian reading comprehension is rather small, and includes only three classes. Therefore, an intervening variable might be the case for this finding.

Chapter 8

Discussion and conclusions

8.1 Introduction

The main aim of the current study is to explore the teaching practices in content-based education in the Frisian trilingual classrooms and how these practices in the three language lessons and language development in the three target languages (Dutch, Frisian and English) are related. Therefore, six research questions are formulated addressed to student home and schoolyard language, teacher- and student language use in the classroom, the focus on meaning and focus on form, the stimulation of student contribution in whole classroom discourse, and the use of teaching methods to stimulate student language use.

Language development is a complex phenomenon in which many variables interact, in particular student language use and teacher pedagogic performance and vice versa. On those accounts, for both language development and teaching practices data are collected at two moments in nine classes (grade 7-8: 165 students) of seven trilingual primary schools over a period of two school years. The data collection took place at the beginning and the end of a period of two school years (2012-2014). To collect data about the teaching practices, 51 language lessons are video-taped: 9 lessons for each language in T1, and 8 lessons for each language in T2. For the coding of these data an observation instrument is developed. Simultaneously to the registration of teaching practices, vocabulary and reading comprehension tests in each of the three languages are administered. Moreover, questionnaires have been used to collect self-reported data information regarding the students' home language and the language used with peers.

Regarding data-analyses, for each research question descriptive statistics are used for data observations. Then, for the second part of each research question, chi-squares and models for analyses of variance are used for the testing of relations.

The following sections deal with the main outcomes of the different parts of the dissertation and link these to earlier studies in the different fields.

8.2 Main findings

In this section, for each research question the main results of both observations and the tests are presented and then discussed.

8.2.1 Student language in- and outside the classroom

In this sample, 70.2% students has Frisian as a home language, 56.9 % consider Frisian as their dominant home language, and 27.9% of the students are from a monolingual Dutch family. That 37.3% of the students are from bilingual families, either having Frisian or Dutch as the dominant home language is in line with Klinkenberg et al. (2018) who describes patterns of an increase of bilingual families.

Although the majority of the students speak predominantly Frisian at home, Dutch is the dominant spoken language in the schoolyard, and thus it can be concluded that the majority of the students use mainly Dutch in peer interaction. Only 17.6% of the students use Dutch and Frisian equally in peer interaction. From these group, most students are from bilingual families and least by monolingual Dutch speaking families. These outcomes that students appear to switch to the majority language in peer-peer interaction are in line with both Ytsma (1995), Gorter (2008) and Thomas and Roberts (2011) showing that students switch to the more powerful national language (Cenoz & Gorter, 2006) in the schoolyard. Although Frisian can be considered as the dominant language spoken at home and Dutch as the dominant schoolyard language, a relation is found for home and schoolyard language.

Furthermore, relations are found between home and schoolyard languages and language development. First, a relation is found between student home language and Dutch reading comprehension. Students who speak only Frisian or mainly Frisian at home show better performance on Dutch reading comprehension development than students who speak only or mainly Dutch at home. This finding is in line with the outcomes of Van Ruijven and Ytsma (2008) and Rhys and Thomas (2012).

Secondly, a relation is found between schoolyard language and Frisian vocabulary development. Students who speak mainly Dutch in the schoolyard, perform less well on Frisian vocabulary development compared to students who speak predominantly Frisian or equally Dutch and Frisian in the schoolyard. Consequently, and in contrast to the finding of Rhys and Thomas (2012), in this dissertation no 'catch-up' in the vocabulary development in the minority language is found. In the context of this dissertation, Frisian vocabulary development seems to predominantly be related to language use in the out of school context. This finding

corresponds to earlier research outcomes showing that language development is related to out of school language use (Cenoz, 2009), and that (regarding to Dutch language development) the development of the majority language is not hindered in multilingual education (Cenoz, 2009; De Jong & Riemersma, 1997; Van Ruijven and Ytsma, 2008).

8.2.2 Teacher target language use and student language use patterns

For both teacher- and student language use in the three target language lessons, in line with Lewis et al. (2013) different patterns of language use are observed when different languages are used for different means: classroom management, attention to pre-knowledge, and introduction of new content in the pre-phase, guiding of students in the during-phase, and evaluation activities in the post-phase. For these means, the use of more than one language is observed. According to Lewis et al. (2013), the language use in the classrooms is defined by the students. As such, students not only influence the language use in peer interaction, but teacher responses in teacher-student interaction in individual seat work and small group work practice as well. Regarding the differences between T1 and T2 student language use in the three target language lessons, an increase of the students' use of English is observed in the English lessons, and an increase of additional student language use is observed in Dutch and Frisian lessons (Frisian in Dutch lessons and Dutch in Frisian lessons). In the light of the holistic approach but different from student language use in English lessons, the decrease of student target language use in Dutch and Frisian lessons can possibly be understood as differences of the use of the students' linguistic repertoires for natural communication (Cenoz & Gorter, 2011; 2015). In T2 of both Dutch and Frisian lessons, more schoolyard language is used in peer interaction, which might be related to age, leading to an increase of the influence of out of school language use (Thomas et al., 2012).

Regarding teacher target language use in the three language lessons, it is observed that the target language is most often used in Dutch target language lessons and the least in English target language lessons, and that an increase, from T1 to T2, of exclusive target language use is observed in Frisian and English language lessons. In both language lessons these increases are the result of the exclusive target language use in the pre-phase for classroom management, attention to pre-knowledge and/or introduction of new content. In the during-phase of Dutch- (both measurements) and Frisian target language lessons (second measurement)

additional language use is observed in the during-phase to support individual- or small group work. Moreover, additional Dutch language use in Frisian target language lessons is more common than additional Frisian language use in Dutch target language lessons. In English target language lessons, additional language (generally Dutch) is particularly used in both during- and post-phase. In line with teacher target language use, student language use patterns are observed in which the target language is used for the different means most in Dutch lessons and in both measurements. In T1, the target language is least used in English lessons. As a result of a decline in target language use in Frisian lessons and an increase in target language use in English lessons, not much difference is observed in student target language use between Frisian and English lessons in T2. Also in Dutch lessons a small decline of target language use is observed.

Connecting the observation of teacher- and student language use in the pre-, during- and post-phase of the three language lessons, different patterns are observed between the three target language lessons, and between T1 and T2. In Dutch lessons, monolingual language use is most commonly observed in both T1 and T2, and so in which target language is fully used for all means. In Frisian lessons, in each measurement in only one lesson monolingual language use is observed. In both T1 and T2, most patterns include the use of mainly Frisian (and Dutch as an additional language) for teacher-student interaction and student-student interaction in the during-phase. Also in English lessons, mainly target language use (and Dutch as an additional language) is commonly observed in both T1 and T2. However, different from Dutch and Frisian lessons, mainly another language and the (English) target language as an additional language is observed in student-student interaction in T1 of the English lessons.

Regarding the relation between teacher target language use and student language development in the three languages, the data show that only for the Dutch language a relation is found between teacher language use in Dutch lessons and Dutch vocabulary development. Higher scores for Dutch vocabulary development are found in classes in which the teacher speaks exclusively Dutch in Dutch lessons. Furthermore, a tendency is found for the relation between teacher target language use in Frisian lessons and Frisian vocabulary development. Higher scores for Frisian vocabulary development are found in classes in which the teacher speaks exclusively Frisian in Frisian lessons. These findings are in line with the growing evidence indicating that language development is related to exposure

to the target language (Gathercole, Thomas, Roberts, Hughes & Hughes, 2013). However, no evidence is found for a relation between teacher target language use and English vocabulary development.

Regarding student language use, only in Dutch lessons relations are found for student language use and Dutch vocabulary and reading comprehension respectively. Regarding vocabulary development, the data suggest that Dutch vocabulary development is related to a student language use pattern in which Dutch only is used for input, teacher-student interaction and for output, and Frisian is used as an additional language in student-student interaction. Regarding reading comprehension, the data suggests also a relation between Dutch reading comprehension development and student language use in Dutch lessons. Better performance on Dutch reading comprehension development is found in classes in which a student language use pattern is observed in which Dutch only is used for input, teacher-student interaction and for output, with the use of Frisian as an additional language in student-student interaction.

For Frisian, there is an indication that higher scores for Frisian vocabulary development are related to student language patterns in which only Frisian is used in all three lesson phases and for all means. In line with Cenoz & Gorter (2017), it can be argued that the Dutch majority language can be seen as a threat for the use of Frisian. For that reason, Frisian target language lessons can act breathing spaces to stimulate the use of Frisian (Cenoz & Gorter, 2017). As a different language than the usual (schoolyard) language is used for interaction with the same people, the of teachers and students is needed. For that, the students can be provided with a need (Laufer & Hulstijn, 2001) to use that target language, by using Skehan's (1996) three-phase model. In the post-phase of this three-phase model, students are challenged to demonstrate the during-phase outcomes in in the target language, with an effect on the language use in the during phase.

In English lessons, no relations are found between neither English vocabulary- nor English reading comprehension development and teacher- and student language use respectively. These results are in line with Günther-van der Meij (2018) findings, who argues that in the Frisian context, English language development is primarily related to exposure to English at home and then mainly by media (TV, audio devices and computers). For that, Sylvén (2013) pleas for a better considered planning tuned to the students' needs.

8.2.3 Teachers' strategies aimed at focus on meaning

Regarding the use of the strategies aimed at FoM in the three target languages, differences are observed between measurements, between teachers, and between target language lessons. Differences between teachers are observed most in the first measurement. In T1, the highest mean scores of FoM strategies are observed in Dutch lessons and the lowest mean scores in Frisian lessons. In T2 the highest FoM mean score is observed in Frisian lessons. In line with the latter observation, an increase of the use of FoM strategies is observed in all three language lessons, but most in Frisian lessons.

With respect to the different FoM components, attention to pre-knowledge is observed most in Dutch lessons and least in English lessons. Both the use of real-world tasks and demonstration are least observed in Frisian lessons. The use of real-world tasks could maybe be considered as the core of FoM, as the use of real-world tasks can be related to personal sense (Van Oers, 2012), and can be interpreted as a motivation concept for student engagement in meaning-making activities for which language is used. Demonstration, by which students present the outcomes of the during-phase task in the target language, is most observed in English lessons. Conversely, reflection on content (to complete content learning) is least observed in English lessons.

Regarding the use of strategies aimed at FoM in the three target languages, observation of the data show an increase of FoM in all three language lessons, but most in Frisian lessons. In T1, the highest mean scores of FoM are observed in Dutch lessons and the lowest mean scores in Frisian lessons. In T2 the highest FoM mean score is observed in Frisian lessons. Differences between teachers are most observed in the first measurement.

Concerning the relation of FoM and language development, only in Frisian lessons a relation is found indicating that higher scores for FoM strategies, which are concerned with the 'processing the semantic and pragmatic meaning of utterances' (Ellis, 2009b, p. 223) in Frisian lessons are related to higher mean scores for Frisian vocabulary development.

8.2.4 Teachers' strategies aimed at focus on form

In contrast to the observations of FoM, notable differences are observed in the FoF in the three languages lessons. FoF strategies are most observed in English lessons,

and using mode as measure of central tendency, least in Dutch lessons. Only in English lessons a decrease of scores is observed, comparing T1 and T2, and in Dutch lessons little increase of FoF strategies is observed. In Frisian lessons, except for a decrease in variance, no differences between T1 and T2 are observed in FoF.

The differences between FoF scores can particularly be explained by the differences in the provision of feedback. In lessons in which interactional feedback is observed, rather small feedback repertoires are the case. In classrooms in which feedback is provided, mainly explicit and/or recasts are observed, rather than metalinguistic feedback. Also (interlinguistic) reflection on form is observed in just few classes. As data are collected by event sampling, frequencies of FoF in the three target language lessons are not observed. However, looking at the observations of the components of FoF, there are indications that compared to English target language lessons, less interactional feedback is provided in Dutch lessons and the least in Frisian lessons.

It can be reasoned that most attention to form is observed in English lessons as all but one of the observed English lessons are timetabled as language lessons. However, in each measurement also three Frisian lessons are timetabled as language lessons as well, whilst all Dutch lessons concerned content lessons. So, there must be other reasons for the differences of FoF of the teachers in the English lessons. One explanation could be related to teacher language attitude (Gorter, 2008; Ytsma, 1995), in which Dutch is seen as the most important language, attitudes towards English are more positive than towards Frisian, and no need is seen for learning Frisian better (Gorter, 2008).

Another explanation for the differences in FoF could be related to the differences between the students' proficiency in the three target languages. However, the target languages are used as media for content learning, it is likely that there should be a focus on the development of Dutch and Frisian cognitive and academic language in the content lessons (Meyer et al., 2015). Furthermore, looking at the students' home and schoolyard language, it is not likely that all students speak Frisian evenly well as Dutch and that focus on new language is needed by for instance providing feedback on the students' interlanguage.

Regarding the relation between FoF in the three language lessons and language development in the three language, no relations are found between neither vocabulary nor reading comprehension development. Taking into account the

rather small sample and the rather low observed power, an indication is found that Dutch vocabulary development is related to more FoF. From the collected data no clear explanation can be provided that only in Dutch lessons an indication for this relation is found. Possibly, differences in the level of language proficiency can be at issue. However, no data are collected to compare the proficiency in the three languages.

8.2.5 Teacher repertoires to stimulate student contributions in whole classroom discourse

The largest increase of the teacher repertoire to stimulate student contributions is observed in Frisian lessons, and least in English lessons. In T1, the broadest repertoires are observed in both Dutch and English lessons, and so the smallest in Frisian lessons. In T2, the broadest repertoire are observed in Dutch lessons and the smallest in English lessons.

From these repertoires of stimulating techniques, the use of referential questions to initiate dialogue (Brock, 1986) and teacher agreement in response to student contribution are most commonly observed. Referential questions are commonly observed in T1 and in T2 of Dutch lessons and in T2 of both Frisian and English lessons. Teacher agreement is commonly observed in all three target language lessons, and in both T1 and T2. Contrarily, techniques to elicit further contribution (Mehan, 1979) are observed less. From these techniques, the use of probing questions is observed in the majority of T1 and T2 of Dutch lessons and in T2 of Frisian lessons. Predominant use of summaries and reformulations are observed in T1 of Dutch lessons only. Therefore, silence and responses (or the stimulation of responses by other students) to stimulate dialogue are minimally or not observed in any of the three target language lessons. Concerning the interactional techniques to stimulate correct target language use, other than recasts and explicit feedback, the other interactional feedback techniques are little or unobserved in any of the three target language lessons. The use of interactional feedback is most commonly observed in English lessons, and least in Frisian lessons.

As the data are collected by event sampling, frequencies of the teachers' interactional repertoires can be hardly or not presented. However, the observation of the component participation frameworks provides an indication of the frequencies of the use of the interactional techniques in whole classroom discourse. Data show that only in T2 of Dutch target language lessons, the dialogic participation

framework is mainly used. This observation indicates that in T2 of the Dutch target language lessons the teacher techniques to stimulate student contribution on whole classroom discourse are more frequently observed than in T1 Dutch target language lessons and T1 and T2 Frisian and English target language lessons.

Regarding reading comprehension development, in Dutch lessons no pattern for the distribution of interactional technique scores is observed, and comparing Frisian and English lessons contrasting patterns are observed. In Frisian lessons, higher scores on reading comprehension development coincide with lower teacher repertoire scores, and in English lessons higher scores on reading comprehension development coincide with higher teacher repertoire scores. However, no relation between teacher repertoire and vocabulary development or teacher repertoire and reading comprehension development is found in any of the three target language lessons.

Only in Dutch lessons, a tendency is found for a relation between teacher repertoire of techniques to stimulate student contributions in the target language use and students' Dutch vocabulary development. This tendency indicates that larger teacher repertoires to stimulate student contributions in the Dutch language and students' Dutch vocabulary development are related. This outcome is in line with Llinares and Dalton-Puffer's (2015) finding that whole classroom discourse is an effective teaching method for language development. However, what this dissertation shows, is that the nature of the whole classroom discourse as expressed in the participation frameworks (Walsweer, 2015) matters.

Also, only in Dutch lessons a relation is found between Dutch reading comprehension development and teacher repertoires to stimulate student contributions on Dutch target language lessons. However, considering the irregular pattern of the distribution of the variable scores, it is likely there is an intervening variable.

8.2.6 Teaching methods to stimulate student target language use in the three target languages

An increase of the variety in the use of teaching methods is found in all three target language lessons, but most in English lessons and least in Dutch lessons. In addition to these differences between the measuring moments, also differences in the variety in the use of teaching methods are found between the three target language lessons. In T1, the largest variety of teaching methods is observed in

Dutch and English lessons, and the least variance between teachers in the use of teaching methods is found in English lessons. In the second measurement, the largest variety in the use of teaching methods to stimulate student target language use is observed in English lessons, and is the smallest variety observed in Dutch lessons.

Of the different formats of the composite variable teaching methods, pedagogic tasks are predominantly used in all three target language lessons in both T1 and T2. In the second measurement, group work is observed in all three target language lessons as well. The predominant use of demonstration is observed only in the second measurement of Frisian and English target language lessons. Role-play however is observed in just three lessons in both measurements.

Regarding the relation between teaching methods and language development, the data show that such relations are only found for Frisian vocabulary development and Dutch reading comprehension development. These relations indicate that better performance on Frisian vocabulary development is related to the use of a broader variety of teaching methods in Frisian lessons, and that higher scores for Dutch reading comprehension development are related to the use of a broader variety of teaching methods in Dutch lessons.

That no relations are found between the use of teaching methods in the three target language lessons and Dutch vocabulary-, Frisian reading comprehension-, and English language development respectively, can possibly be explained by the small group sizes in the testing for significance. Another explanation for this lack of findings can be related to the insufficient information about the nature of the observed teaching methods, as there are numerous dimensions by which tasks can be differentiated to stimulate different types of interactional language use (Mackey, 2012; Robinson, 2011). To stimulate specific types of peer interaction, Mackey (2012) lists as an example the following continuums on the basis of which teachers can plan their educational activities: one-way versus two-way tasks, open versus closed tasks, convergent versus divergent tasks, and focused versus unfocused tasks.

8.2.7 General picture

For the different aspects of the teaching practices to stimulate language use in content-based teaching the trilingual classroom, differences are observed

between T1 and T2, between teachers and between the three target language lessons. Regarding the differences in the observation of the different aspects of the teaching practices in the three target language lessons, this study reveals that:

1. More teacher target language use is observed in Dutch lessons;
2. Related to teacher target language use, also more student target language use is observed in Dutch lessons;
3. The broadest repertoires of FoF strategies are most observed in English lessons;
4. From the FoF strategies, the smallest repertoires of feedback techniques are observed in the Frisian lessons, and there are indications that feedback is least provided in the Frisian target language lessons;
5. The broadest teacher repertoires to stimulate student contributions in whole classroom discourse are observed in Dutch lessons, and there are indications that student interaction is also better stimulated in Dutch target language lessons;
6. The least variety in the use of teaching methods are observed in Frisian lessons.

The observed differences between T1 and T2 can be explained by the idea that teachers' decision making is related to the teacher's perception of the students' needs in that classroom (Kryridakides & Creemers, 2008; Creemers & Kryridakides, 2009; Van den Branden, 2016). Accordingly, change in teacher behaviour is related to change in student language use (De Bot et al., 2007). However, as there generally are different teachers in grade 7 and 8, the differences between T1 and T2 can also be related to the differences between teachers. The differences between teachers can be related to the differences between the teachers' cognitions, their "personalized, context-sensitive and practically oriented networks of educational beliefs and practice" (Borg, 2006, p. 81). An explanation for the differences in teaching practices between the three target languages might be related to teacher language attitude (Gorter, 2008; Ytsma, 1995), in which Dutch is seen as the most important language, attitudes towards English are more positive than towards Frisian, and no need is seen for learning Frisian better (Gorter, 2008).

Regarding the relation between the teaching strategies in the three target language lessons and students' language development in these languages, this dissertation reveals that

1. Students who speak only Frisian or mainly Frisian at home show better performance on Dutch reading comprehension development than students who speak only or mainly Dutch at home;
2. Students who speak mainly Dutch in the schoolyard, perform less well on Frisian vocabulary development compared to students who speak predominantly Frisian or equally Dutch and Frisian in the schoolyard;
3. Regarding teacher- and student (target) language use, higher scores for Dutch vocabulary development are found in classes in which the teacher speaks exclusively Dutch in Dutch lessons, and in which students use exclusively Dutch for input, teacher-student interaction and output, and Frisian as an additional language in peer interaction. In Frisian lessons, tendencies are found that higher scores for Frisian vocabulary development are related to the exclusive use of Frisian by both the teacher and students in Frisian lessons. Better performance of Dutch reading comprehension development is found in classes in which a student language use pattern is observed in which Dutch only is used for input, teacher-student interaction and for output, with the use of Frisian as an additional language in student-student interaction. For Frisian language development, there is an indication that higher scores for Frisian vocabulary development are related to a student language pattern in which Frisian is exclusively used in the Frisian target language lessons;
4. Concerning the relation of FoM and language development, only in Frisian lessons a relation is found indicating that higher scores for FoM strategies in Frisian lessons are related to higher mean scores for Frisian vocabulary development;
5. A tendency is found indicating that larger teacher repertoires to stimulate student contributions in the Dutch language and students' Dutch vocabulary development might be related;
6. That higher scores for Dutch reading comprehension development are related to the use of a broader variety of teaching methods in Dutch lessons, and that higher scores for Frisian vocabulary development are related to the use of a broader variety of teaching methods in Frisian lessons.

The fact that only a few relations between teaching strategies and students' language development are found, can be explained by the view that language development is a very complex and nonlinear process of interacting and interrelated cognitive and environmental factors. Secondly, the lack of relation can be related to the small sample numbers.

Notably, no relations are found between the observed teaching practices in English target language lessons and English language development. This outcome, is in line with the findings in a European project addressed to the assessment of students' English proficiency in eight European countries (Bonnet, 2002). The outcomes of this project including a one-shot design (De Bot et al., 2012), showed that differences in language proficiency could be explained for just a small part by the 27 included variables. From these variables, most variance in English language proficiency could be explained by outside school language use and then mainly media (TV, audio devices and computers). In the Frisian context, also Günther-van der Meij (2018) shows that English language development is primarily related to exposure to English at home.

8.3 Limitations

For the observation of the teaching practices (language use, FoM, FoF, stimulation of student contributions, teaching methods), data are collected by event sampling. Consequently, a rather rough dataset is completed, in which no information was included about the frequencies of the teaching practices.

In this dissertation, student vocabulary and reading comprehension development are tested as approximates for language development. The development of the complexity, accuracy and fluency of oral language use (Ellis, 2000; Robinson, 2011; Skehan, 2009) are for both practical and methodological reasons not evaluated.

Although information is collected for oral English language use at home, no data are collected for the amount of school language use by media (TV, audio devices, Internet, games, etc.). Therefore, the outcomes of the different analyses could not be controlled for the students out of school English language exposure.

The limited number of significant relations between the different aspects of the teaching practices and language development can be attributed to the small group sizes in the different tests. Furthermore, for Frisian reading comprehension the rather high number of missing values is an issue. As the Frisian reading

comprehension test was developed for end grade 8, this test proved too difficult for most grade 7 students. However, this test was the only test available for the assessment of Frisian reading comprehension proficiency at that time.

Related to the sample size, both teacher practices and language development are tested at just two points in time. Consequently, the teacher practices- and language development over time is tested rather roughly. Therefore, specific moments in the interrelating development processes (De Bot et al., 2007) could not be taken into account. For the assessment of Dutch and English student language development, standardized scores are used which has a limiting effect on the variance and so the inclusion of individual student language development (De Bot et al., 2007).

8.4 Future research and pedagogical implications

Further research addressed to the teaching practices in content-based language teaching in the trilingual classroom, should include the frequencies of the teaching practices, and also the attitude of the teachers. In the evaluation of the students' English language development the exposure to English in the out of school context should be taken into account. Furthermore, future research should be addressed to the relation of holistic language use practices and content learning in the trilingual classroom.

The outcomes of teacher target language use in Dutch and Frisian target language lessons implicate that teachers should use the target language only in both of the relevant target language lessons (grade 7 and 8). The outcomes of the student language use patterns in Dutch and Frisian target language lessons have different implications for the Dutch- than for the Frisian target language lessons.

In Dutch target language lessons, the exclusive use of Dutch should be promoted for input, teacher-student interaction and output. However, in student-student interaction, the use of the students home language(s) should be encouraged as (an) additional language(s). Contrarily, in line with Cenoz & Gorter (2017) students should be stimulated to use exclusively Frisian in the Frisian target language lessons as much as possible. For that, the commitment of both teachers and students is needed. By adapting a combination of Skehan's (1996) original three-phase model and the educational approach of translanguaging (Lewis et al., 2012b), a need (Laufer & Hulstijn, 2001) and therefore commitment can

be provided for students' target language use. In line with the pluriliteracies approach to content and language integrated learning (Meyer et al., 2015), in this combined model, multimodal input can be provided in a designated language, and both multimodal output and interaction can be stimulated. To stimulate target language use in the during-phase, demonstration of content learning in the target language can be planned in the post-phase. In the second part of the post-phase, reflection on content learning and language is stimulated to promote conscious learning. By the manipulation of input, and designation of target language use for output, teachers can stimulate language use in either heteroglossic practices and/or breathing spaces, and in which languages that are hardly or not are used in the out of school context are sheltered (Cenoz & Gorter, 2017). In the Frisian context, the Holy Frysk project is addressed on the implementation of holistic approaches in which student home languages are acknowledged in the classroom to promote 1) language awareness and 2) the use of explicit language use strategies (Günther-van der Meij, Duarte & Nap, 2020).

Education is in all respects a dynamic process and there is no steady state. Therefore, what we measure is only about the state of that system in a given moment of time and longitudinal data tell us something about the way the system varies and changes. Given that, we have to accept that education is in constant flux and data on the state of the system are only snapshots of that change. Education is a particularly interesting system in this respect since we have a changing individual in a changing environment. Educational systems are typically geared towards change. Change is not absolute but becomes visible over time. To understand the present state of a system we need yard sticks to see change. If we stand too close, we cannot see the larger pattern of change, if we stand too far off the ambient noise of living society may overpower small changes over time that are relevant for the interpretation of the now. In short: are 7 year old data still relevant? Yes, they are necessary to see the patterns rather than the steady state. Are these data relevant for teaching practice now? They are to keep learners and teachers aware of the inter- and intra-individual variation typical of development.

8.5 Conclusions

This dissertation is about the exploring of content-based language teaching practices to stimulate language use in grades 7 and 8 of Frisian trilingual primary education. Therefore, six research questions are defined for firstly the observation of the students' home and schoolyard language(s), and the teaching practices in the Dutch-, Frisian-, and English target language lessons, and secondly to test the relation between the teaching practices and vocabulary and reading comprehension development in these three languages.

Regarding the first research question, although the majority of the students speak predominantly Frisian at home, Dutch is the dominant spoken language in the schoolyard, and thus it can be concluded that the majority of the students use mainly Dutch in peer interaction in the out-of-school context. Furthermore, this dissertation shows that there are no differences between students in Dutch vocabulary development related to neither home nor schoolyard language, and that there are no differences between students in English vocabulary and reading comprehension development which can be related to neither home nor schoolyard language. However, this dissertation shows that students who speak mainly or only Frisian have better performance on Dutch reading comprehension development than students who speak only or mainly Dutch at home. Secondly, students who speak mainly Dutch in the schoolyard, perform less well on Frisian vocabulary development than students who speak predominantly Frisian or equally Dutch and Frisian in the schoolyard.

For the various aspects of the teaching practices to stimulate language use in trilingual education, differences are observed between T1 and T2, between teachers and between the three language lessons.

In both T1 and T2 exclusive teacher target language use is most observed in Dutch target language lessons and least in English target language lessons. Regarding the differences between T1 and T2, an increase of exclusive teacher target language use is observed in Frisian and English target language lessons. In the English lessons, also an increase is observed of student target language use. In contrast, decreases of student target language use are observed in Dutch and Frisian target language lessons.

From the holistic approach (Cenoz & Gorter, 2015) it can be indicated that in English lessons the use of Dutch or Frisian as language support for the use of English is fading (Gibbons, 2003; Van de Pol et al., 2013). Also related to the holistic approach, the use of Dutch and Frisian lessons the increase of additional language in Dutch and Frisian lessons can be an indication of the use of broader linguistic repertoires. However, this use of broader linguistic repertoires can also be a hindrance to target language use and development (Cenoz & Gorter, 2017).

Regarding the use of strategies aimed at FoM in the three target languages, an increase of FoM is observed in all three language lessons, but most in Frisian lessons. Concerning the strategies to stimulate FoF, the broadest repertoires of FoF are observed in English lessons. The differences between FoF scores can particularly be explained by the differences in the repertoires of feedback techniques, from which broader repertoires are observed in English lessons and the smallest repertoires are observed in Frisian lessons. Moreover, the observation of metalinguistic feedback techniques stimulating and (interlinguistic) reflection shows that the students' linguistic awareness is hardly observed by these FoF-aspects.

Regarding the stimulation of interaction, in T1 the broadest teacher repertoires to promote student contribution in whole classroom discourse are observed in both Dutch and English lessons. In T2, the broadest repertoires are observed in the Dutch lessons and the smallest in the English lessons. Furthermore, there are indications that in Dutch target language lessons student interaction is more frequently stimulated than in the other target language lessons. Concerning the stimulation of student-student interaction, an increase of the use of the number of teaching methods is found in all three language lessons, but most in English lessons and the least in Dutch lessons.

Only a few relations are found between the teaching practices in the three target language lessons and the students' language development in these three languages. To start, this dissertation shows that higher scores for Dutch vocabulary development are related to the teacher's exclusively use of Dutch in the Dutch target language lessons. In line with this finding, in the Frisian target language lessons a tendency is found indicating that higher scores for Frisian vocabulary development are related to the exclusive teacher target language in Frisian lessons. Different outcomes are found for the relation between student

language use patterns in Dutch and Frisian target language lessons and language development in the languages. Better student Dutch vocabulary and reading comprehension development is related to a student language use pattern in which Dutch is exclusively used for input, teacher-student interaction and output, but in which Frisian is used as an additional language in peer interaction. Differently, in Frisian lessons contrasting outcomes are found for the relation between student language use patterns and Frisian language development. First, a tendency is found for the coincidence of higher Frisian vocabulary development scores and exclusive students' target language use in the Frisian lessons. Second, this dissertation indicates that higher Frisian reading comprehension development is related to a student language use pattern in which the input is exclusively in the target language, but that Dutch is used as an additional language for teacher- and student-student interaction and output.

Concerning the relation of FoM and language development, only in Frisian lessons a relation is found indicating that higher scores for FoM strategies in the Frisian target language lessons, and so to engage students in meaning making activities using the Frisian language, are related to higher mean scores for Frisian vocabulary development. In line with this finding, a relation is also found between the use of a broader variety of teaching methods to stimulate peer interaction in Frisian lessons and higher scores for Frisian vocabulary development. Finally, in the Dutch target language lessons, a tendency is found indicating that larger and more frequent use of teacher repertoires to stimulate student contributions in the Dutch language and students' Dutch vocabulary development are related. Furthermore, this dissertation shows that the use of a broader variety of teaching methods in Dutch lessons and Dutch reading comprehension development are related. Despite the observation of the coincidence of some teaching practices in English target language and English vocabulary and reading comprehension development, no relations are found between these observations.

This dissertation provides a better insight into the teaching practices in the Frisian trilingual classroom of grades 7 and 8 in which the use of Dutch, Frisian and English is stimulated in content-based language teaching. These new insights can possibly help educators to improve the stimulation of language use in content-based language lessons, and in which the students' whole linguistic repertoires are acknowledged. Recommendations for the improvement of the teaching practices in content-based education are: broadening teacher repertoires to stimulate student

contributions in classroom discourse, and increasing the teacher repertoires of both feedback techniques and the promotion of students' (inter)linguistic reflection to stimulate target language use. Moreover, besides heteroglossic practices, the planning of breathing spaces can support students to use the more vulnerable languages that are hardly or not used in the out of school context. To stimulate better Frisian vocabulary development, it is recommended to focus on meaning and to plan teaching methods by which Frisian language use is stimulated.

This dissertation furthermore adds new perspectives to the field of studies on the teaching practice of multilingual education, because teacher practices in three language lessons are compared over time, and the relation of teacher practices and student language development is assessed.

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Appendices

Appendix A. Questionnaire spoken home and schoolyard languages

Name		School	
		Class	

Please answer the following questions

1. I am

- A girl
- A boy

2. At home I speak the following language of languages (multiple answers possible)

- Dutch
- Frisian
- A regional language variety (Town Frisian, Stellingwerfs, Bildts or another dialect)
- A foreign language.

3. At home I speak **mostly** (1 answer only)

- Dutch
- Frisian
- A regional language variety (Town Frisian, Stellingwerfs, Bildts or another dialect)
- A foreign language.

4. In the schoolyard I speak (1 answer only)

- Mostly Dutch
- Mostly Frisian
- Equally Dutch and Frisian
- Other

Appendix B. Coding tool Teacher behaviour in the trilingual classroom

A.	General		
1.	Which school and class?	TICK (one answer only)	VALUE: 1 - 14
	1. BW7		
	2. BW8		
	3. BM7A		
	4. BM7B		
	5. BM8A		
	6. BM8B		
	7. J7		
	8. J8		
	9. T78		
	10. O78		
	11. M7		
	12. M8		
	13. W7		
	14. W8		
2.	Measuring moment	TICK (one answer only)	VALUE: 1 or 2
	1. September 2012		
	2. June 2014		
3.	Which type of lesson?	TICK (one answer only)	VALUE: 1 or 2
	1. Language lesson		
	2. Content lesson		
4.	Number of students in this class	TICK (one answer only)	VALUE: 1 - 3
	1. < 18		
	2. 18 - 25		
	3. > 25		

B.	Target language of this lesson		
5.	The target language of this lesson is	TICK (one answer only)	VALUE: 1 - 3
	1. Dutch		
	2. Frisian		
	3. English		
6.	For classroom management the teacher uses	TICK (one answer only)	VALUE: 1 - 12
	1. Only Dutch		
	2. Only English		
	3. Only Frisian		
	4. Predominantly Dutch + English		
	5. Predominantly Dutch + Frisian		
	6. Predominantly Dutch + Frisian+ English		
	7. Predominantly English + Dutch		
	8. Predominantly English + Frisian		
	9. Predominantly English + Frisian + Dutch		
	10. Predominantly Frisian + Dutch		
	11. Predominantly Frisian + English		
	12. Predominantly Frisian + Dutch + English		
Language use teacher pre-phase			
7.	For discussion and explanation of content the teacher uses	TICK (one answer only)	VALUE: 1 - 12
	1. Only Dutch		
	2. Only English		
	3. Only Frisian		
	4. Predominantly Dutch + English		
	5. Predominantly Dutch + Frisian		
	6. Predominantly Dutch + Frisian+ English		
	7. Predominantly English + Dutch		
	8. Predominantly English + Frisian		
	9. Predominantly English + Frisian + Dutch		
	10. Predominantly Frisian + Dutch		
	11. Predominantly Frisian + English		
	12. Predominantly Frisian + Dutch + English		

8.	For explanation of new formats the teacher uses	TICK (one answer only)	VALUE: 1 - 12
	1. Only Dutch		
	2. Only English		
	3. Only Frisian		
	4. Predominantly Dutch + English		
	5. Predominantly Dutch + Frisian		
	6. Predominantly Dutch + Frisian+ English		
	7. Predominantly English + Dutch		
	8. Predominantly English + Frisian		
	9. Predominantly English + Frisian + Dutch		
	10. Predominantly Frisian + Dutch		
	11. Predominantly Frisian + English		
	12. Predominantly Frisian + Dutch + English		
Language use teacher during-phase			
9.	In the during-phase the teacher uses	TICK (one answer only)	VALUE: 1 - 12
	1. Only Dutch		
	2. Only English		
	3. Only Frisian		
	4. Predominantly Dutch + English		
	5. Predominantly Dutch + Frisian		
	6. Predominantly Dutch + Frisian+ English		
	7. Predominantly English + Dutch		
	8. Predominantly English + Frisian		
	9. Predominantly English + Frisian + Dutch		
	10. Predominantly Frisian + Dutch		
	11. Predominantly Frisian + English		
	12. Predominantly Frisian + Dutch + English		
Language use teacher post-phase			
10.	In the post-phase the teacher uses	TICK (one answer only)	VALUE: 1 - 12
	1. Only Dutch		
	2. Only English		
	3. Only Frisian		
	4. Predominantly Dutch + English		
	5. Predominantly Dutch + Frisian		
	6. Predominantly Dutch + Frisian+ English		
	7. Predominantly English + Dutch		
	8. Predominantly English + Frisian		
	9. Predominantly English + Frisian + Dutch		
	10. Predominantly Frisian + Dutch		
	11. Predominantly Frisian + English		
	12. Predominantly Frisian + Dutch + English		

C.	Tasks		
11.	The teacher pays attention to content.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		
12.	In the lesson, the teacher pays attention to	TICK (multiple answers possible)	VALUE: 1 - 5 (sum score)
	• Pronunciation		
	• Vocabulary		
	• Grammar		
	• Pragmatics		
	• Text structure		
13.	There is rich multi-modal input.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		
14.	The lesson focuses on both oral and written target language use.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		
15.	In the lesson, the students work on:	TICK (multiple answers possible)	VALUE: 1 - 4 (sum score)
	• Monologic language use.		
	• Dialogic language use.		
	• Reading tasks.		
	• Writing tasks.		
D.	Lesson structure		
16.	In the lesson, there is a	TICK (one answer only)	VALUE: 1 or 2
	1. Pre-phase + during-phase.		
	2. Pre-phase + during-phase + post-phase.		
Pre-phase			
17.	In the pre-phase the teacher pays attention to content by:	TICK (multiple answers possible)	VALUE: 1 - 2 (sum score)
	• Discussing new content.		
	• Activation of pre-knowledge.		

18.	In the pre-phase the teacher pays attention to the orientation on the learning task(s) by discussing	TICK (<u>multiple answers possible</u>)	VALUE: 1 - 3 (sum score)
	• the intentions of the learning task(s).		
	• the importance of the learning task(s).		
	• the expectations of the learning task(s)		

During-phase

19.	In the during-phase, the teacher chooses to use:	TICK (<u>multiple answers possible</u>)	VALUE: 1 - 5 (sum score)
	• Whole classroom discussion		
	• Group work		
	• Role-play		
	• Individual seat work		
	• Other format(s)		
20.	In the during-phase, the teacher chooses authentic tasks.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		
21.	In the during-phase, the teacher chooses activating activities.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		

Post-phase

22.	In the post-phase	TICK (<u>multiple answers possible</u>)	VALUE: 1 - 3 (sum score)
	• There is reflection on content.		
	• There is reflection on form.		
	• Demonstration of the learning task (for instance presentation) is at issue.		

E. Pluralinguistic approach

23.	The students have the opportunity to use several languages when processing the subject matter.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		
24.	The students are encouraged to reflect on language use and language form by an interlinguistic perspective.	TICK (one answer only)	VALUE: 0 or 1
	0. No		
	1. Yes		

	Translanguaging		
25.	In the lesson, the <u>input</u> of the teacher and other sources is	TICK (one answer only)	VALUE: 1 - 3
	1. In the target language.		
	2. In the target language and in one or more other language(s).		
	3. In one or more other language(s).		
26.	In the lesson, the interaction between <u>the teacher and students</u> is	TICK (one answer only)	VALUE: 1 - 3
	1. In the target language.		
	2. In the target language and in one or more other language(s).		
	3. In one or more other language(s).		
27.	In the lesson, the interaction between <u>the students</u> is	TICK (one answer only)	VALUE: 1 - 3
	1. In the target language.		
	2. In the target language and in one or more other language(s).		
	3. In one or more other language(s).		
28.	In the lesson, the <u>presentation</u> is	TICK (one answer only)	VALUE: 1 - 3
	1. In the target language.		
	2. In the target language and in one or more other language(s).		
	3. In one or more other language(s).		
	Participant frameworks		
	The dominant participant framework in whole classroom discourse is	TICK (one answer only)	VALUE: 1 - 4
	1. The monologic participant framework.		
	2. The limited interactive participant framework.		
	3. The dialogic participant framework.		
	4. The discourse framework.		

30.	The teacher stimulates student contributions by	TICK (<u>multiple answers possible</u>)	VALUE: 1 - 7 (sum score)
	• Asking real questions.		
	• Dropping silences after elicitations.		
	• Verbal and/or non-verbal agreement to respond.		
	• Inviting other students to respond.		
	• Summarising a student contribution.		
	• Reformulating the students contribution at a higher level (reformulation).		
	• Using probing questions on a student's contribution.		
	Interactional feedback		
40.	The teacher provides varied and adequate feedback on the student's utterances by	TICK (<u>multiple answers possible</u>)	VALUE: 1 - 7 (sum score)
	• Recasts (repeats an utterance in improved form).		
	• Repetition of and incorrect expression as an initiation of self-repair.		
	• (Metalinguistic) hints for self-repair.		
	• Explicit elicitation for self-repair.		
	• Pausing (dropping silences).		
	• Clarification requests to stimulate self-repair.		
	• Explicit correction of in-correct language use.		

Appendix C. Relation between teacher target language use and student home language, schoolyard language and student language use in the three target language lessons

Table C.1 Relation teacher target language use and student home languages

Language lesson	Measurement	χ^2	df	n	p
Dutch	T1	3.98	3	126	.26
	T2	4.06	3	145	.26
Frisian	T1	8.79	6	145	.19
	T2	8.78	3	162	.03
English	T1	4.93	3	162	.18
	T2	3.68	6	145	.72

Table C.2 Relation teacher target language use and student schoolyard languages

Language lesson	Measurement	χ^2	df	n	p
Dutch	T1	5.68	2	129	.06
	T2	7.18	2	148	.03
Frisian	T1	32.25	4	148	.00
	T2	13.60	2	165	.00
English	T1	4.76	2	165	.09
	T2	11.85	4	148	.02

Table C.3 Relation teacher- and student language use patterns

Language lesson	Measurement	χ^2	df	n	p
Dutch	T1	129.00	2	129	.00
	T2	148.00	3	148	.00
Frisian	T1	290.41	10	148	.00
	T2	148.00	3	148	.00
English	T1	152.00	4	152	.00
	T2	119.89	4	148	.00

Appendix D. Teacher attention to language aspects in the three target language lessons

Table D.1 Scores language aspects in the three target language lessons T1

Teacher class	Pronunciation			Vocabulary			Grammar			Pragmatics			Text structure		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3		x	x		x	x									
4		x	x		x	x									
5			x	x	x	x				x					
6			x	x		x			x	x		x			
7			x		x	x			x						
8			x	x		x									
9		x	x	x	x	x	x			x					
Sum scores	0	2	7	4	4	7	1	0	2	3	0	1	0	0	0

Table D.2 Scores language aspects in the three target language lessons T2

Teacher class	Pronunciation			Vocabulary			Grammar			Pragmatics			Text structure		
	D	F	E	D	F	E	D	F	E	D	F	E	D	F	E
3	x		x		x	x									
4			x	x	x	x							x		
5			x		x							x			x
6		x				x									
7			x		x	x			x						
8				x	x	x	x			x	x		x		
9			x	x	x	x		x							
Sum scores	1	1	5	3	6	6	1	1	1	1	2	1	2	0	1

Summary

Summary

Context

Since 1997 a growing number of Frisian primary schools have been in a process of adopting a model for trilingual education, in which Dutch, Frisian and English are used as languages of instruction, and interactional language use is stimulated in meaningful communicative activities (Van Ruijven & Ytsma, 2008). While relatively much research has been done into the effectiveness of multilingual education, little research has been done into the pedagogical practices of the teacher to stimulate language use in the lessons in the three target languages in those Frisian trilingual primary schools. Regarding communicative target language use in target language lessons, different forms of content-based language teaching can be described from language classes with content used for language practice to total immersion, and so include content and language integrated learning (CLIL). In all these forms, language development takes place implicitly and incidentally in meaning focused contexts. The main aims of this dissertation are the exploration of these teaching practices to stimulate student language use in the grades 7 and 8 of the Frisian trilingual primary schools, and how these practices are related to the students' language development in the three target languages.

Theoretical background

The observation of the teaching practices are in line with the holistic approach on multilingual education (Cenoz and Gorter, 2011; 2015), and the pluralinguistic CLIL-approach (Meyer, Coyle, Halbach, Schuck and & Ting, 2015). In their holistic approach, Cenoz and Gorter (2011; 2015) suggest an approach for both teaching and research in which multilinguals are perceived from a multilingual lens, and in which the use of a whole linguistic repertoire is regarded as a natural multilingual phenomenon. By stimulating the use of translanguaging (Lewis, Jones & Baker, 2012a; Wei, 2011; 2018), students are enabled to use their whole linguistic repertoire for scaffolding language development and for natural communication. As a didactic approach, translanguaging focuses on the use of the learner's whole language repertoire, and actual language use is considered as a social phenomenon. As such, related to social pressure, dominant language use can have a negative effect on minority language and foreign language use (Blackledge & Creese's , 2010; Cenoz & Gorter, 2017). Therefore, Cenoz & Gorter (2017) promote the design of 'breathing spaces' (Fishman, 1991) for target language

use, in which 'the minority language can be freely used and without the threat of the majority language' (Cenoz & Gorter, 2017, p. 909).

To stimulate more in-depth content learning and richer language development, Meyer et al. (2015) suggest an integral plurilingualistic CLIL-approach regarding the planning of authentic problem-solving tasks in which a particular language level is expected. In this plurilingualistic approach, students are stimulated to use their whole linguistic repertoire to co-construct knowledge, to demonstrate their understanding, and to apply their knowledge across languages in different styles, various modes and for different purposes. From research in task-based language teaching we see that the students' language use can be stimulated by the planning of meaning focussed tasks, and also the planning of task-structures can stimulate specific target language use. Skehan's (1996, 2009b) three-phase lesson structure focuses on stimulation of communicative competence by including a pre-phase, a during-phase and a post-phase. In this three-phase lesson structure, the students can be engaged in the use of different types of language use by using different teaching methods such as whole classroom discourse, small group work, demonstration and role-play (Llinares & Dalton-Puffer, 2015) to stimulate different types of language use. By planning student demonstration of a specific target language in the during-phase, in which the outcomes of content learning in the during-phase are presented, students can be stimulated to use that target language in the prior lesson phases as well. In these meaning making activities, the teacher scaffolds student language use and provides students with interactional feedback (the application of different feedback techniques in teacher-student interaction) to stimulate target language use. Moreover, the student's higher-order thinking and language use is stimulated by promotion of reflection.

Research questions

To explore the teaching practices to stimulate student language use in in grades 7 and 8 of the Frisian trilingual primary schools and how these practices are related to language development in the three target languages, the following research questions are formulated:

1. What languages are spoken by students at home and in the schoolyard, which language use is dominant, and how are student home language and student schoolyard language related to student language development in the three target languages?

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2. Which teacher language use scores and student language use patterns can be observed in the three target language lessons, and how are the observed language use patterns related to student language development in these languages?
 3. Which strategies aimed at focus on meaning can be observed in the lessons for the three target languages, and how is the variation in the focus on meaning related to student language development in these languages?
 4. Which strategies aimed at a focus on form can be observed in the lessons in the three target languages, and how is the focus on form related to student's language development in these languages?
 5. How is target language use stimulated in teacher-student interaction, and how is it related to student language development in these languages?
 6. Which teaching methods to stimulate target language use can be observed, and how are these related to student language development in these languages?

Method

The process of language development can be seen as a complex life-long non-linear process over time in which the target is moving (De Bot, 2016; N. Ellis, 2008; Larson-Freeman, 2015b). In this process, language development is related to both psychological and social factors including the out-of-school context, which also develops over time depending on the change of student's needs and opportunities. On those accounts, for both language development and pedagogical practices data are collected at two moments in nine classes (grade 7-8: 165 students) of seven trilingual primary schools over a period of two school years. For the observation of the teaching practices, data are collected by event sampling observations in 51 content-lessons (17 lessons for each of the three target languages). For the coding of these data, an observation instrument is developed (see appendix B). Besides the analyses of language use of both teacher and students, the data are used for the analysis of the teacher repertoires of: a. focus on meaning, b. focus on form, c. provision of interactional feedback, d. stimulation of student contribution in teacher-student interaction, and e. the use of teaching methods. For the teacher language use in the three target languages lessons, scores are determined for the extent to which the teacher uses the target language. For the student's language in the three target language lessons, language use patterns

are established referring to which languages the students use for 1) input, 2) teacher-student interaction, 3) student-student interaction and 4) output in the lesson.

Student language development in the three target languages is assessed using vocabulary and reading comprehension tests specifically developed for evaluation in Dutch primary schools. Moreover, questionnaires are used to collect information regarding the students' home language and the language used with peers (see appendix A).

Student home and schoolyard language

Regarding the first research question, although the majority of the students speak predominantly Frisian at home, Dutch is the dominant spoken language in the schoolyard. Therefore it can be argued that the majority of the students use mainly Dutch in peer interaction in the out-of-school context. Furthermore, this dissertation shows that there are no differences between students in Dutch vocabulary development related to neither home nor schoolyard language, and that there are no differences between students in English vocabulary and reading comprehension development which can be related to neither home nor schoolyard language. However, this dissertation shows that students who mainly or only speak Frisian at home, perform better in Dutch reading comprehension development than students who only or mainly speak Dutch. Secondly, students who speak mainly Dutch in the schoolyard, perform less well on Frisian vocabulary development than students who speak predominantly Frisian or equally Dutch and Frisian in the schoolyard.

Teacher- and student language use in the three target language lessons

For the various aspects of the teaching practices to stimulate language use in trilingual education, differences are observed between the two measurements (T1 and T2), between teachers and between the three language lessons.

In both T1 and T2, more exclusive target language use by both teachers and students is observed in the Dutch lessons, and less in the Frisian lessons. In any of the English lessons, exclusive target language use is observed. So the most additional language use is observed in the English lessons and the least in

the Dutch lessons. Regarding the differences between T1 and T2, an increase of exclusive teacher target language use is observed in Frisian and English target language lessons. Regarding the student language use patterns, an increase of additional language use is observed in both the Dutch and Frisian target language lessons, whilst in the English target language lessons an increase of English is observed. The observations regarding the change in language use patterns can be seen as a support of the holistic approach (Cenoz & Gorter, 2015). First, the increase in the use of Frisian in the Dutch target language lessons and the increase in the use of Dutch in the Frisian target language lessons indicate that students increasingly use their entire language repertoires for communication in the mentioned lessons. In the English target language lessons however, there is an increase in the use of English and a decrease in the use of Dutch or Frisian by the students. These results also fit in with the holistic approach, in the sense that a language in which the students are more competent is used as support for the development of a new language.

The research in this dissertation on the relationship between the observed language use of the teacher in three target language lessons and the language development of the three languages show that vocabulary development in Dutch is related to the teacher target language use in Dutch lessons. In the lessons in Dutch in which the teacher only uses the target language, the students show a stronger development of Dutch vocabulary. For the Frisian target language lessons, only a tendency is found with regard to the relationship between the development of the Frisian vocabulary and the language use of the teacher. In classes in which the teacher only uses Frisian, a stronger development of the vocabulary of Frisian among the students is found than in classes in which the teacher also uses Dutch in addition to Frisian.

Different outcomes are found for the relation between student language use in the three language lessons and student language development in these three languages. The data show that a stronger development of Dutch vocabulary and -reading comprehension is related to a language use pattern in which students use Frisian in addition to Dutch for peer interaction. In this pattern, Dutch is exclusively used in the lessons for input by teachers, in teacher-student interaction, and for output, but Frisian is thus used as an additional language in peer interaction.

With regard to Frisian language development, in this dissertation a tendency is

found for the relation between Frisian vocabulary development and a particular language use pattern of students. In classes in which the students only use Frisian in the Frisian target language lessons, a stronger vocabulary development in Frisian is observed than in classes in which the students also use Dutch in addition to Frisian. For Frisian reading comprehension development, the tendency is found that, compared to the other language use patterns, a stronger development of Frisian reading competence co-occur with a language use pattern in which students use only Frisian for input and use Dutch in addition to Frisian for teacher-student interaction, peer interaction and for output.

Based on these results, it can be concluded that the use of broader language repertoires for peer interaction is beneficial for the development of both the Dutch vocabulary and -reading comprehension. Moreover, the use of the entire language repertoire of students in the Frisian target language lessons also appears to be beneficial for the Frisian reading comprehension development. On the other hand, because this dissertation shows that the vocabulary development of Frisian and the exclusive use of Frisian in the Frisian target language lessons are related, the use of the broader language repertoire by the students in the Frisian lessons can also be seen as a possible hindrance to Frisian vocabulary development (Cenoz & Gorter, 2017).

Strategies for the Focus on Meaning and Focus on Form in the three target language lessons

Regarding the use of strategies aimed at the focus on meaning (FoM) in the three target languages, an increase of FoM is observed in all three language lessons, but most in Frisian lessons. Concerning the strategies to stimulate the focus on form (FoF), the broadest repertoires of FoF are observed in English lessons. The differences between FoF scores can particularly be explained by the differences in the repertoires of feedback techniques, from which broader repertoires are observed in English lessons and the smallest repertoires are observed in Frisian lessons. Despite that the components of FoF are observed by event sampling, there are indications that feedback is least observed in Frisian lessons, and which may be related to the teachers' language attitudes (Gorter, 2008; Ytsma, 1995). Moreover, the observation of metalinguistic feedback techniques stimulating and (interlinguistic) reflection shows that the students' linguistic awareness is hardly observed in any of the three target language lessons.

Concerning the relation between FoM and language development, only in Frisian lessons a relation is found between higher scores for FoM strategies, to engage students in meaning making activities, and better Frisian vocabulary development. In classes in which higher scores for strategies for FoM is observed, also a stronger development of the students' Frisian vocabulary is found. Additionally, a tendency is found for the relation between better Dutch vocabulary development and the observation of more FoF strategies in Dutch lessons. A stronger Dutch vocabulary development may be related to higher scores for FoF in Dutch lessons.

Teacher repertoires to stimulate student target language use

Regarding the stimulation of interaction, in T1 the broadest teacher repertoires to promote student contribution in whole classroom discourse are observed in both Dutch and English lessons. In T2, the broadest repertoires are observed in the Dutch lessons and the smallest in the English lessons. Furthermore, there are indications that student contributions are more frequently stimulated in the Dutch lessons than in the other target language lessons. In this dissertation, a tendency is found indicating that larger and more frequent use of teacher repertoires of the different scaffolding techniques and more frequent stimulation of student contributions in the Dutch language and students' Dutch vocabulary development are related.

Concerning the stimulation of student-student interaction, an increase of the use of the number of teaching methods (pedagogic tasks, group work, role-play and demonstration) is found in all three language lessons, but most in English lessons and the least in Dutch lessons. We find the largest increase in English lessons and the smallest increase in Dutch lessons. Moreover, a relation is found between the extent to which teachers use teaching methods to stimulate peer interaction in meaning making activities in Frisian lessons and the students' Frisian vocabulary development. In the lessons in which a wider range of teaching methods is observed, a stronger development in vocabulary development in Frisian is also found. Furthermore, the data show that the use of a wider range of teaching methods in Dutch lessons and a stronger development in Dutch reading comprehension development are related as well.

Conclusion

This dissertation provides an insight in the teaching practices in the Frisian trilingual classroom of grades 7 and 8 in which the use of Dutch, Frisian and English is stimulated in content-based language teaching. These new insights can possibly help educators to improve the stimulation of language use in content-based language lessons, and in which the students' whole linguistic repertoires are acknowledged. Examples for improvement are, broadening teacher repertoires to stimulate student contributions in classroom discourse, and to stimulate target language development by expanding teacher repertoires of feedback techniques and stimulating the (inter)linguistic reflection of students.

This dissertation shows that in most of the examined trilingual schools in Fryslân, Dutch is the dominant schoolyard language and that Frisian is spoken in the schoolyard by a minority of students with their peers. That while in the home situation the students of these schools speak more Frisian than Dutch. Furthermore, it appears that a stronger Frisian vocabulary development is related to the exclusive use of Frisian in the Frisian target language lessons. The fact that Frisian is spoken less or not at all among peers outside the classroom and the conclusion that the exclusive use of Frisian in Frisian lessons and the vocabulary development of Frisian appear to be related, argue in favour of the planning of breathing spaces (Fishman, 1991). By planning breathing spaces, students are encouraged to use (as much as possible) the more vulnerable languages that are hardly used or not used in extracurricular contexts (Blackledge & Creese, 2010; Cenoz & Gorter, 2017).

For various aspects of the teaching practices, a co-occurrence is found for the scores of the teaching practices and those of the English vocabulary and reading comprehension development. However, no relations are found between English language development the teaching practices. English language development may be mainly related to language exposure to English at home (Günther-van der Meij, 2018). However, this study did not collect data for the use of English through media (TV, audio equipment and computers).

Finally, this dissertation adds new perspectives for research into multilingual education. In this dissertation, the teaching practices in the three target language lessons is compared over time and the relationship between the didactic action and the language development of students is examined. In follow-up research

into didactic action in trilingual education, the frequencies of certain forms of that didactic action and also the language attitudes of the teachers should be included. Additionally, further research should include the receptive and productive language use of the students in the media in the different languages, as a component of the extracurricular language use. Especially since the use of media such as Instagram and TikTok are very popular among children of this age.

Samenvatting

Samenvatting

Context

Vanaf 1997 biedt een groeiend aantal Friese basisscholen een model voor drietalig onderwijs aan, waarin Nederlands, Fries en Engels als voertaal worden gebruikt en interactief taalgebruik in betekenisvolle communicatieve activiteiten wordt gestimuleerd (Van Ruijven & Ytsma, 2008). Terwijl er relatief veel onderzoek is gedaan naar de effectiviteit van meertalig onderwijs, is er nog weinig onderzoek gedaan naar het didactisch handelen van de leraar voor het stimuleren van het taalgebruik in de lessen in de drie doeltalen in die Friese drietalige basisscholen. Wat betreft het communicatief doeltaalgebruik in doeltaallessen, kunnen er verschillende vormen van taalgeïntegreerd op inhoud gericht leren worden beschreven; van communicatief taalonderwijs waarin lesinhouden worden gebruikt voor het stimuleren van het taalgebruik tot totale onderdompeling, en dus inclusief de aanpak van content and language integrated learning (CLIL). In al deze vormen is er sprake van impliciete en incidentele taalontwikkeling in betekenisvolle contexten.

De belangrijkste doelstelling van dit proefschrift is het verkennen van verschillende onderwijspraktijken waarin het taalgebruik van leerlingen in de groepen 7 en 8 van de Friese drietalige basisscholen wordt gestimuleerd en van de relatie tussen het didactisch handelen van de leraar en de taalontwikkeling van de leerlingen in de drie doeltalen.

Theoretische achtergrond

In deze dissertatie is de beschrijving van het didactisch handelen vooral gebaseerd op de *holistic approach on multilingual education* (Cenoz en Gorter, 2011; 2015) en de *plurilingualistic CLIL-approach* (Meyer, Coyle, Halbach, Schuck en & Ting, 2015). In hun holistische benadering presenteren Cenoz en Gorter (2011; 2015) een onderwijs- en onderzoeksaanpak waarin meertalige leerlingen vanuit een meertalig perspectief worden bestudeerd en waarin het gebruik van het gehele meertalige taalrepertoire wordt beschouwd als een natuurlijk fenomeen. Door toepassing van *translanguaging* (Lewis, Jones & Baker, 2012a; Wei, 2011; 2018) te stimuleren, worden leerlingen in staat gesteld gebruik te maken van hun gehele taalrepertoire ter ondersteuning van hun taalontwikkeling en voor hun communicatie. Als een didactische aanpak is translanguaging gericht op het gebruik

van het volledige taalrepertoire van de leerling. Daarnaast moet het concrete taalgebruik in de klas als een sociaal fenomeen worden beschouwd. Gerelateerd aan sociale druk, kan het gebruik van een dominante taal bijvoorbeeld een negatief effect hebben op het gebruik van de minderheidstaal en het gebruik van vreemde talen. Om het gebruik van een niet-dominante taal te stimuleren, stellen Cenoz & Gorter (2017) daarom de toepassing van *breathing spaces* (Fishman, 1991) voor, waarbij “de minderheidstaal vrij kan worden gebruikt zonder de dreiging van de meerderheidstaal” (Cenoz & Gorter, 2017, p. 909).

Voor het stimuleren van meer diepgaand leren en het bewerkstelligen van een rijkere taalontwikkeling, presenteren Meyer et al. (2015) een integrale pluralinguïstische aanpak voor hun CLIL-benadering, waarin door het aanbieden van authentieke probleemoplossende taken leerlingen aan bepaald taalniveau werken. In deze *pluralinguïstische benadering* worden leerlingen gestimuleerd om hun hele taalrepertoire te gebruiken om zowel kennis te co-construeren, als hun kennisbegrip te tonen en kennis toe te passen in verschillende talen en stijlen, op verschillende manieren en voor verschillende doeleinden. Onderzoek in het kader van *task-based language teaching* heeft aangetoond dat het taalgebruik van leerlingen kan worden gestimuleerd door het plannen van betekenisvolle taken. Ook de constructie van taken kan specifiek doeltaalgebruik stimuleren. Skehan’s (1996, 2009b) lesmodel is dan ook gericht op het stimuleren van de ontwikkeling van communicatieve vaardigheden en bestaat uit een pre-fase, een during-fase en een post-fase. Door in dit driefasenmodel verschillende didactische werkvormen zoals klassengesprek, overleg in kleine groepjes, presentaties en rollenspel (Llinares & Dalton-Puffer, 2015) toe te passen, kunnen verschillende soorten taalgebruik worden gestimuleerd. Door leerlingen presentaties in een specifieke doeltaal in de post-fase te laten uitvoeren, waarin de leerlingen de leeruitkomsten van de during-fase presenteren, kunnen leerlingen worden gestimuleerd om ook in de voorafgaande lesdelen die doeltaal al te gebruiken. In de uitvoering van deze betekenisvolle leeractiviteiten, zou de leraar het taalgebruik van de leerling moeten ondersteunen door het geven van interactionele feedback (de toepassing van diverse feedbacktechnieken in leraar-leerling interactie), waardoor het doeltaalgebruik gestimuleerd wordt. Bovendien zou dan behalve het taalgebruik ook het hogere orde denken van de kinderen en de reflectie op het taalgebruik gestimuleerd worden.

Onderzoeksvragen

Voor de verkenning van het didactisch handelen gericht op het stimuleren van het taalgebruik van leerlingen in groep 7 en 8 van de Friese drietalige basisscholen en van de wijze waarop dat didactisch handelen en de taalontwikkeling in de drie doeltalen is gerelateerd, zijn de volgende onderzoeksvragen geformuleerd:

1. Welke talen worden door leerlingen thuis en op het schoolplein gesproken, welk taalgebruik is dominant en hoe zijn de taal van de leerlingen thuis en het schoolplein gerelateerd aan de taalontwikkeling van de leerlingen in de drie doeltalen?
2. Welke taalgebruiksscores van leraren en taalgebruikspatronen van leerlingen kunnen worden geobserveerd in de lessen in de drie doeltalen en hoe zijn de geobserveerde taalgebruikspatronen gerelateerd aan de taalontwikkeling van leerlingen in de drie doeltalen?
3. Welke strategieën gericht op de aandacht voor lesinhouden kunnen worden geobserveerd in de lessen in de drie doeltalen en hoe is de variatie in de aandacht voor lesinhoud gerelateerd aan de taalontwikkeling van leerlingen in drie doeltalen?
4. Welke strategieën gericht op aandacht voor het taalgebruik worden geobserveerd in de lessen in de drie doeltalen en hoe is de aandacht voor het taalgebruik gerelateerd aan de taalontwikkeling van leerlingen in de drie doeltalen?
5. Hoe wordt het doeltaalgebruik gestimuleerd in de interactie tussen leraar en leerling en hoe zijn deze gerelateerd aan de taalontwikkeling van leerlingen in de drie doeltalen?
6. Welke didactische werkvormen om het doeltaalgebruik te stimuleren kunnen worden geobserveerd en hoe zijn deze gerelateerd aan de taalontwikkeling van leerlingen in de drie doeltalen?

Methode

Het taalontwikkelingsproces kan worden gezien als een complex levenslang niet-lineair proces in de tijd en waarin ook het doel in beweging is (De Bot, 2016; Ellis, 2008; Larson-Freeman, 2015b). In dit proces is taalontwikkeling gerelateerd aan zowel psychologische als sociale factoren inclusief de buitenschoolse context. Ook

die factoren zijn in ontwikkeling omdat ze afhankelijk zijn van veranderingen in de behoeften en de mogelijkheden van de leerlingen. Op basis van deze aannames zijn op twee momenten in een periode van twee schooljaren in negen klassen (leerjaar 7-8: 165 leerlingen) van zeven drietalige basisscholen gegevens verzameld voor zowel taalontwikkeling als het didactisch handelen. Voor de observatie van het didactisch handelen zijn in 51 lessen (17 lessen voor elk van de drie doeltalen) door event-sampling gegevens verzameld. Voor de codering van deze gegevens is een observatie-instrument ontwikkeld (zie bijlage B). Naast de analyse van het taalgebruik van zowel leraar als leerlingen, zijn de gegevens gebruikt voor de analyse van de leraar repertoires wat betreft: a. aandacht voor lesinhouden, b. aandacht voor de vorm van het taalgebruik, c. het geven van interactionele feedback, d. het stimuleren van leerlingenbijdragen in leraar-leerling interactie en e. de toepassing van didactische werkvormen. Voor het taalgebruik van de leraar in de drie doeltaallessen zijn er scores bepaald voor de mate waarin de leraar de doeltaal gebruikt. Voor het taalgebruik van de leerlingen in de drie doeltaallessen zijn taalgebruikspatronen vastgesteld waarbij gekeken is welke talen de leerlingen gebruiken voor 1) input, 2) leraar-leerling interactie, 3) leerling-leerling interactie en 4) output in de les.

De taalontwikkeling in de drie doeltalen is getoetst door gebruik van woordenschat- en begripvend lezen toetsen die speciaal zijn ontwikkeld voor toetsing in de Nederlandse basisscholen. Daarnaast zijn er vragenlijsten gebruikt voor informatieverzameling over de thuistaal van de leerlingen en de taal die wordt gebruikt in contact met leeftijdsgenoten (zie bijlage A).

De thuis- en schoolpleintalen van de leerlingen en taalontwikkeling in de drie talen

Wat de eerste onderzoeksvraag betreft, laten de gegevens duidelijk zien dat de meerderheid van de leerlingen thuis overwegend Fries spreekt, terwijl Nederlands de dominante gesproken taal is op het schoolplein. Daarom kan worden gesteld dat de meerderheid van de leerlingen voornamelijk Nederlands gebruikt voor interactie met leeftijdsgenoten in de buitenschoolse context. Verder blijkt uit dit proefschrift dat leerlingen met verschillende thuis- en/of schoolpleintalen niet onderling verschillen in de woordenschatontwikkeling Nederlands. Ook zijn er, wat betreft de verschillen in het thuis- en/of schoolpleintaalgebruik, geen verschillen tussen de leerlingen gevonden wat betreft de woordenschatontwikkeling Engels

en de ontwikkeling in het begrijpend lezen in die taal. Uit dit proefschrift blijkt echter ook dat leerlingen die thuis voornamelijk of uitsluitend Fries spreken, een sterkere ontwikkeling in het begrijpend lezen Nederlands laten zien dan leerlingen die thuis alleen of vooral Nederlands spreken. Ten tweede presteren leerlingen die op het schoolplein voornamelijk Nederlands spreken minder goed op de Friese woordenschatontwikkeling dan leerlingen die op het schoolplein overwegend Fries of evenveel Nederlands als Fries spreken.

Taalgebruik leraren en leerlingen in de lessen in de drie doeltalen

Voor de diverse aspecten van het didactisch handelen gericht op het stimuleren van het taalgebruik in het drietalig onderwijs zijn er verschillen geobserveerd tussen de twee meetmomenten (T1 en T2), tussen leraren en tussen de lessen in de drie doeltalen.

Vergeleken met de andere doeltaallessen wordt in zowel T1 als T2 in Nederlandse lessen door zowel leraren als leerlingen vaker uitsluitend de doeltaal gebruikt. In de Friese lessen gebeurt dat minder en in Engelse lessen gebeurt dat zelfs helemaal nooit. Ander taalgebruik dan die van de doeltaal is dus relatief vaak geobserveerd in de Engelse lessen en het minst in de Nederlandse lessen. Uit de observaties blijkt ook dat leraren in de Friese en Engelse lessen in T2 vaker uitsluitend gebruik maken van de doeltaal dan in T1. Wat betreft de taalgebruikspatronen van leerlingen, is er in zowel de Nederlandse als de Friese doeltaallessen een toename van niet-doeltaalgebruik geconstateerd, terwijl er in de Engelse doeltaallessen er een toename van de doeltaal waargenomen is. De uitkomsten met betrekking tot de verandering in de taalgebruikspatronen kunnen als een ondersteuning van de holistische benadering van Cenoz & Gorter (2015) worden gezien. Ten eerste wijzen de toename van het gebruik van het Fries in de Nederlandse doeltaallessen en de toename van het gebruik van het Nederlands in de Friese doeltaallessen erop dat leerlingen steeds meer hun gehele taalrepertoires gebruiken voor de communicatie in de genoemde lessen. In de Engelse doeltaallessen is er echter sprake van een toename van het gebruik van Engels en een afname van het gebruik van het Nederlands of Fries door de leerlingen. Ook deze uitkomsten passen in de holistische benadering, in de zin dat een voor de leerlingen bekende taal als steun voor de ontwikkeling van nieuwe taal wordt gebruikt.

Het onderzoek in deze dissertatie naar de relatie tussen het geobserveerde taalgebruik van de leraar in drie doeltaallessen en de taalontwikkeling van de drie talen laat zien dat de woordenschatontwikkeling in het Nederlands gerelateerd is aan het doeltaalgebruik door de leraar in de Nederlandse lessen. In de lessen in het Nederlands waar de leraar uitsluitend gebruik maakt van de doeltaal, laten de leerlingen een sterkere ontwikkeling woordenschat Nederlands zien. Voor de Friese doeltaallessen is slechts een tendens gevonden wat betreft de relatie tussen de ontwikkeling van de woordenschat Fries en het taalgebruik van de leraar. In klassen waarin de leraar uitsluitend Fries gebruikt is een sterkere ontwikkeling van de woordenschat Fries bij de leerlingen gevonden dan in klassen waarin de leraar naast het Fries ook het Nederlands gebruikt.

Voor de relatie tussen het taalgebruik van leerlingen in de lessen in de drie doeltalen en de taalontwikkeling van leerlingen in deze drie talen zijn er verschillende uitkomsten gevonden. Uit de data blijkt dat een sterkere ontwikkeling van woordenschat Nederlands en begrijpend lezen in het Nederlands gerelateerd is aan een taalgebruikspatroon waarin leerlingen naast het Nederlands ook het Fries gebruiken voor de interactie met medeleerlingen. In dit patroon wordt in de lessen Nederlands uitsluitend Nederlands gebruikt voor input door leraren, in de interactie tussen leraar en leerling en voor output, maar wordt het Fries dus gebruikt als extra taal in de interactie tussen de leerlingen onderling.

Wat betreft de taalontwikkeling in het Fries is er in deze dissertatie een tendens gevonden voor de relatie tussen de woordenschatontwikkeling Fries en een bepaald taalgebruikspatroon van leerlingen. In de groepen waarin de leerlingen in de Friese doeltaallessen uitsluitend het Fries gebruiken, is een sterkere woordenschatontwikkeling in het Fries geconstateerd dan in groepen waarin de leerlingen naast het Fries ook het Nederlands gebruiken. Voor de ontwikkeling van het begrijpend lezen in het Fries is de tendens gevonden dat, in vergelijking tot de andere taalgebruikspatronen, een sterkere Friese leesvaardigheidsontwikkeling samenhangt met een taalgebruikspatroon waarin leerlingen uitsluitend Fries gebruiken voor input en het Nederlands naast het Fries gebruiken voor de interactie tussen de leraar en leerlingen, de interactie tussen leerlingen onderling en voor de output. Op basis van deze uitkomsten kan worden geconcludeerd dat het gebruik van bredere taalrepertoires in de interactie tussen de leerlingen onderling gunstig is voor de ontwikkeling van zowel de woordenschat Nederlands als het begrijpend lezen in het Nederlands. Bovendien blijkt het gebruik van het gehele taalrepertoire

van leerlingen in de Friese doeltaallessen ook gunstig te zijn voor de ontwikkeling van het begrijpend lezen in het Fries. Omdat dit proefschrift anderzijds aantoont dat de woordenschatontwikkeling Fries en het uitsluitend gebruik van het Fries in de Friese doeltaallessen zijn gerelateerd, kan het gebruik van het bredere taalrepertoire door de leerlingen in de Friese lessen dus ook worden gezien als een mogelijke belemmering voor doeltaal-ontwikkeling wat betreft woordenschat (Cenoz & Gorter, 2017).

Strategieën voor de aandacht voor lesinhouden en de aandacht voor het taalgebruik in de drie doeltaallessen

In alle lessen in de drie doeltalen is er tussen T1 in T2 een toename waargenomen in het gebruik van strategieën die de focus op lesinhouden stimuleren. Het grootst is die toename in de Friese doeltaallessen. Wat betreft de strategieën waarin de focus op de vorm van het taalgebruik is gericht, zijn de meest brede repertoires waargenomen in de lessen in het Engels. De verschillen in aandacht voor de vorm van taalgebruik zijn met name veroorzaakt door de verschillen in de omvang van het repertoire van de diverse feedbacktechnieken. Daarvan zijn de grootste repertoires in de lessen Engels waargenomen en de kleinste repertoires in de lessen in het Fries. Ondanks het feit dat de data met betrekking tot de diverse aspecten van de aandacht voor het taalgebruik zijn verzameld op basis van *event sampling*, zijn er aanwijzingen dat het geven van interactionele feedback het minst is waargenomen in de lessen in het Fries. Hoewel in dit onderzoek geen gegevens zijn verzameld van de taalattitudes leraren en leerlingen, kunnen de verschillen tussen de lessen in de drie doeltalen wat betreft het geven van interactionele feedback mogelijk worden verklaard door de verschillen in taalattitude van de leraren ten opzichte van de drie talen (Gorter, 2008; Ytsma, 1995). Daarin wordt het Nederlands als de belangrijkste taal ervaren en is de houding ten opzichte van het Engels positiever dan die ten opzichte van het Fries (Gorter, 2008). Tot slot laat deze dissertatie zien dat, gericht op de stimulering van het taalbewustzijn van de leerlingen, de toepassing van metalinguïstische feedbacktechnieken en het stimuleren van (interlinguïstische) reflectie in alle drie doeltaallessen nauwelijks zijn waargenomen.

Wat betreft de relatie tussen de aandacht voor lesinhouden en de taalontwikkeling is alleen in Friese lessen een relatie gevonden tussen de woordenschatontwikkeling Fries en de aandacht voor leerinhouden. In klassen waarin hogere scores voor

strategieën voor de aandacht voor leerinhouden zijn waargenomen, is ook een sterkere ontwikkeling van leerlingen in de woordenschatontwikkeling Fries gevonden. Daarnaast is er een tendens gevonden voor een relatie tussen de woordenschatontwikkeling Nederlands en de strategieën voor de focus op taalgebruik in de Nederlandse doeltaallessen. Een sterkere Nederlandse woordenschatontwikkeling is mogelijk gerelateerd aan hogere scores voor de focus op taalgebruik lessen in het Nederlands.

Repertoires voor het stimuleren van het doeltaalgebruik van leerlingen

In T1 vinden we de grootste repertoires voor het stimuleren van actieve bijdragen van leerlingen in klassengesprekken in de lessen Nederlands en in de lessen in het Engels. In T2 zijn de grootste repertoires in de lessen in het Nederlands geobserveerd en de kleinste repertoires in de lessen in het Engels. Daarbij zijn er aanwijzingen dat de frequentie van het stimuleren van de uiting van leerlingen in klassengesprekken in de lessen in het Nederlands hoger is dan in de andere doeltaallessen. Ook is er een tendense gevonden voor de relatie tussen het stimuleren van uitingen van leerlingen in de lessen in het Nederlands en de woordenschatontwikkeling van deze kinderen in het Nederlands: een groter repertoire van de diverse scaffoldingstechnieken en frequentere stimulering van leerlingenbijdragen tussen leraren hangen samen met een sterkere woordenschatontwikkeling in het Nederlands.

In alle lessen in de drie doeltalen is geconstateerd dat er tussen T1 en T2 een toename is van het aantal toegepaste didactische werkvormen (leertaken, groepswerk, rollenspel en presentatie) om de interactie tussen leerlingen onderling te stimuleren. De grootste toename vinden we in de Engelse lessen en de kleinste toename in de lessen in het Nederlands. Bovendien is er een relatie gevonden tussen de mate waarin leraren didactische werkvormen gebruiken die de aandacht voor lesinhouden stimuleren in de lessen in het Fries en de woordenschatontwikkeling Fries van de leerlingen. In de lessen waarin een groter scala aan didactische werkvormen is geobserveerd is ook een sterkere woordenschatontwikkeling in het Fries gevonden. Verder blijkt uit de data dat het gebruik van een groter scala aan didactische werkvormen in de lessen in het Nederlands en een sterkere ontwikkeling in de Nederlandse leesvaardigheidsontwikkeling ook gerelateerd zijn.

Conclusies

Dit proefschrift geeft inzicht in het didactisch handelen in de groepen 7 en 8 van een zes Friese drietalige basisschool waarin het gebruik van Nederlands, Fries en Engels als voertalen wordt gestimuleerd. Deze nieuwe inzichten kunnen leraren mogelijk helpen om het taalgebruik in de doeltaallessen te stimuleren, waarbij rekening wordt gehouden met het gebruik van het gehele taalrepertoire van de leerlingen. Voorbeelden van gewenste verbetering zijn: uitbreiding van het lerarenrepertoire om bijdragen van leerlingen in klassengesprekken te stimuleren, uitbreiding van het lerarenrepertoire wat betreft technieken voor het geven van interactionele feedback en het stimuleren van (inter)linguïstische reflectie van leerlingen.

Uit dit proefschrift blijkt dat op de meeste van de onderzochte drietalige scholen in Fryslân het Nederlands de dominante schoolpleintaal is en dat het Fries op het schoolplein door een minderheid van de leerlingen met leeftijdsgenoten wordt gesproken. Dat terwijl er in de thuissituatie door de leerlingen van deze scholen meer Fries dan Nederlands wordt gesproken. Verder blijkt dat een sterkere woordenschatontwikkeling in het Fries gerelateerd is aan het uitsluitend gebruik van het Fries in de Friese doeltaallessen. Het feit dat het Fries buiten de klas onder leeftijdsgenoten minder of niet wordt gesproken en de conclusie het uitsluitend gebruik van het Fries in de Friese lessen en de woordenschatontwikkeling Fries gerelateerd lijken, pleiten voor het plannen van *breathing spaces* (Fishman, 1991). Door de planning van *breathing spaces* worden leerlingen gestimuleerd (zoveel mogelijk) gebruik te maken van de meer kwetsbare talen die nauwelijks of niet in de buitenschoolse context worden gebruikt (Blackledge & Creese, 2010; Cenoz & Gorter, 2017).

Voor diverse aspecten van het didactisch handelen van leraren vallen de scores van het didactisch handelen en die van de ontwikkelingen van de woordenschat en begrijpend lezen in het Engels samen. Er zijn echter geen relaties gevonden tussen de taalontwikkeling in het Engels en het didactisch handelen van de leraar. Mogelijk houdt de taalontwikkeling Engels vooral verband met de taalblootstelling in het Engels thuis (Günther-van der Meij, 2018). In dit onderzoek zijn echter geen data verzameld voor het gebruik van het Engels via media (tv, audioapparatuur en computers).

Ten slotte voegt dit proefschrift nieuwe perspectieven toe voor onderzoek naar

meertalig onderwijs. In deze dissertatie wordt het didactisch handelen in de drie doeltaallessen namelijk vergeleken in de tijd en wordt de relatie tussen het didactisch handelen en de taalontwikkeling van leerlingen onderzocht. In vervolgonderzoek naar het didactisch handelen in het drietalig onderwijs zouden de frequenties van bepaalde vormen van dat didactisch handelen en ook de taalattitudes van de leraren moeten worden meegenomen. Daarnaast zou in vervolgonderzoek het receptieve en productieve taalgebruik van de leerlingen in de media in de verschillende talen, moeten worden meegenomen, als component van het buitenschools taalgebruik. Vooral omdat het gebruik van media zoals Instagram en TikTok erg populair is bij kinderen van deze leeftijd.

Gearfetting

Gearfetting

Kontekst

Fan 1997 ôf biedt in groeiend oantal Fryske basisskoallen in model foar trijetalich ûnderwiis, wêryn it Nederlânsk, Frysk en Ingelsk as ynstruksjetaal brûkt wurde en it ynteraktyf taalgebrûk yn betsjuttingsfolle kommunikative aktiviteiten stimulearre wurdt (Van Ruijven & Ytsma, 2008). Wylst der relatyf sjoen in soad ûndersyk dien is nei de effektiviteit fan meartalich ûnderwiis, is der noch net in soad ûndersyk dien nei it didaktysk hanneljen fan de learaar foar it stimulearjen fan it taalgebrûk yn de lessen yn de trije doeltalen op de Fryske trijetalige basisskoallen. Oangeande it kommunikatyf doeltaalgebrûk yn doeltaallessen kinne der ferskate foarmen fan op ynhâld basearre taalûnderwiis beskreaun wurde; fan kommunikatyf taalûnderwiis dêr it lesynhâlden yn brûkt wurde foar it stimulearjen fan it taalgebrûk oant folsleine ûnderdompeling, en dus ynklusyf de oanpak fan *Content and Language Integrated Learning* (CLIL). Yn al dy foarmen fynt taalûntwikkeling implisyt en ynsidenteel plak yn betsjuttingfolle konteksten.

De wichtichste doelstelling fan dizze dissertaasje is it ferkennen fan de ferskate ûnderwiispraktiken dêr it taalgebrûk fan learlingen yn de groepen 7 en 8 fan de Fryske trijetalige basisskoallen yn stimulearre wurdt, en fan wat de relaasje is tusken dy praktiken en de taalûntwikkeling fan de learlingen yn de trije doeltalen.

Teoretysk ramt

Yn dizze dissertaasje is de beskriuwing fan it didaktysk hanneljen benammen basearre op de holistic approach on multilingual education (Cenoz en Gorter, 2011; 2015) en de plurilingual CLIL-approach (Meyer, Coyle, Halbach, Schuck en & Ting, 2015). Yn har holistyske oanpak presintearje Cenoz en Gorter (2011; 2015) in ûnderwiis- en ûndersyksoanpak dêr it meartalige learlingen fanút in meartalich perspektyf yn bestudearre wurde en dêr it gebrûk fan it hiele meartalige taalrepertoire beskôge wurdt as in natuerlik fenomeen. Troch tapassing fan translanguaging (Lewis, Jones & Baker, 2012a; Greide, 2011; 2018) te stimulearjen, wurde learlingen by steat steld gebrûk te meitsjen fan harren hiele taalrepertoire as stipe fan harren taalûntwikkeling en foar harren kommunikaasje. As in didaktyske oanpak is translanguaging rjochte op it gebrûk fan it folsleine taalrepertoire fan de learling. Dêrnjonken moat it konkrete taalgebrûk yn de klasse as in sosjaal fenomeen beskôge wurde. Relatearre oan sosjale druk kin

it gebrûk fan in dominante taal bygelyks in negatyf effekt hawwe op it gebrûk fan de minderheidstaal en it gebrûk fan frjemde talen. Om it gebrûk fan in net-dominante taal te stimulearjen, stelle Cenoz & Gorter (2017) dêrom de tapassing fan *breathing spaces* (Fishman, 1991) út, sadat □de minderheidstaal frij brûkt wurde kin sûnder de driging fan de mearderheidstaal□ (Cenoz & Gorter, 2017, p. 909).

Foar it stimulearjen fan mear djipgeand learen en it bewurkjen fan in rikere taalûntwikkeling, presintearje Meyer et al. (2015) in yntegrale pluralinguïstyske oanpak foar har CLIL-wurkwiize, wêryn□t troch it oanbieden fan autentike probleemoplossende taken learlingen oan in bepaald taalnivo wurkje. Yn dy pluralinguïstyske oanpak wurde learlingen stimulearre om harren hiele taalrepertoire te brûken om sawol kennis te ko-konstruearjen, as harren kennisbegryp te toanen en kennis ta te passen yn ferskate talen en stilen, op ferskate wizen en foar ferskate doelen. Undersyk yn it ramt fan task-based language teaching hat oantoand dat it taalgebrûk fan learlingen stimulearre wurde kin troch it plannen fan betsjuttingsfolle taken. De konstruksje fan taken kin ek spesifyk doeltaalgebrûk stimulearre. Skehan's (1996, 2009b) lesmodel is dan ek rjochte op it stimulearjen fan de ûntwikkeling fan kommunikative feardigens en bestiet út in *pre-phase*, in *during-phase* en in *post-phase*. Troch yn dat trijefazemodel ferskate didaktyske wurkfoarmen, lykas klassepjetear, oerlis yn lytse groepkes, presintaasjes en rollespul (Llinares & Dalton-Puffer, 2015) ta te passen, kinne ferskillende soarten taalgebrûk stimulearre wurde. Troch learlingen presintaasjes yn in spesifike doeltaal yn de *post-phase* útfiere te litten, dêr□t de learlingen de learútkomsten fan de *during-phase* presintearje, kinne learlingen stimulearre wurde om ek yn de foarôfgeande lesdielen dy doeltaal al te brûken. Yn de útfiering fan sokke betsjuttingsfolle learaktiviteiten, soe de learaar it taalgebrûk fan de learling stypje moatte troch it jaan fan ynteraksjonele feedback (de tapassing fan ferskate feedbacktechniken yn learaar-learling ynteraksje), wêrtroch□t it doeltaalgebrûk stimulearre wurdt. Boppedat soe dan útsein it taalgebrûk ek it hegere oarder tinken fan de bern en de refleksje op it taalgebrûk stimulearre wurde.

Undersyksfragen

Foar de ferkennenning fan it didaktysk hanneljen rjochte op it stimulearjen fan it taalgebrûk fan learlingen yn de groepen 7 en 8 fan de Fryske trijetalige basisskoallen

en fan de wize wêrop it dat didaktysk hanneljen en de taalûntwikkeling yn de trije doeltalen relatearre is, binne de folgjende ûndersyksfragen formulearre:

1. Hokker talen wurde troch learlingen thús en op it skoalplein praten, hokker taalgebrûk is dominant en hoe binne de taal fan de learlingen thús en op it skoalplein relatearre oan de taalûntwikkeling fan de learlingen yn de trije doeltalen?
2. Hokker taalgebrûksskoares fan leararen en taalgebrûkspatroanen fan learlingen kinne observearre wurde yn de lessen yn de trije doeltalen en hoe binne de observearre taalgebrûkspatroanen relatearre oan de taalûntwikkeling fan learlingen yn de trije doeltalen?
3. Hokker strategyen rjochte op it omtinken foar lesynhâlden kinne observearre wurde yn de lessen yn de trije doeltalen en hoe is de fariaasje yn it omtinken foar lesynhâld relatearre oan de taalûntwikkeling fan learlingen yn de trije doeltalen?
4. Hokker strategyen rjochte op omtinken foar it taalgebrûk kinne observearre wurde yn de lessen yn de trije doeltalen en hoe is it omtinken foar it taalgebrûk relatearre oan de taalûntwikkeling fan learlingen yn de trije doeltalen?
5. Hoe wurdt it doeltaalgebrûk stimulearre yn de ynteraksje tusken learaar en learling en is dat relatearre oan de taalûntwikkeling fan learlingen yn de trije doeltalen?
6. Hokker didaktyske wurkfoarmen om it doeltaalgebrûk te stimulearjen kinne observearre wurde en hoe binne dy relatearre oan de taalûntwikkeling fan learlingen yn de trije doeltalen?

Metoaden

It taalûntwikkelingsproses kin sjoen wurde as in kompleks libbenslang net-lineêr proses yn de tiid en dêr it ek it doel yn beweging is (De Bot, 2016; Ellis, 2008; Larson-Freeman, 2015b). Yn dat proses is taalûntwikkeling relatearre oan sawol psychologyske as sosjale faktoaren ynklusyf de bûtenskoalske kontekst. Ek dy faktoaren binne yn ûntwikkeling om't hja ôfhinklik binne fan feroaringen yn it ferlet en de mooglikheden fan de learlingen. Op basis fan dy oannames, binne op twa mominten yn in perioade fan twa skoaljierren yn njoggen groepen (learyier 7-8: 165 learlingen) fan sân trijetalige basisskoallen gegevens sammele oangeande

sawol taalûntwikkeling as it didaktysk hanneljen. Foar de observaasje fan it didaktysk hanneljen binne yn 51 lessen (17 lessen foar elk fan de trije doeltalen) troch event-sampling gegevens sammele. Foar de kodearring fan dy gegevens is in observaasje-ynstrumint ûntwikkele (sjoch taheakke B). Njonken de analyze fan it taalgebrûk fan sawol learaar as learlingen, binne de gegevens brûkt foar de analyze fan de learaarrepertoires wat de folgjende kategoryen oanbelanget: a. oandacht foar lesynhâlden, b. oandacht foar de foarm fan it taalgebrûk, c. it jaan fan ynteraksjonele feedback, d. it stimulearjen fan learlingbydrages yn learaar-learling ynteraksje en e. de tapassing fan didaktyske wurkfoarmen. Foar it taalgebrûk fan de learaar yn de trije doeltaallessen binne skoares bepaald foar de mjitte wêryn't de learaar de doeltaal brûkt. Foar it taalgebrûk fan de learlingen yn de trije doeltaallessen binne taalgebrûkspatroanen fêststeld wêrby't sjoen is hokker talen de learlingen brûke foar a. ynput, b. learaar-learlingynteraksje, c. learling-learlingynteraksje en d. output yn de les.

De taalûntwikkeling yn de trije doeltalen is toetst troch gebrûk fan wurdskat- en lêsfeardigentoetsen dy't spesjaal ûntwikkele binne foar toetsing yn de Nederlânske basisskoallen. Dêrnjonken binne fragelisten brûkt foar ynformaasjesamming oer de thústaal fan de learlingen en de taal dy't brûkt wurdt yn kontakt mei leeftiidsgenoaten (sjoch taheakke A).

De thús- en skoalpleintalen fan de learlingen en taalûntwikkeling yn de trije talen

Oangeande de earste ûndersyksfraach, litte de gegevens dúdlik sjen dat de mearderheid fan de learlingen thús oerwaagjend Frysk prate, wylst Nederlânsk de dominante taal op it skoalplein is. Dêrom kin steld wurde dat de mearderheid fan de learlingen benammen Nederlânsk brûkt foar ynteraksje mei leeftiidsgenoaten yn de bûtenskoalske kontekst. Fierder blykt út dizze dissertaasje dat learlingen mei ferskillende thús- en/of skoalpleintalen net ûnderinoar ferskille yn de wurdskatûntwikkeling Nederlânsk. Ek binne der, oangeande de ferskillen yn it thúsen/of skoalpleintaalgebrûk, gjin ferskillen tusken de learlingen fûn oangeande de wurdskatûntwikkeling Ingelsk en de ûntwikkeling fan it begripend lêzen yn dy taal. Ut dizze dissertaasje blykt lykwols ek dat learlingen dy thús benammen of útslutend Frysk prate, in sterkere ûntwikkeling yn it begripend lêzen Nederlânsk sjen litte as learlingen dy't thús allinne of benammen Nederlânsk prate. Twads prestearje learlingen dy't op it skoalplein benammen Nederlânsk prate minder

goed op de Fryske wurdskatûntwikkeling as learlingen dy't op it skoalplein yn de haadsaak Frysk of likefolle Nederlânsk as Frysk prate.

Taalgebrûk leararen en learlingen yn de lessen yn de trije doeltalen

Foar de ferskate aspekten fan it didaktysk hanneljen rjochte op it stimulearjen fan it taalgebrûk yn it trijetalich ûnderwiis binne ferskillen observearre tusken de twa mjitmominten (T1 en T2), tusken leararen en tusken de lessen yn de trije doeltalen.

Ferlike mei de oare doeltaallessen wurdt op sawol T1 as T2 yn Nederlânske lessen troch sawol leararen as learlingen faker útslutend de doeltaal brûkt. Yn de Fryske lessen bart dat minder en yn Ingelske lessen bart dat sels hielendal net. Oar taalgebrûk as dy fan de doeltaal is dus relatyf faak observearre yn de Ingelske lessen en it minst yn de Nederlânske lessen. Ut de observaasjes docht ek bliken dat leararen yn de Fryske en Ingelske lessen op T2 faker útslutend gebrûk meitsje fan de doeltaal as op T1. Oangeande de taalgebrûkspatroanen fan learlingen, is yn sawol de Nederlânske as de Fryske doeltaallessen in tanimming fan net-doeltaalgebrûk konstatearre, wylst der yn de Ingelske doeltaallessen in tanimming fan de doeltaal waarnommen is. De útkomsten oangeande de feroaring yn de taalgebrûkspatroanen kinne as in stipe sjoen wurde foar de holistyske oanpak fan Cenoz en Gorter (2015). Alderearst wize it tanimmen fan it gebrûk fan it Frysk yn de Nederlânske doeltaallessen en it tanimmen fan it gebrûk fan it Nederlânsk yn de Fryske doeltaallessen derop dat learlingen hieltyd mear harren hiele taalrepertoires brûke foar de kommunikaasje yn de neamde lessen. Yn de Ingelske doeltaallessen is lykwols sprake fan tanimmend gebrûk fan it Ingelsk en in ôfname fan it gebrûk fan it Nederlânsk of Frysk troch de learlingen. Ek dy útkomsten passe yn de holistyske oanpak, yn de sin dat in, foar de learlingen bekende taal, as stipe foar de ûntwikkeling fan in nije taal brûkt wurdt.

It ûndersyk yn dizze dissertataasje nei de relaasje tusken it observearre taalgebrûk fan de learaar yn de trije doeltaallessen en de taalûntwikkeling fan de trije talen lit sjen dat de wurdskatûntwikkeling yn it Nederlânsk relatearre is oan it doeltaalgebrûk troch de learaar yn de Nederlânske lessen. Yn de lessen yn it Nederlânsk wêr't de learaar útslutend gebrûk makket fan de doeltaal, litte de learlingen in sterkere wurdskatûntwikkeling Nederlânsk sjen. Foar de

Fryske doeltaallessen is allinne in tendins fûn oangeande de relaasje tusken de wurdskatûntwikkeling Frysk en it taalgebrûk fan de learaar. Yn klassen wêryn it de learaar útslutend Frysk brûkt is in sterkere wurdskatûntwikkeling Frysk by de learlingen fûn as yn klassen wêryn it de learaar njonken it Frysk ek it Nederlânsk brûkt.

Foar de relaasje tusken it taalgebrûk fan learlingen yn de lessen yn de trije doeltalen en de taalûntwikkeling fan learlingen yn dy trije talen binne der ferskillende útkomsten fûn. Ut de data docht bliken dat in sterkere wurdskatûntwikkeling Nederlânsk en begripend lêzen yn it Nederlânsk relatearre is oan in taalgebrûkspatroan wêryn it de learlingen njonken it Nederlânsk ek it Frysk brûke foar de ynteraksje mei oare learlingen. Yn dat patroan wurdt yn de lessen Nederlânsk útslutend Nederlânsk brûkt foar ynput troch leararen, yn de ynteraksje tusken learaar en learling en foar output, mar wurdt it Frysk dus brûkt as ekstra taal yn de ynteraksje tusken de learlingen ûnderinoar.

Oangeande de taalûntwikkeling yn it Frysk is yn dizze dissertaasje in tendins fûn foar de relaasje tusken de wurdskatûntwikkeling Frysk en in bepaald taalgebrûkspatroan fan learlingen. Yn de groepen wêryn it de learlingen yn de Fryske doeltaallessen útslutend it Frysk brûke, is in sterkere wurdskatûntwikkeling yn it Frysk konstatearre as yn groepen wêryn it de learlingen njonken it Frysk ek it Nederlânsk brûke. Foar de ûntwikkeling fan it begripend lêzen yn it Frysk is de tendins fûn dat, yn ferliking mei de oare taalgebrûkspatroanen, in sterkere Fryske lêsfeardigensûntwikkeling gearhinget mei in taalgebrûkspatroon wêryn it de learlingen útslutend Frysk brûke foar ynput en it Nederlânsk njonken it Frysk brûke foar de ynteraksje tusken de learaar en learlingen, de ynteraksje tusken learlingen ûnderinoar en foar de output. Op basis fan dizze útkomsten kin konkludearre wurde dat it gebrûk fan bredere taalrepertoires yn de ynteraksje tusken de learlingen ûnderinoar geunstich is foar de ûntwikkeling fan sawol de wurdskat Nederlânsk as it begripend lêzen yn it Nederlânsk. Boppedat docht bliken dat it gebrûk fan it hiele taalrepertoire fan learlingen yn de Fryske doeltaallessen ek geunstich is foar de ûntwikkeling fan it begripend lêzen yn it Frysk. Dizze dissertaasje toant oan de oare kant ek oan dat de wurdskatûntwikkeling Frysk en it útslutend gebrûk fan it Frysk yn de Fryske doeltaallessen relatearre binne. Dêrom kin it gebrûk fan it bredere taalrepertoire troch de learlingen yn de Fryske lessen dus ek sjoen wurde as in mooglike belemmering foar doeltaal-ûntwikkeling foar wat de wurdskat oanbelanget (Cenoz & Gorter, 2017).

Strategyen foar de oandacht foar lesynhâlden en de oandacht foar it taalgebrûk yn de trije doeltaallessen

Yn alle lessen yn de trije doeltalen is tusken T1 yn T2 in tanimming waarnommen yn it gebrûk fan strategyen dy't de fokus op lesynhâlden stimulearje. It grutst is dat tanimmen yn de Fryske doeltaallessen. Oangeande de strategyen wêryn't de fokus op de foarm fan it taalgebrûk rjochte is, binne de meast brede repertoires waarnommen yn de lessen yn it Ingelsk. De ferskillen yn omtinken foar de foarm fan taalgebrûk binne benammen feroarsake troch de ferskillen yn de omfang fan it repertoire fan de ferskate feedbacktechniken. Dêrfan binne de grutste repertoires yn de lessen Ingelsk waarnommen en de lytste repertoires yn de lessen Frysk. Nettsjinsteande it feit dat de data oangeande de ferskate aspekten fan de oandacht foar it taalgebrûk sammele binne op basis fan event-sampling, binne der oanwizings dat it jaan fan ynteraksjonele feedback it minst waarnommen is yn de lessen Frysk. Hoewol't yn dit ûndersyk gjin gegevens sammele binne oer de taalattitudes fan de leararen en learlingen, kinne de ferskillen tusken de lessen yn de trije doeltalen wat it jaan fan ynteraksjonele feedback oanbelanget, mooglik ferklearre wurde troch de ferskillen yn taalattitude fan de leararen oangeande de trije talen (Gorter, 2008; Ytsma, 1995). Dêryn wurdt it Nederlânsk as de wichtichste taal ûnderfûn en is de hâlding oangeande it Ingelsk positiver as dy oangeande it Frysk (Gorter, 2008). Ta beslút lit dizze dissertataasje sjen dat, rjochte op de stimulearring fan it taalbewustwêzen fan de learlingen, de tapassing fan metalinguïstyske feedbacktechniken en it stimulearjen fan (ynterlinguïstyske) refleksje yn alle trije doeltaallessen amper waarnommen binne.

Foar de relaasje tusken it omtinken foar lesynhâlden en de taalûntwikkeling is allinne yn Fryske lessen in relaasje fûn tusken de wurdskatûntwikkeling Frysk en de oandacht foar learynhâlden. Yn klassen wêryn't hegere skoares foar strategyen foar de oandacht foar learynhâlden waarnommen binne, is ek in sterkere ûntwikkeling fan learlingen yn de wurdskatûntwikkeling Frysk fûn. Dêrnjonken is in tendins fûn foar in relaasje tusken de wurdskatûntwikkeling Nederlânsk en de strategyen foar de fokus op taalgebrûk yn de Nederlânske doeltaallessen. In sterkere Nederlânske wurdskatûntwikkeling is mooglik relatearre oan hegere skoares foar de fokus op taalgebrûk yn de lessen yn it Nederlânsk.

Repertoires foar it stimulearjen fan it doeltaalgebrûk fan learlingen

Op T1 fine wy de grutste repertoires foar it stimulearjen fan aktive bydragen fan learlingen yn it klassepjetear yn de lessen Nederlânsk en yn de lessen Ingelsk. Op T2 binne de grutste repertoires yn de lessen Nederlânsk observearre en de lytste repertoires yn de lessen yn it Ingelsk. Dêrby binne oanwizings dat de frekwinsje fan it stimulearjen fan de utering fan learlingen yn it klassepjetear yn de lessen yn it Nederlânsk heger is as yn de oare doeltaallessen. Ek is in tendins fûn foar de relaasje tusken it stimulearje fan uteringen fan learlingen yn de lessen yn it Nederlânsk en de wurdskatûntwikkeling fan dy bern yn it Nederlânsk. In grutter repertoire fan de ferskate scaffoldingstechniken en frekwintere stimulearring fan learlingebydragen tusken leararen hingje gear mei in sterkere wurdskatûntwikkeling yn it Nederlânsk.

Yn alle lessen yn de trije doeltalen is konstatearre dat der tusken T1 en T2 in tanimming is fan it tal tapaste didaktyske wurkfoarmen (leartaken, groepswurk, rollespul en presintaasje) om de ynteraksje tusken learlingen ûnderinoar te stimulearjen. De grutste tanimming wurdt fûn yn de Ingelske lessen en de lytste tanimming yn de lessen yn it Nederlânsk. Boppedat is in relaasje fûn tusken de mjitte wêryn't leararen didaktyske wurkfoarmen brûke dy't de oandacht foar lesynhâlden stimulearje yn de lessen yn it Frysk en de wurdskatûntwikkeling Frysk fan de learlingen. Yn de lessen mei in grutter skala oan didaktyske wurkfoarmen, is ek in sterkere wurdskatûntwikkeling yn it Frysk fûn. Fierder docht út de data bliken dat it gebrûk fan in grutter skala oan didaktyske wurkfoarmen yn de lessen yn it Nederlânsk en in sterkere Nederlânske lêsfeardigensûntwikkeling ek relatearre binne.

Konklúzjes

Dizze dissertaasje jout ynsjoch yn it didaktysk hanneljen yn de groepen 7 en 8 fan de yn dit ûndersyk behelle Fryske trijetalige basisskoalle wêryn't it gebrûk fan Nederlânsk, Frysk en Ingelsk as fiertalen stimulearre wurdt. Dy nije ynsichten kinne leararen mooglik helpe om it taalgebrûk yn de doeltaallessen te stimulearjen, wêrby't rekken holden wurdt mei it gebrûk fan it hiele taalrepertoire fan de learlingen. Foarbylden fan winske ferbetterings binne: útwreiding fan it leararerepertoire om bydragen fan learlingen yn klassepjetear te stimulearjen en útwreiding fan it leararenrepertoire wat techniken foar it jaan fan ynteraksjonele

feedback en it stimulearjen fan (ynter)linguïstyske refleksje fan learlingen oanbelanget.

Ut dizze dissertaasje docht bliken dat op de measte fan de ûndersochte trijetalige skoallen yn Fryslân it Nederlânsk de dominante skoalpleintaal is en dat it Frysk op it skoalplein troch in minderheid fan de learlingen mei leeftiidsgenoaten praat wurdt. Dat wylst der yn de thússituaasje troch de learlingen fan dy skoallen mear Frysk as Nederlânsk praat wurdt. Fierder docht bliken dat in sterkere wurdskatûntwikkeling yn it Frysk relatearre is oan it útslutend gebrûk fan it Frysk yn de Fryske doeltaallessen. It feit dat it Frysk bûten de klasse ûnder leeftiidsgenoaten minder of net praat wurdt en de konklúzje dat it útslutend gebrûk fan it Frysk yn de Fryske lessen en de wurdskatûntwikkeling Frysk relatearre lykje, pleitsje foar it plannen fan *breathing spaces* (Fishman, 1991). Troch de plenning fan *breathing spaces* wurde learlingen stimulearre (safolle mooglik) gebrûk te meitsjen fan de mear kwetsbere talen dy't amper of net yn de bûtenskoalse kontekst brûkt wurde (Blackledge & Creese, 2010; Cenoz & Gorter, 2017).

Foar ferskate aspekten fan it didaktysk hanneljen fan leararen falle de skoares fan it didaktyske hanneljen en dy fan de ûntwikkeling fan de wurdskat en begripend lêzen yn it Ingelsk mei-inoar gear. Der binne lykwols gjin relaasjes fûn tusken de taalûntwikkeling yn it Ingelsk en it didaktysk hanneljen fan de learaar. Mooglik hâldt de taalûntwikkeling yn it Ingelsk benammen ferbân mei de taalbleatstelling yn it Ingelsk thús (Günther-van der Meij, 2018). Yn dizze dissertaasje binne lykwols gjin data sammele foar it gebrûk fan it Ingelsk fia media (tv, audioapparatuur en kompjûters).

Ta eintsjebeslút foeget dizze dissertaasje nije perspektiven ta foar ûndersyk nei meartalich ûnderwiis. Yn dizze dissertaasje wurdt it didaktysk hanneljen yn de trije doeltaallessen nammentlik ferlike yn de tiid en wurdt de relaasje tusken it didaktysk hanneljen en de taalûntwikkeling fan learlingen ûndersocht. Yn ferfolchûndersyk nei it didaktysk hanneljen yn it trijetalich ûnderwiis soenen de frekwinsjes fan bepaalde foarmen fan dat didaktysk hanneljen en ek de taalattitudes fan de leararen meinommen wurde moatte. Dêrnjonken soe yn ferfolchûndersyk it reseptive en produktive taalgebrûk fan de learlingen yn de media yn de ferskillende talen meinommen wurde moatte, as komponint fan it bûtenskoalsk taalgebrûk. Benammen om't it gebrûk fan sosjale media lykas Instagram en TikTok tige populêr is by bern fan dy leeftyd.

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