"Metsässä dirty full of käpy" Demonstration of Learning in Bilingual Education

Saania Orava & Aliisa Rantanen

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### TIIVISTELMÄ

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Tämän laadullisen tutkimuksen tarkoituksena oli tutkia oppilaiden osaamisen näyttämistä useammalla kuin yhdellä kielellä alakoulussa. Aihetta lähestyttiin sekä oppilaan että opettajan näkökulmasta. Lisäksi tarkoituksena oli analysoida oppilailla annettuja tehtäviä. Tutkimus toteutettiin kahdessa CLIL-luokassa ja siihen osallistui kaksi CLIL-luokanopettajaa sekä seitsemäntoista oppilasta. Tutkimuksen aineisto kerättiin haastattelemalla luokanopettajia ja keräämällä valokuvia oppilaiden koulutöistä. Haastatteluaineisto analysoitiin temaattisen analyysimenetelmän avulla ja valokuvat koulutöistä analysoitiin teorialähtöisesti. Aineisto pohjalta nousi esiin kolme teemaa: kaksikielinen opetus, oppilaiden osaamisen näyttäminen ja oppilaiden monimuotoisuus.

Tutkimus osoitti, että opettajat kannustavat joustavaan eri kielten käyttöön, jotta oppilaat pystyvät osoittamaan osaamisensa mahdollisimman hyvin. Lisäksi tutkimuksessa nousi esiin, että oppilaille annetut tehtävät arvioitiin sisältöä painottaen ja kieltä ei arvioitu muilla kuin kielten tunneilla. Tämä tukee aiempia tutkimuksia CLIL:stä. Tutkimuksen mukaan opettajat pyrkivät luomaan oppilaille mahdollisuuksia näyttää osaamisensa luokkahuonekielestä riippumatta. Opettajat kokivat, että opetussuunnitelman antamat suuntaviivat eivät käytännössä tue tarpeeksi kaksikielisen opetuksen toteutumista kouluissa. Lisäksi tutkimus osoitti, että vaikka oppilaille annettiin monia eritasoisia tehtäviä osaamisen näyttämistä varten, vanhemmilla oppilailla oli haastavampia tehtäviä sekä enemmän valinnanvaraa tehtävien suorittamistavoissa. Tämän tutkimuksen tarkoituksena on tuottaa tietoa oppilaiden osaamisen näyttämisestä kaksikielisessä kontekstissa.

Hakusanat: arviointi, CLIL, kaksikielinen opetus, kaksikielisyys, osaamisen näyttäminen

### ABSTRACT

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The aim of the qualitative research was to study pupils' demonstration of learning in primary education from the perspectives of teachers as well as pupils. This was done in the context of bilingual education and focused on using more than one language. In addition, the goal was to analyse the tasks given to pupils to demonstrate learning. This case study was conducted in two CLIL classrooms. Two CLIL teachers and seventeen pupils participated in the study. Interviews were collected from the teachers and pupil work including tasks were collected from the pupils as data. The pupil tasks were analysed through a theory-driven approach while the interviews were analysed using data-driven methods. Three main themes were found through thematic analysis done to the data: Bilingual Education, Demonstration of Learning and Diversity of Pupils.

The study revealed that teachers encouraged flexible language use in bilingual education. As previous studies suggest, CLIL is a content-driven method, and this study presents that tasks given to pupils were assessed primarily through content rather than language. It was found that the teachers valued providing opportunities for pupils to express their learning and that the teachers viewed the national guidelines of bilingual education as rather insufficient. This study showed that older pupils were given more challenging tasks and more options on how to demonstrate their learning. However, in CLIL the tasks presented to pupils were of a wide range of difficulty. This research aims to provide meaningful insight into pupil demonstration of learning and support the development of CLIL implementation to serve a variety of pupils.

Keywords: assessment, bilingual education, bilingualism, CLIL, demonstration of learning

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# 1 INTRODUCTION

Bilingual education made a late arrival in Finland according to Sajavaara (1995) as it became popular in the late 1900's. Seikkula-Leino (2007) notes that this is surprising, because Finland has been a bilingual country for very long. Bilingual education is a complex term that is not easily defined. The Finnish Core Curriculum for Basic Education (2016), hereafter referred to as the Finnish curriculum, outlines basic principles related to provision of bilingual education. Often providers of education are, however, unsure of the type of bilingual education they are using, because of the confusion in terminology. Moate (2023) states that since CLIL is a non-Finnish term, the Finnish curriculum resorted to using the title of bilingual education. Therefore, throughout this study CLIL and bilingual education are used. A common main feature of these terms according to Dalton-Puffer, et al. (2010) is that learning and teaching happens through an additional language. Eurydice (2006) describes the twofold aim of CLIL as development of proficiency in both the target language and non-language subject contents.

Many benefits to bilingual education have been found. Eurydice (2006) mentions that since CLIL promotes multilingualism it is highly approved by the European Union. CLIL is an integrated approach and provides a natural language learning habitat. According to Lorenzo et al. (2010) the content context gives purpose to learning a new language and therefore increases learners' motivation. Coyle et al. (2010) emphasises that CLIL is demanding and challenges learners to use both higher-order and lower-order thinking skills. Dalton-Puffer (2008) continues that hard work pays off as research has shown that active participation and effort lead to deeper processing and better understanding. CLIL facilitates an opportunity for content internalisation and meaningful use through tasks that are thinking centred and often carried out cooperatively according to Pavón Vázquez (2014). Coyle et al. (2010) point out that by using advanced processing skills on cognitively challenging tasks, pupils build and apply knowledge to form meaningful ideas. Moore (2023) argues that in bilingual education the content that is learned must be digested thoroughly, usually through translanguaging, and therefore this results in deeper understanding.

Translanguaging is where the pupil makes use of multiple language resources that they own.

However, there are also concerns that learning through an additional language raise. Moate (2017) states that bilingual education affects how quickly texts can be processed, how much can be remembered and the range of ways to express understanding of individual pupils. The increasing diversity of pupils is also a topic which needs to be discussed further and taken into consideration by Finnish educators. According to Eurydice (2006) there is ongoing debate of how many, and which subjects should be taught in the target language. In Sweden, the impact of CLIL on the knowledge level pupils achieve has been a concern. However, research in Finland has not found support of this. In Finland, concerns rather regard the practical implementation specks related to CLIL. One of the important topics raised through the Finnish curriculum guidelines according to Moate (2023) is how to ensure bilingual development of students in CLIL classrooms. Skinnari and Nikula (2015) also suggest that the Finnish curriculum does emphasise that in CLIL content goals remain the same as in mainstream education. However, the practical ways in which these concerns can be addressed are yet to be discovered.

Lehtonen and Räty (2018) emphasise the importance of understanding multilingual language competence. As the pupil population in Finland is diverse, these pupils use tens of different languages at home. Therefore, these pupils have language resources which can easily be hidden in a strictly monolingual setting. In their study, Skinnari and Nikula (2017) found that teachers understood the role of language as a cognitive tool for learning construction. Language was used flexibly, without paying attention to specific issues such as correctness. According to Moore (2023) learning can be supported though for example translanguaging pedagogies.

The present study examines the demonstration of learning in more than one language. The aim of this study is to explore how teachers view the implementation of CLIL and what kind of opportunities are presented to pupils to demonstrate their learning in bilingual education. Additionally, the considerations to the diversity of the pupils in CLIL classrooms has been part of the study. In a broader perspective this study intends to shed light on the importance of recognizing that language and demonstration of learning are closely intertwined and therefore, provide educators with insight on the matter of meeting needs of a variety of learners. We hope that this study raises novel discussion amongst the teaching community especially regarding the use of CLIL tools in examining of teaching and learning methods such as demonstration of learning. This thesis begins by discussing the relationship between language and education, additionally, raising the cognitive perspective of bilingual education and furthermore specifically the CLIL context. Next the present study is showcased including methods and findings. Finally, the theory and current study are brought together in the discussion.

It is further worth noting that since the role of language is so crucial in education, the way that it connects with expression of competence was of great interest to this study. Throughout this study, the terms teaching language and target language are used, the first to refer to the school's teaching language, Finnish, and the latter to the foreign language, English. The University of Jyväskylä's JULIET programme (the Jyväskylä University Language Innovation and Education Theory Programme) was of inspiration to this study, as the program revolves around foreign language pedagogy and the implementation of CLIL. The JULIET programme provides class teacher students with insights on foreign language pedagogy. Due to our studies equipping us with the ability to practice CLIL in the lower grades of comprehensive education, this study offers meaningful understanding on pupil demonstration of learning.

# 2 LANGUAGE AND EDUCATION

### 2.1 Language in Education

Moate (2010, p. 1) states "language is required to access, construct and demonstrate learning". In order to establish why the demonstration of learning through more than one language is significant, it is necessary to understand the role of language in our everyday lives as well as education. Silver and Lwin (2014) describe language as a tool that is used daily for many purposes, such as thinking, learning, sharing or instruction. It is a complex tool that includes aspects such as words, grammar, sounds, and meanings. Additionally, it is connected to rules of use in different social contexts. Even though language is physically a motor skill, its use from a social perspective emphasizes interaction and understanding. This requires the processing of language, where the pieces come together to form entities. Henceforth, language is a cognitive tool according to Breidbach et al. (2011) and is necessary for learning to take place. Bruner (1996) adds that thinking, interpreting, understanding, and connecting with the world involves cognition.

Based on Vygotsky's (1978) sociocultural perspective, which Woolfolk (2016) presents according to which social activity cannot be fully understood without cultural context. Interaction with others is what Vygotsky believed creates cognitive structures and thinking processes. Development in this context is defined as internalisation through socially shared activities which appears first on the social level and then on the individual level. Woolfolk (2016) also presents Piaget's thinking of how cognitive development is not just adding ideas to already existing knowledge but linked to different thinking processes at different stages of life. According to Piaget's Cognitive Development theory the Preoperational Stage begins when a child starts talking and is when language first starts to develop through use of symbols. Here cognition is still very much context embedded and more abstract thinking follows later on. Compared to Piaget's cognitive development is most supported through interaction with those more advanced in their thinking than yourself.

According to the sociocultural perspective knowledge is contextual, as it is socially constructed. Language is the embodiment of conceptual understanding. Moate (2010) implies that in order to expand understanding and learn, the tool of language is necessary. Furthermore, learning should aim to explore a knowledge community, where language is the cultural key. This goes further than simply learning a language because it brings along information about its context. Silver and Lwin (2014) confirm that language learning includes cultural transmission as well as social and cognitive processes.

In the educational setting language can have different roles according to Silver and Lwin (2014). The most obvious is language instruction in the school's teaching language, which includes learning literacy skills such as reading and writing. On the other hand, there is foreign or second language learning, where the new language is learned through the school's teaching language. Then there are bilingual education systems which aim to teach the target language and content simultaneously. Target language refers to the additional foreign language that is aimed to be learned in bilingual education. The role of language here is especially current in regard to this study.

In addition to the above purposes, language is connected to informal learning as well. Silver and Lwin (2014) highlight that language is not learned only as a subject, but also is the medium through which other subject matter is learned. The tool of language is used in the classroom for communication, discipline, interaction, and assessment. As the language used in school is closely related to the content, it is often different to the everyday language used at home. This distinction will be further addressed in more detail in section 3.4. The Finnish curriculum (2014) expresses the aim to learn the language of conceptual thinking, which progresses from everyday language. There are many subject-specific terms and expressions that pupils need in order to learn in the classroom. Even different grammatical structures can be emphasised in different subjects.

Moate (2017) reminds educators how apart from learning and understanding the teaching, which requires language, pupils also need language in order to express themselves. Learners need to be able to construct knowledge as well as demonstrate their learning. This can be demanding language wise, because of the variety of ways that language needs to be used. Pupils need to for example, explain, describe, summarise or synthesise. Here the difference between home language and formal language can be realised, when for example the way a grocery list is made is not the same as how an essay is written. Therefore, even when someone is familiar with the teaching language of the school, they have a lot to learn about language use, that is academic language.

In bilingual education, where on top of learning content, learning a second language is the aim, all the additional roles of language which Moate (2017) presents must also be taken into consideration. These considerations representing language awareness are also important in mainstream education, where teaching and learning happen through mainly one language. Although multiple languages can be present in each classroom, the aim of mainstream education is not specifically directed towards utilizing and learning a foreign language as in bilingual education. According to the Finnish curriculum (2014) the teacher needs to decide when and where they use which language in a way that the learners are presented with demands in order to learn, but also are given support in order to understand. Pupils also have a lot to consider as they are learning everything that their peers in mainstream education are learning, yet also learning a whole new language.

### 2.2 Cognitive Theories of Bilingualism

Bilingual education has always been under the influence of different cognitive theories. These theories about bilingualism explain how languages function in the brain. Baker and Wright (2021) present four cognitive theories by Cummins (1981) which have affected teaching strategies, learning activities, and assessment based on curriculum implications.

The Balance Theory is also referred to as the Separate Underlying Proficiency model of bilingualism. In this model two languages operate completely separately and have limited space. They are seen to be in balance on a scale, where if the proficiency in one language grows the other decreases. Another way to picture it is as two partially filled balloons instead of one fully filled balloon. However, research implies both that the brain does not have a limited space for language skills and that languages are interactive inside the head.

Icebergs are used to visualise the Common Underlying Proficiency model of bilingualism. Above the surface two languages appear separately, but underneath they connect and become one, functioning together. In this model multilingualism is possible: the source of thought or engine are thought to be the same for all the languages that an individual uses. Recent research sheds light on the way language connected to discourse and context can shape thinking, which suggest that bilinguals change their way of thinking when changing languages.

The relationship between cognition and bilingualism is presented in the Threshold Theory by Cummins (1976) and Toukomaa and Skutnabb-Kangas (1977). Here two thresholds picture levels of language competence where the first has negative consequences and the other positive ones. According to the theory an individual must reach certain language proficiency to experience the cognitive benefits of bilingualism. The goal is balance. A challenge with this theory is defining language proficiency levels that a pupil must obtain. Can the borders be clearly drawn or is development gradual? Furthermore, this theory suggests that cognition can only develop after language acquisition.

In bilingual education the pupils are not only learning new content, but also learning the language that they are learning through. Thus, in order to obtain benefits from this form of education, according to the Threshold Theory, language skills must be mastered at an age-appropriate level. This enables pupils to deal with conceptual tasks and curriculum material, therefore preventing any delay caused by language to learn. When the target language is learned well enough, bilingual education has benefits to learning rather than restrictions to achievement. This is vital to this study, as it can be concluded that cognitive development can happen without the target language, because pupils also use the teaching language in bilingual education. However, achievements may be lacking without a good level of the target language, because the pupils are not able to demonstrate their learning if they are required to do so only in the target language.

Cummins (2000) further developed theories from the Threshold Theory. The linguistic Developmental Interdependence hypothesis highlights the relationship

between one's first and second language. The hypothesis suggests that developing a second language could be more effortless, when the first language is further developed. Furthermore, Cummins introduced a distinction between surface fluency and more evolved language skills. These formed a division of basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP). These two are also elaborated into four quadrants of a matrix, which emphasised the levels of demands in cognition and context. The BICS and CALP distinction has made a great impact on bilingual education by guiding decision making. It sheds light on pupils' language proficiency and development processes. Teachers better understand pupils' challenges and are able to offer linguistic support.

Baker and Wright (2021) emphasise that there are many advantages to using these different theories when trying to comprehend bilingualism. However, research does label them as oversimplified models. It is crucial to remember that language is by nature dynamic and so is bilingualism. The focus has shifted to external factors which influence language development. Language use varies across content-areas and there is a myriad of linguistic resources available. It is now vital to shift the perspective to what individuals can do and how they can be supported in order to shape their language skills. Therefore, considering the theories of bilingualism can offer great advantages in implementing bilingual education. These theories have evolved over time and currently no one theory is superior to the others, but they complete each other and are often synthesized as Cummins (2021) describes.

### 2.3 Bilingual Education

Bialystok (2016) defines bilingual education as an umbrella term used to describe learning which happens through more than one language. According to Baker (2011) bilingual education is a complex phenomenon. The label is used for both education which fosters bilingualism and education of bilingual children that is carried out predominantly monolingually. Nikula and Marsh (1996) also found that there are many different names used for similar, yet slightly differing teaching methods. Usually, the distinction is only in the emphasis. Even the Finnish National Board of Education, FNBE (2014) allows for the provider of education to name the kind of education they supply, resulting in many different programs. Baker and Wright (2021) present that there are numerous forms of bilingual education. They are distinguished through the language of the child and the language of instruction in the classroom as well as the aims of both society and education and language outcome aims. Different forms of bilingual education have very different aims and therefore also appear very contrasting to each other.

The many different forms can be divided into monolingual, weak, and strong forms of bilingual education. Monolingual forms include for example mainstreaming, sheltered immersion and segregationist. The aim in these forms of education is mainly monolingualism in the majority language; therefore, the teaching language is the target language. Weak forms of bilingual education such as, transitional, mainstreaming and separatist, also often conclude in limited levels of bilingualism. Strong forms on the other hand aim for bilingualism and biliteracy. Some of these forms include dual language, CLIL, heritage language, immersion, and bilingual education in majority languages. In strong forms of bilingual education both the target and teaching language are used equally. Furthermore, there are numerous subtypes of bilingual education within these forms.

Baker and Wright (2021) have reviewed research around the effectiveness of bilingual education. Strong forms of bilingual education have been found to result in bilingualism and biliteracy as well as improved achievement in the curriculum overall. In regard to how effective bilingual education is, it is important to consider more than just the language learning aspect. Furthermore, it is important to separate learning a language and learning through a language for this system to succeed. Language competence must also be acknowledged.

Genesee (2004) adds that bilingual education can promote bilingual competence by providing subject-matter instruction partially through the teaching language and partially by a target language. Coyle, Hood and Marsh (2010) present CLIL as a programme designed with the objective that content and language is learned together at the same time. This study concentrates on this kind of bilingual education.

### 2.4 The Finnish Curriculum of Education

Bilingual education has been popular in the Finnish educational system since the late 1900's according to Kangasvieri et al. (2012). The concept of bilingual education has however been a controversial topic for a long time, partially due to the lack of acknowledgement of it in the Finnish national core curriculum for basic education until recently as well as the lack of generally accepted terms and wide range of names used. Therefore, much confusion has surrounded bilingual education and popular programmes linked to it such as: language immersion, Content and Language Integrated Learning (CLIL) and Content-Based Instruction (CBI) according to Skinnari and Halvari (2018). Moate (2023) states that perhaps bilingual-CLIL is the name that best describes the education provided through a non-official language according to the Finnish curriculum.

In the process of reforming the Finnish national core curriculum, the FNBE (2014) set guidelines for the integration of language and content learning. According to Bergoth (2016) instead of defining bilingual education the curriculum offers descriptions of different alternatives of carrying out bilingual education. It has been divided into large-scale language learning where more than 25 % of different subjects' content is being taught in a target language, and small-scale where less than 25 % of learning is being taught in a target language according to the FNBE (2014).

According to the FNBE (2014) the aim of bilingual education is to achieve a diverse language proficiency in both the target language as well as the teaching language. The goal is to provide an authentic language environment and support lifelong language learning. However, the guidelines provided by the Finnish curriculum leave a lot of space for individual schools and teachers to establish local policies and practices. According to Bergoth (2016) this practice is based on trust among professionals.

In Finland bilingual education is most often offered according to Skinnari and Nikula (2017) with the teaching language being Finnish or Swedish and the target language being English. Municipalities, which are responsible for providing education, are given the autonomy to determine quite many factors linked to the provision of bilingual education. Matters which are locally decided to compose the local curriculum. The providers of bilingual education have the opportunity to determine the distribution of the hours taught in the target and teaching languages. They can also decide which subjects are taught in which language. Additionally, it is vital to also establish the main language goals of each subject.

In determining language goals, language skill development must be supported, while subject specific language skill requirements are kept in mind. As learned content becomes more complex and abstract, language skills consequently become more demanding as well. The FNBE (2014) states in the Finnish curriculum that teachers need to carefully consider the typical language use and text types of each subject in order to set language aims. The goal is for pupils to be both users and learners of language. In planning the local curriculum, it is crucial to consider the language in which different subjects and contents are taught. This must be done in a manner that prepares pupils in integrating into Finnish society.

Furthermore, the Finnish curriculum by the FNBE (2014) emphasises that although in bilingual education teaching is provided in an unorthodox way compared to mainstream education, pupils must in all subjects achieve the goals set by the Finnish curriculum. In other words, regardless of the language used in learning, the aims remain the same. Educators must take care that pupils' level of the teaching language develops as well. The pupils are also assessed according to the general goals of the Finnish curriculum. Additionally, assessment includes the subject-specific linguistic goals. It must also be ensured that pupils develop at an age-appropriate level regarding understanding and production of texts also in the context of different subjects. Pupils are required to master concepts of each subject in both languages.

The systematic collaboration between teachers and other school personnel, as well as guardians, is highlighted as crucial by the FNBE (2014) in enabling bilingual education. The duration of any form of bilingual education can vary from pre-primary education until 9th grade. Especially, when considering pupils' future and their transition phases, multiprofessional collaboration is essential according to the Finnish curriculum. Bilingual education should allow for pupils to have the opportunity of continuing their education to the secondary level.

As Skinnari and Nikula (2017) state, teachers are the necessary agents of change when a new curriculum is to be made a reality. According to Lehtinen and Räty (2018) the Finnish school system has been based on monolingualism for much

too long. Taking diversity into account in this arena therefore requires a change in perception, especially of language competence and mother tongue. It must be considered that pupils use different languages in different contexts and that their knowledge in other languages may be apparent in the classroom as well. Skinnari and Nikula (2017) found that although research has suggested that teachers need more language awareness, the teachers in their study expressed multiple understandings and perspectives of multilingualism. The study confirmed that bilingual teachers connected multilingualism to more than one language, although often restricted by the classroom languages. In order to develop pedagogy which, support language diversity there are different projects such as the Uudet Suomen kielet -project, which brings forward the language resources of multilingual communities.

# 3 LEARNING THROUGH MORE THAN ONE LANGUAGE

### 3.1 Content and Language Integrated Learning

As this study centres the pupil demonstration of learning through more than one language, CLIL is the form of bilingual education that this study focuses on. CLIL stands for Content and Language Integrated Learning that indicates a classroom that integrates content and language learning through a foreign or second language; additionally, instructions are delivered through that target language language as stated by Nikula (2015). Coyle et al. (2010) note that there is not a single model to practise CLIL appropriately. However, Coyle and Meyer (2021) note that as CLIL is content and language integrated learning, it should not be implemented by teaching a subject class, but in a different language; by only relying on translating texts to target language is not necessarily CLIL. As Coyle et al. (2010) add, grammatical language learning in CLIL may not follow the same procedure as in foreign language learning, as the need to use certain grammatical structures may emerge sooner. Further, CLIL is content-driven and while language learning is included in CLIL, it differs from language learning in the conventional settings. As de Graaff (2016, xiii) sums up the aim of CLIL is to "reach higher levels of L2 proficiency within the curricular programme, without lowering the aims for content learning outcomes". In this context L2 refers to the target language.

Globalization has created a need for schools to adapt to language diversity and different learners, by paying attention to learning and teaching methods as effectively as possible. As only language learning may not be effective enough, improving content proficiency is crucial in answering modern world demands according to Coyle et al. (2010). As Bower et al. (2020) present, even though learning in a foreign language is not a new phenomenon, the term CLIL derives from Europe in the 1990s. Nowadays, regardless that practising CLIL works with any foreign language, English is still the most widely used language in CLIL in many parts of the world all the way from Europe to South America, Asia, and the Middle East. As Bower et. al. (2020) note, CLIL practising policies all around the world vary from each other to the point that, for example, many countries in Europe have created their own national guidelines and approaches. Coyle and Meyer (2021) write that taking into account different contexts, schools, teachers, and pupils, it is safe to say that there is no specific way to practice CLIL. However, there have been different tools developed to conceptualise the methodology of CLIL including Language Triptych, the 4Cs Framework, and others according to Bower et. al (2020). Furthermore, there are other practices which are connected to CLIL such as translanguaging.

### 3.2 CLIL Practises

As Moore (2023) writes, translanguaging can be understood not only as an educational process to describe the planned alternation of more than one language but also bilingual behaviour in a broader matter. Furthermore, similar to CLIL, translanguaging can also be seen as an umbrella term for a varying language use involving more than one language. Additionally, as Moore (2023) notes, it should be acknowledged that the pupils' first language is always present in the classroom regardless of the teaching and/or target languages: this is also supported by Moore and Nikula (2016). As Moore (2023) continues, thus the role and use of pupils' first language in bilingual education has ranged and nowadays the pupils' first language can be viewed as a resource. In practice the first languages of the pupils have a role in the classroom. Moreover, besides using the target language, the pupil's use of their first language in learning can be seen as emergent bilinguality and should be perceived as an integral part of bilingual learning. Baker and Wright's (2021) perception that optimal classroom translanguaging implementation supports learning aligns with Moore's (2023) statement that meaningfully integrating pupils' first language and using flexible translanguaging pedagogies is beneficial to learning.

Coyle et al. (2010) present the 4Cs framework, which is a model for conceptualising CLIL. The framework consists of content, communication, cognition, and culture. Content stands for subject matter which covers the different learning aims and knowledge of the school subjects while communication refers to the language learning and using interactively. Further, cognition involves the learning and thinking

processes included in learning in more than one language and culture refers to intercultural understanding and global citizenship. These four aspects can be seen as the basis for effective CLIL to occur. Moreover, as content and language learning always take place in a specific context, it affects the 4Cs. There is an ongoing symbiotic relationship between these five elements. As Coyle and Meyer (2021) note, the explicit division between the 4Cs has been fruitful in defining and planning appropriate CLIL tasks and activities. It is further pointed out that as the framework has evolved, so has the understanding of the interconnected nature of the 4Cs.

Coyle et al. (2010) present the Language Triptych which conceptualises the CLIL linguistic progression regarding language learning and language using. The Language Triptych brings together the analysis considering language *of* learning, language *for* learning and language *through* learning. Language *of* learning centres the language that is required to learn subject-specific themes, such as language of science. Language *for* learning highlights the importance of language that is needed to perform in a foreign language environment, which CLIL represents. Finally, language *through* learning focuses on the concept that effective learning requires actively involving language and thinking. As Coyle and Meyer (2021) bring forward, the Language Triptych and the 4Cs framework are intertwined. For example, the *content* in the 4Cs framework also refers to the language content *of* and *for* learning. Additionally, as this study is focused on the pupil demonstration of learning, the importance of language *through* learning is highlighted as Coyle and Meyer (2021) note that language *through* learning is the language which the pupils need in order to express their understanding.

# 3.3 Cognitive and Linguistic Demands and Support

As mentioned earlier, in order for CLIL to be effective, pupils are required to be cognitively engaged according to Fernández-Costales (2023). Even though in most studies according to Fernández-Costales (2023) CLIL is found to be motivating, however, it is worth noting that cognitive impairment originating from the overload in demanding CLIL classes and negative feelings towards CLIL are linked as Otwinowska and Foryś (2017) state. As Fernández-Costales (2023) sums, in CLIL where contents are acquired through a target language, in classroom discourses it is crucial to provide access to academic language in order for pupils to learn effectively. Thus, scaffolding is crucial to ensure that students are able to construct knowledge even with high demands.

Notably, children are faced with multiple different linguistic demands when learning the content through different languages as Otwinowska and Foryś (2017) state. Coyle et al. (2010) write that in addition to linguistic demands, CLIL classes include cognitive demands; in CLIL classes it is likely that children's cognitive and language levels differ from each other. Thus, it is crucial to balance both linguistic and cognitive demands in order for effective learning to occur. Studies have shown that in order for language learning to be fruitful, the presented tasks should be cognitively demanding, which creates the need for pupils to learn the language according to Smith & Paterson (1998).

Anderson et al. (2001) have revised Bloom's taxonomy (1956) which is a framework for teaching objectives consisting of lower-order thinking skills (LOTS) - remembering, understanding, applying - going all the way to higher-order thinking (HOTS) skills such as analysing, evaluating, and creating. As Krathwohl (2002) notes, these six major categories also include more specific examples. For example, the category *understanding* includes words such as interpreting, classifying, and explaining while the category *creating* includes verbs such as generating and planning. In addition, the revised taxonomy is cumulative, meaning that it is required to acquire the lower-order thinking skills in order to master the higher-order thinking skills. Furthermore, besides the cognitive dimension, Krathwohl (2002) introduced the knowledge dimension including factual, conceptual, procedural, and metacognitive knowledge. As Coyle et al. (2010) note, these dimensions can be used as a framework for investigating different types of demands. However, in this study the demands are looked into through Cameron's (2001) division of different demands.

Cameron (2001) has divided different demands that the tasks may include into cognitive, language, interactional, metalinguistic, involvement, and physical demands. As this study is focused on the pupil demonstration of learning, the most crucial demands to examine are mainly cognitive and language demands, which best suit this study and the research methods. Cognitive demands are described as demands that center on the concepts and contextualisation of language while language demands can range through, for example, whether it's spoken or written language and whether the task demands understanding or producing language.

In order to purposefully demonstrate the linguistic and cognitive demands that the tasks may include and to strategically plan the needed support, Coyle (2002) has further adapted Cummins' (1984) matrix. Coyle et al. (2010) present the CLIL matrix, where cognitive demands are set for the vertical axis and linguistic demands are set for the horizontal axis, can work as a tool to audit tasks given to pupils. The matrix consists of four quadrants that indicate what demands the task contains - whether the task is cognitively demanding and linguistically low-effort or vice versa, for example. It is pointed out that tasks that are both cognitively and linguistically low effort are not the focus in CLIL, but rather a transitory step to more challenging tasks. In this study, the previously mentioned revised taxonomy serves as a tool to analyse tasks side by side with the CLIL matrix.

To further make sure that the provided support is effectively targeted, it is crucial to recognise the pupils' ZPD. Vygotsky's (1978) zone of proximal development (ZPD) is defined as a space in the learning process where a learner can do the task with the help of an adult or peer. Cameron (2001) additionally raises the importance of support that's provided accordingly: the types of support align with the demands as different demands require different kinds of support. Coyle et al. (2010, p. 43) note that planning is required to guarantee that "learners will be cognitively challenged yet linguistically supported". Throughout this research process it is crucial to take into account that the provided support is related to the demands and can work as a tool for pupils to demonstrate their learning.

#### **3.4 BICS and CALP**

As included in the cognitive theories of bilingualism section earlier, Cummins (1979b) has conceptualised language proficiency into conversational and academic aspects. The final definitions formed are basic interpersonal communication skills which stands for everyday language and cognitive academic language proficiency which indicates more complex academic skills. As Cummins (2000) states, from a pupil's

perspective that studies in target language, it is crucial to recognise the difference between BICS and CALP as studies show that while BICS takes about two years to develop, CALP requires around five to seven years to develop. Thus, an individual may have a high level of basic interpersonal communication skills, meaning they are proficient in using everyday language in English yet are only beginning to develop their cognitive academic language proficiency.

In addition, Blown and Bryce (2017) have recognized the difference between everyday language and scientific language regarding science classes though they may exist beside each other. Children may fluently switch between those ways of expressing themselves and thus, teachers should be aware of the coexistence of everyday and formal language. Welcoming students' everyday language and providing opportunities to help to develop it into scientific language is a beneficial way of scaffolding. In their study, Leontjev et al. (2020) found a concrete example of how BICS can be used to support learner understanding of CALP. The teacher described how when scientific text is hard to understand, it is helpful to use a fun example through everyday language to explain it. When teaching about electrons attracting protons the teacher used a common phrase: opposites attract.

Furthermore, Baker (2017) points out that simple communication skills that are on a relatively fluent level may hide a deficiency in language proficiency needed to meet academic demands in the classroom. For example, a child may well be able to communicate during play, but then struggles with discourse related to a specific subject, because the vocabulary is foreign to them. Therefore, the distinction between BICS and CALP may be helpful in the provision of linguistic support. It is to be noted that as Otwinowska and Foryś (2017) acknowledge, general English language lessons often focus on BICS, which does not provide the students with appropriate measures to navigate in cognitive demanding CLIL lessons. On the other hand, it is noted that since CLIL practises often include an intensive immersion of content-related language learning, pupils may improve their CALP skills more quickly than BICS according to Dalton-Puffer (2013).

However, the binary language skill division has also been questioned. As Cummins (2013) sums, the distinction has received criticism of being oversimplified and presenting an autonomous take on language without acknowledging the social practices and power relations regarding it, for example. Moreover, Dalton-Puffer (2013) reviews criticism regarding BICS and CALP that as classroom interactions are very diverse, it is not possible to reduce CALP to "one formal academic language". Cummins (2013) responses to criticism stating that the division was not intended to work as a tool to generate academic tasks. He also recognises that the division does not deny the multidimensional classroom setting and argues that a simple distinction is sometimes needed to describe language skills and support. In this study the BICS and CALP division is used in analysing the cognitively demanding language in the tasks presented to the pupils.

### 3.5 Assessment

Due to the nature of CLIL including more than one language in learning, the topic of assessment needs to be re-evaluated as well. As Coyle et al. (2010) discuss, assessment in CLIL classrooms as well as in mainstream education classrooms can be divided into summative and formative assessment in general. In this division the summative assessment often indicates forming a conclusion of the learning of pupils through tests or final results at one point in time. Formative assessment on the other hand refers to assessment that aims to affect the learning immediately rather than at the end of the course, thus possessing guiding features. Thus, different types of assessment are a way for teachers to analyse the demonstration of learning of pupils in different parts of their learning journey. Furthermore, as Coyle et al. (2010) bring forward, as CLIL can be seen as a dual-focused approach, it also deals with assessment questions regarding whether to assess language, content, or both. It is crucial to assess the improvement of both content and language, but the practices to do so may vary as stated by Leontjev et al. (2020). Furthermore, as Skinnari and Nikula (2017) write, in their study some teachers viewed language and content as separate, meaning that errors in language did not affect the assessment.

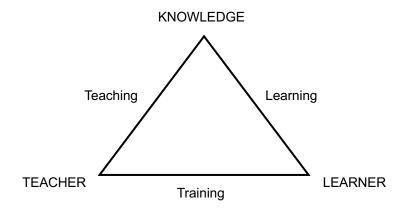
Even though CLIL is content-driven and therefore content can be prioritised in assessment as well, the assessment of content often materialises through language according to Coyle et al. (2010). Thus, even if the pupil understands the concepts but does not have the appropriate language to express themselves, the teacher cannot be certain if learning has actually happened. Additionally, it is noted that language assessment should be applied to enhance the communication of content which is crucial for demonstration of learning. Thus, there is a need for language assessment in CLIL, but it should be clearly planned in order for it to be beneficial. As Coyle et al. (2010) describe, this can be carried out through formative assessment or a lesson focusing on specifically improving language skills.

Teachers view assessment as a way to understand the pupils' competence according to Leontjev et al. (2020). Additionally, teachers explore pupils' understanding not only through tests or essays, but also through classroom interaction. Teachers may encourage learners to use different ways of expressing their understanding, for example using everyday language instead of scientific language. Then support can be provided to the pupils by guiding them to implement appropriate, scientific vocabulary. As Coyle et al. (2010) conclude, the theme of assessment can be a complex process to carry out in CLIL; further, as explained by Leontjev et al. (2020), supporting teacher understanding of viewing assessment as a tool offers valuable insights of effective teaching and pupils' learning. As this study focuses on the pupils' demonstration of learning, assessment is the embodiment of the relationship of the pupil understanding which the teacher examines.

# 3.6 The Didactic Triangle

The Didactic Triangle presented by Houssaye (1988) represents the theory behind relations of the counterparts in education in the present study. The three main areas which form relationships with one another are knowledge, teacher, and learner. Figure 1 presents the pedagogic relations that take place.

**Figure 1** *Houssaye's Didactic Triangle* 



As mentioned earlier, learning requires interaction. According to the Didactic triangle, a pedagogical relationship is formed through training between the teacher and learner. This is unique and based on the resources of the teacher and needs of the pupil. The teacher must always keep in mind the demands and support that are required of the learner. The teaching process forms a didactic relationship between teacher and knowledge. The teacher enables the learning process didactically by determining what knowledge is presented, how it is presented and how the learners work with it. The learning relationship, which is between learner and knowledge emphasises the end product of the whole triangle, which is the aim of learning. Knowledge in the context of this study is the learner language and content, which is represented by tasks and their demands. The learner is the pupil, who has completed the tasks and demonstrated their learning. And lastly, the teacher's role is to present opportunities for pupils to both learn and demonstrate their learning. The Didactic Triangle frames this study as it brings forward all three aspects involved when it comes to demonstration of learning.

# 4 RESEARCH TASK AND RESEARCH QUESTIONS

The study intends to answer the following research questions:

- 1. What features of bilingual education involve the demonstration of learning of pupils according to CLIL teachers?
- 2. What kind of opportunities are pupils given to demonstrate their learning through more than one language?
- 3. How does the demonstration of learning through more than one language of 2nd and 5th grade pupils differ?

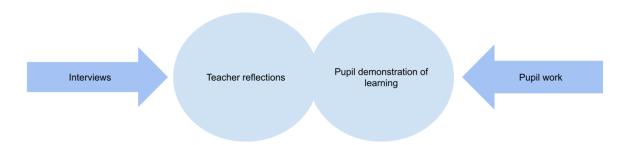
The goal is to examine how demonstration of learning is implemented in CLIL. The first research question approaches this through the teacher's point of view while the second research question focuses on the pupils' perspective. This study aims to explore teachers' pedagogical solutions, as well as what kind of tasks are presented to the pupils and what kind of demands are required of them. Additionally, the goal of this study is to find how pupils' age contributes to their ability to demonstrate their learning as well as whether their age affects the type of tasks presented to them.

# 5 **RESEARCH METHODS**

This research aims to study both two teachers' perspectives on bilingual education and how pupils can demonstrate their learning in more than one language. The study approaches these aims from two perspectives, as shown in Figure 2. The first dimension explores the way that the teachers see the opportunities they provide pupils within regard to bilingual education. The second dimension is a more practical one that is studied through tasks and pupils' work. This dataset provides a wider perspective into the phenomenon of bilingual education and demonstration of learning. The interpretative paradigm is central here, because it is based on socially constructed knowledge and the focus of this study is to gain understanding of the participants points of view according to Tracy (2013).

#### Figure 2

The Data and Perspectives of this Research



This section presents the implementation of the study along with its context. It includes a description of the data, data collection methods, data analysis and ethical solutions related to the study.

# 5.1 Research Context

This study was carried out as a qualitative case study with multiple layers of analysis. According to Merriam (2009) a case study includes a comprehensive description and analysis of a particular bounded system or group. It gives a deeper understanding of a phenomenon occurring within the system. In this study the groups are two bilingual primary school classes and their teachers. Two different grade levels were chosen in order to have a comparative perspective and show the influence of age on pupils' demonstration of learning. Hancock et. al (2021) mention that in case study research, interviews are often used to collect data and thus, individual interviews were chosen as one means of data gathering as they offer broad knowledge and information. Furthermore, the study's data also includes documents, which are photographs of pupil work. Hancock et. al (2021) and Yin (2018) state that multiple sources of data are beneficial in case study research as it provides clarity.

The study includes insights from linguistic ethnography as it involves social questions related to language. According to Creese (2008) referring to Rampton et al. (2004) linguistic ethnography investigates situated language use and its insights in production in everyday activity. Also, Tusting (2019) mentions that it also aims to aid in explaining the role of language in social life.

This research was conducted by using qualitative methods, considering that as Tracy (2013) defines, qualitative methods aim to comprehend meanings, relationships, and patterns. Qualitative research also focuses on participants and their experiences allowing for space in interpretation and analysis of viewpoints. In regard to this research these methods allowed for a deep perspective into how pupils express themselves and their understanding through the use of language. In addition to this, comparative study methods were utilized as data was gathered from two different grade levels with different aged pupils. This was carried out in order to use comparative methods in analysing the data where the focus is on the similarities and differences of the demonstration of learning of younger and older pupils.

This research was conducted in a public school in Finland. The school includes both monolingual and bilingual classrooms, of which this study focused on the latter. The context of the study is a combination of two CLIL classrooms and their teachers. The field of research is in the field of education and the topic of the study is based around ways pupils demonstrate their learning in more than one language.

### 5.2 Research Participants and Research Data

The participants of this study include two primary school teachers who practice bilingual education. At the time of the study one of the teachers taught second grade and the other one taught a joint class of third and fifth graders. The data collected are from a total of 17 pupils, of whom 12 were second graders (7–8-year-olds) and five were fifth graders (10–11-year-olds) at the time of the study. Only relevant information is provided on the participants to maintain the privacy of the participants without compromising the integrity of the study.

The nature of the data collected is varied. It consists of two teacher interviews, which were recorded and pupil work, which were photographed. The interviews were semi-structured and therefore differ. The length of the audio recordings of the interviews were 38 minutes for the second-grade teacher and 53 minutes for the fifth-grade teacher. The pupil work consisted of different types of tasks in different subject areas including notes, posters, exams, tests, and handouts. The pupils' schoolwork is both individual and group work. An overview of the nature of the data is presented in the table below in Table 1.

#### Table 1

Overview of the Data

Data	Quantity (pcs)
Photographs of 2nd grade pupils' work	25
Photographs of 5th grade pupils' work	42
Interviews of classroom teachers	2

As shown in Table 1, there were more photographs of the fifth-grade pupil's work compared to the second-grade photographs. Regardless, the total amount of different tasks was nearly the same. The data of the pupil work included multiple photographs of the same task produced by different pupils.

### 5.3 Data Collection

Upon completion of the research plan, different bilingual schools in Finland and their teachers, specifically those of second and fifth grades, were contacted via email. The target group contacted was selected due to the criteria of this study which is to compare different grade levels. After finding the willing participants, they were

provided a consent form (see Appendix 1) and a privacy notice. They confirmed their agreement to participate in the study by returning a signed consent form. In the pupils' case the form was signed by a guardian as the children were under 18 years of age.

As the goal of this research is to explore how pupils demonstrate their learning in more than one language, interviews and pupil work were chosen for the data collection method. After receiving an affirmative decision from the city to gather data, the data from the teachers as well as from the pupils was collected in May of 2023 in Finland. The data consists of two teacher interviews as well as pictures of pupil work including notes, posters, exams, tests, and handouts. The purpose of the interviews is to complement the pupil work and hence some of the pupil work is discussed in the interviews.

As the research has a comparative perspective, the interviews were carried out in a semi-structured approach allowing freedom and space in each interview while having theory-driven guidelines as well. The interviews consisted of a variety of themes (see Appendix 3) which each had a central question alongside a few supporting questions. As this study is carried out in English, the interview questions were also written in English. However, since the nature of this study is bilingual, the teachers were given the opportunity to answer questions in Finnish or English. Both teachers decided to speak Finnish in the interviews.

One of the interviews was held by both researchers while the other was carried out by only one of the researchers due to challenges in the timetables. Additionally, the teachers' preferences about the interview setting varied while one teacher preferred to have their classroom's door open with other teachers passing by and the other interviewee rather had the door closed. The first interview took place on Wednesday 17th of May of 2023 and the second interview on Friday 26th of May of 2023. Both interviews were recorded using the University of Jyväskylä's recommended interview tool, Zoom, from where the data was moved to the university's hard drive. The recordings included only the speech of the participants to ensure their security. After transcribing the interviews fully, the recordings were removed.

The pupil work was photographed during the same meeting as the interviews were held. After the participant permissions were verified, the teachers introduced possible pupil work, such as handouts and tests. When going through the pupil work the second-grade teacher had accidentally returned the work to the pupils, which affected the amount of data that was available. The researchers and the teacher selected the appropriate pupil work together, which included tasks from Environmental Science, History and Mathematics. The specific subjects were chosen since they represent the learning of content and language in a most sensible way. Since the goal of the study is not to focus on the language assessment specifically, different language subjects, such as English, Finnish, and foreign languages were excluded from the data collection. The pupil work was photographed in a way that all the names and possible identifiable features were covered. The photographs were transferred to the University of Jyväskylä's hard drive.

# 5.4 Data Analysis

The data were analysed using two different methods. Qualitative analysis methods were chosen for both the interviews and tasks since the qualitative research process provides space for adaptations according to Schreier (2012). As the interviews and photographs differ in their nature, different analysis approaches were used. The interviews were mostly analysed in a data-driven way whereas the pupils' photographs were primarily analysed using a theory-based approach. However, the pupils' photographs analysis also included data-driven methods. Thus, an abductive method describes the used data analysis best as it combines data-driven and theory-driven approaches as Tuomi & Sarajärvi (2018) present. Different tentative categories arose from interviews and those categories were reduced into main themes. The photographs were analysed based on the demands they set for the pupils to complete it and further located in the CLIL matrix.

#### 5.4.1 The Teacher Interviews

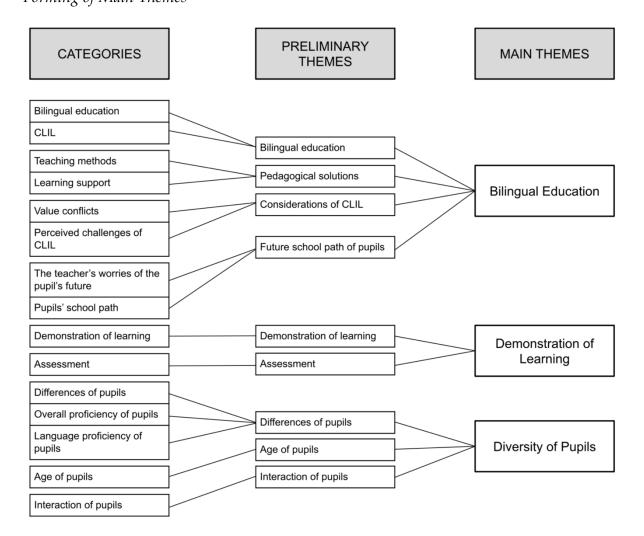
**Data immersion.** The two audio recordings of the teachers' interviews were both manually transcribed in full by the researchers. The length of the transcribed texts was 8 and 16 pages. The data immersion phase began when transcriptions were verified by listening to the recordings and editing accordingly. The analysis process of the interviews included the researchers identifying certain patterns and marking them.

These were, for example, obvious emphasis used while speaking and use of "fill words" e.g. niinku.

**Primary-cycle coding.** After finishing the first drafts, the researchers completed an initial analysis of the interviews separately. A data-driven approach in which key concepts emerge from data can be seen as a feature of qualitative research as Schreier (2012) states and it was used to analyse the interview data. The main aim was to find recurring concepts related to the research questions in the interview transcriptions, through which tentative categories were formed. A different color of highlight was used for each category. As Tracy (2019) writes, first-level codes are generated from the data and thus each category was coded by name as well as color and therefore a codebook was created. The researchers also investigated to ensure that the interview questions were being answered in the interviews. This was done by manually secluding excerpts linked to the answers in a separate document.

Following the initial work of the first level coding, the researchers compared and discussed their separate tentative categories and excerpts that had risen from the data. In this way the researchers were able to bring their own perspectives forward. It was beneficial to organize and merge the researchers' similar categories to make a list of mutual categories in cooperation with the other researcher. The initial mutual categories are listed in Figure 3.

**Figure 3** Forming of Main Themes



The transcript was read through simultaneously and different excerpts were analysed and divided into preliminary themes decided mutually. Many of the themes were identical between the two interviews but the 5th grade teacher interview had a few more themes than the 2nd grade teacher interview. Table 2 shows how excerpts formed preliminary themes. A thematic analysis was chosen for the approach method as Hancock et al. (2021) state, the use of thematic analysis in case studies is a common procedure to make sense of the data.

Pupils' school path	"With the idea that if a child from this English-language education transfers to a Finnish one, then they should also know all this in Finnish-" (2nd grade teacher)
	"if the graduation certificate says that they have received teaching in English, then they must be able to discuss those certain concepts and in English" (5th grade teacher)
Assessment	"The Environmental Science test for instance, then I am not testing the knowledge of the English language in the Environmental Science test, but I am testing the content, whether they have understood the study matter." (2nd grade teacher)
	"I can never actually hold any kind of book exams directly it needs You need to build the way you assess" (5th grade teacher)

**Secondary-cycle coding.** The process of analysis further developed according to the guidelines which Tracy (2019) lays out, where preliminary themes are combined to form main themes. This was carried out by discussing and analysing what concepts were most crucial and made most sense for the analysis. The final main themes were worded in a broader and more interpretive way. As seen in Figure 3 there were three main themes which finally arose.

# 5.4.2 The Photographs of Pupils' Work

In this study the photographs of pupil work refer to the photographs taken of pages in the pupils' notebooks, posters, and exams which sometimes included one task and sometimes more than one task related to the same topic. A label refers to the name given to photographs containing the same tasks completed by different pupils. A task is one specific exercise. Task types are specific to this study as they were formed regarding the way the task needed to be completed by the pupil. The assignment type referred to whether the photograph was of a handout, homework, test, poster, or study.

**Familiarization of the data.** The analysis of the pupils' work began through familiarization of the data by scanning through and counting of the digital photographs and completion of an overview of the data as seen in Table 1. The photograph files were stored in two separate main folders according to the grade level. Next the photograph files were divided into categories based on their subject and

organized into separate subfolders e.g. "5th grade > History > HI Ancient Greece 3". The photograph files were labelled by the subject and the name that appeared most visibly in the photograph e.g. "HI Ancient Greece 3". A number was added to the name to signify how many photos there were in total and distinguish the photograph files. If there was not a title in the photograph, they were labelled by the subject and the content theme. For example, the tasks on a photograph were mostly about the forest and thus it was named "YM Forest 3".

The photographs of the same task completed by different pupils were inserted onto the same page on a Microsoft Office Word document and printed out in order to ease data management and analysis. However, within the second-grade data there were a few photographs, where the same task only appeared once. Thus, they were placed onto the same Word document. Each printed page was manually named according to the label e.g. "YM Human". In the pages that included multiple different photographs, they were each labelled by their own name e.g. one page had four different photographs and four different labels.

Looking further, each subjects' tasks were examined more closely and organized into tables accordingly. The photographs were divided into subject categories and the quantity of the photographs of the same task completed by different pupils was counted and presented in tables. This phase was completed to review how the photographs differed from each other and map out their characteristics. Certain tentative observations of the photographs were added to the table including assignment type and number of tasks within each photograph. Further observations presented were if the task was structured or open and how the task invited pupils to complete it, for example by writing, drawing, or translating the task.

**Primary-cycle coding.** The analysis continued with first level coding which is the next level according to Tracy (2019) where subsequently the tasks found in the photographs of the schoolwork were organized into task types. The task type codes were formed by the researchers, and they were based on how the pupils were meant to complete the exercise. As there were multiple different codes formed in the analysis, a code book presented in Table 3 was implemented in order to keep the data organized as Tracy (2019) presents. Both grades' tasks were coded separately. The second-grade tasks were organized and analysed first and through this process the initial codes were formed. An example of this is the title of Table 3. The fifth-grade tasks were analysed in an identical manner using the same methods in order to enable comparison of the data. However, if new task types arose, they were given new labels, which were added to the codebook (see Table 3).

#### Table 3

Task type	Symbol	Page.task.	Subject name
Link vocabulary and picture	star	2. 3.3. 11.2. 5.1. 1.1. 1.2. 13.1.	YM Skeleton worksheet YM Mushroom MA Test etupuoli Geometria YM Traffic YM Human YM Human YM Senses
Fill in the blank	chicken	1.3.	YM Human
List	heart	8. 3.1. 4.1. 4.3.	YM Foods YM Different materials hunt YM Class Task and Homework YM Class Task and Homework
Self-assessment	moon	6.1. 6.2. 7.1. 7.2. 5.3.	OTHER 2nd grade self-assessment OTHER 2nd grade self-assessment YM Self-assessment robot YM Self-assessment robot YM Traffic
Open answer	sun	4.2. 5.2.	YM Class task and homework YM Traffic
Math: structured	x	9. 10.1. 11.3. 10.2. 10.3. 10.4.	MA Junnauskoe MA Test Etupuoli MA Test Geometria MA Test Etupuoli MA Test Etupuoli MA Test Etupuoli
Math: semi-structured	cinnamon bun	10.5. 12.1. 12.2. 12.3. 12.4.	MA Test Etupuoli MA Test Takapuoli MA Test Takapuoli MA Test Takapuoli MA Test Takapuoli
Math: open	volcano	11.1.	MA Test Geometria

Example Codebook of 2nd Grade Pupils' Work

**Demand analysis.** The tasks were further analysed in theory-driven manner based on Cameron's (2001) language and cognitive task demands on the pupils, which are presented in the section 3.3. Additionally, within these two categories possible metalinguistic and content demands were detected as well and highlighted in red and green. The word "write" was used to describe a task where the pupils were required to use given vocabulary or find a specific new vocabulary. Furthermore, the word "produce" was used when the pupils were required to freely produce text of their own. Notes were made and added in their own column in order to understand the data more effectively as seen in Table 4.

#### Table 4

Language and	l Cognitive	Demands	of Pupils'	' Tasks
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Task description	Demands	
Name two things that you need to take into account in traffic.	Language	Understand the instructions in English* Understand more complex phrases in English* Produce the answer in whichever language understandably
(Below the instructions there were two lines for the answers)	Cognitive	Recall learned content** Form the answer by recognizing two different aspects** Understand that the answers should be written on separate lines

\* Metalinguistic language demand, \*\* Content demand

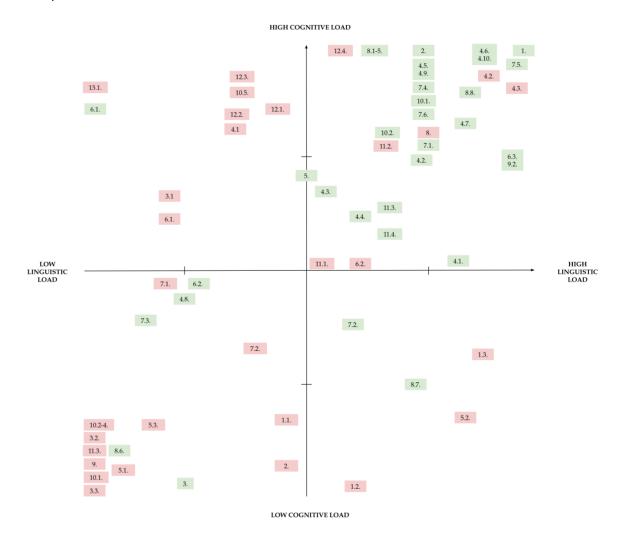
**Forming the matrix.** Following the analysis of the tasks based on the description of their demands, the tasks were placed according to the demands occurring in the tasks in the CLIL Matrix adapted by Coyle (2002) from Cummins' (1984) matrix. The horizontal axis represents the language demands with higher language demands taking place in the far right and lower language demands locating on the left side. The vertical axis represents the cognitive demands with higher demands taking place at the top and lower cognitive demands locating at the bottom. Thus, the most challenging tasks fall on the top right fragment of the matrix, while the tasks with least cognitive and language demands fall on the bottom left fragment of the matrix. The more challenging the task the more it requires from a pupil in demonstrating their learning.

The initial matrix was formed manually on paper. The researchers added quarter points on the vertical and horizontal axis to clarify the placement of tasks on the matrix. The process of forming the matrix included numbering the tasks. As it was possible for one printed photograph page to include different task types, each task type was given a certain symbol e.g. a star. In order to distinguish the second and fifth grade tasks from each other, second grade pictures were highlighted with a red color and fifth grade tasks were highlighted with a green color.

At last, the final matrix was produced digitally as seen in Figure 4. In order to produce the final matrix, the tasks were given a distinctive number code consisting of the page and the task number e.g. 3.2. If the page did not contain more than one task, the distinctive number of the task consisted only of the page number e.g. 3. However, if the page contained multiple different photographs, each photograph was given their own page number. Thus, the total number of pages increased. Furthermore, the red and green colors were kept to represent the different grades, but the symbols were excluded to simplify the matrix and make it more readable.

#### Figure 4

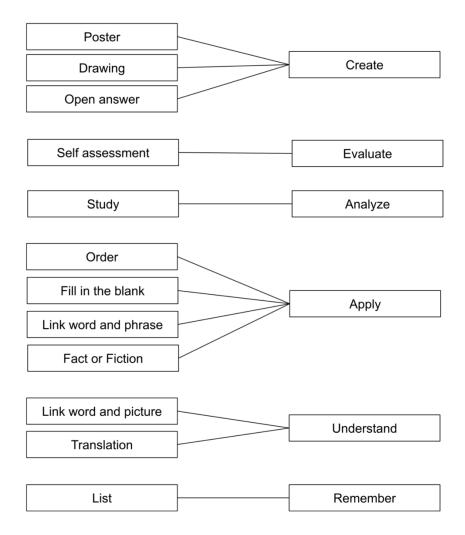
Tasks placed in the CLIL Matrix



**Secondary-cycle coding.** The initial codes formed were of the task types. Next the codes of the task types were analysed and arranged according to the revised version of Bloom's taxonomy (2001) as seen in Figure 5. The tasks were organized through the action words that describe the levels of cognitive processes of learning as Anderson et al. (2001) have used to describe the original labels of the taxonomy.

## Figure 5





As the data included tasks of second and fifth graders' work, the tasks differed from each other, but they were still analysed as task types collectively, not through grades. Additionally, many tasks would include demands from a variety of categories, but as the lower categories can be included in the higher ones, as they include lower order thinking skills, each task was placed in the highest category possible. For example, the task type labelled study was placed under the analyse category, because the verbs compare, experiment, and examine describe it, even though verbs, such as describe or report, from other lower categories also applied to the task demands.

# 5.5 Ethical Solutions, Credibility and Validity

In this study, ethical considerations were considered before, during, and after the process. In regard to the data gathering, the pupils' schoolwork was chosen through cooperation with the teacher taking into consideration given permission and permits. The pupils and their parents were informed of the study and permission was collected from the participants. The privacy notices, consent forms (see Appendix 1), and other communication with the participants and the guardians were provided in both Finnish and in English. Since the class was taught bilingually, the decision was made to ensure that the participants would be given the opportunity to understand the forms in a language that they felt more comfortable with, and the possible consent would be as ethical as possible. The work was photographed, and it was gathered anonymously in a way that ensures it is impossible to identify pupils. Sensitive personal data were not gathered during this study.

The data were stored according to University of Jyväskylä's regulations. For the protection of participants identity and confidentiality it is essential that data are stored securely and only within reach of whoever has the right to access them. In this study the data were transferred to the University of Jyväskylä's secure cloud service and private hard drive. There it was stored for the duration of the study and accessed by the data controllers. The data will be destroyed in a secure manner as the study has been completed. The nature of the data that were gathered can be seen as private to the participants, therefore it is crucial to consider protecting their integrity. This applies both to how the participants are treated and how results are reported. The study is based on the autonomy of the participants and therefore participation is voluntary. The participants can decide to withdraw from the research at any point without consequences.

The interviews were carried out in a manner which took into consideration ethical aspects. In this case, both researchers had shortly collaborated with one of the teachers and their class previously. Thus, there was a connection between the researchers and participants, but it was rather insignificant. Concerning the venues of the study, it is good to note that the interviews took place in each of the teachers' classrooms. Taking that into consideration, both interviews were carried out in a way that was the most comfortable for the participants. As we obtained to interview the teachers in their classrooms in order to make it easy for them, the setting also included distractions which may have affected the quality of information according to Hancock et al. (2021). In this study, the second-grade teacher is referred to anonymously as Teacher 1 and the fifth-grade teacher is referred to as Teacher 2. The interview questions were carefully established to ensure that information presented by the teachers would be relevant to the study. To further secure privacy, all the unrelated information that the participants provided, such as names of the schools they had worked at before, were removed as the interviews were transcribed.

This study was carried out through the cooperation of two researchers, which according to Aira (2005) is valuable to a study as it supports its credibility. According to Tracy (2013) this is called triangulation, which is approaching data from multiple perspectives, in this case through two points of view. The multiple methods for gathering and analysing data were more varied, because there were two researchers involved. In the gathering data phase scheduling was also more flexible. One of the interviews was carried out by one researcher making them an insider as they were part of the interview process where they saw the expressions of the interviewee and the general situation. The other researcher was more of an outsider as they only received the audio recording of the interview and were not able to for example ask the interviewee additional questions. This brought different perspectives to the analysis phase and evoked discussion between the researchers bettering the overall analysis. Furthermore, in the data immersion phase it was beneficial to first examine the data separately and form preliminary conclusions and to follow that with discussing the findings together. This led to negotiating, providing arguments, and questioning one another which ultimately contributed to thoroughly analysing the data.

Throughout the process of this study, important matters such as the research questions were constantly evaluated according to the evolution of the work which according to Tracy (2019) ensures that study aims to answer the research questions. The original two research questions developed into the final three. When the first research question was divided into two separate questions to showcase two different perspectives on a similar matter. The background and theoretical framework aim to properly lay foundations for the understanding of the study context. The relevance of terms and concepts were kept in mind during the writing process. One aspect worth mentioning is that this research covers a broad topic of CLIL, and the data is multidimensional. This challenges the analysing of data, which may result in a rather superficial view according to Braun and Clarke (2006). However, through a detailed analysis process deeper understanding of the topic and data was possible. These considerations strengthen the validity of this study.

# 6 FINDINGS

The main findings of this study are presented in this section. The findings follow the three main themes that arose from the teacher interviews: Bilingual Education, Demonstration of Learning, and Diversity of Pupils. Thus, the findings are divided into three categories named Teacher Perspective of Bilingual Education, Opportunities Presented to Pupils to Demonstrate Learning, and The Considerations of Diversity of Pupils. The first theme intends to answer the first research question, the second theme aims to answer the second research question and the last theme focuses on the third research question. The findings are supported by the structure of the Didactic Triangle presented in section 3.6 where the teacher and pupil perspectives are separate yet connected. The third component of the triangle, knowledge, is embedded into both these perspectives as the tasks and demands are defined by the teacher and pupils. As the knowledge perspective is the representation of demonstration of learning, which is the focus of this study, it can be found throughout the findings section. Thus, demonstration of learning is approached through the teacher and pupil perspectives and therefore all the components of the Didactic Triangle are explored. It should be taken into consideration that the interviews were carried out in Finnish. Thus, the excerpts below are translated into English (see Appendix 3). Teacher 1 refers to the second-grade teacher whereas Teacher 2 refers to the fifth-grade teacher. The interviews support the photographs and vice versa.

# 6.1 Teacher Perspective of Bilingual Education

The first theme approaches bilingual education specifically from the teachers' perspective. This section aims to answer the first research question: *What features of bilingual education involve the demonstration of learning of pupils according to CLIL teachers?* The main theme includes insights from the analysis process considering bilingual education, pedagogical solutions, considerations of CLIL, and considerations about pupils' future school path. Aspects that display the cognitive and linguistic load of bilingual education, the aim of pupils understanding the content, and the lack of proper guidelines for CLIL arose from the data.

#### 6.1.1 Bilingual Education

Both teachers emphasised that bilingual education not only enriches learning but also challenges and requires additional work from both the pupils and the teachers. Teacher 1 described that the goal of bilingual education in the lower grades concentrates on awakening language proficiency that also requires exploring out of one's comfort zone. Being flexible in using two or more languages in everyday practices was seen as a main trait of bilingual education by both teachers. However, the ongoing switching between languages was also seen as a challenge and frequently ambiguous. Furthermore, both teachers highlighted the importance of explaining the content and not just translating it in a different language. It was concluded that in certain situations, the learning content may define how the language is used. Teacher 1 described the use of more than one language on a daily basis as follows: "In Environmental Science when we speak of Finland, I've usually decided to use Finnish. Or in a music lesson there can be songs in English. So, it's not like definite."

In the interviews the teachers brought up the lack of bilingual learning materials. Monolingual resources are often available in the mainstream education language, but the teachers must themselves produce materials for either the target language or both languages. In the CLIL classroom the learning materials are generally in a different language than the teaching language. For example, the language of the textbook might be in Finnish while the lesson is taught in English. Teacher 2 noted that in bilingual education teachers need to stay alert in order to attend to the pupils' needs. From the pupils' perspective, Teacher 1 concluded that if the content is difficult, the target language may pose a problem for learning. Additionally, Teacher 2 brought up how bilingual education cognitively challenges the pupils: "Because that English in there adds that extra twist somewhere in the brain."

Both teachers agreed that in principle the pupils should master all the learned content in Finnish and English, but in reality, it is challenging to make sure of that. They stated that bilingual education follows the Finnish curriculum. However, Teacher 2 brought up that the Finnish curriculum does not provide structured enough demands regarding bilingual education. For example, the Finnish curriculum does not specify how the language use in CLIL classrooms should be divided. In these classes 60 percent of subjects were taught mainly in English while 40 percent were taught mainly in Finnish according to the teachers. They stated that there should be a requirement on a national level for pupils to master the learned content in Finnish as well as target language. Generally, both teachers stated that in their teaching, English stands out as the major language while the role of Finnish is seen as an additive language. However, both teachers mentioned that specifically it is crucial to teach and learn content-related terms in both languages to enhance learning in two languages. Both teachers underlined that making sure that the pupils understand the key element is essential in bilingual education.

#### 6.1.2 Pedagogical Solutions

In both teachers' experience learning methods in bilingual education are more diverse than in monolingual education. Even though both teachers mentioned that they use general teaching and learning methods such as writing, reading, interacting, discussing, and using songs and play, they also brought up that bilingual education allows the use of a diverse range of methods. Teacher 1 shared an example where they begin with an interactive activity which introduces the content through play. After the point of the activity is grasped, the teacher explains the connection between the task and the content, encouraging the pupils to make associations. Thus, this is an example of how crucial content-specific terms are learned after an activity which firstly supports understanding. Therefore, sometimes the order in a lesson is that language follows the content. The teachers also noted that sometimes the same content is learned through different sources in different languages. Additionally, even though the main goal is to support pupils' understanding of the topic according to the teachers, sometimes it is necessary to require pupils to learn content by heart. Both teachers highlighted that in content-related tasks it is first and foremost crucial for pupils to be able to express their learning and thus the language in which they do that is not as paramount.

In the teachers' experience often the main content is learned in English and the tasks may further provide more information in Finnish. For example, in a lesson there might be a video in English, but the questions related to the video on a handout are in Finnish. Additionally, while the content-related terms are always learnt in the target

language, pupils are frequently encouraged to identify them also in the teaching language.

The mentioned learning support methods the teachers used included different kinds of hands-on support and interactive methods as well as separate language support. Hands-on support consisted of picture support, providing illustrative examples, underlining the crucial parts of a text, supporting reading comprehension and checking if the pupils understood the instructions, supporting the correct associations, and including visual posters on the classroom walls. Additionally, the support methods consisted of interactive methods such as simultaneous teaching, formative assessment, interaction between the teacher and the pupils, pictures that represent how well the pupils feel they master the content in that moment; this allows the teacher to help the pupils as soon as possible, tutoring, and peer support. Last, teachers supported language learning by teaching content terms in two languages, explaining the content in a variety of ways, encouraging participating in target language's activities on free time, including the use of pupils' home languages and creating a safe space in the classroom, encouraging the pupils to discuss the school days at home, using Finnish if necessary, and allowing the use of English or Finnish in demonstration of learning.

Teacher 1 emphasises that the goal is to support the pupils' understanding in different ways and translating the task is treated as one of the last solutions. Thus, they raise the challenge of explaining the content without translating it straight away:

I feel that when teaching, the teaching of lower grades in elementary education is often easy enough that its content is easy enough that it is quite easy for me to demonstrate it or put it in pictures, so that I can make everyone understand it, whereas with fifth grade it can be so much more abstract the thing. So, if someone doesn't understand it in English, then you yourself have to work more on how to explain it without directly translating. (Teacher 1)

#### 6.1.3 Considerations of CLIL

Even though both teachers stated that switching between two languages poses a challenge for the teacher as well as the pupil, value conflicts emerge especially from the interview of the fifth-grade teacher. Teacher 2 emphasised strongly the need to consider pupils' best interest as the decision to apply for CLIL classes is being made. They reflected on bilingual education from the perspective of the guardians; in

the teacher's opinion the guardians might not always review the possible downsides of bilingual education. Instead, all the benefits might be viewed more prominently. Thus Teacher 2 noted that different learning difficulties should also be considered; if learning in Finnish is challenging for the pupil, do they have suitable skills for learning in English? Regarding teacher competence, Teacher 1 reflected on the language skills of CLIL teachers and whether it is crucial to have a native speaker as teacher. Furthermore, Teacher 2 described the chaotic side of CLIL in which missing materials, lack of pictures or motivational tasks, and the absence of assessment tasks is often the reality. The teachers also recognised that pupils' individual language skills need to be taken into account in order to produce exams:

So it's also terribly challenging, that I can never actually hold any kind of book exams directly. For example, I can't take a Pisara book test and translate it into English, because I can't, I can't put those children, he studies them from the Pisara book. (Teacher 2)

Additionally, Teacher 2 reflected on the language skills the pupil might master outside of Finnish and English and how even though all languages are welcome in CLIL classes, the tasks that are assessed can only be performed in Finnish or English. As Teacher 2 describes, this strict way of acting may work as a barrier for pupils to demonstrate their learning: "it's just that, this is the same thing that you often do when you make an exam, that I also think how well this child would be able to tell this matter in his mother tongue".

## 6.1.4 Considerations about the Future School Path of Pupils

Both teachers brought up the importance of ensuring that pupils master two languages as well as are able to express content knowledge through them in bilingual education in order for pupils to enter the secondary school of their desire. The possibility of switching classes during a pupil's school journey as well as ensuring that the teaching provides for appropriate language skills were being discussed in the teacher interviews. Teacher 1 said: "With the idea that if a child from this Englishlanguage education transfers to a Finnish one, then they should also know all this in Finnish-" and Teacher 2 noted: "if the graduation certificate says that they have received teaching in English, then they must be able to discuss those certain concepts and in English". Additionally, Teacher 1 raises the question about the role of the teacher in ensuring the language competence of the pupils:

Because we, as teachers, have to think that if a child doesn't have good Finnish language skills, say by the ninth grade, then they won't get a graduation certificate, that, that it has to... be secured. Also, here in English-language classes. (Teacher 1)

Teacher 2, who teaches older pupils, brought up more considerations about the concrete future of the pupils. Teacher 2 highlighted the challenges of the Finnish curriculum in which the aim is for pupils to be able to continue their studies in Finnish or English. They continued that in practice it's difficult to ensure that pupils know all the content in English and in Finnish. Thus Teacher 2 stated: "You have to keep in mind all the time that if your child doesn't get into IB high school. Then what are his chances for further education?" insinuating that the national requirements regarding bilingual education should be more precise and there is a need for larger value conversation around the topic.

# 6.2 **Opportunities Presented to Pupils to Demonstrate Learning**

The second theme of this study dives into the different ways in which pupils can demonstrate their learning and how the demonstration is assessed. Through this theme the study intends to answer the second research question: *What kind of opportunities are pupils given to demonstrate their learning*? The findings in this section are based on teacher insights of how they assess pupil work as well as the analysis of the tasks and the demands given to pupils. This section includes concrete examples of demonstration of learning which sheds light on traits of CLIL. The study concludes that pupils are provided multiple different ways to showcase learning. Regarding assessment the teachers convey that they focus on what is being assessed rather than simultaneously grading both language and content.

During the interviews both teachers voiced multiple different ways of how pupils can demonstrate learning. The teachers first brought up written exams or tests and written tasks such as textbook tasks, handouts, mind maps, and lists of bullet points. Additionally, pupils were given the opportunity to demonstrate learning through more elaborate projects including posters, slide shows, presentations, and drawings. The teachers also mentioned that through observation they are able to gather information about the proficiency of the pupils. Therefore, performing in class activities, working with others in a group and other discussions and interactional situations are ways pupils can show their learning. In addition, the subject somewhat determines the ways of learning demonstration which can be used according to the teachers. The tasks that were analysed in this study were a variety of written tasks.

The tasks found in the gathered data of this study represented the whole spectrum of the levels of cognitive processes of learning based on Bloom's Taxonomy. This further shows how the opportunities of learning demonstration are diverse and require different levels of cognition. For example, in Table 5 the task demands can be described using the verbs: produce, argue and reflect, therefore the task was placed in the create category of the taxonomy. This task requires the pupil to candidly write their answer without further support, which can be seen as quite demanding. In this task the requirement was to produce text in English, although mistakes in language use were not graded. Some pupils also used Finnish in their posters, for example in the title: "Lemming / Sopuli".

## Table 5

Example	e of	a C	Create	Task	c of	<sup>5</sup> 5th	Grade	e Envi	ironmenta	l Science

Task description	Demands	
Make a poster about the animal of your choice. Write in English about its size, diet and habitat. Include a drawing of the animal.	Language	Write in complete sentences Write understandably in English Understand more complex vocabulary**
If you like you can add additional information to the poster.	Cognitive	Produce information about animal** Answer 3 things (size, nutrition, habitat)** Provide picture of animal (draw)** Use and provide sources (from websites) Critical use of sources, find the crucial information Design poster, use title, use questions

\* Metalinguistic language demand, \*\* Content demand

The teachers stated that all the ways in which pupils demonstrate their learning mentioned above can also be used for assessment. They emphasised that the base for

all their assessment is determining what is being assessed and when. While the teachers acknowledged that they do require the use of a certain language or both languages in some cases, they both stated that more often they allow for very flexible language use between the classroom languages. Therefore, the teachers rarely assess both language and content simultaneously. In the tasks of this study the content was in focus during assessment by the teachers. As the task below in Table 6 shows the language demand is to write or draw the answer understandably.

The demands required of the pupils in the tasks of this study can be seen as very diverse allowing for many ways to demonstrate learning. As can be seen in Table 6, the pupils were able to demonstrate their learning through writing or even drawing. The demands of this task were to understand, identify, and categorise which were connected to the remember category of the taxonomy.

## Table 6

Task description	Demands	
Think about things that you could reduce, reuse and recycle at home. For homework: Add at least five more ideas at home.	Language	Understand the instructions in English* Write or draw the answer in whichever language but understandably Understand the vocabulary**
You can ask your family members to think with you and add your answers to the ones you thought at school.	Cognitive	Identify objects in the near environment** Categorise objects according to the vocabulary**
Reduce, Reuse, Recycle		

\* Metalinguistic language demand, \*\* Content demand

As can be seen in Table 7, the task requires the pupils to fill in the blank using the correct word. The task does not prompt the pupils to produce their own answers but rather to solve the phrases accurately. This process can be seen applicable to the *apply* category of the taxonomy.

Task description	Demands	
Fill in the blanks 1. Baby grows in mum's 2. Babies first only drink	Language	Understand the instructions in English* Understand the sentences in English** Find the right vocabulary** Spell the words understandably in English
<ol> <li>After about months, the baby is born.</li> <li>When babies need something, they</li> </ol>	Cognitive	Understand the context** Apply knowledge about subject** Recognise the appropriate word group (noun, verb) Work by writing the word on the line

**Table 7**Example of an Apply Task of 2nd Grade Environmental Science

\* Metalinguistic language demand, \*\* Content demand

Furthermore, regarding Table 7, it was noted that the teacher had marked it as correct even though the pupil had written *crying* instead of the correct form *cry*. This further supports the conclusion that the teachers assess the content rather than language. Additionally in the same task there was a sentence as follows: *After about* <u>months the</u> *baby is born* in which the pupil had answered eight. The teacher had corrected the answer to nine and therefore the pupil received no points. This shows again that even though the pupil had written the word "eight" correctly, the content was assessed, and spelling did not give points to the pupil.

Many tasks of this study require the pupil to write or produce text or drawings in order to show their understanding. However, the task in Table 8 shows how some tasks can measure learning in a simple way while still being quite demanding. The phrases which the pupils evaluated as true or false assessed reading comprehension as the grammar and word choices all mattered to the meaning. In addition to understanding the sentences well, the pupil needed to also recall learned content. This study ranked this task as having a high cognitive and linguistic load using the CLIL Matrix.

Task description	Demands	
Read the sentences. Write if it is a fact (= it really happened in real life) or fiction (= this did not happen in real life).	Language	Understand the instructions in English* Understand the options in English Read the grammar correctly Write the answer in English (fact or fiction) Recognise content related vocabulary**
<ul><li>a. The Minoans of Crete people adored the bull.</li><li>b. Minotauros was a real monster that lived in Crete.</li></ul>	Cognitive	Recall learned content** Understand options and their validity Associate the vocabulary correctly Work by writing fact or fiction on the lines

**Table 8**Example of an Apply Task of 5th grade History

\* Metalinguistic language demand, \*\* Content demand

The teachers made it clear that when content is being assessed language should not stand in the way of the demonstration of content knowledge and vice versa. Therefore, the pupils are encouraged to write as best they can and not worry about spelling mistakes or grammatical errors. The most important thing is for the answer to be understandable.

As can be seen in tables 5 through 8, each task contained both language and content demands. However, the language is not distinctly assessed, because the teachers often focus on the delivery of the content. The communication of the content was important because the teacher had to see that it was understood by the pupils. However, diversity in the way the pupil expressed their knowledge was often allowed. For example, in task 7 of a Tree Study in Environmental Sciences the pupil was asked to describe the natural habitat of a tree of their choice. The pupil's answer was as follows: "Metsässä dirty full of käpy". Translated fully into English this means: "In the forest it is dirty and full of pinecones". This demonstrates that the pupil has understood the question and gave a valid answer in a creative way using both the teaching and target languages. The teachers confirmed that this way of learning demonstration was acceptable as it is understandable. Therefore, it was assessed through content and in this case was correct.

The interviews also supported that the answers were often accepted by the teachers even when they were given in the other language as long as the content was

accurate. Especially during discussions or when answering orally to the teacher pupils tend to prefer the language, they had stronger language skills in.

There you can answer that it is .. completely correct, that answer, if that, if it is written in Finnish. Even though my question was in English, because then the pupil has shown that, that they understand the matter, because if we are talking about the Environmental Science test for instance, then I am not testing the knowledge of the English language in the Environmental Science test, but I am testing the content, whether they have understood the study matter. (Teacher 1)

As mentioned earlier, sometimes the teachers required a certain task to be completed in a certain language or languages. It is crucial to note that the process of completing these tasks in the CLIL classroom is, however, quite unrestricted language-wise allowing for pupils to use all their language skills. However, in a summative manner assessed tasks the languages allowed were only either the teaching or target language as those are in alignment with the Finnish curriculum. Regarding interaction in the classroom and the language use of the pupils, the teachers commented that the pupils quickly begin to use content specific language once they've learned the terms. On the other hand, the teachers both mentioned that the pupils do use everyday language when explaining terms or when they can't remember certain words. According to the teachers the pupils are skillful language users, who bounce between the classroom languages as well as their additional home languages. Sometimes the pupils get creative and combine their knowledge to create their own language:

Again, an example of that, was already a child with very strong, whose one parent spoke English and the other parent Finnish. They had very strong English and Finnish maybe a little weaker. So he is, but he is terribly gifted with language, so for example today they had just come up with a brand-new word in the exam. Or .. something, which was shockingly well described. I said that this describes this issue really well. (Teacher 2)

Again, in this case the teacher was pleasantly surprised by the way the pupil was able to express their understanding instead of assessing the language strictly based on certain criteria. It is crucial to note that since demonstration of learning is interactional, the teacher also needs to understand the language that the pupil used.

## 6.3 **Considerations of Diversity of Pupils**

The final theme that arose in this study explores how the demonstration of learning implemented in CLIL classrooms caters to the diversity of pupils. Also, the study dives into the influence that the pupils' differences may have on their studies and opportunities to express their understanding. This theme includes the aim of answering the third research question: *How does the demonstration of learning through more than one language of 2nd and 5th grade pupils differ?* This theme is approached through teacher interviews about the differences between younger and older learners as well as through the tasks of two different grade levels. The teachers both expressed that there is a difference in the ways in which different aged pupils showcase what they learned. Additionally, the study shows that the more demanding tasks are those of older pupils. The diversity of pupils includes several perspectives which are differences, age, and interaction of pupils.

Both teachers acknowledged there to be multiple pupil differences both within the classroom and when comparing different grade levels. Teacher 2 mentioned that the reason for pupils being in a CLIL classroom were many and their backgrounds differed a lot, compared to a monolingual class. For example, some pupils were only living in Finland temporarily or planning to move abroad, while others were permanently staying, but preferred to study in English. Because of their different backgrounds the pupils also had different language skills in different languages. Multilingualism was viewed as a richness by both teachers. However, Teacher 2 emphasized that often the native Finnish speaking pupils are in a privileged position compared to others, because they benefit from using the learning materials that are in Finnish as well as being able to use Finnish in assessment tasks. In turn, according to Teacher 1 the learning of a pupil with a deficiency in either Finnish or English language proficiency requires additional effort. Additionally, the teachers mentioned that the pupils' overall proficiency levels in different content subjects and learning skills have an emphasized impact when using a foreign language to study. This is especially noticeable in more abstract learning content. Teacher 2 also stated: "there might be another group that has a harder time, or a person has a harder time demonstrating their learning, so then it's .. different".

The comparison of the demonstration of learning of different aged pupils is crucial to the third research question of this study. Both the teacher interviews and the CLIL Matrix, formed based on the pupil tasks, show that the learning content gradually becomes more difficult and shifts from concrete to more abstract for older grades. When examining the matrix, it is notable that the second-grade tasks are in the lower left quadrant where the linguistic and cognitive load are low. On the other hand, the fifth-grade tasks are in the top right quadrant where both linguistic and cognitive demands are higher. In other words, the demonstration of learning is often more challenging for older pupils than younger ones. Another aspect worth mentioning is that there are far more tasks situated in the low linguistic and high content load quadrant than in the high linguistic and low content quadrant.

Teacher 2 explained how when they taught younger pupils the options of the ways to demonstrate learning were more limited and teacher lead. The ways to demonstrate learning needed to first be widely practised in order to be freely used according to the teacher. As they described, older pupils had a wider range of options and choice in the matter:

At that time, it was just that things were done with them pretty much in a structured way that they. And fifth grade then got the same topic, and they on the other hand then they had maybe a little more and there was more.. choices and options. Because I have the idea that there are different strategies that we practise with the first and second graders, if I always give them a lot of choice, then it might be that someone gets stuck in a certain way of doing things. When the idea is that they should have diversified methods, even ones they haven't .. been able to do before. Fifth grade now, hopefully already a little ..., like a little more extensive knowledge of these different ways of doing things. (Teacher 2)

Another way the second and fifth graders differed was that the older pupils better combined what they learned. As some of the subjects of the pupils were taught in English and some in Finnish naturally some content was approached through both languages in different situations. According to Teacher 2 the fifth graders would recognise the repetition and be able to connect what they had learned through different languages.

The teachers also both spoke of the interaction between the pupils of the CLIL classrooms. They mentioned that the pupils often work together and help each other.

Teacher 2 emphasised that older pupils often help younger ones in their combined classroom of 3rd and 5th grade:

Used to the fact that there are enough older pupils in the class that you can always go and ask the older one. So they choose the language in which they always give advice. That they advise, sometimes they speak to each other in Finnish and sometimes they speak to each other in English -- So you do have metadata all the time here among children. (Teacher 2)

The language pupils use when interacting with one another changes based on who they are with according to the teacher. They could recognize other pupils' strengths and choose who to ask for help based on it. If they needed help in an English assignment, they would go to a pupil who has better English skills and vice versa.

# 6.4 Concluding Summary of the Findings

The main points of the findings are presented in Figure 6 below. The figure is based on the Didactic Triangle presented in section 3.6 and formatted to suit this study. Each component of the triangle answers a research question. The tasks represent the component of knowledge, the teacher represents the teacher component, and finally the pupil stands for the learner. According to the findings, the tasks theme as shown in Figure 6 concludes that there are many different opportunities that teachers present to pupils to demonstrate learning. The teacher perspective brought forward themes regarding the cognitive and linguistic load of bilingual education, the aim of focusing on the pupils understanding the content, and the experienced insufficient guidelines for CLIL. Lastly, the pupil perspective shows that the differences, such as age, of pupils influence demonstration of learning for example older pupils are faced with more demanding tasks. Supporting the relationships of the triangle below in Figure 6 are two main themes which are Navigating CLIL and Flexible language use. These are further discussed in the discussion section. **Figure 6** *Conclusion of Findings* 

#### TASKS Opportunities presented to pupils to demonstrate learning

Navigating CLIL

Flexible language use in CLIL

#### TEACHER

Teacher Perspective of Bilingual Education **PUPIL** Considerations of Diversity of Pupils

# 7 DISCUSSION

The aim of this study was to explore the opportunities that teachers provide to pupils to demonstrate learning in CLIL classrooms. In the present study, important themes which are in dialogue with previous studies and theories are how both teachers and pupils navigate CLIL as well as the flexible language use allowed in CLIL as can be seen in Figure 6 above. The implementation of CLIL in practice is influenced on how participants navigate guidelines provided of it, for example by the Finnish curriculum. Flexible language use in CLIL is approached from various perspectives as it not only describes the benefits of it but also raises important questions about the implementation of CLIL.

# 7.1 Navigating CLIL

## 7.1.1 Where Language and Content Meet

The main findings of this study involve perceived features of CLIL, which arose in the study, that have influence on the implementation of demonstration of learning in bilingual education. According to the present study the teachers agreed that bilingual education enriches learning, but also challenges learners. It was also clear that CLIL requires additional work from both learners and teachers. Learning through an additional language requires additional effort especially for a pupil with deficiency of language proficiency in either Finnish or Swedish. This aligns with Coyle et al. (2010) and Dalton-Puffer (2008) who state that CLIL is demanding and challenging, because of the processes it requires, but also very fruitful as it results in deep understanding. The teachers emphasised that CLIL is not merely translating content into another language but learning both content and language simultaneously. Coyle and Meyer (2021) also confirm that teaching a subject class in a target language alone is not CLIL, because this is only translation. According to both this study and earlier findings, CLIL involves the learning of both content and language. Therefore, it can be concluded that both areas should be required of pupils through demonstration of learning. Yet the question of whether this be of hindrance to how pupils can show their understanding arises.

Both teachers in this study highlighted that in demonstration of learning, the most important thing is to ensure that the pupil has understood the content. The teachers accentuate content learning over language, even in a CLIL context. According to Coyle et al. (2010) CLIL is a dual focused approach and should equally value development of language skills and content knowledge. While it is acknowledged that in CLIL language learning is different than in foreign language learning, it may need to be further discussed if specifically, language is made flexible in order for proper demonstration of content knowledge instead of the other way around.

Content-specific language and the terms linked to it came up often in this study as a place where content and language concretely meet. The teachers strove to work bilingually when introducing new concepts through content-specific language to ensure that pupils understood and made connections beyond language limits. Content-specific terms can be seen as quite demanding and in context of the matrix, judged as high both cognitively and linguistically. Additionally, the low cognitive and high linguistic portion of the matrix is quite empty of tasks. The reason for this may be that CLIL is different compared to foreign language learning as Coyle et al. (2010) mentioned, especially in the case of this study where CLIL is clearly content driven. Perhaps tasks that would fit into this category are those of language classes.

Furthermore, this study brought up multiple differences in the pupil population of CLIL classrooms. These mainly focused on age, background, and language proficiency of pupils. Moate (2017) agrees that the diversity of pupils in CLIL contexts needs to be better considered. As Lehtonen and Räty (2018) found pupils in these classes can often have language skills in many different languages yet be unable to demonstrate their understanding if the requirement to do so is in a certain language which is new to them. Even though cognition can develop in a pupil without the use of the target language, academic achievements may suffer as they are unable to express themselves as Baker and Wright (2021) have also found. Translanguaging and the allowing of flexible language use can support pupils who are still developing their target language skills.

#### 7.1.2 Guidelines and CLIL in Practice

The findings of this study highlight the liberality and space for interpretation of the Finnish curriculum (2014) involving bilingual education according to the teachers. In bilingual education the teaching and assessment are based on the Finnish curriculum, but the teachers experienced the guidelines to how it should be implemented as insufficient. Coyle and Meyer (2021) also point out that there is no specific guideline to practising CLIL. This leads to different schools having different policies according to this study.

The teachers of this study recognised a need for more precise national requirements regarding the implementation of bilingual education. The Finnish curriculum (2014) states that the aim of bilingual education is to gain proficiency in both the Finnish language and target language. The goal is for the learners to be both users and learners of language. However, the way the languages are dispersed into the teaching can be locally decided. In the school of this study the division was 60 percent of the teaching in the target language, English, and 40 percent in the school's teaching language, Finnish. According to the Finnish curriculum, it should also locally be defined which subjects or subject areas are taught in which language and what the main language goals of each subject are. In the case of this school the content subjects were taught through the target language, while artistic and practical subjects were taught in the school's teaching language, the teachers mentioned that they do strive to promote bilingual competency through subject-specific language use in both languages.

While the teachers agreed that pupils should master all their learned content in both Finnish and English, the reality of making sure of this was experienced as challenging. According to the Board of Education (2014) pupils in bilingual education must achieve all goals of the Finnish curriculum in each subject. This study showed that teachers acknowledge that pupils being able to express knowledge through more than one language is especially crucial when considering the options of their future studies. In other words, the Finnish curriculum requires a certain outcome, yet gives freedom of how it should be achieved. Practical ways in which to ensure the development of bilingualism in CLIL classrooms is a concern Moate (2023) also brought up. This issue highlights the responsibility of teachers in the teaching methods they choose and what they require of the pupils in regard to demonstration of learning.

# 7.2 Flexible Language Use in CLIL

Regarding the opportunities given to pupils to demonstrate their learning, the findings of this study underline flexible language use, which can be seen as expanding possibilities for pupils to demonstrate their learning in more than one language. According to the present study, learning methods as well as ways of learning demonstration are more diverse than in monolingual education. This is mostly a benefit of multilingualism in the classroom.

Furthermore, in content-related tasks the pupils' demonstration of learning is seen as more significant than the language they do it according to the teachers. These findings align with the statement of Coyle et. al. (2010) that content can be prioritised in CLIL, leaving more room for flexible language use. Flexible language use also affects assessment as based on this study; language was not distinctly assessed. As Coyle et al. (2010) write, enhancing the communication of content should be the starting point for language assessment which this study supports as the theme regarding the importance of communication of content arose from this study. Additionally, this study's findings highlight the importance of pupils' ability to express their learning, which means that using the target language and/or teaching language is considered appropriate. Thus, it can be concluded that the CLIL classes offer a flexible linguistic demonstration of learning.

Regarding assessment, this study confirms that the key is to decide what is being assessed and when. The teachers stated that they rarely assess both content and language simultaneously. Skinnari and Nikula (2017) also found that teachers perceived language and content knowledge as separate. Therefore, the pupils' mistakes in language when content was being assessed did not affect evaluation. Assessment was found to be a problematic language-related issue deserving further research and discussion. The notion behind the way the teachers assessed according to this present study, was found to be learner-centered as the teacher desired to present the best possible opportunity for the pupil to demonstrate their learning without the content being dependent on the language or vice versa.

As for BICS and CALP, the findings of this study suggest that pupils do use everyday language when they need to explain certain terms or when they cannot remember the appropriate words. This supports the findings of Blown and Bryce (2017), that pupils can be fluent in switching between BICS and CALP to express themselves. However, when the pupils have learned the content specific language, they begin to use it quickly. The pupils' ability to use CALP should be supported as it naturally helps to understand and express the more demanding content.

Based on this study, the teachers see the pupils as skillful language users with the ability to not only switch between different languages to demonstrate learning but also to express their learning in whole ways, for example coming up with new words. Furthermore, according to the fifth-grade teacher, the language the pupils use while interacting with each other changes depending on the language skills of the other pupil. It can be concluded that CLIL brings forward the hidden knowledge in the classroom that the pupils may possess. As both teachers as well as the pupils' photographs confirmed, the flexible language use seems to be a central characteristic of CLIL not only in tasks that are being assessed but also in everyday classroom activities and interaction. Therefore, it can be concluded that in bilingual education the demonstration of learning does not differ drastically from monolingual education but there seems to be more flexibility and support, such as being able to answer exam questions in two languages.

Flexible language use can also be seen as related to translanguaging. As Coyle et al. (2010) note, translanguaging can be a tool for ensuring that pupils understand the key terms in both target language and teaching language by practising vocabulary through both languages, for example. Covering crucial content terms in both languages is what the teachers reported doing. Furthermore, the findings of this study highlight that in CLIL classrooms the materials and teaching regarding that might be implemented through different languages. Additionally, the findings show that especially older pupils are able to recognise content and connect what they have learned through different languages. This can be seen as supporting the idea of Baker (2000) that learning in more than one language requires understanding the content

more thoroughly as the content needs to be fully reconstructed through both languages. To further conclude, the flexible language use and constant switching in CLIL was seen as a central characteristic but the teachers also viewed it as challenging, especially when the topic assessment came up. The notion that the teachers need to produce their own exams in CLIL affects how challenging they view it. Since the exams and all the other materials need to be produced by the teacher, it also raises the question of how this affects the learning demonstration. In this matter the teacher has a great influence on the opportunities provided to pupils to demonstrate their learning. Based on this study it should be further discussed if there is a need for unifying the CLIL teaching in order to ensure the equality of pupil demonstration of learning. This connects to the question if developing national CLIL materials is necessary for learners and teachers around Finland.

Furthermore, the languages that can be used for especially formal demonstration of learning in a CLIL classroom in Finland are usually limited to Finnish or the target language English. While pupils are able to use all of their language resources including their home language for example for learning, unfortunately all their language competence cannot be utilized when demonstrating understanding. This finding raises the question about whether the switching of languages is exclusively a possibility or rather a potential barrier when it comes to pupils with language resources other than the target language and Finnish. Despite the fact that pupils are sometimes able to use their home language besides Finnish or English, this way of acting is not possible in the tasks that are being assessed. Thus, as the fifth-grade teacher pointed out, native Finnish speaking pupils benefit from their home language as it can be used to demonstrate learning and therefore possess a privileged position. This further leads to questions on how CLIL could be more accessible for all.

# 7.3 Limitations of the Present Study and Future Research Ideas

There were naturally some limitations to this study. Firstly, the present study was conducted in one school implementing CLIL in Finland and it included two grades yet did not reach a wider sampling. The perspectives of two CLIL teachers are presented through interviews, but the pupil point of view came through the analysis of the task answers instead of actual interviews, for example. Therefore, the findings of this study focus on depth rather than width and so cannot be generalised. According to Tracy (2010) generalisability, can however, be considered irrelevant to qualitative research. Nonetheless, further studies including additional participants, both teachers and pupils could benefit to providing more perspective on the matter of the demonstration of learning through more than one language.

It should be noted that the topic of CLIL and demonstration of learning overall are complex concepts which also arose from the data. For example, the terms regarding bilingual education and its forms in Finnish and international context varied which highlighted the importance of defining the terms used in this study. Furthermore, at times it was challenging to separate different themes apart from each other as they could be viewed from various perspectives resulting in many different interpretations. Thus, the data describes the overlapping nature of aspects regarding teaching in more than one language and it should be taken into account that the themes arising in this study may not illustrate the demonstration of learning solely but rather represent one way of portraying the pupil demonstration of learning in CLIL.

In the future the implementation of bilingual education in Finland can be further studied from various perspectives. The relationship of the Finnish curriculum and the reality of implementation of bilingual education is an interesting theme as the guidelines are quite loose, but goals quite demanding. Another factor connected to CLIL specifically which could be further examined is the equal position of both language and content. It would be beneficial to discover how both can be assessed in practice without separation. Furthermore, there is a slight dilemma as the pupil centred approach should stay as the focus with the teacher providing flexibility, but at the same time learning should be demanding enough to reach the aims of the Finnish curriculum. To conclude, one of the main questions that arose from this study relates to the accessible pupils' demonstration of learning and how CLIL can answer the needs of a variety of pupils. Covering these topics would be valuable to bilingual education in future research. As the theme of this study is bilingual education, the process of the study has also been bilingual. The data gathered was partially in Finnish and partially in English. The researchers used both languages throughout working on this study. This can be seen as a benefit as it provided more perspective into some matters as well as an authentic experience of dealing with bilingualism. However, the continuous switching between languages was also challenging, as it required additional effort and sometimes resulted in confusion. There are some words and concepts that do not simply translate into another language. The researchers' competence in both languages used supported understanding of both data and earlier research. Yet, expression of ideas in a certain language were sometimes perceived as challenging. It can be concluded that the use of multiple languages in this study has been both beneficial and challenging just as it seems to be in bilingual education for teachers and pupils as well.

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# **APPENDICES**

## Appendix 1. Consent form.

# SUOSTUMUS OSALLISTUA TIETEELLISEEN TUTKIMUKSEEN, JOSSA HENKILÖTIETOJA EI KÄSITELLÄ

How students demonstrate learning in bilingual education (Kuinka oppilaat osoittavat osaamistaan kaksikielisessä opetuksessa)

Olen ymmärtänyt, että tutkimukseen osallistuminen on vapaaehtoista ja voin keskeyttää tai lopettaa osallistumiseni milloin tahansa esimerkiksi ottamalla yhteyttä tutkijoihin. Tutkimuksen keskeyttämisestä ei aiheudu minulle minkäänlaisia kielteisiä seuraamuksia.

Olen saanut sähköpostiini tietosuojailmoituksen, jossa on riittävät tiedot tutkimuksesta ja lapsestani kerättyjen tietojen ja tutkimusaineistojen käsittelystä. Lapsestani ei kerätä henkilötietoja, ei myöskään epäsuoria tunnisteita, joista lapsi voitaisiin tunnistaa.

- Annan suostumuksen tutkimukseen ja olen ymmärtänyt saamani tiedot.
- En anna suostumusta tutkimukseen.

Allekirjoitus

# CONSENT TO PARTICIPATE IN SCIENTIFIC RESEARCH THAT DOES NOT INVOLVE THE PROCESSING OF MY PERSONAL DATA

How students demonstrate learning in bilingual education

I understand that participation in the study is voluntary and that I can stop participating at any time by contacting the researchers. There will be no negative consequences for me if I withdraw from the study.

I have received an information sheet with sufficient information about the study and the processing of the data collected about my child so that no personal data about my child will be collected, including indirect identifiers that could identify my child.

- I give my consent to this study and understand the information I have received.
- I do not give my consent to this study.

Signature

Contact information / Yhteystiedot:

Aliisa Rantanen & Saania Orava

<u>aliisa.m.rantanen@student.jyu.fi</u> <u>saania.m.orava@student.jyu.fi</u>

## Appendix 2. Interview questions for the teachers

- 1. Teacher experience
  - a. What are your experiences of bilingual education?
  - b. How does it differ from monolingual education?
  - c. How can students affect the choice of using different languages in the classroom?
- 2. The current curriculum states that in bilingual education students should achieve the same outcomes as students in mainstream classes.
  - a. What are your thoughts on this?
  - b. Is it fair?
  - c. Is it achievable?
- 3. The roles of different languages
  - a. How do you make sure to have room for both languages?
    - i. Are there language-related aims in both English and Finnish?
  - b. What roles do the languages play in practice?
    - i. Is one language used in certain contexts more often than the other?
- 4. Demonstration of learning
  - a. How do students demonstrate their learning in more than one language?
    - i. How do you know if the students' learned?
    - ii. How do you make sure students' understood the content in both languages?
  - b. What kind of possibilities do you create for students to demonstrate learning?
    - i. Do you offer multiple different ways to demonstrate learning?
    - ii. How often do assessment activities invite or expect students to use more than one language?
- 5. Different ages
  - a. How do you think different aged (2<sup>nd</sup> graders vs 5<sup>th</sup> graders) students demonstrate their learning in more than one language?
  - b. How do you take into consideration the students' age when planning assessment? Have you personally noticed some differences?

Additional questions regarding pupil work (choose accordingly)

# History

- 1. What were the goals and objectives of these works? Test: What does the use of Finnish add to this task?
- 2. What language was used when studying this? What language was the textbook in?
- 3. How do you assess these?
- 4. How much room is there for creativity and flexibility in the students' answers? What kind of expectations for the answers do you have?

# Environmental Science

- What were the goals and objectives of these works? What is the goal of translating terminology? At what point of the learning process is this most beneficial and why?
- 2. What language was used when studying this? What language is the textbook in?
- 3. How do you assess these? How much room is there for creativity and flexibility in the students' answers?

# Maths

- 1. What language was used when studying this?
- 2. What language is the textbook in?
- 3. Is the role of language different here compared to other languages?

# Appendix 3. Translations of excerpts from teacher interviews

The excerpts in this appendix are presented in the order that they appear in the text.

# Excerpt 1:

T1: "Mutta yllissä kun puhutaan Suomesta niin siihen mä oon ottanut yleensä et se on suomeksi. Tai musiikin tunnilla voi olla englanninkielisiä lauluja. Et se ei oo semmonen ehdoton"

"In Environmental Science when we speak of Finland, I've usually decided to use Finnish. Or in a music lesson there can be songs in English. So, it's not like definite." (Teacher 1)

## Excerpt 2:

T2: "Koska se englanti siinä tulee se ylimääräinen twisti vielä sinne johonkin aivoihin"

"Because that English in there adds that extra twist somewhere in the brain." (Teacher 2)

# Excerpt 3:

T2: Mä koen että niinku opettaessa että alkuopetuksen opetus on usein sen verran helppoa niinku sen sisältö on sen verran helppoa että mun on aika helppo demonstroida sitä tai laittaa se kuviin, jotta mä saan kaikki ymmärtämään sen, kun sit taas vitosilla se voi olla niin paljon abstraktimpi se asia. Että jos joku ei ymmärrä sitä englannin kielellä niin sitten pitää itsekin työskennellä enemmän sen kanssa että miten mä selitän tän ilman että mä suoraan käännän.

"I feel that when teaching, the teaching of lower grades in elementary education is often easy enough that its content is easy enough that it is quite easy for me to demonstrate it or put it in pictures, so that I can make everyone understand it, whereas with fifth grade it can be so much more abstract the thing. So if someone doesn't understand it in English, then you yourself have to work more on how to explain it without directly translating." (Teacher 2)

## Excerpt 4:

T2: Siis se on myös ihan hirveän hankala, että mä en voi oikeastaan koskaan tehdä suoraan minkään näköisiä kirjan kokeita. Esimerkiksi ei voi tehdä niin, että mä otan vaikka Pisara-kirjan kokeen ja käännän sen englanniksi, koska mä en voi, mä en voi laittaa niitä lapsia, hän opiskelee niitä Pisara-kirjasta

"So it's also terribly challenging, that I can never actually hold any kind of book exams directly. For example, I can't take a Pisara book test and translate it into English, because I can't, I can't put those children, he studies them from the Pisara book." (Teacher 2)

#### Excerpt 5:

T2: "niin just tää että tääkin on semmoinen asia mitä monesti kun koetta tekee, niin että mietin myös, että kuinka hyvin tämä lapsi osaisikaan tämän asian kertoa sillä äidinkielellään"

"it's just that, this is the same thing that you often do when you make an exam, that I also think how well this child would be able to tell this matter in his mother tongue" (Teacher 2)

#### Excerpt 6:

T1: "Ajatuksella että jos lapsi tästä englanninkielisestä opetuksesta siirtyy suomenkielisille, niin hänen pitäisi osata nää kaikki myös suomeksi--"

"With the idea that if a child from this English-language education transfers to a Finnish one, then they should also know all this in Finnish-" (Teacher 1)

#### Excerpt 7:

T2: "jos todistuksessa lukee että se on englanninkielistä opetusta saanut niin hänen pitää osata silloin keskustella niistä tietyistä käsitteistä (ja) englanniksi,"

"if the graduation certificate says that they have received teaching in English, then they must be able to discuss those certain concepts and in English" (Teacher 2)

## Excerpt 8:

T1: "koska meidän pitää kuitenkin opettajina miettiä, että että jos lapsella ei ole, vaikka yhdeksänteen luokkaan mennessä kunnon suomen kielen taitoa, niin he ei saa päättötodistusta, että, että se pitää ... turvata. Myöskin tässä enkkuluokilla.

"because we, as teachers, have to think that if a child doesn't have good Finnish language skills, say by the ninth grade, then they won't get a graduation certificate, that, that it has to... be secured. Also here in English-language classes." (Teacher 1)

## Excerpt 9:

T2: "sun pitää ihan koko ajan pitää se mielessä että jos sun lapsi ei pääse IBlukioon. Niin mikä on se hänen mahdollisuutensa jatkokoulutukseen?"

"You have to keep in mind all the time that if your child doesn't get into IB high school. Then what are his chances for further education?" (Teacher 2)

#### Excerpt 10:

T1: "--sinne voi vastata että se on .. täysin oikein se vastaus jos se, jos se on nimetty suomeksi. Vaikka mun kysymys oli englanniksi, koska silloin se oppilas on näyttänyt et, että hän osaa tän asian, koska jos puhutaan vaikka nyt yllin testistä niin en mä siellä on yllin testistä testaa englannin kielen osaamista, vaan mä testaan sitä sisältöä siinä, että onko hän ymmärtänyt opiskeluasian."

"there you can answer that it is .. completely correct, that answer, if that, if it is named in Finnish. Even though my question was in English, because then the student has shown that, that they understand the matter, because if we are talking about the Environmental Science test for instance, then I am not testing the knowledge of the English language in the Environmental Science test, but I am testing the content, whether they have understood the study matter." (Teacher 1)

#### Excerpt 11:

T2: "Taas oli esimerkkinä myös siitä jo lapsi, jolla on hyvin vahva, jonka toinen vanhempi puhuu englantia ja toinen vanhempi suomea. Hänellä on hyvin vahva se englanti ja suomi ehkä pikkuisen heikompi. Niin hän taas on, mutta hänellä hän onkin kauheasti kielellisesti lahjakas, niin hän taas esimerkiksi tänään just oli kokeessa keksinyt aivan uuden sanan. Tai siis .. semmoisen, mikä kuvaili ihan järkyttävän hyvin. Mä sanoin, että täähän kuvaa todella hyvin tätä asiaa."

"Again, an example of that, was already a child with VERY strong, whose one parent spoke English and the other parent Finnish. They had VERY strong English and Finnish maybe a little weaker. So he is, but he is terribly gifted with language, so for example today they had just come up with a brand new word in the exam. Or .. something, which was shockingly well described. I said that this describes this issue really well." (Teacher 2)

#### Excerpt 12:

T2: --"sit saattaa olla joku toinen porukka jonka on hankalampi, tai jonkun ihmisen on hankalampi tuoda osaamistaan esille niin sitten se on .. eri."

"there might be another group that has a harder time, or a person has a harder time demonstrating their learning, so then it's .. different" (Teacher 2)

## Excerpt 13:

T2: "silloin oli just tää että niitten kanssa tehtiin tota aika lailla strukturoidusti sillä tavalla että niitä. Ja vitoset sai sitten saman aihepiirin niin he taas sitten heillä oli vähän ehkä enemmän ja olikin enemmän ... valinnanvaraa ja vaihtoehtoja. Koska se ajatus on mulla just se että ykkös-kakkosten kanssa sinne harjoitellaan erilaisia tapoja, jos mä annan niille hirveästi kaikissa aina valinnanvaraa, niin se saattaa olla joku jumittuu johonkin tiettyyn tapaan tehdä

asioita. Kun taas ajatus on, että niillä pitäs olla monipuolisia keinoja semmoisiakin mitä he ei .. ole aikaisemmin osanneet. Viides luokka on nyt, toivottavasti on jo vähän .., semmoinen vähän laajempaa osaamista näistä eri tavoista tehdä asioita."

"at that time it was just that things were done with them pretty much in a structured way that they. And fifth grade then got the same topic, and they on the other hand then they had maybe a little more and there was more.. choices and options. Because I have the idea that there are different strategies that we practise with the first and second graders, if I always give them a lot of choice, then it might be that someone gets stuck in a certain way of doing things. When the idea is that they should have diversified methods, even ones they haven't ... been able to do before. Fifth grade now, hopefully already a little ..., like a little more extensive knowledge of these different ways of doing things" (Teacher 2)

#### Excerpt 14:

T2: "on tottunut siihen, että siellä luokassa on sen verran isoja että aina voi mennä kysymään tuolta isolta. Niin ne valitsee sen kielen millä ne aina neuvoo. Että ne neuvoo, välillä ne puhuu keskenään suomeksi ja välillä ne puhuu keskenään englanniksi -- Et siis kaikkein tämmöistä metatietoa koko ajan täällä lasten kesken--"

"used to the fact that there are enough older pupils in the class that you can always go and ask the older one. So they choose the language in which they always give advice. That they advise, sometimes they speak to each other in Finnish and sometimes they speak to each other in English -- So you do have metadata all the time here among children"