

Faculty of Education

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# May I speak Norwegian? Language choices in two primary and two university classrooms

Kan eg få snakke norsk? Språkval i to klasserom høvesvis i grunnskulen og på universitetet

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### **Abstract**

Norway provides an interesting context for multilingual research. While many studies on first language (L1) use in the second language (L2) classrooms are conducted in settings where teachers are encouraged to use English extensively, teachers in Norway work without such guidelines. How individual teachers make use of the flexibility provided by national curricula is under-researched. Little is known about why, how often and for what purposes teachers in Norwegian schools use first languages when teaching English. The answers have important implications for teacher-training education, curricula developers and, not least, language learners. In general, research on first language use in second language classrooms in Norway is limited. Further, comparison of lower educational levels with higher levels has received very little attention. The overarching question of the study is: What characterizes language choices during English lessons in two elementary and two university classrooms in Norway?

In order to investigate this, the study employs two methods of inquiry: (i) classroom observation using real-time coding and (ii) qualitative teacher interviews.

Findings included L1 versus L2 use, teacher versus student talk and teacher opinions. In line with previous research done in elementary schools, L1 use was extensive. The L1 was used most frequently when giving instructions, teaching grammar and asking questions. During university classes, English was overwhelmingly dominant. While a fair amount of English input was available to students, opportunities for student output may well be an area for improvement. Of the two elementary and two university classes, teacher talk exceeded student talk in three of four. Regarding teacher opinions, the findings of the study suggest that participating teachers had strong opinions about L1 use and basic skills in language teaching. While one teacher supported and practiced monolingual pedagogy, another made use of multilingual resources, although not without a sense of guilt. Both teachers ranked oral and writing skills ahead of reading, numerical and digital skills. Their classroom practices matched their opinions.

#### Abstract in Norwegian

Noreg gjev ein interessant kontekst for fleirspråkleg forsking. Medan mange studiar på bruk av fyrstespråk (L1) i andrespråklege klasserom vert gjennomførte i situasjonar der lærarar vert oppmoda til å bruke engelsk i svært stor grad, arbeidar lærarar i Noreg utan slike retningsliner. Korleis den enkelte lærar nyttar fleksibiliteten den nasjonale læreplanen gjev, er lite forska på. Ein veit lite om kvifor, kor ofte og til kva føremål lærarar i norske skular nyttar fyrstespråk i engelskundervisinga. Svara har viktige konsekvensar for lærarutdanningane, departementa og direktorata som arbeider ut læreplanmåla, og ikkje minst språkelevane og -studentane. Generelt sett er det gjort lite forsking på bruken av fyrstespråk i andrespråklege klasserom. Det er òg via svært lite merksemd til samanlikning mellom nedre og høgre utdanningsnivå. Denne studien kastar ljos over fylgjande problemstilling: Kva karakteriserer elevane sine språkval i engelsktimane ved to grunnskular og to universitet i Noreg?

For å kunne undersøke dette, nyttar studien to tilnærmingsmetodar: (i) Notering av sanntidsobservasjonar i klasserommet og (ii) kvalitative lærarintervju.

Funna inkluderte bruk av L1 versus L2, samtalar mellom elevar og læraren deira, det vil seie lærarane sine ytringar versus elevane og studentane sine ytringar, samt lærarane sine synspunkt. Til liks med det ein såg i tidlegare forsking på grunnskulen, var L1 brukt i svært stor grad. L1 vart nytta i grammatikkundervisinga, til å gje instruksjonar og stille spørsmål. I universitetstimane var bruken av engelsk svært dominant. Medan ganske mykje informasjon er tilgjengeleg for elevar og studentar på engelsk, kan det gjerne vere rom for betring når det gjeld moglegheit for praktisering av kunnskapen dei set inne med. Av dei to grunnskule- og universitetsklassane, snakka lærarane meir engelsk enn elevane i tre av fire funn.

Når det gjeld lærarane sine synspunkt, tyder funna på at lærarane som deltok hadde sterke meiningar om bruken av L1 og grunnleggande ferdigheiter i språkundervising. Medan ein lærar støtta og praktiserte ein monolingvistisk tilnærming, nytta ein annan fleirspråklege kjelder, sjølv om han kjende på skuldkjensle. Begge lærarane rangerte munnlege og skriftlege kunnskapar over tal- og leseferdigheitar, samt digitale ferdigheitar. Klasseromspraksisen samsvarar med synspunkta deira.

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Appendix 5 COPS Classroom Oral Participation Scheme (COPS) categories

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# List of abbreviations

RQ - research question

EFL - English as a foreign language

ELL - English language learning

L1 - first language; mother tongue; native language

L2 – second language

TL - target language

SLA - second language acquisition

TETE – teaching English through English

LK97 – national curriculum in Norway adopted in 1996

LK06 - national curriculum in Norway adopted in 2006

LK20 – national curriculum in Norway adopted in 2020

UDIR - Utdanningsdirektoratet (The Norwegian Directorate for Education and Training)

# 1. Introduction

Norwegians are often exposed to English in their private and professional lives. Between books and magazines, streaming and downloading, music, internet pages, academia and international business, English enjoys a significant role in Norway (Dahl & Vulchanova, 2014, p.28-29). Further, the educational system in Norway requires 10 years of obligatory English, and Norwegian tenth graders show good English proficiency (Williamson, 2016). Norwegians have among the highest English language proficiency in the world (Opdal 2017, p.13). Despite all of this, Norwegians struggle in college and in business (Hellekjær 2007, 2010). Hellekjær's studies on the reading proficiency and oral comprehension of Norwegian university students give reason to be somewhat critical of EFL (English as a foreign language) teaching in Norway (Hellekjær 2009, 2010, 2012). My own experiences as an English-language elementary teacher and university lecturer reflect this impression. Students with a limited experience in speaking English are hesitant to participate orally in class. These studies and experiences support a closer look into what happens in English classrooms in Norway and what may be done to further improve the oral English competence of Norwegians.

The present study attempts to meet three areas thus lacking in the research of oral English teaching. First, the study involves direct observation of classroom language. Research on classroom language has historically focused on quantity of L1 (first language) use. Research about teachers' attitudes and reported use of L1 is plentiful. Purposes of such use have also been studied, although less frequently (Hoff, 2013, p.4). This is true in a Norwegian context. Teachers in various Norwegian studies have self-reported information about how often and when they use Norwegian when teaching English (Drew, 2004; Eikrem, 2012; Krulatz, Neokleous and Henningson, 2016). What is less frequent is direct observation of classroom language. In 2016, Krulatz et al. stated that the lack of interviews and observations were one of the main limitations of research in this area. This is a need that the present study attempts to meet.

Second, the present study is in a Norwegian context. Norway provides an interesting setting for multilingual research for various reasons. As the country becomes increasingly multilingual and

multicultural, it follows that classrooms also become so. Thus, research on the use of first languages in the English classroom in Norway is needed more than before (Neokleous and Ofte, 2020, p.83). Also, while most studies on L1 use in the EFL classroom were conducted in settings where teachers were encouraged to use English extensively, Norwegian teachers work without such suggestions or requirements due to freedom provided in national curricula (Neokleous and Krulatz, 2018, p.20). This is discussed further in section 2.1. Lastly, while research on language acquisition in young learners is increasing, the result of international research is not always transferable between countries. Differences in learning contexts and classroom cultures as well as language distance between L1 and L2 hinder this.

Third, the present study involves research in early learners as well as higher educational levels. Research in Norwegian contexts has not involved the youngest learners (Dahl & Vulchanova, 2014, p.23). In Norway, very few have investigated the use of Norwegian in English classrooms in primary school (Bollerud, 2002; Flemmen, 2006; Eikrem, 2012). Hoff and others call for more research in Norwegian contexts and comparison studies in particular. Comparison of lower educational levels with higher educational levels has received "very little attention from applied linguists" (Hoff, 2013, p.4). This, along with direct observation of classroom language in a Norwegian context helped shape the research focus for this study.

#### 1.1 Research aim

The present study considers both theoretical and practical aspects of language use in the English classroom. The study looks at how English teachers report their own practices, what opinions they have regarding first language use and how these reports relate to observed practices collected in classrooms. Reported practices and opinions were obtained through interviews with two teachers. The findings were compared with quantitative data about the participants' measured language practices collected by real-time coding of classroom language. The research aim of this study is to investigate if and how teachers use and/or allow the use of Norwegian when teaching English.

The overarching research question of the study is as follows:

What characterizes language choices during English lessons in two elementary and two

university classrooms?

To help answer this research question (RQ), four sub-questions have been developed:

RQ1: How much oral English occurs in these classrooms?

RQ2: Who is speaking in these classrooms?

RQ3: When is Norwegian spoken?

RQ4: What teacher-related factors may affect the classroom language?

The methods used to investigate these questions are (i) qualitative teacher interviews and (ii)

classroom observation. The sample includes two interviewed English teachers (one primary and

one university) and three observed teachers (one primary and two university) in Norway. In total

there were two primary and two university classes involved. The study should be viewed as an

in-depth look at the teachers and classes involved, and its findings as specific implications of the

context they appear in.

1.2 Thesis structure

Chapter 2 explains the educational context and theoretical framework this study is based upon.

After a presentation of teachers and students involved, case studies, interviewing, observation,

and coding are presented in Chapter 3. In Chapter 4 and Chapter 5, findings are analyzed and

discussed in light of the theoretical framework. The final chapter, Chapter 6, contains a

conclusion and suggestions for future research. References in the thesis follow and copies of the

material used in the research are available as appendices.

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### 2. Educational context and theoretical framework

Classrooms are learning environments open to manipulation in which teachers set important parameters that directly affect learning (Dahl & Vulchanova, 2014, p.19). In all classrooms, educators make decisions regarding behavior management, content, and teaching methodologies, among others. These decisions are based on multiple factors including curricula (national and local policies), language learning theory (acquisition, monolingual pedagogy, and multilingual pedagogy) and teacher-centered factors (education, self-efficacy, opinions, and student competence). Each of these is presented below. The aim of this chapter is to present both the theory and previous research comprising the theoretical context for the present study. It is divided into five sections: English teaching in Norway (2.1), Input and output in language acquisition (2.2), Monolingual pedagogy (2.3), Multilingual pedagogy (2.4), and Teacher-related factors (2.5).

# 2.1 English teaching in Norway

In Norway, Norwegian is the first language of the majority, one of the official languages, and the language that is used the most in schools. However, English is used increasingly outside of school through gaming, reading, in movies and watching on TV. English is also increasingly important in business and education as more companies and higher education institutions use English as their working language (Hellekjær, Doetjes &Trandem, 2007). Even without an official status English has a well-established place in Norway, and Norwegians demonstrate high proficiency in English (Rindal 2019). Since World War II, English has been the most important foreign language (FL) in Norwegian schools. Its position has steadily become stronger as it is the only compulsory FL and the only FL which Norwegians use with fluency (Dahl & Vulchanova, 2014, p.28). The term English as a foreign language (EFL) has been applied to the teaching of English in Norway, noting that the language is primarily learned in a formal context without native speakers. ESL refers to English as a second language in which English learners with a mother tongue (L1) other than English live in an English-speaking environment. Thus, the present study deems ESL more applicable to the Norwegian context in which considerable exposure to English occurs outside the classroom. Further, in this thesis, the term second

language (L2) refers to any language other than the mother tongue (L1).

Students in Norway begin English in primary school (Grades 1-7) at age 6, followed by lower secondary (Grades 8-10) and upper secondary school (Grades 11-13). Upper secondary school is voluntary, but most Norwegians attend. As of fall 2019, 92% of 16-18 year-olds were registered (Thune, Reisegg & Askheim, 2019). After completing upper secondary school, students can continue their education at a university college or a university. In 2021, 38% of 19-24 year-olds were enrolled at higher education institutions (Statistics Norway, 2022).

The content of compulsory schooling and, in part, higher education is regulated. English is mandatory in Grades 1-11 and an elective in Grades 12, 13 and beyond. There are two sets of regulated guidelines important to the present study: the English subject curriculum within the LK20 national core curriculum, previously LK06, and national guidelines for teacher-training programs in Norway. The English subject curriculum applies to ten compulsory grade levels as well as the compulsory English course in the voluntary upper secondary school (Grade 11) (The Norwegian Directorate for Education and Training, 2020). The national guidelines apply for teacher-training at the university level (National council for teacher education, 2016).

At primary and secondary schools in Norway, English as a school subject includes speaking and writing in English as well as learning about history, culture, and English-speaking literature. Competence aims, i.e. aims which describe the competence which students are expected to attain by the end of particular years in school, state that students are to learn to communicate in English orally and in written form (Rindal, 2019). My own reading of competence aims at both primary and lower secondary revealed a focus on communication and interaction. Particularly in lower primary, the oral skills, speaking and listening, are heavily represented. In the second and fourth grades, 55% and 47% of competence aims involve listening and/or speaking, respectively. Further, students are to draw similarities between languages. Of interest to the present study is whether teachers design classroom settings that help students achieve these aims. Do students have opportunities to listen and speak English as well as compare English and their first language(s)?

Compared to previous curricula, LK20 has stronger multilingual and intercultural aspects. Whereas the previous curriculum (LK06) referred only to comparisons between Norwegian and English, LK20 encourages students to use their entire language portfolios (Ministry of Education and Research, 2013, p.31-32). By language portfolio, I mean the language or languages that a person understands or speaks as well. By the end of second grade, students are to "find words that are common to English and other languages with which the pupil is familiar" and "acquire cultural knowledge through English-language literature for children". Near the other end of compulsory schooling in Norway, 10th graders are to use linguistic similarities and differences between English and other known languages in their own language learning. They are to implement language learning strategies as tools for interaction and communication (Norwegian Directorate for Education and Training, 2020). Nevertheless, some uphold that the Norwegian curriculum could do more to involve students' language repertoires. Indeed, research shows that multilingual resources are used minimally in English instruction (Brevik & Rindal, 2020, p.930). In the case of the teachers observed in the present study, explicit comparisons of languages were not seen in observation nor mentioned by the teachers interviewed.

In higher education, national guidelines apply to teacher education programs. These guidelines are important to the university-level classes observed in this study. National guidelines dictate content for teacher-training programs in Norway. According to its preface, the national guidelines shall provide standards for quality of teacher education and are to be revised in pace with developments in the field (National council for teacher education, 2016). Following the government's decision that four-year primary and lower secondary teacher education programs were to be replaced by five-year master's degree programs from 2017, new guidelines were published. Today, English is an elective subject for teachers in training. Just as at the primary and secondary levels, educators at colleges and universities are guided by defined competence aims. At this level, the guidelines for the English subject explicitly name multilingualism.

Teacher candidates are to have "knowledge of multilingualism as a resource in the classroom" as well as "knowledge of English as a world language and what significance this has for the development of linguistic, communicative and intercultural competence" (National council for

teacher education, 2016, pp.31-35). This focus on multilingualism is relatively new in Norway's teacher education. While previous guidelines mention respect for one's own and other cultures, no specific mention of multilingualism exists (Ministry of Education and Research, 2010, pp.38-42).

Norwegian curricula for compulsory schooling and national guidelines for teacher education contain aims but no strict guidelines about methodology. Little is stated about how teachers are to assist students in achieving these aims. Thus, Norwegian educators have considerable freedom in choosing teaching methodology. In his research on lower secondary teachers in Norway, Georgios Neokleous encountered teachers that appreciated this freedom. They stated such flexibility as necessary to tailor teaching to students' individual needs (Neokleous & Ofte, 2020, p.81). Further, while an earlier curriculum stated that "communication in the classroom shall mainly occur in English" (L97, 1996, p.224, my translation), this does not apply to the current curriculum which contains no specific quantities of English or native languages to be used during instruction. Indeed, the present study found considerable differences in teacher practices and what may be described as a lingering effect of the previous curriculum. Specifically, the primary teacher's practice and opinions varied from what he claimed he was "supposed to do" based on his teacher training. This topic is discussed further in section 2.5.

## 2.2 Input and output in language acquisition

To what degree a student's language portfolio should be used in language teaching remains a debated topic. While some oppose the use of first languages (L1) in foreign language classrooms, others view multilingualism as an important resource for students. Based on my observation of in-service teachers, mentoring of teachers-in-training combined with the experiences of colleagues, I hypothesize that most English teachers in Norway find themselves somewhere between these two standpoints. The debate has developed side-by-side with theoretical developments within language learning. Particularly, the topic came into the limelight starting in the 1960s and 1970s when teachers and researchers began asking separate questions about first language and second language acquisition (SLA). Differences between the two were enlightened

by Corder (1967) and Selinker (1972). They addressed differences in learning native language (L1) and second language (L2) grammar. Referring to L2 grammar as interlanguage, they defined it as a system under development somewhere between an initial and final native-like grammar. Further, both rejected the idea that errors in L2 learning were shortcomings. According to Corder and Selinker, learners are involved in important hypothesis testing when making errors. Far from being shortcomings, errors are necessary and drive acquisition forward (Dahl & Vulchanova, 2014, p.13).

The 1980s brought another development for SLA, with Krashen's Monitor Model theory of SLA, consisting of five main hypotheses (Krashen 1981; Krashen 1985). Two of these greatly affected the further development of SLA: the Input Hypothesis and the Acquisition – Learning hypothesis. According to the Input hypothesis, humans acquire language only by understanding messages provided by others. The level of messages is paramount. Learners progress from their current level (i) to the next stage by comprehending input provided one level above (i + 1). If enough comprehensible input is given, necessary grammar is automatically present, according to Krashen. With regards to speech, the hypothesis views speech as a result, not a cause, of acquisition. Speech competence "emerges" after comprehensible input. Krashen differentiates between simplified speech in natural settings, often provided by a caretaker through communication, and teacher talk in classrooms. While speech with caretakers occurs in the "here-and-now", teachers use pictures and objects to provide context. Teachers use explicit teaching in order for students to "know about" a language. Krashen's Acquisition – Learning hypothesis negates the need for explicit teaching. Provided a welcoming learning environment and input that is comprehensible, subconscious language learning will take place even without targeted explicit teaching. Thus, Krashen's Monitor Model claims that input at the right level is the necessary and sufficient factor for all language acquisition, including SLA (Krashen 1985, p.79-85).

Krashen's theories and heavy focus on input had a strong impact on language classrooms. During the second half of the 20<sup>th</sup> century second language teaching moved away from traditional methods, including grammar translation, to a strong focus on communicative

approaches. Explicit instruction was regarded second place to language classrooms that mimicked natural settings (Lightbown, 2000). However, one challenge that arose was the fact that second language classrooms could only provide a limited amount of target language (TL) input. Naturalistic acquisition in a classroom setting may not be able to present the students with adequate exposure. Also, some research showed that explicit instruction may speed up acquisition (Pienemann, 1984; Pienemann, 1989). Serious questions were raised about Krashen's claim of input as the "necessary and sufficient condition for all language acquisition" (Dahl & Vulchanova, 2014, p.14). Thus, the pendulum of second language acquisition swung from "strictly communicative approaches" based on implicit input to "a stronger focus on instruction" which includes explicit modalities (Dahl & Vulchanova, 2014, p.175).

In line with a focus on explicit language learning, Swain developed the Output Hypothesis. Swain observed that while immersed students gained limited fluency through comprehensible input, grammatical competence was lacking. The missing factor, according to Swain, was comprehensible output. By defining the Output Hypothesis as "the need for a learner to be pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently and appropriately", output can force learners to acquire language (Swain, 1995). In contrast to Krashen, Swain upholds that comprehensive input is necessary but insufficient. Indeed, language production is part of the process of second language learning (Swain, 2005, p.471). Specifically, learners experience and benefit from functions of output. Learners notice gaps in their interlanguage. By attending to these gaps, students move from semantic to syntactic processing. Swain states that comprehension of input is possible without "syntactic analysis of that input" (Swain, 1985, p.249). It is only through what is referred to as pushed output that syntactic processing results in comprehensible output. Another function of output in Swain's Output Hypothesis is hypothesis testing. When a learner produces output in a target language, they present hypotheses regarding semantic and syntactic details. This allows for potential confirmation or negative feedback. In the event of negative feedback, the speaker can change their expression and make another attempt (Pannell, Partsch & Fuller 2017, p. 128; Swain, 1995).

Which language theories an educator identifies with can potentially impact their classroom practice. In brief, if a language teacher agrees with Krashen's assumption that maximum exposure is paramount, classroom activities may be as authentic as possible in order reenact a naturalistic language environment for the target language. Authentic materials such as newspapers, maps, online travel information, etc. can be used as teaching aids. Perhaps most noteworthy to the present study, the target language would dominate classroom talk. Use of students' first languages may be viewed negatively. On the other hand, if a teacher puts more faith in Swain's output hypothesis, she will create opportunities for language production as well as comprehensive input in the classroom. Activities allowing for trial, error, and correction that push students to use the target language may be used. In this case, students' mother tongues may be useful tools in ensuring comprehensible input and encouraging trial and error through comparison with the target language. The next section presents two points on the language of instruction spectrum: monolingual (English only) and multilingual (L1 and English) contexts.

# 2.3 Monolingual pedagogy

Most research on language of instruction has been carried out in contexts in which the monolingual principle is mandated. What characterizes monolingual settings is target language exclusivity, lack of translation, and the prohibition of first languages in the classroom (Krulatz, Neokleous & Henningsen, 2016, p.138). Monolingual classrooms are sometimes referred to as using Teaching English Through English (TETE). Traditionally, language teachers have upheld and practiced that new languages are best taught and learned monolingually, without the use of the students' own first language(s) (Hall & Cook, 2012). This has been true globally as well as in Norway where students and teachers often share the same L1. Given that Norwegian curricula and guidelines do not clearly state details for languages of instruction, teachers could be led to resort to the traditional approach of exclusive use of the TL, English (Neokleous & Ofte, 2020). While such teachers support monolingualism in the English classroom as a fallback, others support it consciously. Some of the reasons are covered here.

One of the main arguments against the use of first languages in language learning is potential overdependence. Time spent using L1 limits opportunities to practice and interact using TL. Given the limited amount of time devoted to English learning in primary schools in Norway (less

than one hour a week for grades 1-4), this reasoning applies to the Norwegian setting. Indeed, in their research on English teachers in Norway, Neokleous and Krulatz found that the majority of the teachers in their study aspire to English-only lessons naming restricted time and necessary input as a major reason especially in lower-primary classes (Neokleous & Krulatz, 2018). The argument is in line with Krashen's assumption that second language learning mirrors first language learning in which maximum exposure is paramount. In fact, research shows very limited TL use in primary classrooms in most countries in the European Union (Eurydice, 2012). Related to concerns of overdependence, a second reason for English-only EFL classrooms is the belief that students are only exposed to English in the classroom. In order to compensate for limited TL outside the classroom, a monolingual setting is established in order to ensure adequate input (Kim & Elder, 2005). However, as presented in section 2.1, this is not the case in Norway today.

Besides a concern about input, two reasons provided by monolingual classroom supporters involve learners' output: negative interference and trigger effect. Proponents are concerned with interference in which items or structures in the L2 are affected due to similarity to or difference with the learner's L1. Studies have shown that most errors made by English as a foreign language (EFL) learners involve L1 interference (Halasa & Al-Manaseer, 2012; Ross, 2000). Input in two languages, they claim, confuses learning with negative transfer that intrudes upon L2 fluency. Also related to output is the assumption that teachers' language choices trigger students. Teachers function as language models encouraging language use similar to their own. According to the assumption, when teachers increase their use of L2, students' use will also increase (Copland & Neokleous, 2011). This is referred to as a trigger effect in which one language user triggers another to use the same language or similar language characteristics. Trigger effect can be traced back to the belief in similarities of first and second language acquisition. When teachers use a language (L1 or L2), students are triggered to use the same language and acquisition occurs (Bae & Kim, 2007). Beyond mere language choice, how students communicate may be affected. Early studies from the mid-1980s revealed teachers and students who viewed L1 use in class as detrimental to L2 learning since learners' overdependence on teachers' L1 assistance may hinder communication (Shinga, 2019, p.81). It should be noted that the studies cited on negative interference and trigger effect are not directly

transferable since aspects of English teaching in these countries varies considerably from that of Norway. The studies are used due to the lack of research on these areas in Norway.

A thus unnamed and important reason for monolingual classrooms involves curricula, regulations, and official language policies. As previously stated, since neither curricula nor guidelines state to what extent English should be used, teachers in Norway have considerable freedom in choosing teaching methods and language of instruction. The Norwegian curriculum context is special since it does not explicitly state requirements for language of instruction yet does call for comparison between English and native languages (Krulatz, Neokleous and Henningsen, 2016, p.142). This is not the case everywhere. In some places teachers refer to L1 use as "smuggling the vernacular" into the classroom (Adendorf, 1993; Probyn, 2009). There are various countries where monolingualism is the official stance and L1 is not sanctioned in teacher training nor accepted as a resource in the English classroom. Example include South Africa (Van der Walt, 2009) and the region South Asia (Singh & Sharma, 2011). Closer to Norway, Johansson did interviews of upper secondary school teachers and students in Sweden. In 2011, the country adopted a new curriculum stating that English classes "should as far as possible be conducted in English". Teacher interviews showed that all five teachers interviewed reported L1 use when giving grammar instructions and in one-to-one situations (Johansson, 2014). Although target language use has not been studied systematically in Norway, some reports show that a relatively large percentage of primary teachers use mainly Norwegian when teaching English (Drew, 2004; Drew, Oostdam & Toorenburg 2007; Eikrem, 2012; Flemmen, 2006).

## 2.4 Multilingual pedagogy

Despite research showing that L1 use in target language learning is "sophisticated language behavior and not plain laziness" (Brevik & Rindal, 2020; Lipski, 2014), many teachers feel guilty for using L1 (Shinga, 2019). This begs the question, "If monolingual teaching is a strong tradition and teachers feel guilty about first language use, why *are* students' first languages used in English teaching?"

International research during recent decades has produced several reasons. Ernesto Macaro (2005) at the University of Oxford reports five areas in which teachers use L1: building interpersonal relationship with learners, giving procedural instructions for an activity, managing students' behavior, translating and checking understanding to speed things up, and teaching grammar explicitly. In addition to these, Sibongile Elizabeth Shinga in South Africa names discussion of cross-cultural issues and explaining errors (Shinga 2019). Further, Blair Bateman in Utah, U.S.A., found that teachers also reported L1 use as necessary when providing individual help to struggling students (Bateman, 2008). Lastly, Mattioli discusses the benefit of comparing languages. When students note differences between languages and deficits in their own English, they have opportunities to develop strategies and adjust their communication (Mattioli, 2004, p.24). The identification of differences and similarities between L1 and English are of particular importance in Norway where comparisons are explicitly stated as competence aims in curricula. (See section 2.1.)

These arguments for multilingual learning match well with research done in Norwegian settings. In 2016, teachers in Norway reported using L1 when giving praise and for everyday conversation, lecturing, giving instructions, and maintaining discipline (Krulatz, Neokleous & Henningsen, 2016). Newer research in Norway reveals additional uses including saving time, assisting low-ability students, asking for clarification, establishing connections between L1 and English, and providing a sense of security and motivation (Neokelous & Ofte, 2020). Norwegian teachers involved in George Neokleous' project named motivation as especially important with struggling students. If we relate this to Krashen's theories as discussed in Section 2.2, we recall the importance of a welcoming learning environment (in combination with comprehensible input) on acquisition. By using first languages, teachers increase student confidence and motivation. One teacher said she wanted to convey that "It should be OK to come to class and not be scared." She aspires to create a classroom in which students feel safe enough to admit when they do not understand (Neokelous & Ofte, 2020).

One additional, and sometimes overlooked, reasoning behind multilingual language teaching is that students favor the use of their first language(s). In a study that surveyed 179 Norwegian students in 9<sup>th</sup> and 10<sup>th</sup> grades, student responses suggested that most students found the use of

Norwegian helpful regardless of whether they said their teachers used Norwegian often, sometimes, or rarely (Brevik & Rindal 2020, p.944). The previously mentioned study by Johannson in Sweden shows that 54% of students preferred a combination of English and Swedish when learning grammar, 13% preferred Swedish and a third of the students preferred English only (Johansson, 2014). Belz goes a step further than student preference. Her research on thirty-one multilingual learners of German links student identity with classroom language. Denial of L1 use also denies part of identity thus demeaning L1 in comparison to the target language (Belz, 2003). This is mirrored by the strong characterization of L1 use in the educational process as "a fundamental linguistic human right of minority language groups" (Skutnabb-Kangas & Phillipson, 2017, p.21). As Norway becomes progressively more diverse and multilingual, the important link between language and identity is being acknowledged. In their book *Enacting Multilingualism: From research to teaching practice in the English classroom* Krulatz, Dahl and Flognfeldt (2019) explain why and how English teachers can "create inclusive learning environments that draw on children's home languages as an important resource".

In summary, while monolingual language teaching has its traditions and supporters in various countries, newer replicated research shows strong arguments for the incorporation of first languages in English classrooms. There are multiple facets to pedagogic decisions surrounding languages of instruction. Regardless, language decisions should be based on solid research showing optimal learning as opposed to tradition, feelings of guilt, or nonchalant chance. This study aims to add to such a body of research.

## 2.5 Teacher-related factors that affect language of instruction

In all classrooms, educators make decisions regarding behavior management, content, teaching methodologies, among other topics. These decisions are partially based on elements out of the teacher's control such as governing curricula and school policy. However, many decisions are directly teacher-related. Since some research has shown that second language classrooms typically contain a high degree of teacher control (Fröhlich, Spada, & Allen, 1985), it is worth

considering how teacher-related factors may affect language of instruction. Research has investigated how classroom language of instruction is affected by various teacher-related factors. The topics covered here include formal education, self-efficacy, opinions about language learning, opinions about L1 use, and perceived student competence.

Research shows that pedagogy as taught in teacher training stays with teachers. The way teachers are trained and educated affects what opinions they have about first language use and language learning in general. According to Gyl Mattiolo's research, teachers bring these opinions into the classroom where they affect practices (Mattioli, 2004, p.21). One aspect of this carryover is the fact that teachers experience negative feelings when using L1 in English teaching. Switching between the use of first language and target language is standard practice in EFL classrooms where students and teachers share L1 (Macaro 2005). At times this results in guilt in language teachers since it goes against their traditional education in which monolingualism is stressed. Even in Norway, where teachers have considerable freedom to choose language of instruction, Krulatz et al. (2016) found that teachers reported feelings of guilt for using Norwegian in English lessons even when the same teachers perceived such use as favorable. Indeed, most bilingual teachers feel that the target language should dominate classroom interaction. In a review of studies of teacher beliefs, Macaro reports teachers' description of the use of L1 as unfortunate, regrettable, and a recourse (Macaro, 2005).

Another factor that has been hypothesized to affect classroom language is formal education. However, the lengths of teachers' formal education and teaching experience do not appear to correlate with their use of target language during instruction. Some research shows that no correlation was found between the amount of TL used and teachers' expertise in- and experience teaching the TL (Krulatz, Neokleous & Henningsen, 2016, p.137; Kjøstvedt, 2020). At the same time, how confident a teacher is in the target language may make teachers reluctant to instruct in the language itself (Bateman 2008). Self-efficacy in teachers can be defined as the "conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p. 627). Since positive experiences increase self-efficacy, use of English outside the classroom may also affect use when teaching. It is the hypothesis of the present study that educators who use English socially and/or for personal use are most likely

more confident in the language and are more likely to use oral English when teaching. Specific research on self-efficacy and English teaching shows that attitudes of English teachers were found to differ between specific curricula components. It has been shown that teachers may purposefully choose components for which they feel greater efficacy, while neglecting areas in which they feel less confident (Hansen, 2006).

Besides teachers' attitudes about themselves, their ideological beliefs may also affect L1 use in the classroom. A teacher's opinions might affect their classroom practices. Opinions are included in what Tveiten describes as teacher cognition. Teacher cognition can be defined as a "complex network of knowledge, beliefs, thoughts, and ideas that serves as the foundation of teachers' strategies and practices" (Tveiten, 2019, p.5). Hall and Walsh point out this connection when referring to the "inseparable link between actions and beliefs" (Hall and Walsh, 2002, p.197). Some research has shown that teachers' beliefs and attitudes influence decisions about L1 in language classrooms, resulting in teaching grammar in L1 (Liu, Ahn, Baek & Han, 2004). Which language theories an educator identifies with can potentially impact their classroom practice. In brief, if a language teacher agrees with Krashen's assumption that maximum exposure is paramount, the target language will dominate classroom talk. Likewise, students' first languages may be discouraged. On the other hand, if she prefers Swain's output hypothesis, the teacher will push students to use the target language, and mother tongues, including when used by the teacher, may be useful. Teachers' own language usage should not be underestimated. In a recent study of five classrooms in Norway, students report the teacher's language use as the most important influence on their own language use (Årvik, 2021, p.12).

The last factor possibly affecting language of instruction that I will cover is perceived student competence. Research done in Norway involving over 200 surveys of lower secondary teachers indicates that teachers' perception of pupil comprehension plays an essential role in their language choices. Specifically, teachers with four or more poor English students in their class reported significantly higher Norwegian usage than those who had three or fewer (Kjøstvedt, 2020). When giving explanations for how often and when they use first languages in English teaching, teachers often mention specific functions. Examples include giving instructions, grammar teaching, translation, and classroom management, etc. (See section 2.4.) The classroom

situations where teachers use Norwegian more extensively are when explaining grammar, providing practical information, and correcting pupil behavior (Kjøstvedt, 2020). However, differences do exist between individual teachers. Grim suggests these differences in teachers' language choice could be based on perceived student cognitive levels. The word "perceived" is of importance since a direct relationship between actual student competencies and L1 use has not been established. Grim's study with French upper secondary and college teachers shows no direct correlation between students' proficiency levels and quantity of L1 use (Grim, 2010, p.206).

### 2.6 Concluding remarks

The aim of the chapter was to introduce and discuss the theoretical background of the research, namely, factors involved in English teaching in Norway. The chapter began by discussing curricula and tradition of language teaching in Norway. It then covered topics within second language acquisition including input, output, monolingual classrooms, and multilingual pedagogy. Finally, the chapter discussed in detail several teacher-related factors that may affect language of instruction in the English classroom. All topics presented here, and the related findings presented in Chapter 4 have direct implications for ESL classroom practices. These are discussed in chapters 5 and 6.

# 3. Methodology and Material

This chapter details the methodology and primary material used for the present study: case studies including classroom observation of four student groups and individual semi-structured interviews with two teachers. First, participants in the study are presented in detail in section 3.1. Case studies, interview, and observation are discussed in sections 3.2, 3.3, and 3.4. Concepts of methodological importance, the unit of speech and the coding scheme, are defined and explained within section 3.4. Lastly, ethical and study design considerations appear in section 3.5.

#### 3.1 Participants

Due to the structure of the Norwegian education system and my motivation for this study, I chose participants at the two ends of the Norwegian education system. This section describes my reasons for these choices. First, Norway's national curriculum in place at the time of data collection (LK06) lists specific competence aims in the English subject to be achieved by the end of 4th grade and then again by the end of 7th grade (Ministry of Education and Research, 2013). Clearly stated, students should work towards achieving certain aims progressively through 1st-4th and 5th-7th grades. At end of 4th grade, students should achieve 15 different competences. Of these, 6 deal specifically with the oral skills of speaking and listening. Of 16 competence aims at the end of 7th grade, 9 involve oral skills. Due to considerable expectations of young students' oral skills, I chose to investigate oral participation and teachers' perceptions with the youngest students possible. However, I did not choose first and second graders for two main reasons. First, English instruction in the first and second grades often occurs in short sessions each week. It is common that students have English for approximately 10 minutes at the start of each school day. Thus, observation of first and second grade classes would be time consuming and may not give a good picture of oral English participation. Second, competence aims in the LK06 apply after completion of year 4. There are no competence aims specific to first, second, or third graders (Ministry of Education and Research, 2013). Note that the LK06 was in place at the time of data collection for the present study. As presented in section 2.1, a revised curriculum took effect August 1st, 2021.

Oral communication skills are also emphasized at the university level. Just as the national curriculum lists specific competence aims in the English subject for elementary students, national guidelines control the learning aims for in-training teachers taking English at the university level (National council for teacher education, 2016). According to the guidelines, teachers themselves must master and share their oral communication skills to be a model and guide learning.

# 3.1.1 Elementary and university ends of the Norwegian school system

There are several benefits to observing elementary and university students. It gave me a chance to test coding observation schemes in different environments. Results show that using this type of observation scheme and interviews for both age groups gave interesting insight into various factors related to oral participation in the classroom.

By choosing participants from the two ends of the Norwegian education system, I was able to collect and compare of two very different groups of data. It also allowed me to consider differences and similarities along this range. However, while collecting data at two different levels within the education system of Norway gives an interesting contrast, it also presents considerations regarding study design. In reality, older students have had years, even decades of opportunities to practice oral English. Also important to keep in mind is that English instruction is obligatory for elementary students while university students choose English. Students at the university level may be more participatory due to interest or, at least, knowledge of the benefit of English in future careers. Further, university educators are often older and more educated than their elementary and secondary school counterparts. Students and educators at the university level have more formal education and are possibly more confident with the English subject. One should take these points into account when considering the findings of the present study.

Specifically, I observed a total of three teachers in Western Norway (one elementary and two university teachers). Both university teachers were former colleagues. Two teachers were

interviewed after observation: one elementary teacher and one university teacher. The teachers' respective first languages were French and Norwegian. Although the elementary teacher was unknown to me before data collection, I had previously worked at the elementary school with the students observed. The elementary teacher's L1 was Norwegian. I recognize that these three teachers compile a convenience sample and may not be representative of teacher population nor was it intended to be so.

The four classrooms observed included two elementary classes and two university classes. For elementary data collection, the first class observed was a combined 3<sup>rd</sup> and 4<sup>th</sup> grade class with a total of six students. Two students were in fourth grade. Four students were in third grade. Within the combined third and fourth grade class, all students but two had Norwegian as their L1. The other elementary class was a combined fifth to seventh grade group with a total of seven students. Two students were in fifth grade. Three students were in sixth grade. The remaining two students were in seventh grade. In this class, while six students had Norwegian as their first language, one student came from a bilingual English-Norwegian home. In total, the 3<sup>rd</sup>-4<sup>th</sup> grade class had 3.5 hours of English instruction per week while the 5<sup>th</sup>-7<sup>th</sup> grade class had 6 hours of English instruction each week.

Two university classrooms were observed. The first university class had ten students with an average age of 21. Within the class, three students did not have Norwegian as their L1. These included Swedish, Korean and Canadian English. The second university class included twenty students with an average age of 22. In this class, all students had Norwegian as their L1. The teacher's L1 was also Norwegian. The first class met with the teacher for 8 hours a week. The other group had class with the second teacher 3 hours weekly.

#### 3.1.2 Combined and small classes

Another study design aspect that is worth mentioning is combined classes at the elementary level. Both the 3<sup>rd</sup>-4<sup>th</sup> graders and the 5<sup>th</sup>-7<sup>th</sup> graders were in combined classes with students of differing ages and maturity levels. While one could imagine that younger students in these groups may be encouraged to strive upwards to match the skills of students above them, it could just as likely be true that the younger students were hesitant to speak English in the presence of the older students. There typically exists, after all, a hierarchy of sorts at schools in which older students find themselves holding power over the younger. Older students might speak more in general and have higher levels of English competence. Thus, the 3<sup>rd</sup> and 5<sup>th</sup> graders willingness and/or capabilities to participate orally in the classroom may be shadowed by older students in the combined classes.

Not only were classes combined, but they were also small. Due to the small class sizes, recording AS-units of varying types and, in some cases contexts, occurred without major problems after some initial practice. Had class size been larger, recording all AS-units in real-time could have been challenging. The average class size for students in 1<sup>st</sup>-4<sup>th</sup> grade in Norway was 14.0 in 2019-2020. For 5<sup>th</sup>-7<sup>th</sup> graders the average class size in Norway was 16.6 (Norwegian Directorate for Education and Training, 2019). The observed classes were much smaller than these averages. Future research will reveal how the observation scheme performs with larger classes. Perhaps efficient piloting will suffice, or larger specific changes will be necessary. Coding and collecting data in real-time eliminate the need to transcribe after observations. However, it is dependent on reliable data collection techniques.

The remainder of this chapter addresses case study, interviews, and observation as methods useful in second language research. Specifics about the present study's measurable speech unit, coding schemes and interview guides are also presented.

#### 3.2 Case studies

Case studies have been widely used in language research in educational settings. Case studies can involve individuals, classes, teachers, or schools and can be particularly useful in research about SLA. Over several decades, according to Ernest Maraco, SLA researchers have often focused on theories and taken a broad horizon approach. Maraco upholds that this focus has neglected classroom-based learning, favored "laboratory-type settings", and prioritized theories over classrooms. He declares that the broad research approach has been to the detriment of practical pedagogical help to teachers (Maraco, 2008, p.21). Other researchers agree. According to Johnson, "too often, because of the nature of correlational, survey and experimental research, and their privileged status in L2 research, very little is learned about individual language learners, teachers, or classes" (Johnson, 1993, p.7). It is this characteristic that serves as an advantage of case studies. They explore the behaviors, attitudes, and details about at individual, group, and organizational levels. An additional advantage is that two case studies can be conducted with two learners or groups for the purposes of comparison and contrast in context. Indeed, the details provided by case studies "have the potential for rich contextualization that can shed light on the complexities of the second language learning process" (Mackey & Gass, 2016, p.224). Since the present study involves English classrooms with complex verbal interactions, as well as comparisons between classes and teachers, I chose to make use of case studies.

## 3.3 Interview

According to Woodside, one objective of an interview in case study research is "learning the thinking, feeling, and doing processes of the informants, including an understanding of the informants' worldviews of the topic under study in their own language" (Woodside, 2010, p.263). To learn from informants, researchers make important methodological choices. One choice is the type of interview, including structured, semi-structured and unstructured. While structured interviews employ a rigid set of questions to be asked in identical order to all participants, semi-structured interviews use a list of questions as a guide but allow the interviewer freedom to digress and ask follow-up questions. Unstructured interviews involve no lists of questions but are designed to allow individual participants to express themselves in their own manner and tempo (Mackey & Gass, 2008, p.225). Due to my desire to find out specific

answers to some questions and teachers' thoughts on other topics, I chose semi-structured interviews. This allowed teachers to expand on their answers which provided nuanced information and allowed for follow-up questions.

# 3.3.1 Interview guides

Using this study's research questions as a starting point, I created an interview guide. Specifically, the semi-structured interview guide helped to answer RQ3: When is Norwegian spoken? The interviews contained two distinct parts. First, a shorter pre-observation guide was used directly before observing classes. The second, longer, post-observation guide was used immediately after observation. For this study, I interviewed two teachers. (See section 3.1.) Each pre-observation interview took about 10 minutes. Each post-observation interview took approximately 45 minutes. The pre-observation interview contained 6 questions for the teacher. All questions asked about details regarding the students. (See Appendix 1.)

The information gained in the pre-observation interview assisted me in several ways. By knowing how many students were in the classes and something about their placement in the classroom, I was able to quickly draw a seating chart which was used while coding. Further, by being aware that some students had first languages other than Norwegian, I was better prepared to code languages used by students during observation. Lastly, I confirmed that all students or parents voluntarily agreed to participate. Also included in the pre-interview was a short greeting, a general presentation of the observation procedure details (non-involvement of observer and that coding sheets would be used), a discussion of what information would be provided to students at the beginning of observation and an explanation of the aim of the observation as data collection as opposed to evaluation.

Post-observation interviews were done directly after class observations. Post-observation interviews contained 20 questions divided into the following eight categories:

#### A. About the class session

- B. The teacher's teaching background and English competence
- C. Language of instruction
- D. Teaching materials
- E. Opinions about the age of acquisition for language learning
- F. Opinions about five basic skills in English learning
- G. Teachers' opinions of their own competence
- H. Teachers' opinions of their own teaching

It is worth noting that I created the interview guide using inspiration from two main sources: Ion Drew et al. (2007), and Eriksen's Namibia thesis (2009). (See Appendix 2 for the full post-interview guide.) Decisions about which specific questions to include in the post-interview are described below.

All interviews started with two questions about the observed class session. I wanted to find out whether the observed class session was significantly different than typical classroom sessions with these students. If the teachers thought my presence in the classroom significantly affected classroom activities, this should be considered when analyzing and summarizing results. Second, I asked if there were students missing and if any of those had first languages other than Norwegian. If multiple students were missing the observed session would not have been representative of a typical session.

The remaining interview questions can be divided into two categories: teacher background and teacher opinions. All questions within the background category were about factors that may affect classroom language. These questions asked about five areas: formal teaching competence, formal English subject area competence, perceived teaching competence, perceived English subject area competence, and personal use of English outside the classroom. I wanted to know if levels of formal or perceived competence and personal usage of English affected the language of instruction. In the case of a teacher with high formal competences, high perceived confidences,

and high use of English outside the classroom, I would assume a larger amount of English classroom language than with a teacher with low competences and seldom personal English use.

The other category of questions included in the post-interview was opinions. Teachers were asked their opinions on two topics: language of instruction in English classes and the basic skills as defined by Norway's national curriculum. Just as with background questions, teachers' opinions about these topics may affect classroom language.

Norway's curricula, both LK06 and LK20, define five skills as necessary for all learning: reading, writing, numeracy, oral skills (listening and speaking), and digital skills (Ministry of Education and Research, 2017; Norwegian Directorate for Education and Training, 2020). Teachers were asked which of these skills they deemed most important and how they thought the skills were distributed in their own teaching. By observing teachers and asking the same teachers their opinions, I wanted to see if these teachers' practices reflected their opinions.

#### 3.4 Observation

The present study design includes classroom observation. This section will present observation as a research method and coding as an example of a systematic data collection tool.

Observation often involves the researcher immersing himself or herself in a setting to observe and record characteristics. These can include interactions, relationships, actions, and events within a setting (Mackey & Gass, 2016). Most often, the researcher attempts to avoid influencing the observed setting and occurrences. Just as with interviews, presented in section 3.3, observation types range from highly structured to unstructured. In language research, the use of various tools in classroom observation is common. These tools may include field notes, audio or visual recordings, transcripts of recordings, rating scales, and checklists, among others. The main advantage of observation as a research method is the ability to collect large amounts of data, often behavior or actions, within a specific setting (Mackey & Gass, 2016, p.227). This is what I

observed in classrooms. I had a front row seat for simultaneous observation of multiple variables in a true setting.

Two disadvantages to observation are worth mentioning. First, research data and results may be affected by the presence of an observer in the classroom. Even when observers do their best to be unobtrusive by carefully considering equipment needs, their placement in the classroom, and other issues, there exists a real possibility of influencing classroom behavior (Mackey & Gass, 2016, p.240). Second, motivating factors that lay behind observed behaviors are often not evident. While researchers observe "what" happens, they cannot define "why" using observations alone. More often than not, observation is combined with other research methods (Mackey & Gass, 2016, p.228). To research issues from several differing perspectives, it is not uncommon to combine more than one research method. The present study uses methodological triangulation combining tools used in classroom observation with teacher interviews.

One tool used during observation in the present study is coding. In order to analyze data from observation, it is necessary that they are in an understandable and measurable form that allows for categorization. Given the wide variety of data that may be collected for second language studies, this is no small task. Orwin's comment is fitting: "Coding represents an attempt to reduce a complex, messy, context-laden and quantification resistant reality to a matrix of numbers" (Mackey & Gass 2008, p. 221). Specific to oral and written data are several commonly used coding systems and coding units. For clarification, coding systems are sometimes referred to as sheets, schemes, techniques, and so on. A few examples are Codes for the Human Analysis of Transcripts (CHAT) (MacWhinney, 1991), the Communicative Orientation of Language Teaching (COLT) (Spada & Frohlich, 1995), and the Classroom Oral Participation Scheme (COPS) (King, 2011). While Macey & Gass list fourteen coding units and various systems used in language research, they also describe the use of preexisting coding systems as the exception rather than the rule. Most often, existing systems are refined, or new systems are created to best investigate particular research questions (2015, p.127).

An advantage of existing systems based on standard measures is increased generalizability since the systems are used by several researchers. One useful source for second language researchers seeking established data coding systems is the Instruments for Research into Second Languages (IRIS¹) database. IRIS is a free, searchable, up- and downloadable collection of instruments, materials and stimuli that are used to elicit data for research into second and foreign languages.1 It contains a total of 7347 files (Marsden, Mackey and Plonsky, 2016). The coding scheme used in the present study, the Classroom Oral Participation Scheme (COPS) is included in the database.

#### 3.4.1 Measurable speech unit

To perform quantitative analysis on speech data, it is necessary to define an appropriate unit of measure. According to Jan Hulstijn in Experimental Methods in Language Acquisition Research (2010), neither utterances nor sentences serve well as units of speech segmentation in oral data. As a notion, utterance is difficult to define. Further, sentences speech units are not useful since spontaneous speech, unlike most written speech, does not only consist of full sentences. Further, spoken language does not come with punctuation, such that where a sentence starts and stops would be a matter of the researcher's interpretation. (p.194). Thus, researchers have experimented with various ways to analyze language. Most common is dividing speech based on turns, phonemes (P-units) or smallest possible word groups (T-units). However, their usefulness with oral data analysis is disputed. Crooke upholds, "An utterance can usually be rendered as one or more T-units (though it may contain none). But it is a little strange to reduce a unit of oral language to one defined (or conceived) in terms of written language." (Crookes, 1990, p.189). Further, Foster, Tonkyn, & Wigglesworth (2000) and Tonkyn (1996) state that oral speech has additional characteristics that demonstrate the need for an analysis unit other than these speech units. Speech characteristics like intonation and pause are features which are not taken into account in when analyzing P-units or T-units. Further, in typical T-unit analysis, incomplete

<sup>1</sup> https://www.iris-database.org/

clauses such as "Yes" or "What?" are excluded from analysis (Hunt, 1970, p.4).

Foster et al. (2000) present an alternative measurable speech unit: AS-units. They provide several reasons for their choice above other more established units, though it is beyond the scope of this thesis to present all of them. The reasons most applicable to the study are the inclusion of sub-clausal units, false starts, repetitions, and self-corrections (Foster et al., 2000, pp.362-363). All of these are common in speech and important to the present study which involved the coding of all oral activity during classroom observation. Specifically, Foster et al. (2000) define the AS-unit as "a single speaker's utterance consisting of an independent clause, or a sub-clausal unit, together with any subordinate clause(s) associated with either" (p.365). Specifically, an independent clause will, at the least, contain a finite verb. Sub-clausal units will consist of either one or more phrases. Subordinate clauses "will consist minimally of a finite or non-finite verb element plus at least one other clause element (subject, object, complement or adverbial)" (p.366). Also included in AS-units are what Quirk, Greenbaum, Leech and Svartvik (1985) refer to as minor utterances sub-divided as "irregular sentences" or "nonsentences".

My data collection and analysis of oral language was based on segmentation of speech units. After Foster et al. (2000), the data collected in the present study was coded into AS-units that contained independent clauses, subordinate clauses, and sub-clausal units. For the purposes of my data analysis, which focused on total AS-units and not language complexity, no differentiation was made between the three. For the same reason, when identifying and coding AS-units neither grammaticality nor appropriateness were noted. According to the analysis criteria defined by Foster et al. (2000), I used the first level of analysis, *Level One*, which is to be used for a full analysis of all the data. No exclusions of one-word utterances, elliptical AS-units, or substitution AS-units, greetings, or closings were made.

The full data set was analyzed. Below is an example of a short speaking interaction, showing a sequence of three AS-units. The first speaker is designated with a capitalized letter A. The second speaker is designated with a capitalized letter B.

(1)

A: For me it's ten

B: Ten?

A: Ten years

(Foster et al., 2000, p. 370)

Despite the simplicity of the above example, interactive spoken discourse, as is often found in classrooms, can be complex. False starts, repetitions, self-corrections, and interruptions are all frequent in highly interactive spoken discourse, and they may complicate speech analysis. Therefore, it is important to designate and consistently use analysis practices. This includes the defining of variables and analysis guidelines. (See Appendix 3.) Segmenting guidelines are provided for: main clauses, independent sub-clausal units, subordinate clausal units, false starts, repetitions, self-corrections, interruptions, phrases used as tags and questions used as tags.

#### 3.4.2 Observation scheme

A tool was necessary to quantify data in order to answer my first three research questions. RQ1 was "How much oral English occurs in these classrooms?", RQ2: "Who is speaking in these classrooms?", and RQ3: When is Norwegian spoken? As a starting point, I used the Classroom Oral Participation Scheme (COPS) developed by Jim King (2011) during observation. COPS was originally designed with a focus on silence in university second language classrooms in Japan. The coding scheme allows minute-by-minute recording of oral participation including initiated and responded speech of both teachers and students at the whole-class, small group, and individual levels. Each coding segment lasts one minute and only one code is noted for each of one-minute segment, even when multiple codes might apply. Multiple codes may often be applicable since multiple events may occur during a minute. (See Appendix 5 for an explanation of codes.) When choosing only one code per minute, "the skill deemed to be the most significant and which takes up the majority of the segment is the one noted on the observation scheme" (King, 2011, p. 332). (See Diagram 1 for a blank COPS scheme.)

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Teacher							Year									Date + time																
Oral participation				S1 name									S2 name									1	S3 1									
					0					Sex ID note							Sex ID note								Sex							
Minute	(initiated)	(response)	(initiated)	S (response)	Ss pair/grp single	Ss pair/grp multi	ıral	Off-task melee	Silence	Talk Resp		Talk pair/grp	Talk choral	aloud	silent ;	ing	Listening T	istening S/Ss	istening audio	Off task	Talk Resp		Talk pair/grp		Reading aloud	Reading silent	Writing	Listening T	Listening S/Ss	Listening audio		Talk Resp
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Diagram 1: Classroom Oral Participation Scheme (COPS) developed by Jim King

The coding scheme shown in Diagram 1 is designed for real-time during classroom observations. Demographic information about the observed class and teacher are recorded at the top of the scheme. Below this are four main sections: *Oral participation, S1 name, S2 name, and S3 name*. The oral participation section concerns oral interaction within an entire class. The other sections focus on talk, reading, writing, and listening activities of individual students. The column at the far left, labeled *Minute*, contains numbers indicating a total of 60 one-minute segments. Before observations start, the observer selects three students for closer attention. During observation, the observer uses ticks to record the skill which takes up the majority of the previous one-minute segment within the entire class and the three individuals.

The original version of the COPS observation scheme contained sections not applicable to the present study. Specifically, the sections for recording three specific students (*S1 name*, *S2 name*, and *S3 name*) were not necessary for my data collection since I recorded oral exchanges involving the entire class or exchanges between two persons audible to the entire class. Neither did I use the *Silence* column. The aims of the present study differ from that of Jim King during his observations. Thus, the coding scheme was changed in order to collect data related to the RQs of this study. This included new categories, codes for languages, speakers and contexts, and a section for notes. In addition, each observation lasts 45 minutes, not 60 minute as the COPS designates. (See Appendix 4 for a detailed explanation of the progressive revision of the coding scheme.)

I acknowledge that coding and note taking in real-time proposes challenges. No matter how thorough I attempted real-time coding, without audio recordings to transcribe and multiple researchers trained in the coding scheme, the possibility of coding mistakes exists. Future research will be improved by sufficient piloting to ensure inter-rater reliability as well as validity of the coding scheme.

#### 3.5 Ethics

Study participants included teachers and students at the elementary and university levels. Parents of elementary students were informed by the students' English teacher digitally. They were made aware of upcoming voluntary classrooms observations and that no recording or direct contact with the researcher would take place. If they did not want their child to be present under observation, parents could inform the teacher. No parents chose to do so. University students were told of upcoming voluntary observations in class by their teachers. They were made aware that the researcher would be non-participatory and that no recordings would be taken.

Due to characteristics of the study design, that no audio or visual recording was taken and no written or spoken questioning of students occurred, only anonymous data was collected. The results were treated in such a way that no participant could be identified. Teachers are

consistently referred to as "teacher" and the individual students as "S1, S2, S3" etc. The schools, the teachers and all the students have been anonymized.

4. FINDINGS

This chapter presents the findings of the investigation of oral participation through observation

and interviews in elementary-level and university-level classrooms. Findings are presented in

relation to research questions. In each case, findings from elementary classrooms are presented

before findings from university classrooms. Likewise, data collected through observation is

presented first and information from interviews is presented second. For clarification purposes,

the teachers observed are referred to as T1, T2 and T3. The two teachers interviewed were T1

(elementary) and T3 (university). Both teachers interviewed reported that their students did not

seem overtly affected by my presence. Neither teacher reported any student absences on the days

of observation.

As presented in Chapter 1, the overarching research question of the study is as follows:

What characterizes language choices during English lessons in two elementary and two

university classrooms?

To help answer this research question, four sub-questions were posed:

RQ1: How much oral English occurs in these classrooms?

RQ2: Who is speaking in these classrooms?

RQ3: When is Norwegian spoken?

RQ4: What teacher-related factors may affect the classroom language?

4.1 Findings related to RQ1: How much oral English occurs in these classrooms?

Diagram 2 shows the percentage of English and Norwegian spoken by T1 and students in 3-4<sup>th</sup>

grade combined and 5-7th grade combined classes (two classes total).

33

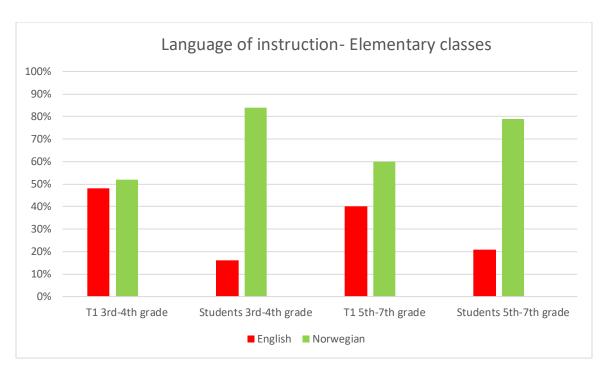


Diagram 2: Languages used in teacher talk and student talk in elementary classrooms.

In the 3-4<sup>th</sup> grade combined class, T1 spoke English 48% of the time and Norwegian 52%. Students in the same class spoke English and Norwegian respectively 16% and 84% of the time. In the 5-7<sup>th</sup> grade combined class, T1 spoke English 40% of the time and Norwegian 60%. Students in the same class spoke English and Norwegian respectively 21% and 79% of the time. The same male teacher taught both classes. It is interesting to note that he spoke 8% more English with the younger class. This is despite his opinions about the importance of speaking increasingly more English with students as they age. This is addressed further in Chapter 5.

The first research question can also be answered for the university classes. Diagram 3 shows the percentage of English and Norwegian spoken by teachers and students in two university-level classes.

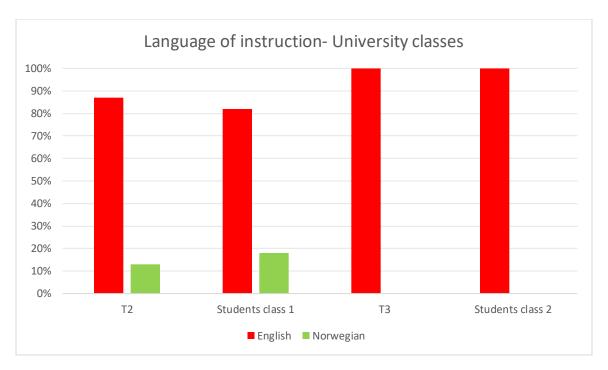


Diagram 3: Languages used in teacher talk and student talk in two university classrooms.

In class 1, the teacher (T2) spoke English 87% of the time and Norwegian 13%. Students in the same class spoke English and Norwegian 82% and 18% of the time respectively. In the other university class, class 2, the teacher (T3) spoke only English. At the beginning of each semester, T3 has a routine of explaining his expectations for solely English interactions both in and outside of the classroom. The results show that his students upheld his request. Students in his class spoke English the entire time.

### 4.2 Findings related to RQ2: Who is speaking in these classrooms?

#### 4.2.1 Classroom talk: teachers versus students

It is of interest to compare the total number of AS-units produced by teachers and students. Diagram 4 shows teacher and student AS-units produced in the 3-4<sup>th</sup> grade class and the 5-7<sup>th</sup> grade class.

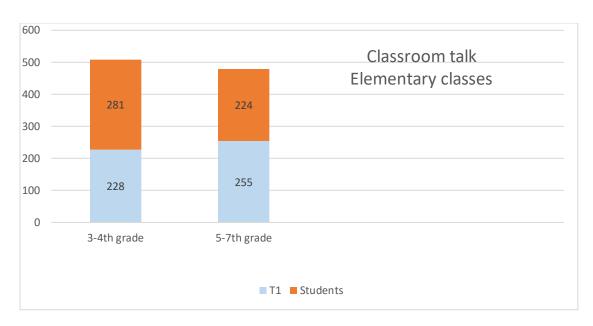


Diagram 4: Elementary teacher and student talk shown in total AS-unit number.

In the 3-4<sup>th</sup> grade combined class, T1 accounted for 228 AS-units and students for 281. In the 5-7<sup>th</sup> grade class, T1 produced 255 AS-units and students produced 224. This corresponds to 44.8% of teacher versus 55.2% student talk in 3-4<sup>th</sup> grade class and 53.2% teacher versus 46.8% student talk in the 5<sup>th</sup>-7<sup>th</sup> grade class. Average total AS-units numbered 509 and 479 in the groups. One AS-unit was produced every 5.5 seconds in 3<sup>rd</sup>-4<sup>th</sup> grades while an AS-unit was produced every 5.6 seconds in 5-7<sup>th</sup> grades.

The second research question was also be answered for the university classes. Diagram 5 shows teacher and student AS-units produced in two university classes.

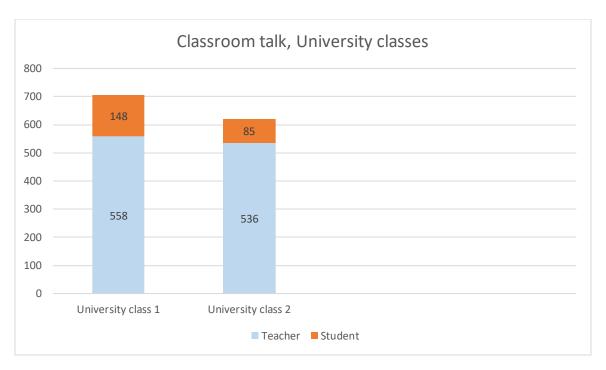


Diagram 5: University teacher and student talk shown in total AS-unit number.

In the first university class, T2 accounted for 558 AS-units while students produced 148. In second class, T3 produced 536 AS-units and students produced 85. In terms of percentage in university class 1, T2 produced 79% of all AS-units while the students produced 21%. In university class 2, T3 spoke only slightly more than the teacher in the other group, accounting for 86% of all classroom talk. Students in the second group spoke 14% of the time. Despite varying teaching methods, results do not show a major difference in teacher talk time in class 1 and class 2. While class 1 had lecturing, pair discussions and group work, class 2 had only lecturing by the teacher.

### 4.2.2 Initiation and response: teachers versus students

Besides total AS-unit number and teacher versus student oral participation, other details of teacher and student talk were observed. Diagram 6 shows AS-units produced in elementary classes divided in categories based on who initiated and who responded.

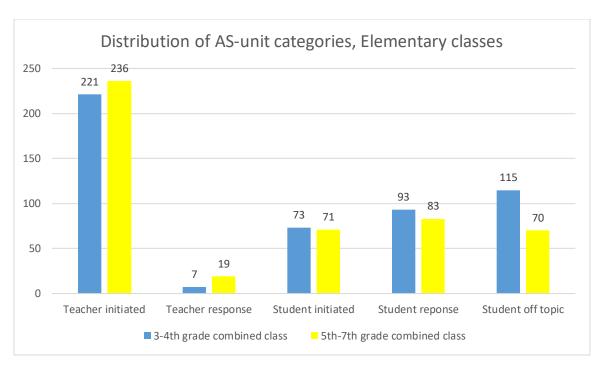


Diagram 6: Teacher and student AS-units observed in elementary classes using COPS 3

Teacher AS-units were categorized as either *T initiated* or *T response* based on whether the AS-unit was initiated by the teacher or a response to a student's AS-unit. I deemed all teacher talk as on topic and applicable to classroom learning. Whether the teacher explained a topic, corrected classroom behavior or gave an instruction, all AS-units were counted. Thus, no statements or questions made by teachers were categorized as off topic. Student AS-units fell into one of three categories: *S initiated*, *S response* or *S off topic*. Results show that most AS-units belonged in the *T initiated* category in both 3<sup>rd</sup>-4<sup>th</sup> grade and 5<sup>th</sup>-7<sup>th</sup> grade combined classes. The *T response* category contained the fewest AS-units for both age groups. While oral participation as a whole is nearly evenly divided between teachers and students, as shown in Diagram 4, this data shows that the teacher initiated talk nearly three times as often as the students did. Note that in the 3<sup>rd</sup>-4<sup>th</sup> grade combined class, off topic AS-units outnumbered both statements that students initiated themselves and students' responses to the teacher and fellow students.

Just as in the observed elementary classes, I recorded AS-units produced in university classes and divided them into categories based on who initiated and who responded. (See Diagram 7.)

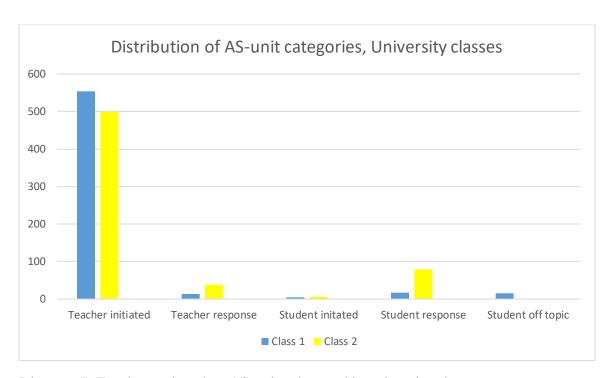


Diagram 7: Teacher and student AS-units observed in university classes

Results show that the vast majority of AS-units belonged in the *T initiated* category in both university classes. The *S initiated* category contained the fewest AS-units for class 1. In class 2, there were no AS-units placed in the *S off topic* category. The data shows that the teachers initiated talk much more than students. In class 1, the teacher initiated over 130 times as often as students with the teacher initiating 544 AS-units and students initiating 4. In class 2, the ratio was 498 *T initiated* AS-units to 6 *S initiated* AS-units.

## 4.3 Findings related to RQ3: When is Norwegian spoken?

In order to answer research question 3, two sets of data were collected and analyzed: 1) contexts in which Norwegian was spoken 2) languages used for questions and answers. I was interested if observed practices in these classrooms matched previous research as discussed in section 2.3 Monolingual pedagogy.

# **4.3.1** Norwegian in context

The first data set related to RQ3 is teacher talk categorized by context. By defining the contexts in which Norwegian was used, I gained detailed information about what purposes were served when teachers spoke Norwegian in the classroom. (See Diagram 8.) Details about categories can be found in Appendix 6.

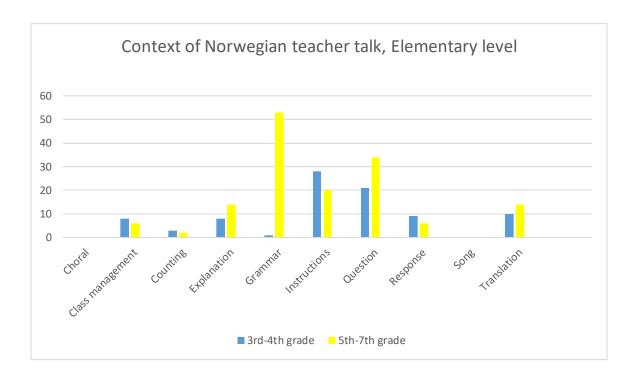


Diagram 8: Teacher (T1) AS-units in Norwegian by context categories

Ten context categories are shown in Table 1. Each individual Norwegian AS-unit produced by T1 was placed in one of these categories. For examples and explanations of each category see section 4.1. During the observed 3<sup>rd</sup>-4<sup>th</sup> grade class period, T1 produced a total of 119 Norwegian AS-units. For thirty of these, the context was not recorded.

Category name	AS-units number
Instructions	28
Question	21
Translation	10
Response	9
Classroom	8
management	
Explanation	8
Counting	3
Grammar	1
Song	0
Choral	0

Table 1: AS-units produced in Norwegian by a 3rd-4<sup>th</sup> grade teacher during 45-minute class period.

While teaching combined 3<sup>rd</sup>-4<sup>th</sup> graders, the teacher used Norwegian most often when giving instructions and asking questions. The teacher occasionally used Norwegian when translating, responding to students, managing classroom behavior, and explaining. Counting and grammar-related statements were infrequent while there were no instances of song or choral activity.

Category name	AS-units number
Grammar	53
Question	34
Instructions	20
Translation	14
Explanation	14
Answer	6
Classroom management	6
Counting	2
Song	0
Choral	0

Table 2: AS-units produced in Norwegian by 5<sup>th</sup>-7<sup>th</sup> grade teacher during 45-minute class period.

The same teacher taught the 5<sup>th</sup>-7<sup>th</sup> grade group. During one class period with this group, T1 produced a total of 155 Norwegian AS-units. The distribution of context categories differs from 3<sup>rd</sup>-4<sup>th</sup> grade. In seven cases, I did not record context. The category with the most AS-units was grammar. Questions also made up a large part of teacher talk in the 5<sup>th</sup>-7<sup>th</sup> grade class period. Less frequent were instructions, translations and explanations given in Norwegian. Occasionally the teacher responded to students, gave classroom management commands, and counted aloud. Just as with the younger class, I recorded no instances of choral or song. (See Table 2.)

University-level teacher talk was also categorized by context. However, due to the extensive use of English, very little data was applicable. Note that T3 in university class 2 spoke only English. Thus, only teacher talk data for T2 is presented in Table 3.

Category name	AS-units number
Response	4
Explanation	4
Question	1
Instructions	0
Classroom	0
management	
Translation	0
Counting	0
Grammar	0
Song	0
Choral	0

Table 3: AS-units produced in Norwegian by T2 in class 1 during 45-minute observation.

While teaching university students, T2 used Norwegian most when explaining concepts and when responding to student questions. On one occasion, she asked a question in Norwegian. Of the total AS-units produced by T2 during the 45-minute observation period, 9 AS-units were produced in Norwegian. There were no instances of Norwegian used in any of the other context categories. In class 2, T3 consistently used English only throughout the 45-minute observation. Thus, no context data is shown for class 2.

#### 4.3.2 Languages used for questions and answers

Besides context categories, an additional topic was investigated in order to answer RQ3: When is Norwegian spoken? I looked at the language of question-answer exchanges between teachers and students. By examining questions and the succeeding responses, I could note which languages the questioner and the respondent used during question-and-answer exchanges.

Given that language teaching has traditionally stressed the importance of teachers as role models for students in the language classroom, I wanted to find out if students mimicked teachers' language choices. This phenomenon, known as trigger effect, is presented in section 2.3 Monolingual pedagogy (Bae & Kim, 2007). In order to map a potential trigger effect, I calculated four values: how many total questions were asked, who asked them, in what languages they were asked and in what language they were answered. Questions were defined as AS-units in which the speaker, either teacher or student, asked for information. The AS-units directly following the questions were noted as answers. Off-topic responses were not considered answers. Answers included both statements and follow-up questions. In instances in which teachers answered their own questions, they were not considered question-answer pairs and were not included in the calculations. This also applied to when students asked off-topic questions.

In total, 82 questions were posed during the observation of 3<sup>rd</sup>-4<sup>th</sup> graders. Of these, T1 asked 56 questions. In one instance I failed to record the language of the question asked. The teacher asked 55% of questions in English and 45% of questions in Norwegian. Students in 3<sup>rd</sup>-4<sup>th</sup> grade asked 25 questions during a 45-minute class. Students asked 54% of their questions in English and 46% in Norwegian.

The same results were calculated for the other elementary group. In total, 45 questions were posed during the observation of 5<sup>th</sup>-7<sup>th</sup> graders. Of these, T1 asked 37 questions. The teacher asked 11% of questions in English and 89% in Norwegian. Students in 5<sup>th</sup> through 7<sup>th</sup> grades asked 13 questions during a 45-minute class. Students asked 8% of their questions in English and 92% of their questions in Norwegian. This result is even more marked than with overall student

AS-units in which they spoke 21% in English and 79% in Norwegian, respectively. (See Diagram 2).

Did students follow the teacher's lead and answer his questions in the same language they were posed in? For the observed group of 3<sup>rd</sup>-4<sup>th</sup> graders, the students followed T1 22 times. English was used in 6 of these question-answer pairs. No response was given at all for 13 questions posed by T1. Norwegian was used in the remaining 17 pairs. That the students followed the teacher's language use 22 of 52 times means that students mirrored the teacher's language in 42% of the questioning. Students asked a total of 19 questions. In 16 of 19 question-answer pairs, T1 used the same language as the students when responding. This amounts to T1 mirroring students for 84% of the questioning.

For the observed group of 5<sup>th</sup>-7<sup>th</sup> graders, the students followed T1 25 of 32 times. Norwegian was used in 24 of the 25 question-answer pairs. Responses were given for all questions posed by T1. That the students followed the teacher's language use 25 of 32 times means that students mirrored teacher language in 78% of the questioning. Students asked a total of 13 questions, not including off topic questions. In 7 of 13 question-answer pairs, T1 used the same language as the question was asked in. This amounts to T1 mirroring students for 54% of the questioning. These findings are presented in diagram form in diagrams 9 and 10.

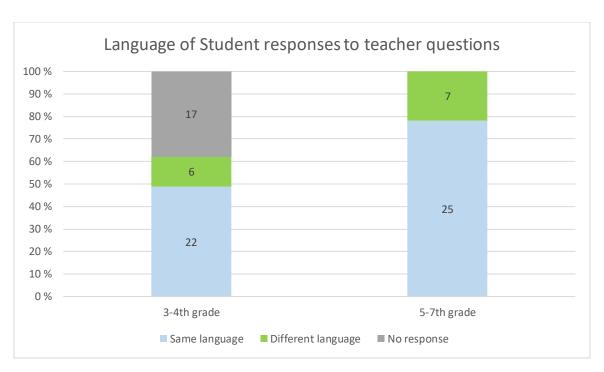


Diagram 9: Language use during question-answer exchanges when T1 asked questions

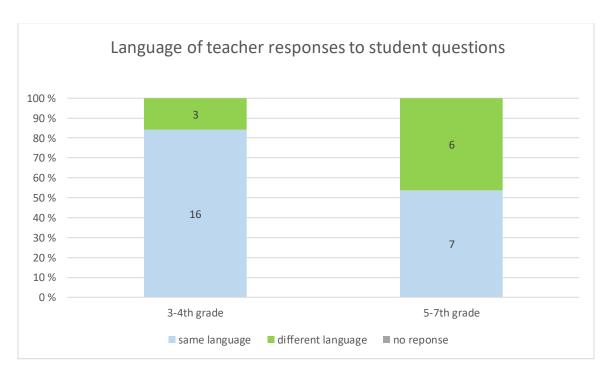


Diagram 10: Language use during question-answer exchanges when students asked questions

# 4.4 Findings related to RQ4: What teacher-related factors may affect the classroom language?

In order to answer RQ4, multiple teacher-related factors were considered. Through semi-structured interviews with one elementary teacher (T1) and one university teacher (T3) the following data were collected and analyzed: 1) teacher backgrounds and education 2) perceived practices and opinions about language of instruction 3) perceived practices and opinions about basic skills 4) perceived competences 5) perceived practices and opinions about language learning. In particular, I was interested to see if observed practices in these classrooms matched previous research as discussed in section 2.3 Monolingual pedagogy. The findings of both interviews are presented here. (See Appendices 1 and 2 for full pre- and post-observation interview guides.)

# 4.4.1. Teacher backgrounds and education

The university class 2 was taught by a male teacher (T3). At the time of data collection, he was 63 years old and had been teaching for a total of 35 years. He had teaching experience at upper secondary, adult continued education, and university levels. He had been working at the current university for 17 years and had been teaching the current class for six months except for two international students who joined the study program two months prior to data collection. The teacher's L1 was French. His educational background included a bachelor's degree in English, a master's degree in the teaching of French as a foreign language and a master's degree in English. Further, he reported a high use of English for personal use through viewing films, reading and newspapers solely in English, corresponding with family members in English and using English daily at home with his wife.

For elementary data collection, a 28-year-old male teacher (T1) was observed and interviewed. At the time of data collection, the male teacher had nearly two years teaching experience at elementary school and adult continued education. He had been working at the current school and had been teaching the current class for seven months. The teacher's L1 was Norwegian. The teacher reported having the following education: an international bachelor's degree, a political

science bachelor, a year-long English study and a one-year teaching certificate program. He reported his use of English outside the classroom as low through contact with friends and when reading online newspapers.

### 4.4.2. Perceived practices and opinions: language of instruction

The university T3 reported using English as the only language of instruction in his teaching and correspondence with students. Although not specifically asked, he shared his strong feelings of English only as the ideal language of instruction. He stated that this practice was for his students in case of future education or if they would be teachers themselves. T3 said that his students should "speak, read, think, and dream" in English. Regarding teaching materials, the teacher reported using a compendium tailored to the course, illustrations, websites, unabridged novels and stories and film clips.

The elementary teacher T1 reported a more divided practice. He reported his language of instruction as 50% Norwegian and 50% English. He stated that he used more English in his previous position when teaching lower secondary school students. According to him, more English was "in place" at this level than at an elementary level. T1 upheld it was not difficult to see if students struggled to understand when he taught in English. This was applicable when he gave instructions and when students were not progressing with tasks during a class period. The teacher did, however, say that elementary students know more English than teachers assume, and this is because of online sources of English including blogs, YouTube, gaming, and Fortnite. Students have more experience "not understanding but still understanding", meaning that students feeling "lost" when he taught in English was not a new experience for them. T1 then clearly stated that the ideal was as much English as possible. He said, "perhaps I am not good at making words understandable...", during English instruction. Regarding teaching materials, T1 said that while he uses a textbook and workbook assigned by the school, he often supplements with other materials including "board games and the like". He clarified that this was his preference with all the students that he had taught recently, from 3<sup>rd</sup> to ninth graders. He also clarified that his teaching content is always in line with the English subject curriculum in Norway.

## 4.4.3. Perceived practices and opinions: basic skills

Norway's English subject curricula have since LK06 defined five basic skills: oral skills (listening and speaking), writing, reading, numerical, and digital skills. Teachers were asked how their teaching reflected the distribution of these skills. They were also asked how important each of the skills were. Note that the basic skills as defined in Norway's curriculum do apply at the elementary curriculum but are not specifically named in university guidelines. Nonetheless, the five skills are often in use.

A conscious focus on oral skills was reported by the elementary teacher T1. He estimated that his teaching involved 50% oral skills (speaking and listening) and 40% writing, reading, numerical, and digital skills combined. Reading was ranked as more important than numerical and digital skills. He referred to a connection between students' Norwegian writing skills and their English writing skills. In his opinion, as his students developed their Norwegian writing skills in Norwegian classes, their English writing skills would improve simultaneously without the need for a specific focus on writing in English classes. The distribution of the basic skills in his elementary level teaching was different than in lower secondary school, he claimed. He referred to students' differing usages of English as the reason. Elementary students used English to listen to music and watch YouTube videos, he said. Secondary school students have more practical usages of English. Students needed speaking skills when meeting tourists in the summer or might have needed to make their way around an English city when on vacation with parents, T1 explained.

When asked the question, T3 immediately stated that digital and numerical skills are not skills that he helps his university students improve. He reported being so poor at the two skills himself that he could not teach students to better them. Since the teacher had courses including English-speaking Literature, a good amount of reading was expected of students. Listening was innately involved given that students needed to understand. The teacher spoke most about writing and speaking. He did aim to assist students improve their writing. Students were instructed in how to

write academic English as well as common structure in English essays. The importance of speaking was pointed out by the teacher. Speaking was something the students should do. His desire was that words and expressions, related to the topics covered, were explained by students, not himself.

### 4.4.4. Perceived teaching competence

Teachers were asked if they deemed their current English competences sufficient for their teaching positions. They were also asked if they thought their colleagues had sufficient competences. Further, they were asked which topics within teaching in general and within the English subject they desired more competence in.

The elementary teacher T1 also saw no need for bettering his English subject competence. Regarding teaching in general, he listed classroom management and knowledge of ageappropriate classroom activities as topics he could think to improve. The university teacher T3 also thought his English competences were sufficient. Besides mentioning a desire to attend seminars on his specific topic of research, he saw no need for improving his English subject or general teaching competences.

### 4.4.5. Perceived practices and opinions: language learning

The last two questions in the post-observation interview guide were broad. Teachers were asked their opinions on how students best learn a new language and how they organized teaching for students who struggled with the English subject area.

Both teachers mentioned full immersion as the best way for students to learn a new language. However, both recognized immersion as unrealistic in most cases. The elementary teacher T1 focused his answers on the English language. He stressed the importance of motivation, both external and intrinsic. As a teacher, he claimed to stress the importance of mastering English given its status as a global language. T1 reported often mentioning to students benefits of knowing English including the opportunity to experience otherwise closed options. When asked

how he assisted struggling students, T1 referred again to language of instruction naming his use of Norwegian in English instruction as helpful "quick digressions" to give context. He described others' practice of English-only instruction as alarming. The teacher also mentioned reviewing basic grammar, using glossaries, and focusing on main ideas as methods to help students.

The university teacher T3 listed three ways one could best learn a language: attain a good foundation of grammar, listen to numerous sources of the spoken language, and use the language as much as possible. T3 provided a few examples of how he organized teaching for students who struggled with the English subject area. To identify struggling students, he paid attention to class participation as well as individual written assignments, though the two did not always match. It was not uncommon that students who were orally active in class without problem, showed poor written English skills and vice-versa. To these students, the teacher offered extra written feedback on assignments, English writing guidelines to the class as a whole, or called them in for tutorials. The latter was only done occasionally as the teacher cited limited resources.

### 5. Discussion

In this chapter I will discuss the findings presented in Chapter 4. The discussion includes aspects of all four RQs, implications for ESL teaching, and possibilities for improvement during future research.

## 5.1 Implications for ESL teaching and future research

This thesis has the follow overarching research question: What characterizes language choices during English lessons in two elementary and two university classrooms? To answer this question, with observation and interview as method, it was necessary to obtain details about classroom talk as well as teacher backgrounds, practices and opinions. How much oral English occurs in these classrooms? Who is doing the speaking in these classrooms? When is Norwegian spoken? What teacher-related factors may affect the classroom language? With these questions as starting points, I have shed light on classroom events and underlying reasons for choices related to English and Norwegian.

After observing classes, it was evident that a fair amount of Norwegian was spoken by students. The 3-4<sup>th</sup> graders spoke Norwegian 84% of the time and the 5-7<sup>th</sup> graders spoke Norwegian 79% of the time. During observations, I noticed that T1 rarely asked students directly to speak in English. It occurred only once. Another thing to consider is the amount of time elementary students' comments were off topic. In the 3<sup>rd</sup>-4<sup>th</sup> grade combined class, student AS-units were 41% off topic. Students' AS-units in 5<sup>th</sup>-7<sup>th</sup> grade were 31% off-topic. So, although classroom talk was roughly distributed evenly between teacher and students, a good portion of student comments were not related to the topic at the time. Whether on or off topic, English production by students was limited. That some of the students have had six years of English teaching and still only spoke English 11% of the time in class, gives reason to question if they will be able to achieve expected competence aims for oral skills by the end of 7<sup>th</sup> grade. While further observation would provide a better picture of students' classroom talk over time, the numbers raise concerns about the distribution of input and output as presented in section 2.2.

Although total teacher versus student classroom talk in the elementary class was reasonably distributed (nearly 50-50), students overwhelmingly chose Norwegian. T1 also spoke more Norwegian than English in the classes. This is not in line with Krashen's input hypothesis or Swain's output hypothesis as discussed in section 2.2 (1981, 1985). If one adopts Krashen's focus on input and the necessity of maximum exposure, more English exposure in the form of teacher talk, student talk and authentic materials would be used in classrooms. Indeed, the use of Norwegian in class is considered detrimental by Krashen supporters. If, on the other hand, one prefers output as a learning tool, more opportunities for English production as well as comprehensible English input would be provided. Thus, while the elementary classes involved what would be considered multilingual pedagogy as discussed in section 2.4, it could be argued that Norwegian was overused in these settings. Not only are the findings at odds with what previous research refers to as a "judicious" amount of L1 in L2 teaching (Macaro, 2005), they are also at odds with the elementary teacher's stated ideal of "as much English as possible". Indeed, it could be argued that T1, as many before him, exhibited a measure of guilt about his classroom L1 use (Shinga 2019). What did match, however, was the teacher's reported practice of 50% Norwegian and 50% English. This estimate was close what was observed. Another item in agreeance was that the T1 spoke slightly more Norwegian with 5-7th graders than with 3-4th graders. (See Diagram 4.) This agreed with his own statement during the interview that as students age more English should be spoken. It is important to note that the observed 5-7<sup>th</sup> grade class period involved a good amount of grammar teaching. T1 used Norwegian when he produced AS-units about grammar (See Diagram 8). It is possible that language of instruction results would be different in a session without grammar teaching.

Classroom language at the university level produced different findings. Indeed, T3 reported a practice of no Norwegian use at all. This matched with what was observed. On one occasion, a student asked, "Can I say it in Norwegian?" He was denied doing so. Perhaps this was an example of what Swain would refer to as a learner pushed toward an appropriate and coherent message in L2? Indeed, the student that requested use of his L1 noticed a gap in his interlanguage and therefore requested permission to use his L1. That he was denied his L1

allowed, perhaps pushed, him to produce output in English. By accommodating the teacher, the student tested his message as a hypothesis. Although no correction was given, (the student's message contained no errors), the opportunity for feedback was there. Swain's output hypothesis is presented in more detail in section 2.2. T3 clearly reported and practiced monolingual pedagogy in class 2 as presented in section 2.3. During interview, T3 explicitly named L1 overdependence and maximum exposure to L2. Given that the teacher accounted for 86% of all classroom talk, it can be argued that sufficient English input was provided. On the contrary, perhaps T3 could consider providing more opportunities for student output. It should be noted that while the university teacher did understand Norwegian, it was not his L1. This was stated to students at the beginning of the semester, and it could have played a part in students' language choices. This was not the case in university class 1.

The lecturer in class 1 (T2) was Norwegian. Classroom talk showed very similar amounts of Norwegian and English spoken by students and the teacher. (See Diagram 3.) Perhaps this was affected by fact that class 1 involved varied teaching methods: lecturing, pair discussions and group work while class 2 had only lecturing by the teacher. However, although T2 allowed Norwegian and varied classroom activities, increased opportunities for student output could be advantageous. This was true for both university classes in which the teachers initiated oral exchanges between many more often than students did. (See Diagram 7.) Although the students were older with more English competence, they did not start exchanges as often as children with limited English did. Keep in mind that the university data came from two observed classes with two different teachers. Perhaps T2 and T3's choices of classroom activities did not give students opportunities to initiate? Although pair work and small groups were used, lecturing was dominant. Without further research, it is difficult to say whether the results reflect an innate characteristic of lecture as a classroom method, an aspect of these particular teachers or some other reason.

At the elementary level, there was also a distinct difference between the number of times the teacher initiated an exchange and when the students initiated. T1 started an exchange 3 times more often than students did. That the teacher initiated most exchanges is not altogether

surprising. If a teacher claims and maintains responsibility for class progression, it is logical that he would initiate most often. It is reasonable to assume that the teacher would produce more AS-units related to instructions and classroom behavior than students would.

## **5.2** Why these languages?

Besides how much Norwegian was used, also interesting is *why* Norwegian was used in these English classes. When was Norwegian spoken? Do observed practices match with previous research? Research has shown various reasons why teachers use L1 in the English classroom (Macaro, 2005). Those presented in Chapter 2 include: building relationships, checking understanding, assisting low-level students, saving time, establishing L1-L2 connections, providing motivation and security, managing behavior, translating, giving procedural instructions, and teaching grammar. The elementary teacher did, in fact, use Norwegian when managing behavior, translating and giving instructions. His most common uses of L1 when teaching 5-7th grade were grammar and questions. When teaching the 3-4th graders, he used Norwegian mostly when giving instructions and when asking questions. Thus, the observed practices of the teachers did match with previous research regarding managing behavior, translating, giving instructions and grammar teaching.

Considering the trigger effect phenomenon presented in section 2.3, I further investigated when Norwegian was spoken. To my knowledge, research on trigger effect on classroom language in Norway is limited. Specifically, did students follow the teachers' lead and answer questions in the same language they were posed in? Likewise, were the teachers triggered by the students' choices of languages? Because university teachers spoke nearly entirely in English, only the elementary data sets were applied. The elementary teacher asked more questions than students in both classes. However, on a percentage basis, the elementary 3-4th grade students mirrored the teacher's language in 42% of the questioning, and the teacher mirrored students for 84% of the questioning. Findings were also calculated for 5-7 grade students. Here the students mirrored teacher language in 78% of the questioning while the teacher mirrored students for 54% of the questioning. While the sample size for the observed classes is limited, the information provides a nuanced view of when L1 was used in the classrooms. More research on this area is needed. If a

trigger effect on classroom language is achievable, it would have important implications for teachers' language choices, guidelines and curricula.

In summary, data collected in all four classes covered not only teacher and student talk and language of instruction but also distribution of AS-unit categories, contexts of Norwegian teacher talk and whether teacher and students' language choices affected each other. Overall, elementary classes involved more AS-units and more exchanges. So, although real-time coding in face-paced elementary classes was more of a challenge than in university classes, more data was collected. The observation scheme was more applicable for use in observations in elementary school. Because lecturing was implemented more at the university level, the information collected was about teacher and student talk and language of instruction. The university class periods involved less Norwegian and fewer overall exchanges.

#### **5.3** Teacher-related factors

The last set of findings related to classroom language choices was teacher-related factors. This data was collected through interview. As presented in section 2.5, previous research has investigated what teacher-related factors may affect language of instruction (Macaro, 2005). Those mentioned include formal education, self-efficacy, perceived student competence, opinions about language learning, and opinions about L1 use. Specifically, I wanted to know if levels of formal or perceived competence, personal usage of English and teacher opinions affected the language of instruction. In the case of a teacher with high formal competences, high perceived confidences, and high use of English outside the classroom, I would assume a larger amount of English classroom language than with a teacher with low competences and seldom personal English use. Although no general conclusions may be drawn based on only two case studies, T3 reported high formal competences, high perceived confidences, and high usage of English outside the classroom. It was this teacher that used exclusively English while teaching. The other teacher interviewed, T1, spoke more Norwegian than English while teaching. During interview, he reported formal education and sufficient competence but low use of English outside of the classroom. Although the sample size of those interviewed is limited to only two teachers,

it is interesting that the teacher with the highest use of English outside of the classroom also uses more English in the classroom.

The other category of questions included in the post-interview was opinions. Teachers were asked their opinions about the five basic skills as defined by the national core curriculum in Norway: reading, writing, numeracy, oral skills (listening and speaking) and digital skills. (See section 2.1) Teachers' opinions about these skills may affect classroom language. I was interested in whether the teachers valued one or more as more important than others. And would their classroom practices reflect this? How important did the teachers consider listening and speaking, and did they allow opportunities for students to develop thesis skills? By observing teachers and then asking the same teachers their opinions, I wanted to see if these teachers' practices reflected their opinions.

Teachers were also asked about five skills defined in Norway's core curriculum as basic and necessary for all learning: (Ministry of Education and Research, 2017). Teachers were asked which of these skills they deemed most important and how they thought the skills were distributed in their own teaching. Both teachers interviewed ranked numeracy and digital skills as less important than oral skills, reading and writing. Reflecting their differing practices under observation, there were also differences of opinions between the elementary and university teacher. While both teachers expressed the importance of oral skills and student participation during class, the importance of writing differed. The elementary teacher felt that a focus on writing in elementary English lessons was unnecessary since students develop such skills in Norwegian classes. At the university level, however, the teacher specifically taught and focused on students' written English skills. In their answers, both teachers referred to practical usage when stating their opinions about the five basic skills. The elementary teacher differentiated between elementary and lower secondary school students' needs regarding oral versus written skills. When speaking of oral and written skills, the university teacher referred to the needs of future teachers versus those who will go into other professions. The teachers' opinions seemed to affect their practices. Indeed, in both cases most class time was devoted to lecturing and

discussion, and limited time was used for reading and writing. Digital skills were used sparingly, and numeracy was used only peripherally, if at all.

# 6. Conclusion

# 6.1 Summary of research

As we have seen in the present study, teachers find themselves facing tough decisions about L1 use in the L2 classroom. Where the appropriate balance point between monolingual and multilingual pedagogy lays is based on multiple factors. National curricula, local traditions, theoretical developments and personal preferences all play a part. This study has investigated language use in four ESL classrooms in Norway. Teacher and student classroom talk was observed and systematically recorded in real-time. In line with previous research, L1 use was extensive, teacher talk exceeded student talk, and teacher initiation of talk dominated. Thus, while English input was available to students, opportunities for output may be an area for improvement. A trigger effect in which teachers' language choices possibly trigger students' choices was also investigated. More research on teacher-student oral interaction is needed to determine if one's language use triggers others in the classroom. Teachers' reported practices and opinions were gleaned through interview. While one teacher supported and practiced monolingual pedagogy, the other made use of multilingual resources, although not without a sense of guilt. Both teachers ranked oral and writing skills ahead of reading, numerical and digital skills. Their classroom practices matched their opinions.

#### **6.2 Reflections on the present study**

Concrete answers to RQ4: What teacher-related factors may affect the classroom language? have not been produced by this study, perhaps because of the complexity and lack of one-size-fits-all solution present in all teaching. What the study has provided is a glance into how the teachers and students communicate and make decisions. Regardless, this picture is bound to contain limitations and give an incomplete view of how second language teachers do their work. At the same time, I hope that the study was performed in a way that allows development through further research either by building directly on similar method and research questions or by way of another angle. This study provides a description of how four second language classrooms in Norway may be understood. How second language teaching and learning is done should be up to each individual teacher and learner to decide.

#### **6.3 Future research**

The present study was conducted with a sample population of 3 teachers and 45 students. In order to determine whether the results described in the present study are applicable to Norwegian teachers and students in general, further longitudinal research focusing on larger sample populations is necessary. Research addressing some of the limitations described in this study could also contribute to a more detailed presentation of the use of oral English in ESL classrooms in Norway. Given the lack of observation and interview of under-researched demographics such as young language learners and primary school teachers in Norway, continued research would benefit the field. Such research would assist in giving a more nuanced description of classroom language practices and teachers' opinions of second language acquisition. Seen in a larger perspective, quantitative second language research involving larger samples and valid, reliable speech units would be very welcome in the field. According to Foster et al., "As a consequence perhaps, second language researchers with an interest in oral language data can start to talk the same language" (Foster et al., 2000, p.372).

# **APPENDICES**

# APPENDIX 1 Pre-observation Interview guide

- 1) How many students are there in the group?
- 2) Are there any students who started after the official semester start in August?
- 3) Do any students have a first language other than Norwegian? Which languages? In general terms, can you describe their Norwegian proficiency?
- 4) How long have you taught these students?
- 5) How many hours a week do you teach this group?
- 6) Places in the classroom are they assigned or voluntary? If assigned, why and how do you decide?

## APPENDIX 2 Post-observation interview guide

Post-observation interviews contained 20 questions divided into the following eight sections:

- A. About the class session
- B. The teacher's teaching background and English competence
- C. Language of instruction
- D. Teaching materials
- E. Opinions about the age of acquisition for language learning
- F. Opinions about the five basic skills in English learning
- G. Teachers' opinions of their own competence
- H. Teachers' opinions of their own teaching

#### A. About the class session

- 1) Would you say that the students were affected by my presence? (Were all affected to the same degree or differently? How?)
- 2) Were there any students missing today? How many? Any of those with another first language than Norwegian?

BACKGROUND – The first section has questions about your teaching and education background.

- B. Teacher teaching background, English competence, and personal English usage
  - 1) How long have you worked as a teacher?
  - 2) Which grade levels and for how long?
  - 3) How long have you worked at this school?
  - 4) When did you receive your teaching degree/certificate?
  - 5) Have you taken courses or post-graduate education in the subject of languages, English?
    - a. None

- b. Continued education
- c. As a subject within teaching degree/certificate
- d. At the university level
- 6) When did you take these courses?
- 7) Do you use English outside of the classroom? How often and in which settings? Do you hear and/or use English outside of the classroom?
- C. Teacher perceived practices language of instruction
  - 1) Which language or languages do you typically use when teaching?

English only Mostly English Mostly Norwegian Norwegian only

- D. Teacher practices teaching materials
  - 1) Which teaching materials do you typically use? Why?

Only textbook/workbook

Mostly textbook/workbook and sometimes your own materials

Mostly own materials and sometimes textbook/workbook

(Which types of own materials = other books, materials you've created, internet resources?)

OPINIONS – Now I am interested in hearing your opinions about a few topics.

- E. Teacher perceived practices and opinions about basic skills
  - 1) Norway's curriculum for the English subject defines five basic skills:

Oral skills (listening and speaking)

Writing

Reading

Numerical

Digital skills

How do you think your teaching reflects the distribution of these skills?

2) Although teachers are to promote students' development of each of these skills, in your opinion, how important are each of these basic skills?

# F. Teacher perceived competences

- 1) Do you consider your English competence as sufficient for your teaching position?
- 2) Do you consider your colleagues' English competence as sufficient for their teaching positions?
- 3) Which topics within teaching in general would you like to have more competence in?
- 4) Which topics within English teaching would you like to have more competence in?

## G. Teacher opinions and perceived practices

- 5) How do you think students best learn a new language?
- 6) How should teaching be organized for students to learn as much as possible?
- 7) How do you organize teaching for students who struggle with the English subject area?

## References Appendix 2

Drew, I., Oostdam, R.J., & van Toorenburg, H. (2007). Teachers' experiences and perceptions of primary EFL in Norway and the Netherlands: a comparative study. *European Journal of Teacher Education*, 30, 319 - 341.

# APPENDIX 3 AS-Unit Segmentation Guidelines

This appendix describes the guidelines used for segmenting utterances into analysis of speech units (AS-units). As is common in language segmentation literature, several examples are provided to demonstrate guidelines. In the examples, an AS-unit boundary is marked by an upright slash ...|... False starts, repetitions and self-corrections are inside brackets {..}. First speakers are designated with a capitalized letter A. Second speakers are designated with a capitalized letter B. Both the markings and the practices of counting AS-units are in line with the practices of Foster et al. (2000). Inspiration for definitions and markings was found in Miller, Andriacchi & Nockerts (2019). All examples are from data collected during the present study. Segmenting guidelines are provided for: main clauses, independent sub-clausal units, subordinate clausal units, false starts, repetitions, self-corrections, interruptions, phrases used as tags, and questions used as tags.

## **Definitions**

#### • AS-Unit

Defined as 'a single speaker's utterance consisting of an independent clause, or sub-clausal unit, together with any subordinate clause(s) associated with either' (Foster et al., 2000, p.365).

#### • Clause

A clause, whether it is the main clause or a subordinate clause, is a statement containing both a subject and a predicate. Grammatically, a subject is a noun phrase, and a predicate is a verb phrase.

#### • False start

False starts are utterances which are begun and then abandoned altogether or reformulated in some way.

#### • Repetition

A repetition is defined as when a speaker repeats previously produced speech.

### • Self-correction

Self-corrections occur when the speaker identifies an error either during or immediately following production and stops and reformulates the speech.

## • Interruption

Interruptions occur when a speaker is interrupted by a second speaker after which the first speaker completes the original the utterance.

# **Segmenting**

An AS-unit will either consist of a main clause, a main clause with its subordinating clause(s), an independent sub-clausal unit, or a sub-clausal unit with its subordinating clause(s).

A main clause can stand by itself and be segmented in one AS-unit.

(1) | Go now | 1 AS-unit

Independent sub-clausal units will consist of *either* one or more phrases which can be elaborated to a full clause by means of recovery of ellipted elements from the context of the discourse or situation.

(2) A: | How long does it take to get a book | 1 AS-unit B: | five days | 1 AS-unit

*Or* defined as one in the class of "Irregular sentences or Nonsentences" as identified by Quirk et al. in Foster et al.

(3) | Just thinking | 1 AS-unit

A subordinate clausal unit consists minimally of a finite or a non-finite verb plus at least one other clausal element (subject, object, complement, or adverb).

(4) | I never know :: how to use headphones | 2 clauses, 1 AS-unit

When a false start occurs, the part of the utterance that met the AS-criteria is counted while the remainder is considered a false start and not counted.

(5) |{You don't, er} none of you clean your rooms | 1 AS-unit

In repetition cases in which speakers repeat previously produced speech, the repetitions which indicated disfluency (not those used for emphasis) are not counted.

(6) | {On Sunday}, er, on Saturday I clean my room | 1 AS-unit

In cases of self-corrections where speakers stop, identify errors, and then reformulate, the final version is counted as an AS-unit and previous versions are not.

(7) | My parents never {makes} er, never make me clean my room | 1 AS-unit

Interruptions occur when a speaker is interrupted by a second speaker after which the first speaker completes the original the utterance. In this example, the subordinate clause is connected to the preceding utterance by the same speaker A, but speaker B has interrupted.

(8) A: |what colors do you see in

B: | green | 1 AS-unit

A: in the picture | 1 AS-unit

B: | grass green | 1 AS-unit

At times phrases may be used as tags in different locations within a main clause. When phrases such as "you know", "I guess", and "I mean" are used as tags, do not count as AS-units.

A: | It's, you know, the room with the cars | 1 AS-unit

Questions may also be used as tags, and often they follow the main clause. Do not count questions used as tags as separate AS-units.

A: | She could have gone, couldn't she? | 1 AS-unit

Dialogue quotes (i.e. complements) which are embedded in- or as part of, an utterance are counted as one AS-unit.

A: | You said, "Go now." | 1 AS-unit

Grammatical errors are not uncommon in second language speech. Ignore grammatical errors.

A: | Can I in Norwegian | 1 AS-unit

## References Appendix 3

Foster, P., Tonkyn, A., & Wigglesworth, G. (2000). Measuring spoken language: A unit for all reasons. *Applied Linguistics*, 21(3), 354-375.

Miller, J. F., Andriacchi, K., & Nockerts, A. (2019). Assessing Language Production Using SALT Software: A clinician's guide to language sample analysis (3rd Edition). Madison, WI: SALT Software, LLC.

## APPENDIX 4 Observation guide – coding scheme progression

This section traces the evolution of the development of my coding scheme, changes made from version 1 to version 4, and why each change was made. As a starting point, I used the Classroom Oral Participation Scheme (COPS) developed by Jim King (King, 2011). COPS was originally designed with a focus on silence in university second language (L2) classrooms in Japan. The coding scheme allows minute-by-minute recording of oral participation including initiated and responded speech of both teachers and students at the whole-class, small group and individual levels. (See Diagram 1.) As discussed in section 3.4, coding schemes are often revised to address specific research questions. The original version of the COPS observation scheme contained sections not applicable to the present study. Specifically, the sections for recording three specific students (S1 name, S2 name, and S3 name) were not necessary for my data collection. Neither did I use the Silence column.

The coding scheme shown in Diagram 1 is designed for real-time during classroom observations. Demographic information about the observed class and teacher are recorded at the top of the scheme. Below this are four main sections: *Oral participation, SIname, S2 name and S3 name*. The oral participation section concerns oral interaction within an entire class. The other sections focus on talk, reading, writing, and listening activities of individual students. The column at the far left, labeled *Minute*, contains numbers indicating a total of 60 one-minute segments. Before observations start, the observer selects three students for closer attention. During observation, the observer uses ticks to record the skill which takes up the majority of the previous one-minute segment within the entire class and the three individuals.

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17	0									320	200			1276	100	100	1000	1925	228		1000	200	1200	500	200		Sil	250		1000	100	100	100			120	122	185	1	1	100
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19	200	300	100				203			100	202	383	William .	323	100	100	BES	2000	200	332	200	2550	1000	2000	1335		1932	SSE	383	3331	200	328	300	200	180	933	122	223	Sill	3550	200

Diagram 11: Classroom Oral Participation Scheme (COPS) filled in during a university-level classroom observation

My use of the COPS scheme differed from its initial usage by Jim King in the following ways. As can be seen in Diagram 11, this study used the oral participation section of the COPS. This is because I was mostly concerned with oral interaction between students and teachers involving the entire class. The remaining three sections S1 name, S2 name and S3 name, were not used at all. Secondly, I anticipated that if I coded as dictated by the scheme, I would lose quite a bit of information about students' oral participation in the class. Specifically, nearly all one-minute intervals would be coded as teacher "T initiated" or "T response" since the teachers' oral participation in a classroom nearly always dominates. I anticipated that this would also apply for Norwegian classrooms (Williamson, 2016). This would have omitted valuable information about student exchanges. Thus, I revised the scheme and coded each individual analysis of speech unit (AS-unit). (See section 3.3.) Lastly, since my use of the COPS did not use a primary focus coding convention for minute-by-minute segments, the far-left *Minute* column was unused. During recording, I used ticks or letters to record the oral participation event which referred to

the speaker of each individual AS-unit. I did not have one tick in row 1, one tick in row 2 and so on. For each individual AS-unit, I ignored the minute column and ticked under one of the nine oral participation categories. The following codes were used: "I" (tick mark) for English, "N" for Norwegian and the character "?" for questions.

After initial classroom observations using COPS, a few remarks were made. First, the scheme was not optimal for recording pair or group work in real-time. Further, although the oral participation section of the scheme allowed for differentiation between AS-units produced by the teacher and those produced by students, it was not designed to record which specific students produced AS-units. To provide a better record of the events and progression of classroom oral activity, the coding sheet was revised for subsequent classroom observations. I wanted to record more than who produced AS-units and whether they were statements or questions. In addition, I wanted to record which students spoke, the length of units and in what context Norwegian AS-units were produced. All three were deemed important in providing a better overview of classroom oral activity.

	ORAL P	ARTICIPATION		N = NORSK		SPEAKER	LENGTH (sec.)	Tenchography Hels
	T (initia	ated) T (response	) S (initiated)	S (response) S pair	S pairs (to cl	ass)		
	1 1							Teachingrace of The
	2		1 -	7				31424 1040
	3 1		1-	-				
	4			77				
	5	1						
	- 6		1-					
	7	1		2/4				
	8			N				
	9					. /		
	10	1				N -		
	11							
	12					N		
	13		12					
	14							
	15		2			,		
	16					N		
4.0/	17		N					
KSSTANT _	18							
1,,		N						
	20	1						
	21							
SH DON	22	1						
	23		N					- KINDAMAN INSTANTAN
	24		N					Designation (150)
	25		N					- 4
	26	N					And a second second	_ observere
		73		N				
	28			4	A PARTY OF			"observere"  forklar prospekt  ikhe en spe time
24	29 A							Jankan progen
(A)	2 30 A							ikha an (doi) 1

Diagram 12: Revised classroom oral participation scheme (COPS2) used during elementary observation

I created the coding sheet in Excel and named it COPS2. (See Diagram 12.) All AS-units produced during the 45-minute class period were recorded chronologically. The column on the far left contains the AS-unit number. The *Oral participation* section is nearly identical to the section on COPS. In COPS2, the *choral* and *silence* categories are removed. COPS2 contained the oral participation section from COPS as well as four new columns: *off-topic; speaker; length; context*. AS-units were coded as *Off-topic* when they were unrelated to the previous AS-unit and/or were clearly unrelated to the topic of discussion. An example is when a teacher was presenting the concept of chores and asking students how often they clean their rooms. A student stated, "A bird flew into my bedroom once." The teacher's AS-unit was noted as a question in the *T (initiated)* column, and the student's AS-unit was coded as *Off topic*.

The second new category in COPS2 was *Speaker*. The *Speaker* category was used to indicate who produced the AS-units. Recording which student spoke was important to gain a view of dispersion. If data showed a high student to teacher AS-unit ratio, I might have concluded that student oral participation was high. However, if only one or two students spoke during the entire class period, it would be incorrect to state that student oral participation as a whole was high. Thus, COPS2 allowed the recording of which specific students spoke. I identified each student using a two-character code for identification. When a student spoke, the identification code was written in the *Speaker* column on the COPS2. By assigning identification codes to students, COPS2 allowed for coding of oral exchanges between the teacher and students (full class events) and student to student communication (pair work) as well as AS-units produced during work on computers (individual work). Directly before each class began, I drew a seating chart using information from pre-interviews done with teachers and based on where students sat just before the teacher began the classes. Diagram 13 shows an example of a seating chart.

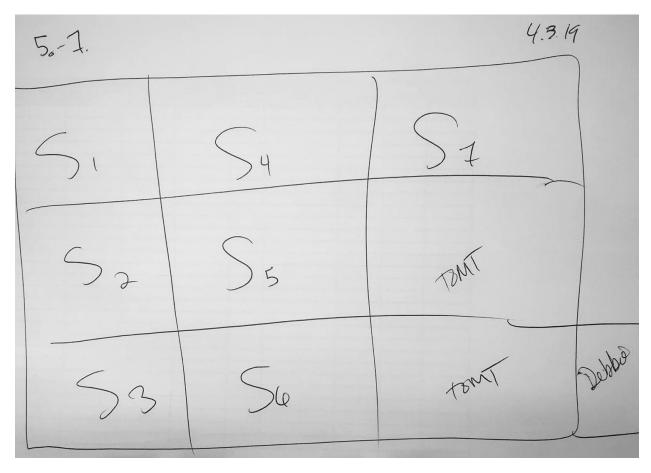


Diagram 13: A seating chart showing two-character codes for students.

Measuring the number of AS-units and who produced them provided only part of the picture of oral participation in class period. The lengths of AS-units could give a picture of the distribution of oral activity. For example, if teacher AS-units were few and the number of student AS-units high, I might have assumed that there was more student participation in a class period. However, if the teacher used long AS-units repeatedly and students simply answered or commented with one-word AS-units, that assumption could be wrong. The aim was to determine whether specific students' or the teacher's talk dominated. Although not precisely timed, a perceived *Length of AS-unit* estimated in seconds could provide a better overall picture of oral participation. The only reliable way to have captured actual length of AS-units would have been to record the session and analyze afterwards. The design of the study did not allow for such recording. Post-observation I saw that discourse occurred too quickly for me to note lengths of AS-units.

Although I intended to measure approximate (perceived) length only, even this was impossible given the pace of oral interchanges.

The third addition to COPS 2 was a context column. The context was recorded for two main reasons. First, I wrote words or phrases to provide information about the progression of events in the classroom. An example of this is shown in rows 1 and 18 of Diagram 13. The *Context* notes for row 1 reads, "Teacher greeted students 'Hello'". *Context* notes for row 18 indicate that the official start of the class occurred then. Note that context notes for row 18 were written in the left margin, not in the context column to the far right. Due to the *Context* notes in rows 1 and 18, I know that rows 1-17 designate talk that occurred before the teacher officially started the class using an English AS-unit as coded in row 18.

The second reason for noting context was to define the contexts in which Norwegian was spoken in the English classrooms. When possible, words or phrases were recorded in the context column each time teachers spoke in Norwegian. These AS-units were recorded as "N" or "N?" if the ASunit was a question. In rows 29 and 30 in Diagram 13, context is recorded for teacher AS-unit. In row 29, the teacher used Norwegian to describe and clarify a project the students were to begin at home. Before he continued describing the project, he corrected a student by using a Norwegian AS-unit which included the phrase "ikkje ein spå time", translated as, "not a class to predict the future", as recorded in row 30. Note that in both rows 29 and 30, there are "N" characters in the T initiated column. Similarly, when students spoke Norwegian, "N" or "N?" characters were also used. Unlike with teachers, I wrote context notes next to student AS-units only part of the time due to time constraints. (See Diagram 12.) Most of the student Norwegian talk has no context notes. The exception is in row 24. The character "N" is in the column S initiated, designating that the AS-unit was not in response to a previous AS-unit and that it was a Norwegian AS-unit. By looking at the context column corresponding to row 24, it is evident that the student said, "skjønnar ingenting". No speaker identification or perceived length was recorded for the ASunit.

Besides these four coding categories, COPS2 differed in two other ways from the COPS scheme. Unlike the COPS scheme first used, AS-units were coded sequentially starting in row 1. The first AS-unit produced during the class period was recorded in row 1. The second AS-unit in row 2 and so on. By coding each individual AS-unit chronologically down the coding sheet, a better picture of how classroom activities proceeded was achieved. Second, by defining identification codes to students, COPS2 allowed for coding of oral exchanges between the teacher and students (full class events) and student to student communication (pair work) as well as AS-units produced during work on computers (individual work).

Despite the differences mentioned above, COPS2 was similar to COPS1. Just as on the COPS1 sheet, "N" was used to indicate for Norwegian, "I" (tick mark) for English and questions asked were marked using the character "?". In the event a question was asked in Norwegian, the code "N?" was used. If the question was asked in English, only "?" was used. By using short character codes as well as recording chronologically down the page, coding proceeded faster than when using the original COPS1.

During observation, I recognized that this revised coding scheme also had its challenges. These were mostly due to the pace of the oral exchanges. Observation of which students spoke, the perceived length of AS-units and in what context Norwegian was used all posed difficult to record. Although only two characters were needed to designate which students spoke, placing the two-character code in the correct column took time. Thus, recording student identification and context was very difficult in the first observation using COPS2. In subsequent observations, being more experienced with the coding and prepared for the fast pace, I was able to record which students spoke for most, but not all, of the AS-units.

Regarding context, several important issues arose from COPS2 observation. In many cases, the AS-units were in Norwegian and required context recorded. There was a significant difference in time required to code for Norwegian versus English AS-units. Units produced in English by the teacher were much quicker to code than AS-units produced by students asking a question in

Norwegian. For example, Diagram 12 is a completed COPS2 coding sheet. In the first column of rows 1, 3 and 5 the code "I" was placed when the teacher made statements in English. On the other hand, the first column of rows 29 and 30 contains codes of "N" as well as a context description at the far right beside the last column. Note that the coding sheet in Diagram 12 contains no data about speaker identification or perceived length. As previously stated, the pace of the oral activity was so fast that coding this information was not possible during most of the initial observation.

In light of the issues when using COPS and COPS2, the coding scheme was revised further before subsequent observations. Most importantly, a list of context codes was used. The coding scheme COPS3 resulted. Context codes were created to reduce coding time and to define a range of measurable variables. The context code categories were chosen after Spada & Frölich as well as Jim King (Spada & Frölich, 1995) (King, 2011). Based on information from Spada, Frölich, and King as well as experiences from previous observations, ten code categories with corresponding code characters were used. (See Table 4 for examples of AS-units in each category.)

Category	Code	Example AS-unit - Norwegian	Example AS-unit - English				
Answer	A	"Eg ryddar rommet mitt kvar	"I clean my room every weekend."				
		helg."					
Choral	CH	"Vi seier det saman no.	"Let's say it together now,				
		'Homework.'"	'Homework'."				
Classroom	CM	"Bruk innestemme."	"Use your inside voice."				
management							
Counting	C	"Ein, to, tre, fire"	"One, two, three, four"				
Explanation	E	"Eg gadd ikkje å telje."	"I couldn't be bothered to count."				
Grammar	G	"Med ein person bruk'is', ikkje	"With one person use is, not are."				
		'are'."					
Instruction	I	"Gå og hent boka."	"Go get your book."				
Off task	OFF	"Bæ bæ lille lam."	"Baa, baa, black sheep."				
Question	?	"Kvar mange har boka?"	"How many have their books?				
Translation	T	"Mailbox betyr postkasse."	"Postkasse means mailbox."				

Table 4 COPS3 context coding categories with example AS-units

When Norwegian AS-units were produced by the teachers, I recorded contexts using COPS3. To avoid time spent on writing out phrases to describe contexts, character codes were created. I assigned character codes to ten context categories. In the column *Example AS-unit - Norwegian* are real examples of talk during observation. These AS-units are translated in the column *Example AS-unit - English*.

							11	'				
	ORAL PARTIC	IPATION	I = ENGLISH	H N = NORS	K		181	SPEAKER	LENGTH	CONTEXT		
	T (initiated)	T (response)	S (initiated)	S (response)	S pair	S pairs (to	class)					
361		1										
362		NE									the to do	11.1
' 363	E	., .									1. to do	H. Wa
364											1/12	
365	5		75/N	1								
366	T											
36			751 N				PIN					
36	8 T											
36	9 I											
37	0 1?-7	51										
37	1			TN								
37	2			1								
37	3			1								
37		1										
37	100				-							
37	6		51 ?1		-							
37		/										
37	8 (5		1 63	-	-							
37			157	1	-							
	30		1 34		1							
38												
38		-		57 N								
	83	G		37.								
	85	6										
	86	6	S7 1	缢								
	87 6		37									
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	89		51 1							(	lab tried c	Lichen
	90		57+	571							1	

Diagram 15: Completed coding sheet using scheme COPS3 in elementary classroom observations

A completed coding sheet using COPS3 can be seen in Diagram 15. Despite small marking mistakes made while coding, this coding scheme provided a much more detailed record of classroom activities. In order to present how the COPS3 provided more detailed information about oral activity than previous schemes, I will provide a specific example. In Diagram 15, in

rows 378 through 390, an exchange between a teacher and two students is recorded. In row 378 the "G" indicates that the teacher presented a grammatical concept to the class in Norwegian. Directly after, student S7 produced two AS-units in English. Since these were not placed in the Off-topic column, we know that the statements concerned the same topic as presented by the teacher. Note that the student speaks in English although the teacher presented the grammar topic in Norwegian. This is interesting when considering how students' choices of language affect the language of instruction. Further discussion and findings are presented later in this appendix. After producing another statement about grammar in row 381, the teacher asks a question in Norwegian in row 382. In row 387 we see that it was student S7 that responded in Norwegian. Next, the teacher responded to S7 by making two statements in Norwegian coded in rows 387 and 388. We know that the teacher's statements concern the same topic as student S7's AS-unit because rows 384 and 385 were coded in the T(response) column. S7 then initiated a statement in English. We see no direct response to this student's statement. Instead, the teacher produced two grammar-related AS-units in Norwegian, which were coded in rows 387 and 388. Just as before, the teacher continued in Norwegian despite student S7's English statement. Lastly, S1 produced an AS-unit in English. As the code is not placed in the Off-topic column, the AS-unit was related to the teacher's grammar topic. In response, S7 commented in English to S1's statement. As shown, notation on COPS3 provides a good deal of information about classroom oral participation. Who is speaking, whether the speaker is the teacher or a student, whether a question or a statement is made, whether English or Norwegian is used and in what situations Norwegian AS-units occur are all noted using the coding scheme.

Using experiences gleaned from previous observation, the coding scheme COPS3 was revised a final time. It became clear that coding for speaker, language and context could be done just as efficiently within a single column than in several. Thus, a final revision of the coding scheme involved coding within a single column that provided the same information previously marked in separate columns. The final version was named COPS4. (See Diagram 16.)

AUSTRA	ORAL PARTIC	CIPATION	I = ENGLISH	H N = NORS	SK		- 43	SPEAKER	LENGTH	CONTEXT
	T (initiated)			S (response)		S pairs (to	class)			
241		· (response)	5 (IIIItiated)	3 (Teaperise)	o puii					
242	10									
243	-10									
244		./	t cold w	e Hinh a	4 1/2	stage is	na	00		
245	TE	what	torca w	e / -inve a	9 /60	yaye 1.		~		
246		wha	+ cold	lastile 1	12.47					
247	510 A	www	1	happen 1	vexy.					
248	TE	right		''						
249	TE	1.70								
250	T?		ne must	ask ones	Over	another	- 00 8	in		7
251	TA		we my	The stay	ecves,	anoscer	gregi	n		
252	Friteril	bled 5101	=							
253	71019	SIDE			1					
254	TES	Min al	510							
255	TE	offirmed	210							
256	TE									
257	TE									
258	TE									-
259	17	what else	could be	ables ?	na	n 3	sok			
260	TE	apper and		11 .	1		Je m			
261	+7			-						
262	TE						20	-		
263	510 A						Y	140		
264	SIDA				1	Sor	-1	alter	1	
265	T->510	aftirmed			1	1.1		WL	1	
266		70			1	VW-	-1		1	
267	TE				1	0.1	-11	6	1	
268	16				+	grou	- 11	Daa		
269					-	-				
270	TE				1		-1			

Diagram 16: Completed COPS4 coding sheet used during a university classroom observation

Besides using only one column, two additional novelties characterized COPS4. First, arrows were used to indicate when AS-units were directed specifically to someone. Thus, when a teacher asked S7 a question in English and she answered, the AS-units were coded as "T?→S7" and "S7A", respectively. When a teacher asked the entire class the question in English the sentence would be coded as "T?". Arrows were also used when students asked direct questions to a teacher. An example is when S11 asked a teacher, "Short stories or novels?", and the teacher answered, "Short stories." The AS-units were coded as "S11? →T" And "TA", respectively. Second, while I continued with the previous practice of marking "N" when AS-unit was produced in Norwegian by students, no specific designation was used for English AS-units. Having gained valuable experience with real-time coding in classrooms with fast-paced communication, I decided that reducing coding time was paramount. Cutting out a specific designation for Norwegian also reduced coding time. Thus, when teachers spoke Norwegian,

"N" was not noted. Noting "T" plus a context code indicated that the AS-unit was produced in Norwegian.

Despite the differences between COPS4 and other schemes, many things continued as in previous schemes. Speaker codes remained "T" for teacher and "S#" for students. Further, as in previous observations, context codes ("?"; "A"; "C"; "CM"; "CH"; "E"; "G"; "I"; "S"; "T") were implemented when teachers spoke in Norwegian. Lastly, AS-units continued to be coded sequentially down the page.

APPENDIX 5 COPS Classroom Oral Participation Scheme (COPS) categories

*Teacher (initiated):* Talk, in the form of asking questions, presenting information, providing feedback, giving task instructions, and so on, which is initiated by the teacher.

*Teacher (response)*: Talk in which the teacher responds to questions or solicitations from students.

*Student (initiated):* A student produces an unsolicited turn at talk to which the majority of class members are exposed. The learner initiates oral interaction through an unexpected question or statement.

*Student (response):* Talk in which a student responds to a question or prompt by the teacher. The interaction may be either a self-selected turn or a response to being individually nominated.

Students in a pair/group (single): Talk involving a single pair or single group of students to which the rest of the class is exposed to.

Students in a pair/group (multiple): The whole class is organized into pairs or groups to perform speaking tasks such as discussion, role play, and so on.

*Choral:* Talk in the form of a choral speaking drill during which the class repeats after the teacher or in response to another source, such as a recording.

Off-task melee: The students are no longer on task but are instead involved in chatting with peers.

Silence: No oral interaction on the part of the participants.

## Reference

King, J. E. (2011). *Silence in the second language classroom* (Doctoral dissertation). University of Nottingham, England.

# APPENDIX 6 Context categories of teacher talk in Norwegian

Category	Code	Example AS-unit - Norwegian	Example AS-unit - English					
Answer	A	"Eg ryddar rommet mitt kvar helg."	"I clean my room every weekend."					
Choral	СН	"Vi seier det saman no. 'Homework."	"Let's say it together now, 'Homework'."					
Classroom management	CM	"Bruk innestemme."	"Use your inside voice."					
Counting	C	"Ein, to, tre, fire"	"One, two, three, four"					
Explanation	E	"Eg gadd ikkje å telje."	"I couldn't be bothered to count."					
Grammar	G	"Med ein person bruk'is', ikkje 'are'."	"With one person use is, not are."					
Instruction	I	"Gå og hent boka."	"Go get your book."					
Off task	OFF	"Bæ bæ lille lam."	"Baa, baa, black sheep."					
Question	?	"Kvar mange har boka?"	"How many have their books?					
Translation	T	"Mailbox betyr postkasse."	"Postkasse means mailbox."					

## References

Adendorff, R. (1993). Codeswitching amongst zulu-speaking teachers and their pupils: Its functions and implications for teacher education. In: *Language and Education*, 7(3), 141-162.

Bae, G. & Kim, E. (2007). What causes reliance on English? *Applied Language Learning*, 17, 63-76.

Bateman, B. (2008). Student Teachers' Attitudes and Beliefs About Using the Target Language in the Classroom. *Foreign Language Annals*, 41(1), 11-28.

Belz, Julie. (2003). Identity, Deficiency, and First Language Use in Foreign Language Education. In C. Blyth (Ed.), *The sociolinguistics of Foreign Language Classrooms:*Contributions of the native, near-native and the non-native speaker (pp.209-248). Boston, MA: Heinle.

Bollerud, R. (2002). Teaching English as a Foreign Language: To what extent is Nrowegian used in our English teaching today - and why? (Masters thesis). University of Oslo, Oslo.

Brevik, L.M., & Rindal, U. (2020). Language Use in the Classroom: Balancing Target Language Exposure With the Need for Other Languages. *TESOL Quarterly*, *54*(4), 925-953. Retrieved from https://doi.org/10.1002/tesq.564

Copland, F. & Neokleous, G. (2011). L1 to teach L2: complexities and contradictions. *ELT Journal*, 65(3), 270–280.

Corder, S. P. (1967). The Significance of Learners' Errors. *International Review of Applied Linguistics in Language Teaching*, *5*, 161-170. Retrieved from <a href="https://files.eric.ed.gov/fulltext/ED019903.pdf">https://files.eric.ed.gov/fulltext/ED019903.pdf</a>

Crookes, G. (1990). The AS-unit, and Other Basic Units for Second Language Discourse Analysis. *Applied Linguistics* 11(2), 183–199.

Dahl, A. & Vulchanova, M.D. (2014). *Young language learners: The acquisition of English in Norwegian first-grade classrooms* (Doctoral dissertation). Norwegian University of Science and Technology, Trondheim.

Drew, I. (2004). Survey of English teaching in Norwegian primary schools, unpublished report. Stavanger: Stavanger University College.

Drew, I., Oostdam, R.J., & van Toorenburg, H. (2007). Teachers' experiences and perceptions of primary EFL in Norway and the Netherlands: a comparative study. *European Journal of Teacher Education*, 30, 319 - 341.

Eikrem, B. O. (2012). "Betre å vere stor enn liten". Korleis elevane opplever engelskfaget, sett i lys av arbeidsmåtane som vert nytta. In P. Haug (Ed.), *Kvalitet i opplæringa: Arbeid i grunnskulen observert og vurdert* (pp.101-121). Oslo: Det norske samlaget.

Eriksen, L. A. (2009). "Repeat after me": hvordan møter lærerene førstetrinnselever som ikke behersker undervisningsspråket? En casestudie fra to førsteklasser, og deres lærere i Namibia (Master's thesis). Inland Norway University of Applied Sciences, Hamar.

Eurydice (2012). *Key Data on Teaching Languages 2012*. Brussels: Education, Audiovisual and Culture Executive Agency. Retrieved from:

https://ec.europa.eu/eurostat/documents/3217494/5775673/EC-XA-12-001-EN.PDF/917d3746-886e-456a-8b01-1971013d1cef

Flemmen, R. L. F. (2006). "Head and shoulders, knees and toes". In P. Haug (Ed.), Begynnaropplæring og tilpassa undervisning - kva skjer i klasserommet? Bergen: Caspar Forlag.

Foster, P., Tonkyn, A., & Wigglesworth, G. (2000). Measuring spoken language: A unit for all reasons. *Applied Linguistics*, 21(3), 354-375.

Fröhlich, M., Spada, N. & Allen, P. (1985). Differences in the communicative orientation of L2 classrooms. *TESOL Quarterly*, *19*, 27-57.

Grim, F. (2010). L1 in the L2 classroom at the secondary and college levels: A comparison of functions and use by teachers. *Electronic Journal of Foreign Language Teaching*, 7 (2), 193-209.

Guskey, T., & Passaro, P. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal*, 31, 627–643.

Halasa, N.H. & Al-Manaseer, M. (2012). The use of first language in second language learning reconsidered. *College Student Journal*, 46 (1), 71-81.

Hall, G. & Cook, G. (2012). Own-language use in language teaching and learning. *Language teaching*, 45(3), 271-308.

Hall, J. K. & Walsh, M. (2002). Teacher-student interaction and language learning. *Annual Review of Applied Linguistics*, 22, 186-203.

Hansen, S. (2006). I can't do everything! English teachers' efficacy beliefs. In: *International Journal of Learning*, 13(7), 53–60.

Hellekjær, G.O. (2007). The Implementation of Undergraduate Level English Medium Programs in Norway: An Explorative Case Study. In R. Wilkinson & V. Zegers (Eds.), *Researching Content and Language Integration in Higher Education (pp.68-81)*. Maastricht, Netherlands: Maastricht University Language Centre.

Hellekjær, G.O. (2009). Academic English reading proficiency at the university level: A Norwegian case study. *Reading in a Foreign Language*, *21*(2),198–222.

Hellekjær, G. O. (2010). Lecture Comprehension in English-Medium Higher Education. *HERMES - Journal of Language and Communication in Business*, *45*, 11–34.

Hellekjær, G. O. (2012). Fra Reform 94 til Kunnskapsløftet: en sammenligning av leseferdigheter i engelsk blant avgangselever i den videregående skolen. I T. Hopfenbeck, T. Nerheim, M. Kjærnsli, & R.V. Olsen (Ed.), *Kvalitet i norsk skole: Internasjonale og nasjonale undersøkelser av læringsutbytte og undervisning* (pp.153-171). Oslo: Universitetsforlaget.

Hellekjær, G.O., Doetjes, G. & Trandem, B. (2007). *Fremmedspråk i norsk næringsliv - engelsk er ikke nok!* Fremmedspråksenteret, Halden.

Hoff, M.S.T. (2013). L1 use in EFL instruction (Masters thesis). University of Oslo, Oslo.

Hunt, K. W. (1970). Syntactic Maturity in Schoolchildren and Adults. *Monographs of the Society for Research in Child Development*, 35(1), iii–67.

Hulstijn, J. (2010). Measuring second language proficiency. In E. Blom & S. Unsworth (Eds.), *Experimental methods in language acquisition research* (pp.185-200). Amsterdam: John Benjamins Publishing.

Johnson, D.M. (1993). Classroom-oriented research in second-language learning. In A.O. Hadley (Ed.), *Research in language learning: Principles, processes, and prospects* (pp.1-23). Lincolnwood, IL: National Textbook Company.

Johansson, S. (2014). Code-switching in the English classroom: What teachers do and what their students wish they did. *Journal of Research Practice*, 6(2), 1-17.

King, J. E. (2011). Silence in the second language classroom (Doctoral dissertation). University of Nottingham, England.

Kim, S., & Elder, C. (2005). Language choices and pedagogic functions in the foreign language classroom: A cross-linguistic functional analysis of teacher talk. *Language Teaching Research: LTR*, 9(4), 355-380.

Kjøstvedt, K. (2020). *Investigating Teachers' Use of L1 in L2 Teaching A survey of English teachers' attitudes and perceived classroom practices in Norwegian lower secondary school* (Masters thesis). University of Agder, Kristiansand.

Krashen, S.D. (1981) Second Language Acquisition and Second Language Learning. Oxford: Pergamon Press Inc.

Krashen, S. (1985). The input hypothesis: Issues and implications. New York: Longman.

Krulatz, A., Dahl, A., & Flognfeldt, M. (2019). *Enacting Multilingualism: From research to teaching practice in the English classroom*. Oslo: Cappelen Damm akademisk.

Krulatz, A., Neokleous, G., & Henningsen, F. (2016). Towards an understanding of target language use in the EFL classroom: A report from Norway. *International Journal for 21st Century Education*, *3*, 137-152.

L97, *Læreplanverket for den 10-årige grunnskolen 1997*, Det kongelige kirke-, utdannings- og forskningsdepartement, Oslo 1996.

Lightbown, Patsy. (2000). Anniversary Article Classroom SLA Research and Second Language Teaching. *Applied Linguistics*, 21(4), 431-462.

Lipski, J. M. (2014). Spanish-English code-switching among low-fluency bilinguals: Towards an expanded typology. *Sociolinguistic Studies*, 8(1), 23–55.

Liu, D., Ahn, G.S., Baek, K.S., & Han, N.O. (2004). South Korean High School English Teachers' Code Switching: Questions and Challenges in the Drive for Maximal Use of English in Teaching. *TESOL Quarterly*, 38(4), 605–638.

Macaro, E. (2005) Codeswitching in the L2 Classroom: A Communication and Learning Strategy. In: E. Llurda (Ed.), *Non-Native Language Teachers* (pp.63-84). Boston, MA: Springer.

Mackey, A., & Gass, S. M. (2008). *Second language research: Methodology and design* (1st ed.). New York, NY: Routledge.

Mackey, A., & Gass, S. M. (2016). *Second language research: Methodology and design* (2nd ed.). New York, NY: Routledge.

Marsden, E., Mackey A., & Plonsky, L. (2016). The IRIS Repository: Advancing research practice and methodology. In A. Mackey & E. Marsden (Eds.), *Advancing methodology and practice: The IRIS Repository of Instruments for Research into Second Languages* (pp. 1-21). New York: Routledge.

MacWhinney, B. (1991). *The CHILDES language project: Tools for analyzing talk*. Hillsdale, NJ: Lawrence Erlbaum.

Mattioli, G. (2004). On Native Language Intrusions and Making Do with Words: Linguistically Homogeneous Classrooms and Native Language Use. *English Teaching Forum* 42(4), 20–25.

Miller, J. F., Andriacchi, K., & Nockerts, A. (2019). *Assessing Language Production Using SALT Software: A clinician's guide to language sample analysis* (3rd Edition). Madison, WI: SALT Software, LLC.

Ministry of Education and Research (2010). *National guidelines for the primary and lower secondary teacher education programme*. Retrieved from:

https://www.uhr.no/en/resources/documents-and-reports-in-english/

Ministry of Education and Research (2013). *English subject curriculum* (ENG1-03). Established as a Regulation by the Ministry of Education and Research 2013.

Ministry of Education and Research (2017). *Core curriculum: values and principles for primary and secondary education*. Established as a Regulation by the Ministry of Education and Research 2017.

National council for teacher education (2016). *National guidelines for the primary and lower secondary teacher education programme*. Retrieved from:

https://www.uhr.no/en/resources/documents-and-reports-in-english/

Neokleous, G. & Krulatz, A. (2018) Investigation into Norwegian Teachers' Perspectives on the Use of Students' Mother Tongue in the EFL Classroom. *Journal of Linguistics and Language Teaching*, 9(2), 169-188.

Neokleous, G. & Ofte, I. (2020). In-service teacher attitudes toward the use of the mother tongue in Norwegian EFL classrooms. *Nordic Journal of Modern Language Methodology*, 8(2), 68-88.

Norwegian Directorate for Education and Training (2019). *The Norwegian Education Mirror*. [Circular]. The Government. https://www.udir.no/in-english/education-mirror-2019/about-the-education-mirror/

Norwegian Directorate for Education and Training (2020). *Curriculum in English (ENG01-04)*. Retrieved from: https://www.udir.no/lk20/eng01-04?lang=eng

Opdal, T.S. (2017). Academic and General English in Norwegian Upper Secondary School - A study of students' proficiency and ability to distinguish between the two language styles (Masters thesis). Norwegian University of Science and Technology, Trondheim.

Pannell, J., Partsch, F. & Fuller, N. (2017). The Output Hypothesis: From Theory to Practice. *TESOL Working Paper Series*, *15*, 126-159.

Pienemann, M. (1984). Psychological Constraints on the Teachability of Languages. *Studies in Second Language Acquisition*, 6, 186-214. http://dx.doi.org/10.1017/S0272263100005015

Pienemann, M. (1989). Is language teachable? Psycholinguistic experiments and hypotheses. *Applied Linguistics*, 10(1), 52-79.

Probyn, M. (2009). 'Smuggling the vernacular into the classroom': conflicts and tensions in classroom codeswitching in township/rural schools in South Africa. *International Journal of Bilingual Education and Bilingualism*, 12(2), 123-136.

Quirk, R., Greenbaum, S., Leech, G & Svartvik, J. (1985) A comprehensive grammar of the English language. Harlow: Longman.

Rindal, U. (2019). PhD Revisited: Meaning in English. L2 attitudes, choices and pronunciation in Norway. In U. Rindal, & L.M. Brevik (Eds), *English didactics in Norway-30 years of doctoral research* (p. 335-355). Oslo: Universitetsforlaget.

Ross, N. J. (2000). Interference and intervention: Using translation in the EFL classroom. *Modern English Teacher*, *9*(3), 61-66.

Skutnabb-Kangas, T. & Phillipson, R. (2017). *Linguistic human rights, past and present*. London & New York: Routledge.

Selinker, L. (1972). Interlanguage. *IRAL - International Review of Applied Linguistics in Language Teaching*, 10(1-4), 209-231.

Shinga, S.E. (2019). *Code-switching in the English second language classroom: A case of four rural high school teachers in Umbumbulu, Kwazulu-Natal* (Doctoral dissertation). University of Kwazulu-Natal, Durban.

Singh, R., & Sharma, G. (Eds.). (2011). *Annual review of South Asian languages and linguistics*. Berlin: De Gruyter.

Spada, N., & Fröhlich, M. (1995). *COLT-communicative orientation of language teaching observation scheme: Coding conventions and applications*. Sydney: National Centre for English Language Teaching and Research.

Statistics Norway. (2022). Students in Higher Education. Retrieved from https://www.ssb.no/utdanning/hoyere-utdanning/statistikk/studenter-i-universitets-og-hogskoleutdanning

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, MA: Newbury House.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seildlhofer (Eds.), *Principle & practice in applied linguistics: studies in honour of H.G. Widdowson* (pp. 125-144). Oxford: Oxford University Press.

Swain, M. (2005). The Output Hypothesis: Theory and Research . In E. Hinkel (Ed.), *Handbook of Research in Second Language Teaching and Learning* (pp. 495-508). New York: Routledge.

Thune, T., Reisegg, Ø. and Askheim, S. (2019). School and Education in Norway. Retrieved from https://snl.no/Skole\_og\_utdanning\_i\_Norge

Tonkyn, A. (1996). The Oral Language Development of Instructed Second Language Learners: The quest for a progress-sensitive proficiency measure. *British Studies in Applied Linguistics*, 10, 116.

Tveiten, Kyrre. (2019). Teacher Awareness of Own Language Practices: A study on beliefs and practices regarding L1 and L2 use in the English subject classroom on the lower secondary level in Norway (Master thesis). University of Oslo, Oslo.

Van der Walt, C. (2009). The function of code switching in English language learning classes, *Per Linguam*, 25(1), 30–43.

Williamson, Bret. (2016). "Who said that?" A study into the use of oral English in English-language teaching and sources of incidental English-language learning in two Norwegian lower-secondary school classrooms (Master thesis). Bergen University College, Bergen.

Woodside, A.G. (2010). *Case Study Research: Theory, Methods and Practice*. Bingley, UK: Emerald Group Publishing.

Årvik, B.B. (2021). Language choices by English teachers: A qualitative study of language use and language comments during English lessons in five lower secondary school classrooms (Masters thesis). University of Oslo, Oslo.