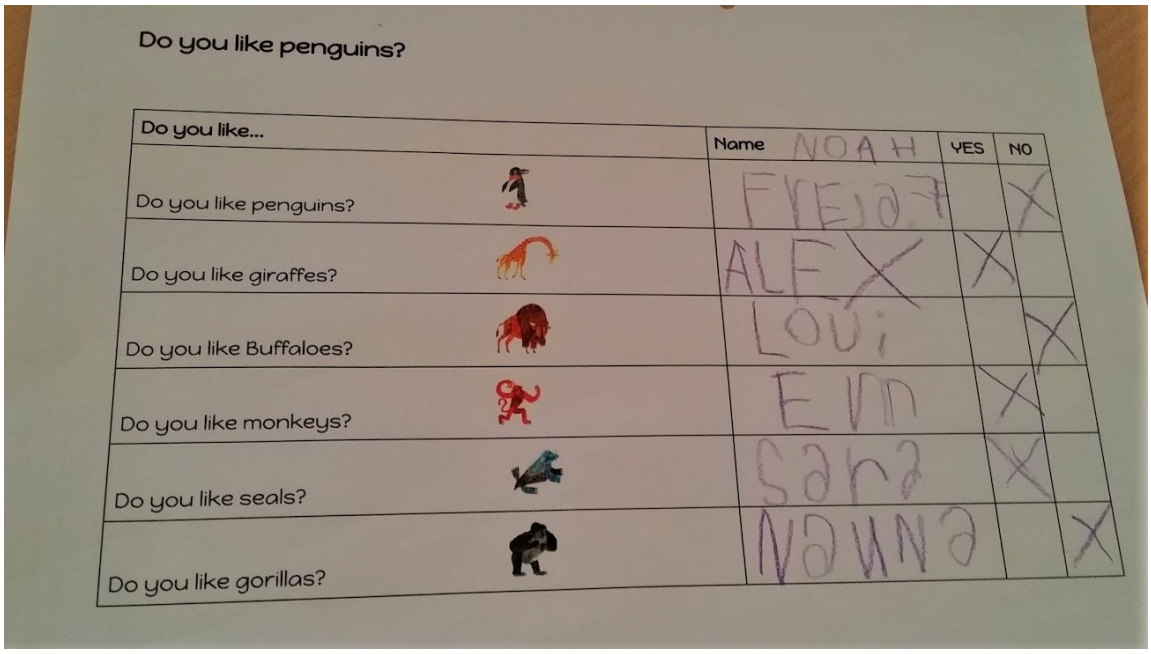
# Individual differences in early learning of English in Danish schools: A mixed-methods study

Ph.D. Dissertation

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December 2017

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Thanks to Lina Fuglheim
for giving me permission to use the picture
from her English lesson blog with 1.a.

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# Acknowledgements

Individual differences in learning. On the three years' journey of research and writing this dissertation, I went through all of them. Motivation. Fun. Positive and negative attitudes. Anxiety. Ups and downs in competence beliefs. Developing a growth mindset. I can say I have learned a lot.

Now is the time to thank all those who accompanied me, supported and helped me, and sometimes pushed me forward on this journey.

I am thankful to the Danish Council of Independent Research without whose help this research project would not have been possible. I am grateful to the schools, teachers, parents and children for cooperating in the project.

I thank my main supervisor, Professor Teresa Cadierno for trusting me, giving me the opportunity to take part in this project. Thank you for supervising me and helping me to get back to the academic life. Gracias!

Associate Professor Mikkel Hansen, my co-supervisor, thank you for supervision, intensive late night online sessions with statistics and fruitful discussions about mindsets and language acquisition. Tak!

Associate Professor Dennis Day, my co-supervisor, thanks for great analysis seminars, great supervision, good discussions about methodology and fatherly advice. Tack!

I am thankful that I could be the member of *The younger, the better* project team, thank you Mary, Signe, Søren and Teresa, it was a pleasure working with you. I am also thankful to the Advisory Board, Maria Pilar García Mayo, Alex Housen and Carmen Muñoz for sharing your expertise with us and giving valuable advice during the process.

I am indebted to Professor Jørgen T. Lauridsen (COHERE) and Associate Professor Jan Møller Nielsen (Department of Marketing and Management) for helping me to find the right statistical models, to analyze outputs and graphs. A special thanks to PhD fellow Erik Vindbjerg for helping me with the first steps in using the statistical program Stata, preparing data and writing and debugging do-files.

Alastair Henry, thanks for hosting me at Högskolan Väst and giving me valuable advice for my research. Thank you, Steven Breunig, Jytte Isaksen and Jane Winther for giving me valuable feedback and encouragement.

Signe Hannibal Jensen, thank you for being such a great office mate and always being there for a good talk and making fun in Danglish.

I also thank all the other companions who made my journey much more enjoyable. Klaus Geyer, thank you for your special collegial support, encouragement and great discussions. Danke! Alexandra Holsting, thank you for your patient help in teaching matters and encouragement. Sharon Millar, thank you for always being supportive and helpful and just being there when needed! Karoline Zoffmann, thank you for being such a great companion and encouragement. Nina Nørgaard, thanks for great conversations and coaching. Thanks to Thomas O. Madsen for collegial encouragement, good talks and coffee. Thanks to Inge-Marie Nielsen for nice conversations and the "refugium". Steffen Nordahl Lund, thank you for support and good MUS-talks. Thanks to Carl Bache and Gitta Stærmose for always being helpful and encouraging. Thanks to the people at the secretariat at the Department for Language and Communication for always being supportive and joyful.

And László Végső, thanks for lending me your Budapest office for my working holiday in the summer of 2017. And thanks to the Multi-Lingua team for hosting me and making me feel at home.

Great thanks to Ágnes Salánki and István Dezsényi for proofreading my English and Sille Vilain Meulengracht for proofreading my Danish summary in the last hours before submission.

And last but not least, thanks to my husband Tamás for discussing my research with me and always being a great support in good and bad times. Tamás, Gábor, Dóri and Dani, thanks for your love, patience and for putting up with me in difficult hours. Köszönöm!

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# English summary

The present dissertation is part of the larger project *The younger, the better?: A usage-based approach to learning and teaching of English in Danish primary schools*, which examines the role of the age factor in learning English as a foreign language (EFL) by comparing receptive proficiency data from children who started learning EFL at school in 1st and 3rd grade respectively from 2014 to 2017. In addition to the age of starting English, individual factors, for example motivation, attitudes and foreign language classroom anxiety (FLCA) were found to be important predictors of foreign language (FL) proficiency. This Ph.D. project examines the role of motivation, attitudes, FLCA, the children's beliefs about their own English competences (ECB) and implicit theories of intelligence or mindsets (Dweck, 2000) in Danish children's EFL learning.

Previous studies showed diverging results concerning the change of attitudes and motivation toward learning FLs, showing that children became either more negative or more positive over time. Research results on gender differences in individual factors are also conflicting. Some studies found that girls were more positive toward FL learning than boys, while others found no differences between genders. Concerning FLCA, some researchers found that girls were more anxious, while others found the opposite. Studies about children's individual factors investigating more than one factor at a time are rare. For example, Mihaljević Djigunović and Lopriore (2011) and Mihaljević Djigunović (2015) examined attitudes, motivation and competence beliefs but did not include FLCA and mindsets and did not relate the individual factors to FL proficiency measures.

The aim of this dissertation was to investigate both age and gender differences and the change of the above mentioned individual factors over a year in the Danish learning environment where this has not been done before (Paper 1, Paper 3 and Chapter 7). In addition, the dissertation investigated which of all these individual factors were predictors of EFL proficiency measures (Paper1). This dissertation was the first to investigate whether children's growth mindset predicts FL learning outcome.

Studies on children's FLCA found that test situations were the most important causes of FLCA in countries where students are regularly exposed to language tests, examinations and receive marks. Children in Danish primary schools are not graded and do not have to take English tests until the age of 13. This dissertation investigates the situations in which young EFL learners experienced FLCA in the Danish learning environment (Paper 2).

Previous research on children's motivation and attitudes toward learning FLs has concentrated on countries where children's exposure to English was mostly restricted to the EFL classroom (Sundqvist & Sylvén, 2016). In Denmark, like in other Scandinavian countries, English is a part of everyday life (Henry, Korp, Sundqvist, & Thorsen, 2017). Ushioda (2013) argues that in such contexts it is a real challenge for teachers to sustain learners' motivation in the EFL lessons. The present dissertation investigated what young learners are motivated by to learn English and what they like and dislike in English lessons in the Danish learning context (Paper 3).

The dissertation used mixed methods (Dörnyei, 2007), consisting of a questionnaire and semi-structured individual interviews. The questionnaire contained items on children's favorite school subjects, attitudes toward the EFL lessons, toward different activities in the EFL lessons, toward the English language, the motivating role of the parents and the teacher, of English as a lingua franca and precursors to the Ideal L2 self (Dörnyei, 2009) as well as items on FLCA, ECB and mindsets. It was administered to a larger sample (n=276) twice in the spring of 2015 and 2016. A smaller subsample of the larger sample (n=33) was interviewed in the spring and autumn of 2016. The semi-structured interview included a free conversation about learning English and questions about children's experiences in the EFL lessons and why they thought English was important to learn.

The larger sample included two cohorts of children that both began English instruction in 2014. The first cohort started in grade 1 (age=7-8 years), referred to as early starters, the second cohort started in grade 3 (age=9-10 years), referred to as late starters. Two language proficiency tests were administered to all the children in the larger sample, a receptive vocabulary test called the Peabody Vocabulary Test (PPVT) and the Test for Reception of Grammar (TROG-2) as well in fall of 2014 (pretest) and the fall of 2015 (posttest).

Questionnaire and proficiency data were analyzed with regression analysis and a mixed effects generalized linear model (Linck and Cunnings 2015). Interview data were analyzed by thematic analysis (Braun & Clarke, 2006).

The dissertation addressed the following main research questions:

RQ1: Are there age and gender related differences in relation to the individual factors and how do they relate to EFL outcomes? (Paper 1, Paper 3 and Chapter 7)

RQ2: To what extent do early and late starters' individual factors change after one year? (Paper 3 and Chapter 7)

RQ3: How do children describe experiences of foreign language classroom anxiety in the EFL lessons? (Paper 2)

RQ4: What motivating and demotivating factors to learn EFL do children describe? (Paper 3)

The dissertation yielded the following main findings.

Both early and late starters began EFL instruction with previous knowledge of English vocabulary and grammar which was higher for late starters than for early starters. The reason for this is most likely that Danish children are exposed to a lot of English outside school and due to their biological age, late starters were exposed to two years' more English than early starters. Despite the initial difference in EFL proficiency both age groups made similar gains within one year showing that there was no rate advantage for the older learners, which previous literature suggested (Tragant, 2006). The results of this dissertation also showed that late starter girls scored lower on both receptive language tests than late starter boys.

The dissertation showed that four factors predicted receptive vocabulary and grammar scores (RQ1). These were FLCA, ECB, learners' mindset and the influence of external authorities as a source of motivation. First, the more positive beliefs children held about their own English competence, the higher the proficiency scores they obtained in both pre- and posttest. Second, the more incremental (growth) mindset children had, the higher their proficiency scores in both pre- and posttest. This finding is in line with previous studies which have found that a growth mindset predicted higher math and L1 achievement. Paper 1 was the first to show that growth mindset predicted FL achievement. Third, the less children relied on external authorities as motivators, the higher their proficiency scores in both pre- and posttest. Fourth, high FLCA predicted not only pre- and posttest results but also the gains between pre- and posttest among late starters. For vocabulary, high ECB had a protective effect against FLCA, showing that high anxiety predicted low vocabulary scores mainly for students with low competence beliefs.

The dissertation also showed the following main age and developmental differences in Danish children's individual factors in learning English (RQ1 and 2). First, both early and late starters' positive attitudes toward English lessons and activities in the English lessons dropped within one year, showing that children were more enthusiastic at the beginning of FL instruction but this enthusiasm weakened with time. Although attitudes did not correlate with EFL proficiency scores, this is an important finding because it shows that an early start does not necessarily prevent children's overtly positive attitudes to turn less positive over time.

Second, early starters relied more on external authorities than late starters, showing that they had a stronger Ought-to L2 self, which correlated negatively with children's EFL proficiency scores.

The dissertation showed three main gender-related findings (RQ1 and 2). First, in contrast to previous literature and the traditional view that girls like to learn FLs more than boys, the present dissertation found that there was no difference between boys' and girls' attitudes toward English lessons. The data on children's indication of their first and second favorite subjects showed that girls' interest toward EFL dropped even more than boys' for both early and late starters after one year of instruction. Furthermore, boys in the older age group had a stronger picture of themselves as future speakers and users of English showing that they had stronger precursors to the Ideal L2 self. These findings about boys' and girls' motivation and attitudes toward learning English taken together show that, in the Danish learning environment, boys' motivation seems to be stronger for learning English than girls'. This is in line with the finding that late starter boys scored significantly higher on the receptive vocabulary and grammar tests.

Second, girls' attitudes toward activities in the English lessons were more positive than boys' in both age groups. This seems to contradict the previous gender-related findings. The reason for the seeming contradiction may be that boys prefer other English language activities outside school. While attitudes toward activities in the present dissertation did not correlate with EFL outcomes, engagement in activities with English outside school was shown to be related to higher outcomes in a subsample within the same larger sample as used in the present dissertation (Hannibal Jensen, 2017).

Third, girls in the older age group (9-11 years) turned out to be special from several points of view. Their FLCA increased and their ECB decreased significantly compared to boys and younger girls. In addition, they preferred writing more than boys and younger girls compared to speaking. And since the results from Paper 1 showed that FLCA and ECB are important predictors of FL achievement, this group of girls, especially those girls with both high FLCA and low ECB, can be at higher risk for falling behind in EFL in the Danish learning environment.

Concerning children's motivation for learning English, the dissertation has found the following (RQ4). In contrast to young EFL-learners from countries where children are not exposed to so much English outside school (Sundqvist & Sylvén, 2016), the dissertation showed that both age groups and genders were similar to each other with regard to their strong reliance on travel and communication with foreigners as motivators and both age groups were aware of the usefulness of English for communication purposes. Interview data showed that Danish children preferred teaching which was related to their experiences from real life and their communicative needs.

Children in both starting grades emphasized the importance of differentiation between less and more proficient learners in the English lessons. This aspect has not been mentioned by previous studies on young learners. This can probably be explained by the fact that remarkable differences between the FL-level of young beginners is not typical in countries where children's access to the FL is limited to the FL-classroom (Sundqvist & Sylvén, 2016).

Analysis of interview-data on FLCA (RQ3) revealed that the main anxiety-provoking situations mentioned by young Danish EFL learners were making mistakes, having to say something in front of the class, experiencing criticism or laughter from peers, feeling uncertain and not understanding the teacher in English. The social situations were primarily mentioned by 10-year-olds and not by 8-year-olds showing that this aspect was more important among late starters, and that late starters were more aware of it. Interview utterances of children who experienced a decrease of FLCA showed that the following factors contributed to the reduction of their FLCA: they began to regard mistakes as a natural part of the FL learning process, they received help with understanding the teacher and they adapted a stronger growth mindset.

The findings of the dissertation point to several pedagogical implications. First, is important for teachers to be aware of the heterogeneity of young EFL learners' proficiency level and find appropriate methods for differentiation. Second, it can be suggested that teachers relate teaching material to the communicative needs of the children, possibly with task based learning (e.g., Ellis, 2003) or integrate children's out of school activities with English into classroom teaching (Sundqvist & Sylvén, 2016). Third, it can be suggested to teachers that they pay attention to the fact that some students may be anxious of speaking in the classroom, especially among the late starter girls. These students benefit from a low-anxiety classroom environment and as well as if the teacher fosters growth mindset in the classroom.

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# Dansk resumé

Denne afhandling er en del af det større projekt *Jo yngre, jo bedre?: En sprogbrugsbaseret tilgang til læring af og undervisning i engelsk i den danske folkeskole*, som undersøger effekten af alder på børns sprogindlæring. Projektet sammenligner receptive sprogtest-resultater hos elever, som begyndte at lære engelsk som fremmedsprog i første og tredje klasse mellem 2014 og 2017. Ud over alder er der andre individuelle faktorer, såsom motivation, holdninger og angst for at tale fremmedsproget i klasseværelset, som har vist sig at være forudsigende faktorer for fremmedsprogsfærdigheder. Dette ph.d.-projekt undersøger, hvilken rolle individuelle faktorer spiller i danske børns indlæring af engelsk som fremmedsprog. Disse individuelle faktorer er motivation, holdninger overfor at lære engelsk, angst for at tale fremmedsproget i klasseværelset, indtryk af ens egen engelskkompetence samt implicitte teorier om intelligens også omtalt som tankesæt (Dweck, 2000).

Tidligere undersøgelser har fundet afvigende resultater om ændring i børns holdninger og motivation til at lære fremmedsprog. Studierne viste at børn enten blev mere negative eller mere positive over tid. Forskning har også vist modsigende resultater om kønsforskelle. Nogle studier fandt, at piger var mere positive overfor at lære fremmedsprog end drenge, mens andre ingen forskel fandt. Angående angst for at tale fremmedsproget i klasseværelset viste nogle forskere, at piger var mere ængstelige, mens andre konkluderede det modsatte. Studier, der omhandler flere end én individuel faktor hos børn, forekommer sjældent. Mihaljević Djigunović og Lopriore (2011) og Mihaljević Djigunović (2015) har undersøgt holdninger, motivation og indtryk af ens egen fremmedsprogskompetence, men havde ikke angst og tankesæt med i undersøgelsen, og relaterede ej heller de individuelle faktorer til testresultater i fremmedsproget.

Denne afhandling har til formål at undersøge både alders- og kønsforskelle og ændring af de ovennævnte individuelle faktorer på et år i en dansk undervisningssammenhæng, hvilket ikke er blevet undersøgt før (Artikel 1, Artikel 3 og Kapitel 7). Ud over dette har afhandlingen undersøgt, hvilke af disse individuelle faktorer der kunne forudsige fremmedsprogsresultater (Artikel 1). Denne afhandling er den første undersøgelse af, om børns udviklende tankesæt kan forudsige fremmedsprogsresultater.

Studier om børns angst for at tale fremmedsprog i klasseværelset har konkluderet, at testsituationer var de vigtigste årsager til angsten i lande, hvor elever regelmæssigt er udsat for tests, eksamener og får karakterer. Børn i den danske folkeskole får ingen karakterer og testes ikke i

engelsk før syvende klasse. Denne afhandling undersøger, i hvilke situationer unge elever i danske folkeskoler oplevede angst for at tale engelsk som fremmedsprog i klasseværelset (Artikel 2).

Tidligere forskning om børns motivation og holdninger til at lære fremmedsprog koncentrerede sig om lande, hvor børn først og fremmest ikke var udsat for engelsk sprog udenfor engelskundervisningen (Sundqvist & Sylvén, 2016). I Danmark, ligesom i andre skandinaviske lande, er engelsk en del af hverdagen (Henry, Korp, Sundqvist, & Thorsen, 2017). Ushioda (2013) påpeger, at det er en stor udfordring for lærere at opretholde unge fremmedsprogselevers motivation i sådanne samfund. Denne afhandling har undersøgt, hvad der motiverer unge skoleelever til at lære engelsk, samt hvad de godt kan lide og ikke bryder sig om i deres engelsktimer i den danske folkeskolekontekst (Artikel 3).

I afhandlingen anvendtes der mixed methods (Dörnyei, 2007), som bestod af en spørgeskemaundersøgelse og semistrukturerede individuelle interviews. Spørgeskemaet indeholdt spørgsmål om børns yndlingsfag i skolen, holdninger til engelsktimer og til forskellige aktiviteter i engelsktimerne, til det engelske sprog, om forældres og læreres motiverende rolle, af engelsk som et globalt lingua franca og precursors til Ideal L2 self (Dörnyei, 2009). Derudover indeholdt det spørgsmål om angst for at tale fremmedsproget i klasseværelset, indtryk af ens egen engelskkompetence og tankesæt. En større gruppe (n=276) udfyldte spørgeskemaet to gange, foråret 2015 og foråret 2016. En mindre gruppe (n=33), som var en del af den større gruppe, blev interviewet individuelt foråret/efteråret 2016. De semi-strukturerede interviews indeholdt en fri samtale om at lære engelsk, spørgsmål om børnenes erfaringer i engelsktimerne samt om, hvorfor de syntes, at det var vigtigt at lære engelsk.

I den større gruppe indgik to aldersgrupper af børn, som begge begyndte at have engelsk i skolen i efteråret 2014. Den første aldersgruppe blev introduceret til engelsk i første klasse (aldersgruppe 1), den anden aldersgruppe blev introduceret til engelsk i tredje klasse (aldersgruppe 2). Alle børnene i den store gruppe deltog i to sprogtests: en receptiv ordforrådstest, som hedder Peabody Vocabulary Test, og en receptiv grammatiktest, der hedder Test for Reception of Grammar i efteråret 2014 (pretest) og efteråret 2015 (posttest).

Spørgeskema- og sprogtestdataene blev analyseret ved hjælp af regressionsanalyse og en mixed effects generalized linear model (Linck and Cunnings 2015). Interviewdata blev analyseret ved hjælp af tematisk analyse (Braun & Clarke, 2006).

Afhandlingen søgte svarene på følgende forskningsspørgsmål:

RQ1: Er der alders- og kønsforskelle i de individuelle faktorer, og hvordan forholder disse sig til fremmedsprogsresultater? (Artikel 1, Artikel 3 and Kapitel 7)
RQ2: I hvilken grad ændrer de individuelle faktorer sig i aldersgruppe 1 og 2 på et år? (Artikel 3 og Kapitel 7)
RQ3: Hvordan beskriver børnene deres erfaringer med angst for at tale fremmedsproget i klasseværelset i engelsktimerne? (Artikel 2)
RQ4: Hvilke motiverende og demotiverende faktorer nævner børn for at lære engelsk? (Artikel 3)

Afhandlingen fandt frem til følgende hovedresultater. Begge aldersgrupper begyndte engelskinstruktioner med tidligere kendskab til engelsk ordforråd og grammatik. Aldersgruppe 2 opnåede bedre resultater i begge tests. Dette kan sandsynligvis forklares ved, at danske børn er udsat for meget engelsk udenfor skolen, hvorfor aldersgruppe 2 på grund af deres biologiske alder havde været udsat for engelsk to år længere end aldersgruppe 1. På trods af forskellen i engelskkundskaber ved engelskundervisningens start gjorde begge aldersgrupper omkring lige så store fremskridt på et år, i modsætning til tidligere forskning, som viser at ældre børn lærer mere på samme tid (Tragant, 2006). Afhandlingens resultater har også vist, at pigerne i aldersgruppe 2 opnåede lavere scores i engelsktestsene end drengene i samme aldersgruppe.

Afhandlingen har vist, at der var fire faktorer, som var forudsigende for resultaterne af de receptive ordforråds- og grammatiktests (RQ1). Disse var angst for at tale fremmedsproget i klasseværelset, indtryk af ens egen engelskkompetence, elevernes tankesæt samt lærerens og forældrenes indflydelse som motiverende faktor. 1. Jo mere positivt børn evaluerede deres egen engelskkompetence, desto bedre var deres testresultater i både pre- og posttesten. 2. Jo stærkere børnenes udviklende tankesæt var, desto bedre var deres testresultater i både pre- og posttesten. Dette stemmer overens med tidligere studier, som fandt, at et udviklende tankesæt var forudsigende for børns resultater i matematik og børnenes modersmål. Artikel 1 var den første, som påviste, at et udviklende tankesæt var forudsigende for testresultater i fremmedsproget. 3. Jo mindre børn var drevet af lærerens og forældrenes motivation til at lære engelsk, desto bedre var deres testresultater både i pre- og posttesten. 4. Høj angst for at tale fremmedsproget var ikke kun forudsigende for pre- og posttestresultater. I aldersgruppe 2 var den også forudsigende for udviklingen mellem pre- og posttesten. Hvad angår ordforrådstestresultater havde et positivt indtryk af ens egen engelskkompetence en beskyttende virkning mod angst for at tale fremmedsproget i klasseværelset. Større angst betød lavere resultater på ordforrådstesten, men fremfor alt hos elever, som havde et negativt indtryk af egen engelskkompetence.

Afhandlingen har primært vist følgende alders- og udviklingsmæssige forskelle i danske børns individuelle faktorer angående indlæring af engelsk (RQ1 og 2). 1. Børnene var mere entusiastiske i begyndelsen, men børnenes positive holdninger til engelsktimerne og aktiviteter i engelsktimer mindskedes med tiden for både aldersgruppe 1 og 2. Selv om holdninger ikke korrelerede med engelsktest-resultaterne, er dette en vigtig konklusion, da det viser, at en tidlig sprogstart ikke nødvendigvis forhindrer, at børns åbenlyst positive holdninger ved undervisningsstart bliver mindre positive med tiden. 2. Aldersgruppe 1 blev i højere grad motiveret af læreren og forældrene end aldersgruppe 2, hvilket også korrelerede med testresultaterne.

Afhandlingen har påvist tre overordnede forskelle mellem drenge og piger (RQ1 og 2).

1. Sammenlignet med tidligere litteratur og den traditionelle overbevisning, at piger bedre kan lide at lære fremmedsprog end drenge, fandt afhandlingen ingen forskel mellem drengenes og pigernes holdninger overfor engelsktimer. Data om børns indikation af deres første og andet yndlingssprog har desuden vist, at pigernes interesse for engelsk dalede mere end drengenes i begge aldersgrupper efter et års engelskundervisning. Endvidere havde drenge i aldersgruppe 2 et mere tydeligt billede af sig selv som talere og brugere af engelsk i fremtiden. Det vil sige, at de havde stærkere prekursorer til Ideal L2 self. Resultaterne for drenges og pigers motivation og holdninger til at lære engelsk viser sammenfattet, at drengene i de danske skoler ser ud til at være stærkere motiveret for at lære engelsk end pigerne. Dette er i overensstemmelse med, at drenge i aldersgruppe 2 opnåede højere scores i de receptive ordforråds- og grammatiktest end piger.

2. Pigernes holdninger til aktiviteter i engelsktimerne var mere positive end drengenes i begge aldersgrupper. Dette ser ud til at være i modstrid med de ovenfor beskrevne kønsforskelle. Denne tilsyneladende modsigelse kan sandsynligvis forklares ved, at drengene foretrækker aktiviteter med engelsk uden for skolen. Mens holdninger overfor aktiviteter i engelsktimen ikke korrelerede med engelskresultater i denne afhandling, viste en undersøgelse i en mindre gruppe indenfor samme store gruppe, som lægger til grund for denne afhandling, at engelsksprogede aktiviteter uden for skolen var relateret til højere testscores (Hannibal Jensen, 2017).

3. Det har vist sig, at pigerne i aldersgruppe 2 (9-11 år) var specielle fra flere synsvinkler. Deres angst for at tale fremmedsproget i klasseværelset og deres indtryk af egen engelskkompetence faldt signifikant mere end for drengene og for de yngre piger. Endvidere foretrak pigerne i den ældre gruppe i højere grad skrivningsaktiviteter fremfor taleaktiviteter sammenlignet med drenge og yngre piger. Resultater fra artikel 1 viste, at angst for at tale fremmedsproget i klasseværelset samt indtryk af egen engelskkompetence var forudsigende for

engelskresultater, derfor kan det antages at denne pigegruppe i den danske folkeskole, særligt dem med høj angst for at tale fremmedsproget i klasseværelset og negativt indtryk af egen engelskkompetence er mere udsat for at komme bagud i engelsk.

Angående børnenes motivation for at lære engelsk (RQ4) konkluderer afhandlingen at begge aldersgrupper og både drenge og piger lignede hinanden med henblik på først og fremmest at blive motiveret af rejseaktivitet og kommunikation med udlændinge. Dette er i modsætning til unge fremmedsprogselever fra andre lande, hvor børn ikke er udsat for så meget engelsk uden for skolen (Sundqvist & Sylvén, 2016). Begge aldersgrupper var ligeledes bevidste om brugbarheden af engelsk til kommunikationsformål. Interviewdata har vist, at danske børn foretrak undervisning, som var relateret til deres egne oplevelser samt kommunikative behov.

Børn i begge aldersgrupper betonede vigtigheden af undervisningsdifferentiering mellem elever med lavere og højere engelskkundskaber i engelsktimerne. Dette aspekt forekommer ikke i tidligere studier om unge fremmedsprogselever. Dette kan sandsynligvis forklares ved, at tilsvarende niveauforskelle mellem unge børns fremmedsprogsniveau typisk ikke forekommer i lande, hvor børns adgang til fremmedsproget er begrænset til klasseværelset (Sundqvist & Sylvén, 2016).

Analysen af interviewdata angående angst for at tale fremmedsproget i klasseværelset (RQ3) viste at, de vigtigste angstprovokerende situationer nævnt af børnene var at begå fejl, at skulle sige noget foran klassen, at opleve kritik eller grin fra klassekammeraterne, at føle sig usikker samt ikke at forstå, hvad læreren siger på engelsk. De sociale situationer blev først og fremmest nævnt af aldersgruppe 2, hvilket viser, at dette aspekt var vigtigere blandt den ældre aldersgruppe, og at de ældre børn var mere bevidst om det. Interviewsvar fra børn, som oplevede en formindskelse af deres angst for at tale fremmedsproget i klasseværelset, viste at følgende faktorer bidrog til reduktionen af deres angst: de var begyndt at betragte fejl som en naturlig del af fremmedsprogsindlæringsprocessen, de havde fået hjælp til at forstå, når læreren talte engelsk, og de havde tilegnet sig et stærkere udviklende tankesæt.

Afhandlingens resultater peger på en række pædagogiske perspektiver.1. Det er vigtigt, at lærere er bevidste om heterogeniteten blandt unge elever med hensyn til engelskkundskaber, og at de finder egnede metoder for undervisningsdifferentiering. 2. Lærere anbefales at relatere undervisningsmaterialet til børnenes kommunikative behov, muligvis ved hjælp af task-based learning (e.g., Ellis, 2003) eller integrere børnenes engelsksprogede aktiviteter uden for skolen i klasseværelsesundervisningen (Sundqvist & Sylvén, 2016). 3. Det anbefales at lærere er

opmærksomme på at nogle af eleverne kan være bange for at sige noget højt i engelsktimerne, især piger i aldersgruppe 2. Disse elever kan drage nytte af en tryg atmosfære i klassen, samt at læreren fremmer et udviklende tankesæt i engelsktimerne.

**Henvisninger**


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# Chapter 1

# Introduction

The success of foreign language (FL) learning may depend on various factors such as starting age, contact with the FL within and outside the language course, the learning situation, the teacher and other individual factors. Individual factors can for example be motivation, anxiety, beliefs about one's own proficiency in the FL and beliefs about the importance of talent in FL learning. The aim of this dissertation is to explore the role of these individual factors in young Danish English as a foreign language (EFL) learners.

In this chapter information is provided on the larger project which the present dissertation is a part of, the motivation for the dissertation, the collaborators and the outline of the thesis are presented.

## 1.1. Context – The larger project: The younger, the better?

The research reported in this dissertation has been supported by the Danish Research Council for Independent Research, grant Nr. DFF 4001 00046, under the project *The younger, the better?: A usage-based approach to learning and teaching of English in Danish primary schools*. The project lasting from August 2014 until August 2018 addresses the issue of the optimal age in which to start teaching FLs in schools, since this issue has attracted the attention of both policy makers, educators and second language acquisition (SLA) researchers. The project is led by Professor Teresa Cadierno and co-authored by Associate Professor Søren Wind Eskildsen.

The project was motivated by the fact that, as in many countries across Europe, a legislation change in Denmark lowered the starting age for teaching EFL from the 3rd grade to the 1st grade from August 2014. The reason for these changes in educational policies can be traced back to the generally accepted belief *'the younger, the better'* which assumes that younger children learn second languages (L2) more efficiently, and therefore, if they start learning languages earlier, they will attain a higher level of L2 proficiency. While this seems to be true in immersion contexts, research shows that the same advantage of starting early does not necessarily apply in FL teaching contexts where the L2 is taught in a classroom venue (Muñoz & Singleton, 2011; Nikolov, 2009).

The larger project investigates the effect of starting age in learning English in Danish primary schools by comparing two cohorts starting learning English at the same time, in August 2014. Children starting at the age of 7 (early starters) are compared with starting at the age of 9 (late

starters). Besides the age factor, the project investigates several other factors that can predict children's proficiency in EFL: exposure to and the use of English in the classroom and outside the classroom and individual factors. These factors are examined in three different Ph.D. projects. Maria Vanessa aus der Wieschen examines teacher practices, the role of gestures in the EFL lessons, teachers' and students' use of English and the mother tongue in the EFL lessons and the use of music in the English classes.

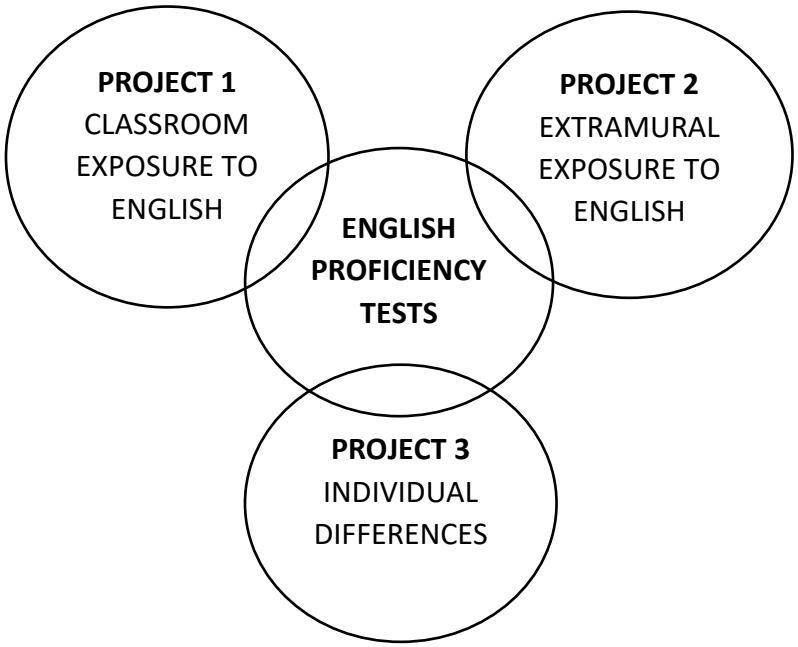
Signe Hannibal Jensen, in her project, examines what English activities children engage in outside school and how they learn English through these activities.

The focus of this dissertation is the role of some individual factors, such as motivation and attitudes toward learning English, foreign language classroom anxiety, perceived EFL competence and FL-mindsets in the FL learning of young Danish learners.

Figure 1 demonstrates the structure of the larger project: the three subprojects, which included their own data collection each, and the data collection of English proficiency tests, which were used in all three subprojects. English proficiency tests consisted of the Peabody Picture Vocabulary test (Dunn, L.M, Dunn, 2007), a receptive vocabulary test, and the Test for Reception of Grammar (Bishop, 2003).

**Figure 1**

**The larger project: The younger, the better?**



### 1.2. The current PhD project

Besides starting age and exposure to the language, there are several other individual factors that may influence the development of L2 proficiency. Learners can be motivated to learn languages for different reasons. Attitudes toward the FL lessons, the teacher, the speakers of the FL and the language itself can have an influence on learners' motivation and FL learning success. Anxiety can hinder learners in learning and using FLs. Beliefs about the learners' own FL competence can also be linked up with their proficiency gains. Implicit theories – unexpressed beliefs about the role of intelligence and working hard in the learning process, also called mindsets (Dweck, 2000) – can also predict proficiency gains.

Research on L2 motivation and attitudes has focused more on adults and adolescents than young learners (Boo, Dörnyei, & Ryan, 2015); research on foreign language classroom anxiety (FLCA) and L2 competence beliefs in this age group is sparse; and previous research on mindsets has shown a correlation between mindsets and proficiency in other academic areas, such as math and first language (L1) skills, but there are no systematic studies about the correlation between mindsets and L2 proficiency.

An additional important reason for examining these individual factors in children's EFL in the Danish context is that children in Denmark, similarly to the rest of Scandinavia, are exposed to a considerable amount of English outside school (Phillipson & Skutnabb-Kangas, 1999). This creates a language environment where English is a part of children's everyday lives and can be regarded almost as a second language (Henry, Korp, Sundqvist, & Thorsen, 2017; Sundqvist & Sylvén, 2016). Previous studies on individual factors have mainly been conducted in linguistic environments where children had less exposure to English outside school, such as Hungary (Nikolov, 1999), Spain (Tragant, 2006) or Switzerland (Heinzmann, 2013). Research on these factors in this age group in linguistic environments with more exposure to English is sparse.

The first aim of this dissertation is to find age and gender differences in individual factors, such as motivation and attitudes toward language learning, FLCA, English language competence beliefs (ECB) and implicit theories (mindsets), and the correlation between these factors and EFL proficiency are examined with the help of a large-scale questionnaire survey on individual factors and L2 proficiency tests done on a large sample of approximately 280 children. Changes of these individual factors are also examined over time.

A second aim of the study was to investigate some of the individual factors in more detail. Therefore, after the large-scale survey, a qualitative interview study was done with a subsample of

the larger sample, consisting of 33 children. The interview study focused on two areas. The first area was FLCA, the second area was motivation and attitudes.

FLCA was chosen as the first focus area because the results of the large-scale survey showed that FLCA stood out as especially important in the sense that it correlated negatively with children's EFL proficiency gains. This variable was examined in more detail, in order to find out which situations could make children anxious. Thematic analysis of interviews with young learners revealed the main reasons why they felt anxious in the EFL class. Differences between the sources of FLCA mentioned by younger and older children are examined. Furthermore, the dissertation seeks to answer the question what children say about how FLCA could be reduced according to their experience.

Choosing motivation and attitudes as the second focus area had three main reasons. The first reason was the general assumption that the younger the children are the more motivated they are to learn FLs (e.g., Edelenbos, Johnstone, & Kubanek-German, 2006; Mihaljević Djigunović, 2012). Therefore, motivation and attitudes are often regarded as the main reason for starting teaching FLs to children early. An important question is whether this motivation can be maintained in the long run. Longitudinal studies have shown mixed results. In this dissertation, based on questionnaire data from two time points, the change of motivation and attitudes is examined between the end of the first and the end of the second year of EFL instruction.

The second reason was that according to Ushioda (2013) maintaining EFL learners' motivation is an especially challenging task for teachers in contexts where English is a part of the learners' everyday lives. Therefore, the interview data were analyzed with thematic analysis, in order to find out what motivates children to learn English and what they enjoy and dislike in English lessons.

The third reason is connected to the results of the quantitative data from the large-scale survey. A correlation appeared between one of the motivational factors, namely reliance on the parents and the teacher, showing that children who relied less on their parents and English teacher as motivators for learning English scored higher on the receptive vocabulary and grammar tests. The other motivational and attitudinal questionnaire variables, however, did not show any correlation with the proficiency scores. Therefore, the aim of the interviews was also to find out whether there could be any differences between the motivation and attitudes of high and low achievers not captured by the questionnaire items in the large-scale investigation. Differences between the attitudes and motivation of the younger and the older age group are also investigated.

### 1.3. Collaborators

This Ph.D. project involved collaboration with researchers with expertise in SLA, developmental psychology and statistics in terms of study design and data analysis. Teresa Cadierno, my main supervisor, professor of SLA and Mikkel Hansen, my co-supervisor, developmental psychologist, are the co-authors of Paper 1. The project also involved collaboration with statisticians Jan Nielsen, who rendered inevitable help with developing the general linear mixed model, and Jørgen T. Lauridsen, who educated the participants of the project about mixed regression models and helped with data analysis and interpretation.

The larger project received support from the Danish primary schools participating in the project: *Munkebjergskolen, Spurvelundskolen, Rasmus Rask Skolen and Pårup Skole* in Odense, *Fredericia Realskole* in Fredericia, and *Rathlouskolen* in Odder.

Student helpers were involved in collection of the proficiency data.

### 1.4. Overview of the dissertation

The dissertation is organized as follows.

In Chapter 2 the relevant theories that constitute the starting point of the thesis and research on young learners in the relevant areas are introduced. The theories presented concern the role and the status of individual factors in SLA in general and some individual factors in particular. These are motivation, FLCA, ECB and mindsets in FL learning. Empirical studies concerning the role of the affective factors in young learners' FL learning are reviewed. The research questions and sub-questions of the study are presented.

Chapter 3 begins with some introductory methodological considerations concerning the statistical analyses, the qualitative analyses used in the thesis and the relationship between them. In the next part of Chapter 3 (Section 4.1.) the participants of the study are introduced in detail. The larger sample for the questionnaire study and the subsample for the interview study are described. In the third part of Chapter 3 (3.2.-3.5.) the construction and the use of the instruments of the study are presented.

Chapter 4 presents a summary of the results of the study.

Section 4.1. summarizes the results from the cross-sectional analyses of the questionnaire data on all the individual factors. Differences between starting grades and genders and correlations with English proficiency scores are presented (Paper 1).

Section 4.2. summarizes the longitudinal results from the quantitative data from both Q1 and Q2 (Paper 3 and Chapter 7).

Section 4.3. summarizes the findings of the qualitative data in the first focus area: FLCA (Paper 2)

Section 4.4. summarizes the findings of the qualitative data in the second focus area: motivation and attitudes (Paper 3).

In Chapter 5 the results from the three papers and the additional analyses are discussed in the light of theories and previous empirical literature.

In Chapter 6 the main findings of the study are summarized, pedagogical implications are discussed, limitations and possible directions for future research are presented.

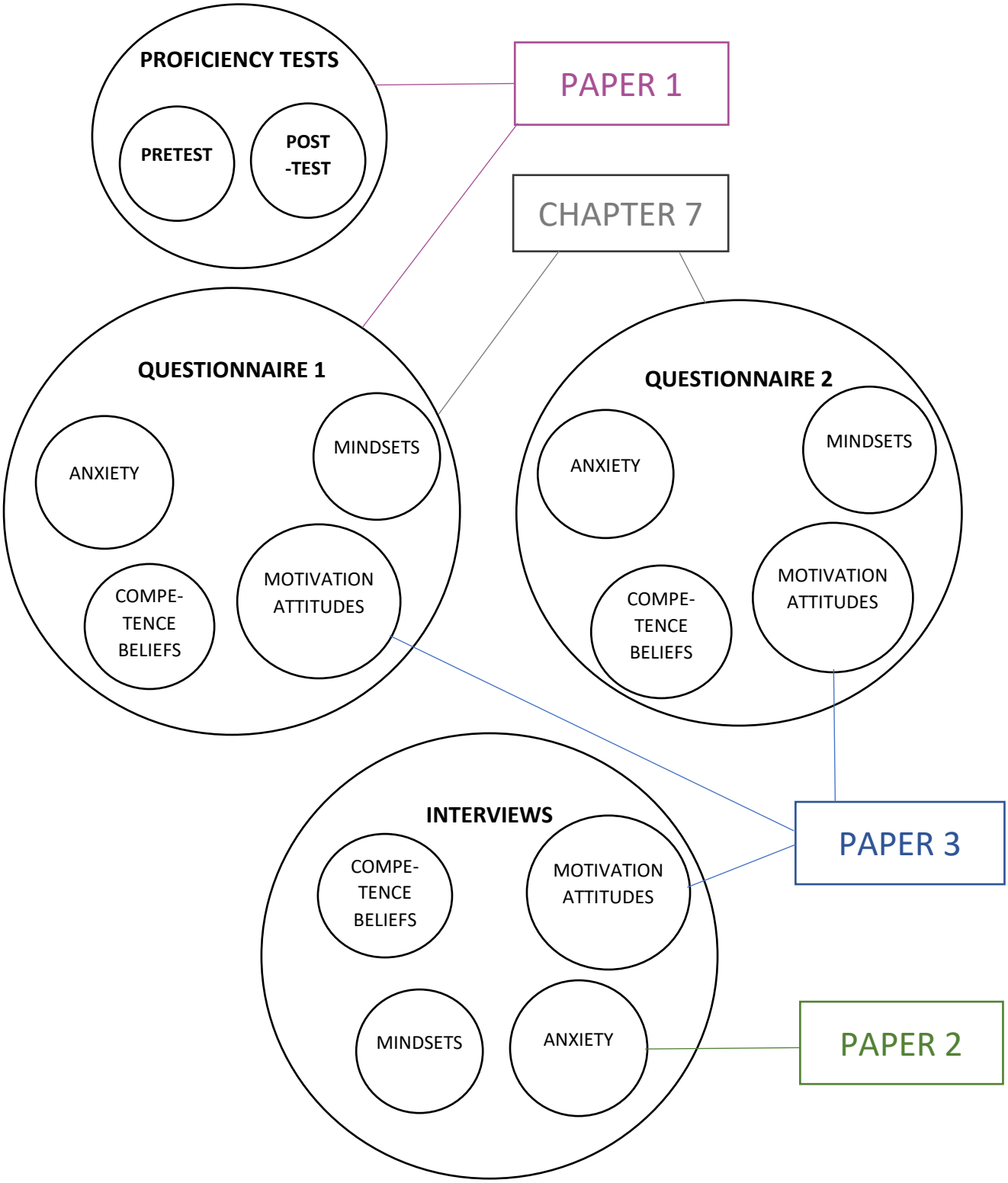
After Chapter 6 papers 1-3 are presented. Paper 1 contains quantitative analysis of the data from a questionnaire on individual factors and English proficiency data. It has been accepted for publication in the journal *International Review of Applied Linguistics in Language Teaching*. Paper 2 contains qualitative analysis of interview data on FLCA. Paper 3 is a mixed methods article that contains the analysis of data concerning motivation and attitudes from the questionnaire that was analyzed in Paper 1 and from the same questionnaire administered one year later. In addition, Paper 3 contains the qualitative analysis of interview data on motivation and attitudes toward the EFL learning situation. Both Paper 2 and 3 have been submitted to other peer reviewed journals.

Chapter 7 presents the results of the longitudinal analyses of the data on individual factors from both questionnaires which are not included in Paper 3.

A schematic presentation of which data are presented and analyzed in which paper is shown in Figure 2.

**Figure 2**

**The current PhD project: Individual factors**



# Chapter 2

# Background

This Chapter gives an overview of individual differences in Section 2.1 after which the individual factors included in the dissertation are introduced: motivation and attitudes in Section 2.2, anxiety in Section 2.3, competence beliefs in Section 2.4 and mindsets in Section 2.5. First, the theoretical background for the individual factors is presented afterwards a summary of empirical research on young learners is given for each factor. At the end of the sections it is accounted for theoretical, terminological and some methodological choices made in this dissertation.

Motivation, attitudes and anxiety receive more attention because these are two focus areas in the dissertation, as described in Section 1.2. The notion of mindsets also receives some extra explanation because this is a relatively new area within SLA.

## 2.1. Individual differences in SLA

SLA research of the 1970-80s mainly aimed at identifying universal sequences in language development and universal processes "such as transfer, cross-linguistic interference, overgeneralization, fossilization, and so forth, that affect everyone in the same way" (Skehan, 1991, p. 276). Research on individual differences, on the other hand, aims at identifying the features that second language learners differ at (Skehan, 1991).

In his early summary and description of individual differences, Skehan (1989) classified language aptitude, motivation and language learning strategies as the most important individual factors in SLA. Besides these, he lists other factors that can have an influence on language learning, such as extroversion-introversion, risk taking, intelligence and anxiety. Dörnyei and Ryan (2015) added learning styles and self-regulation to the list of individual differences, and extended the list of additional factors with creativity, willingness to communicate, self-esteem, self-concept and explicit and implicit learner beliefs.

Variables such as age and gender are also often described under the umbrella of individual differences. In their article Ehrman, Leaver and Oxford (2003) cover individual differences within three main areas: learning styles, learning strategies and affective variables but mention learning aptitude, gender, culture, age and other demographic variables as other important areas of individual differences.

Affective factors and affective variables as terms are often mentioned as a subgroup within individual differences by some researchers in SLA literature (Ehrman et al., 2003). The terms are used differently by different authors. Gardner and MacIntyre use affective variables to cover integrativeness, attitudes toward the learning situation, language anxiety and motivation (Gardner & MacIntyre, 1993). According to Ni (2012), affective factors include emotion, feeling, mood, manner, attitude and other factors, especially motivation, self-confidence and anxiety are important factors in SLA. Attitudes, motivation, anxiety and self-concept seem to be basic variables covered by the term affective factors (Mihaljević Djigunović, 2006b).

The individual factors in this dissertation are some classical affective factors included in many questionnaires with young learners (e.g., Enever, 2011; Heinzmann, 2013; Mihaljević Djigunović, 1993): motivation, attitudes, FLCA and ECB.

Implicit theories of learning, also called mindsets (Dweck, 2000), are a relatively new area within ID research, mentioned by Dörnyei and Ryan (2015) under the heading beliefs. The area is related to the affective factors in different ways. Learners' beliefs on whether intelligence is fixed or changeable are related to motivation, since they have an impact on the learners' goals. Learners who believe that intelligence is fixed tend to set performance goals, i.e. they wish to demonstrate their ability and knowledge. Learners, on the other hand, who believe that intelligence is changeable, tend to set mastery goals, i.e. they would like to learn and improve (Lou & Noels, 2017). Learners' beliefs on intelligence are also related to fear of failure. Those learners who believe that intelligence is fixed tend to be more afraid of making mistakes, while learners who believe that intelligence is changeable, often regard mistakes as learning opportunities and tend to be less afraid.

According to the classic perspective (Dörnyei & Ryan, 2015), individual differences are usually treated as distinctly definable psychological constructs, they are more or less stable features or traits of individuals, relatively monolithic constructs and are only moderately related to each other, furthermore they are learner-internal and therefore relatively independent from the environmental factors. Dörnyei and Ryan argue that the classic individual differences paradigm has been challenged in all these four assumptions. They point out that taking a closer look at individual differences, a more nuanced picture emerges. Individual differences or factors tend to show considerable temporal and situational variation and interact with each other and can therefore no longer be considered to be stable, monolithic traits. A part of this complexity can be captured by Structural Equation Modelling (SEM) (e.g., Gardner, Tremblay, & Masgoret, 1997; Heinzmann,

2013; Lou & Noels, 2017). Due to the context relatedness and the dynamic and non-linear nature of individual factors it has been suggested that Complex Dynamic Systems Theory (CDST) could be a more appropriate theoretical framework to handle this complexity (Larsen-Freeman, 2014). Several empirical studies have applied CDST within ID research (e.g., Lowie, Van Dijk, Chan, & Verspoor, 2017; Piniel & Csizér, 2014; Waninge, 2014).

In this dissertation, the cover term 'individual factors' is used instead of 'affective factors' to cover not only the concepts of motivation, FLCA and self-esteem of L2 knowledge, but even beliefs such as implicit theories. Although the dissertation does not apply SEM or CDST, it is assumed that individual factors are dynamically changing and situationally determined, although it cannot be excluded that some components of the individual factors can be more or less stable personality traits.

### 2.2. Motivation in SLA

Basic questions such as "what moves a person to make certain choices, to engage in action, to expend effort and persist in action" (Dörnyei & Ushioda, 2013) are central in motivation theory and research. Defining motivation seems to be a complicated and controversial issue. Dörnyei wrote that "the broadening of the theoretical scope has also led to the adoption of a range of new scientific terms and concepts (…) without sufficient discussion of their interrelationship, thus giving L2 motivation an aura of eclecticism and confusion" (Dörnyei, 1998, p.117).

It is not possible to systematize this eclecticism within the frame of this dissertation, but a short summary on some of the most important directions throughout the history of L2 motivation research is given.

Attitudes refer to feelings about the FL, the learning situation, the speakers of the FL, etc. (Gardner & MacIntyre, 1993). Although attitudes and motivation are two separate factors they are often examined together (Heinzmann, 2013; Mihaljević Djigunović, 2012a) and attitudes are treated as a part of the motivational system, following Gardner and Lambert (1959, 1972). In this dissertation, they will also be treated together. The general term motivation will be used to cover both, unless specified otherwise.

#### 2.2.1. Theoretical approaches to L2 motivation

A remarkable amount of research on motivation in SLA has been done during the past 60 years. In this Section, some of the most important approaches to L2 motivation will be summarized.

The Canadian social psychologists Gardner and Lambert (1959) can be regarded as the founders of L2-motivational research. They worked in the bilingual social context of Canada and

regarded the communication and the identification with the members of the L2 community as one of the key components of motivation toward learning the L2. The most cited part of Gardner's (1985) theory is that it identifies so called orientations (or goals) as important antecedents of motivation. Two important orientations identified by Gardner are called integrative and instrumental. Integrative orientation refers to a positive attitude toward the speakers of the L2 and to interact and identify with the L2 community. Instrumental orientation, on the other hand, refers to the potential usefulness of the L2 knowledge, such as getting a job or higher income. Gardner and his colleagues developed and validated the Attitude/Motivation Test Battery (AMTB) a questionnaire which has been widely used and cited by many researchers. Besides the items on integrative and instrumental orientation the AMTB contained items on attitudes toward different groups of L2 speakers, toward learning the FL, interest in FLs, FLCA, and it also contained items on the learners' evaluation of the classroom learning situation (Gardner & Smythe, 1981). Their approach was an undeniably important contribution to the field, however, it did not turn out to be detailed enough in order to provide a basis for pedagogical implications on how to motivate FL learners in the classroom (Dörnyei, 1994).

In the 1990s the direction of L2 motivation research began to change and adapt to the emerging new needs to examine L2 motivation in the context of the classroom learning situation. This process is also called the educational shift by Dörnyei (1998). The attempt within this new direction was to conceptualize motivation on the level of the tasks done in language courses and the behavior of learners in the classroom, rather than discussing motivation on the level of the whole society. Dörnyei (1994) designed a new framework for L2 motivation which was an extension of the Gardnerian model rather than criticism against it. It consisted of the following three components: the language level including the integrative and the instrumental motivational subsystems, building on Gardner's classification, the learner level including need for achievement and self-confidence, and the learning situation level which included numerous different course, teacher and group specific motivational components. The main purpose of this framework was to conceptualize components of FL learning motivation not included in Gardner's model. Another important characteristic of this period was the adaptation of cognitive theories from mainstream educational psychology into L2 motivation research, such as expectancy-value theories, goal theories and self-determination theory (Deci & Ryan, 1985). The main characteristic of the self-determination theory is the differentiation between intrinsic and extrinsic types of motivation. The

intrinsic type of motivation is based on enjoying doing something for its own sake, whereas the extrinsic type of motivation is based on doing something for external reasons.

The discussion about whether individual differences are best treated as personality traits or dynamically changing states, mentioned above in Section 2, also appeared in L2 motivation research. In the 1990s, there was an attempt to make a distinction between state L2 motivation, a form for motivation which arises in the process of L2 learning, and trait L2 motivation, which is supposed to be a more or less stable personality trait, based on mainstream psychological research. Tremblay, Goldberg and Gardner (1995) investigated how these correlated with each other and with L2 outcomes. In their questionnaire study with American learners of L2 Hebrew containing items on both trait and state motivation found that while state motivation was directly related to L2 achievement, trait motivation was only indirectly related to it, through state motivation.

From the 1990-s the dynamic character and the temporal variation of L2 motivation came more and more to the front in SLA motivation research. The Process Model from Dörnyei and Ottó (1998) already incorporated the temporal dimension and emphasized that motivation undergoes a complex development in case of every single FL learning task performed by the individual learner.

At the same time the central role of the 'integrative orientation' in L2 motivation research received more and more criticism because of at least two reasons. One reason was that the label 'integrative' was too limiting and not appropriate in many language learning contexts (Dörnyei, 2009) such as in the case of learners who do not have direct contact to L2 speakers outside the FL classroom. Another reason was that the nature of identification with the L2 community tended to change because global English became the dominant L2 learned by most learners. Therefore the L2 community, the L2 culture and the speakers of the L2 could not be defined clearly anymore (Dörnyei & Csizér, 2002). Following these emerging calls for a new theoretical concept and the trends in mainstream psychology (Higgins, 1987; Markus & Nurius, 1986) on the theories of the self, Dörnyei proposed the L2 motivational self-system as a new model in L2 motivation research (Dörnyei, 2005).

The L2 Motivational Self System includes the following three dimensions: the Ideal L2 self, the Ought-to L2 self and the L2 Learning Experience. The Ideal L2 self refers to the image that the learner has about him-/herself as a future speaker of the L2. Language learners with a strong Ideal L2 self would like to become good speakers and writers of the L2 and have the desire to use the L2 in their future lives on a professional level. The Ought-to L2 self refers to the image that the learner believes he/she should become in order to avoid possible negative consequences or to meet

expectations. Language learners with a strong Ought-to L2 self are learners who are motivated to learn the FL in order to meet expectations from the society or from their parents. Another example are learners who would like to avoid receiving low grades at FL tests. The L2 Learning Experience refers the motivating role of the elements of the learning situation e.g. the teacher, the peer group, the curriculum and the experience of success in the FL lessons. (Dörnyei, 2009, p. 29)

During the last years, several researchers have stressed that motivation changes with time and is context-dependent and dynamic. New research on directed motivational currents (Dörnyei) and dynamic systems theory in L2 motivation research e.g. the articles in Dörnyei, Maclntyre and Henry (2014) emphasize the dynamic nature of motivation and many of them use CDST. Jiang and Dewaele (2015) emphasize the dynamic change of the Ideal L2 self and the Ought-to L2 self within one year with a multiple regression model, without using a dynamic systems theory approach.

### 2.2.2. Young learners and L2 motivation

Young language learners are defined in different ways in L2 motivation literature. Depending on the context the term can cover age groups from 3-year-olds (Unsworth, Persson, Prins, & De Bot, 2014) or even younger up to 12-year-olds or even older children (Mihaljević Djigunović, 2012a). In this study the term young learners is used to cover children between approximately 7 and 11 years old.

Compared to the number of studies on adults there are fewer systematic studies on the L2 motivation of young learners (Boo et al., 2015). In recent years, however, the number of studies about young learners has increased probably due to the earlier start of learning FLs at schools around the world.

Studies on young language learners' motivation and attitudes have typically included the following variables: attitudes towards FL lessons (e.g., Dörnyei 2010; Enever 2011), attitudes towards the FL (e.g., Enever 2011; Heinzmann 2013; Olshtain et al. 1990), the importance of significant others, such as the parents and the teacher (e.g., Lindgren and Muñoz 2013; Mihaljević Djigunović 2012a; M. Nikolov 1999) and the importance of English as a lingua franca (e.g., Enever 2011; Heinzmann 2013; Muñoz 2014). The L2 Motivational Self System is typically not included in research on young learners, because possible selves tend not to develop until late adolescence (Zentner & Renaud, 2007; Dörnyei - personal communication). Muñoz and Tragant (2014) also hold the view that the Ideal L2 self is not developed at this young age, but it is possible to speak about precursors to Ideal L2 self. Their term has been adapted in this dissertation. Despite this assumption, Henry and Apelgren (2008) examined the Ideal L2 self of 10-12-year-old Swedish

students of EFL and other FLs. It is unclear, however, whether their questionnaire items actually cover the same concept as included in Dörnyei's original concept of the Ideal L2 self. The reason for the unclarity is that while the items used by Dörnyei (Dörnyei & Taguchi, 2010, p. 140) include statements about how learners can imagine themselves as users of the FL in different situations in the future Henry and Apelgren, in their questionnaire items, ask children whether they agree that speaking English is cool and whether they admire people who can speak fluent English (Henry & Apelgren, 2008, p. 621). Henry and Apelgren's (2008) questionnaire items differ also from the approach of Kim and Kim (2014) who, following Dörnyei's concept, measured Ideal L2 self "by the extent of imagining and believing oneself to be a competent English user in the future".

Cross sectional studies comparing learners between 6 and 14 years of age found that younger children typically had more positive attitudes than older children (Chambers, 1999; Heinzmann, 2013; Henry & Apelgren, 2008; Mihaljević Djigunović, 2014; Mihaljević Djigunović & Lopriore, 2011).

Longitudinal studies on children and adolescents most often found that positive attitudes toward the FL learning situation showed a decline over time (Chambers, 1999; Heinzmann, 2013; Mihaljević Djigunović, 2014; Mihaljević Djigunović & Lopriore, 2011; Muñoz & Tragant, 2001). Other studies found that positive attitudes toward learning and/or using FLs increased or stayed stable over time (Burstall, 1977; Mihaljević Djigunović, 1995; Carmen Muñoz & Tragant, 2001). The stability or increase of positive attitudes can be explained differently in the different studies. In Burstall's (1977) study it was found that early starters maintained more positive attitudes over time. The differences from other studies can possibly be explained by the fact that in Burstall's (1977) study attitudes toward speaking the language and not toward the learning situation was measured. In Mihaljević Djigunović's (1995) study it was found that early starters' positive attitudes could be maintained over time. This can possibly be explained by the fact that their informants attended an experimental program and it was the parents' intentional decision that their children should attend the program possibly meaning that they considered FL learning as especially important. Thus it is possible that the socio-economic background of the participants was above average. It is also possible that the teachers participating in this experimental program were more enthusiastic than teachers in other classes. In the study of Muñoz and Tragant (2001) it was found that positive attitudes toward learning the FL could be maintained over time in the case of accumulated instruction in the FL which could explain this positive effect.

Furthermore, both cross sectional and longitudinal studies about the motivation of young FL learners found that their motivation tended to shift from more intrinsic and teacher oriented, e.g., being motivated by the liking of the language, the tasks and the teacher, toward more instrumental or utilitarian, e.g., they became more motivated by realizing the practical usefulness of the FL, as they grew older (Heinzmann, 2013; Mihaljević Djigunović, 1995; Nikolov, 1999; Tragant, 2006). See Paper 3 for a more detailed presentation of this literature.

Research on gender differences in relation to motivation has shown conflicting results. Girls generally seemed to be more positive toward learning FLs than boys (Burstall, 1977; Dörnyei & Csizér, 2002; Henry, 2009; Henry & Apelgren, 2008). However, Henry and Apelgren who compared motivation to learn English with other FLs among 10-12-year-old Swedish primary school children, found that boys and girls were equally positive toward learning English at school (Henry & Apelgren, 2008). Heinzmann (2009), on the other hand, found that 9-year-old Swiss girls were significantly more motivated to learn English than boys. Henry and Apelgren (2008) and Henry (2009) have also found that boys tended to be more motivated to learn English by instrumental reasons than girls. The reason for this could be that in the Scandinavian language environment, characterized by a lot of English input outside school, boys engage significantly more in activities in the English language than girls e.g., Hannibal Jensen (2017) which can make them more aware of the usefulness of English and thus more instrumentally motivated.

Research concerning correlations between motivation and attitudes on the one hand and L2 learning outcomes on the other hand has shown various results. The ELLiE (Mihaljević Djigunović & Lopriore, 2011) study showed that 7-10-year-old primary school children's attitudes and motivation toward learning FLs correlated with listening comprehension and lexical diversity in oral production. To measure attitudes, they used questions about how children felt about learning the FL in general and how they felt about learning new words in particular. Olshtain et al. (1990) found that 11-12-year-old Hebrew-speaking children's attitudes and motivation showed a weak correlation with EFL test results on listening, reading and writing. Muñoz and Tragant (2001) found that 9-12-year-old Spanish students' attitudes towards EFL correlated significantly with their scores in a global language proficiency test consisting of a cloze test and a listening comprehension test.

In this dissertation, a combination of the variables used in other studies with learners from the same age group or slightly older were combined in order to cover the most important areas of L2 motivation relevant for this age group.

### 2.3. Anxiety in SLA

Anxiety has been studied extensively within SLA, possibly because it is experienced so frequently by FL learners (MacIntyre, 2017). Research on anxiety within SLA is often based on the definition of anxiety in mainstream psychology: "the subjective feeling of tension, apprehension, nervousness and worry associated with an arousal of the autonomic nervous system" (Spielberger, 1983, p.15) as cited by many linguists in the field (e.g., Horwitz, 2000; MacIntyre & Gardner, 1991; Scovel, 1978).

Anxiety in SLA research is often treated in relation to motivation and other individual factors. Gardner and Lambert included anxiety as a part of their AMTB (Gardner & Lambert, 1959) because they argued that it could discourage learners from using the second language in social situations. Krashen (1981) described anxiety as part of an affective filter, including motivation and self-confidence besides anxiety. According to Krashen's view, anxiety combined with low self-confidence and low motivation, prevents FL learners from making use of the L2 input that they are exposed to. This would cause that more anxious learners learn less of the same FL input than less anxious learners.

Throughout research on anxiety in SLA, the relation between FLCA and L2 achievement have given rise to challenging discussions on a number of issues: whether FLCA is a distinct concept from other forms for anxiety, whether FLCA is facilitating or debilitating, whether it is a fixed personality trait or an event occurring in different situations, whether it is the cause or the consequence of poor L2 proficiency and what the possible sources of FLCA are. In the following sections, these topics are presented thematically, not chronologically, because they overlap in time.

#### 2.3.1. FLCA as a distinct theoretical concept

Scovel (1978) reviewed early studies investigating the relation between anxiety and L2 achievement and found contradictory results. Some studies he reviewed had found incomplete correlations in the sense that anxiety correlated with one of the L2 proficiency measures but not with others. In some cases, it was found that anxiety correlated negatively with L2 achievement, while in other cases the correlation was positive. According to MacIntyre and Gardner (1991), an important argument for the diverging results was that researchers used different measuring instruments and therefore measured different aspects of anxiety.

The first SLA researchers who described foreign language anxiety (FLA) as a distinct concept from anxiety in a broader sense were Elaine Horwitz and her collaborators (Horwitz, Horwitz, & Cope, 1986). Based on Horwitz's own teaching experience and a subsequent interview study with

anxious learners (Horwitz, 1986) the Foreign Language Classroom Anxiety Scale (FCLAS) was developed and validated (Horwitz et al., 1986). It consisted of 33 items concerning typical anxiety-provoking situations connected to FL-learning in the classroom. The situations included being afraid, worrying and panicking in different FL classroom scenarios such as speaking in the FL before others, making mistakes, being asked to answer questions by the teacher, speaking without preparation, not understanding when the teacher speaks in the FL, comparing own FL competence with peers' and participating in FL tests.

Horwitz et al. investigated FLA in relation to the following three related anxiety concepts: 1) communication apprehension; 2) test anxiety; and 3) fear of negative evaluation. Although often misinterpreted, it was not the intention of Horwitz et al. to state that FLA consisted of these three constituents (Horwitz, 2017) rather, they stated that FLA was a complex concept distinct from these and related to classroom L2 learning "arising from the uniqueness of the language learning process" (Horwitz, Horwitz, & Cope, 1986, p. 128).

The FLCAS became a popular instrument for measuring and investigating FLCA and is still widely used within SLA research (e.g., Alkhateeb, 2014; Frantzen, 2005; Onwuegbuzie, Bailey, & Daley, 1999). Many studies have investigated L2 learners' FLCA in various contexts and it has been translated and adapted into several languages, e.g., Chinese (Yan & Horwitz, 2008), Greek (Gkonou, 2014), Hebrew (Abu-Rabia, 2004), Hungarian (Tóth, 2009).

### 2.3.2. FLCA - facilitating or debilitating?

Scovel (1978) found that the correlation between FLCA and L2 achievement was either positive or negative or there was no correlation at all. To solve this contradiction, Scovel suggested a differentiation between two types of anxiety, called facilitating and debilitating. Scovel's argument was based on Kleinmann (1977) who in his study on students of English as a second language found that students with facilitating anxiety made use of more complex grammatical structures than students with a higher level of debilitating anxiety. Thus, he described facilitating anxiety as a positive entity stimulating learners to perform better in the FL as opposed to debilitating anxiety which would discourage learners and lead to lower L2 performance. Hewitt and Stephenson (2012) also suggested that a certain amount of anxiety played a facilitating role and that there was a cutoff point at which anxiety tended to become debilitating. MacIntyre (2017), on the other hand, argued that the differentiation between facilitating and debilitating anxiety has not been particularly useful for SLA research (p. 12) just as Horwitz (2017) in the same volume concluded that "a search for facilitative Language Anxiety is a very dangerous trend" (p. 39). She points out that anxiety can

possibly have a positive effect on the L2 performance in the short run but probably not in the long run (p.40).

### 2.3.3. FLCA – trait or state?

The discussion about whether individual factors are best treated as personality traits or dynamically changing states, mentioned above in Section 2, also appeared in FLCA research. This discussion has an extensive literature which is out of the scope of the present dissertation to discuss in depth. Some of the first studies on anxiety in SLA (e.g., Kleinmann, 1977) tended to treat anxiety as a stable personality trait. Later researchers emphasized the importance of the differentiation between trait anxiety and state anxiety which is an emotional state and situational anxiety which consistently reoccurs in specific language learning situations (Horwitz, 1986, 2001; MacIntyre & Gardner, 1991) and found that L2 achievement correlated with trait anxiety and situational anxiety. More detailed descriptions can be found in e.g., MacIntyre and Gardner (1991) and Mihaljević Djigunović (2006a).

### 2.3.4. FLCA – cause or consequence of low achievement?

Many studies using the FCLAS have consistently found a moderate negative relationship between FLCA and L2 achievement (see Al-Shboul, Ahmad, Nordin, & Rahman, 2013 for a detailed summary). In case of statistical correlations, it is basically not possible to decide which of the correlating variables is the cause and which is the consequence. Nevertheless, there is an ongoing debate concerning the causality between FLCA and FL achievement. Researchers have argued against and have been in favor of the view that it is FLCA that causes low L2 achievement or conversely.

Detailed debates on this issue appeared in the Modern Language Journal in 1995 (MacIntyre, 1995a, 1995b; R. Sparks & Ganschow, 1995) and again in 2000 (Horwitz, 2000; R. Sparks, Ganschow, & Javorsky, 2000). Horwitz (2000, 2001, 2010), mainly based on qualitative studies (e.g., Horwitz, 1986; Price, 1991) and teaching experience, held the view that FLCA had a negative effect on language learning. This view was challenged by Sparks and Ganschow (1991) who criticized Horwitz's view and postulated that FLCA is rather a consequence than a cause. Their argumentation is built upon their studies on learning disabilities which was their primary research area. They emphasized the role of language aptitude and L1 ability in low FL achievement and suggested that these were the causes of low FL achievement rather than FLCA. Sparks and Ganschow (2007) compared high school learners' FLCA level with their native language measures taken several years before receiving FL instruction and found a significant negative correlation

between these. Therefore, they concluded that FLCA and low FL achievement are both likely to be a consequence of students' earlier native language achievement rather than FLCA being the primary cause of low FL achievement.

### 2.3.5. New trends in FLCA research

The new trend of seeing and examining individual learner variables within complex dynamic systems is also emerging in FLCA research. In the new approach, as described by MacIntyre (2017), it is emphasized that while cross-sectional study designs focus on the analysis of a frozen moment in time, the complex dynamic system approach has the advantage of showing that anxiety in the FL classroom is not only dynamically fluctuating but also interacting with other psychological variables, such as motivation and self-efficacy. An example for a quantitative approach to FLCA as a dynamically changing variable is the work of Piniel and Csizér (2015) who used latent growth curve modelling and longitudinal cluster analysis, variability analysis and correlation analysis to explore change, possible trajectories and the interrelationship between anxiety and other individual factors. An example for a qualitative approach is Waninge (2015) who studied the L2 learning experience and enlightened the dynamics of learning experience through the analysis of short semi-structured interviews about the participants' past learning experiences in a dynamic systems framework.

MacIntyre (2017) in his overview on FLCA research suggests that research should now get over the issues mentioned in 2.2.2., 2.2.3. and 2.2.4. His first conclusion is that since there is virtually no reliable evidence for facilitating anxiety in the literature, the notion of facilitating anxiety was only a misinterpretation of the original idea, and the best way to conceptualize FLCA is interpreting it only as debilitating (Horwitz, 2017). Second, he concludes that the view that anxiety is only a cause of poor performance can be ruled out because there is sufficient experimental evidence that shows that anxiety arousal causes declines in performance. The available evidence from both correlation analyses and analyses in the dynamic systems framework, showing that there is a continuous interaction between anxiety and several other factors, suggest that anxiety is both a consequence and a cause of L2 performance. MacIntyre's third conclusion is that after the social turn in SLA FLCA, similarly to other individual factors, has been reinterpreted as a social construct and "it would be counterproductive to spend research time debating whether anxiety is an internal experience or one constructed in the social context" (MacIntyre, 2017, p. 27).

The present dissertation does not apply CDST, but it attempts to follow the new trends in several respects. In the cross-sectional part of the dissertation (Paper 1), the relation between L2

achievement and FLCA is studied in the context of several other individual factors. In the longitudinal part of the study, the change of FLCA and the other individual factors is examined (Section 3.4). In the qualitative part (Paper 2) the situational aspect of FLCA gets more emphasis.

### 2.3.6. Sources of FLCA

A further relevant issue in FLCA literature is what causes learners of FLs to be anxious in the FL.

MacIntyre (2017, p. 21) in the probably most actual publication on FLCA, which was not available for me before finishing Paper 2, summarizes previous literature on the sources of FLCA by grouping the sources into three categories: academic causes, cognitive causes and social causes. Under academic causes MacIntyre lists factors such as errors in pronunciation, unrealistic learner beliefs, embarrassing error corrections from instructors and methods of testing. Under cognitive causes he lists factors such as fear of losing one's sense of identity, biased perceptions of proficiency, personality traits and /or shyness and low self-esteem. Finally, under social causes he lists causes such as fear of being laughed at, being embarrassed and making a fool of oneself, having a poor-quality accent, misunderstanding communication or using incorrect words, committing cultural mistakes and experiencing competitiveness.

A more detailed review of the literature on the sources of FLCA can be found in Paper 2, Section 2.2.

### 2.3.7. FLCA of young learners

Compared to the amount of literature on FLCA among adults, there is relatively less literature on the role of FLCA among children. This section first gives an overview of the studies that include FLCA among children afterwards results from these studies will be summarized according to cross sectional results, longitudinal results, gender differences and correlations with L2 outcomes.
The youngest age group examined was from the age of 10 years old (Liu & Chen, 2013, 2014). Chan and Wu (2004) studied the FLCA of 10-11-year-old Taiwanese students, Gürsoy and Akin (2013) examined FLCA among 10-14-year-old Turkish children, Abu-Rabia (2004) studied FLCA among 12-13-year-old Israeli students. Heinzmann (2013) investigated 9-11-year-old Swiss children's FLCA in the context of several other motivational factors. Anxiety was also mentioned in Nikolov's (1999) longitudinal ethnographic study of Hungarian children in the age range of 6-14 years.

A cross sectional comparison between FLCA in different age groups is made by Gürsoy and Akin (2013). They found that younger children tended to be less anxious than older children.

Longitudinal results on FLCA are only mentioned by Nikolov (1999) who found that anxiety tended to increase with age.

Gender comparisons concerning anxiety have found contradicting results. Heinzmann (2009) compared Swiss 9-year-old girls' and boys' FLCA and found girls to be significantly less anxious about making mistakes than boys, while Abu-Rabia (2004) found that 12-13-year-old girls had higher anxiety levels than boys. It has to be remarked that Israeli girls in Abu-Rabia's study produced also lower L2 proficiency results than boys. Gürsoy and Akin (2013) also compared the FLCA of 10-14-year-old girls and boys, but found no significant difference. A possible explanation could be that girls tend to become more anxious with age.

Concerning correlations between FLCA and L2 outcomes, Abu-Rabia (2004) found significant negative correlations between FLCA and L2 proficiency. The other studies did not relate FLCA to children's FL proficiency.

### 2.4. Self-related research in SLA

SLA research has investigated several different concepts related to the self. Mercer (2011) argues that the field of concepts related to the self in SLA is broad and messy. Mercer points out that self-concept, self-esteem and self-efficacy are three self-related constructs frequently confused with each other, but it is important to differentiate between them. She defines a learner's FLL self-concept as "an individual's self-descriptions of competence and evaluative feelings about themselves as a FL learner". Self-esteem, on the other hand, concerns more the value system of the individual, while self-efficacy describes expectancy beliefs concerning tasks in a specific context (Mercer, 2011b). A more elaborate description of self-concept and self-efficacy can be found in Bong and Skaalvik (2003).

Self-assessment of somebody's own FL proficiency, sometimes called self-concept, self-esteem, or even self-confidence is often studied together with affective factors like motivation and anxiety (Clement, Noels, & Dörnyei, 1994; Mihaljević Djigunović, 2006b; Ni, 2012).

It is not within the scope of this dissertation to elaborate on the overlapping and often confusing self-related concepts and terms (Mercer, 2011a) in more detail. In this dissertation, the term competence beliefs, borrowed from (Wigfield, Harold, Arbreton, Freedman-Doan, & Blumenfeld, 1997), was chosen to describe children's assessment of their own EFL proficiency. The focus is on the L2 competence beliefs of EFL learners compared to other subjects and peers.

### 2.4.1. Competence beliefs in SLA

Self-rating of L2 competence has been an important topic in SLA research since the 1980's. A summary of this early research can be found in Blanche and Merino (1989) who emphasized that self-assessment accuracy is important for the success of FL learning, because it promotes learner autonomy. Blanche and Merino concluded from their extensive literature review that FL learners sometimes overrated themselves in other cases underrated themselves, and there was no significant correlation between the accuracy of the students' self-evaluations and their FL skills.

Research found that L2 competence beliefs were significantly related to other affective factors such as motivation and anxiety (e.g., Alkhateeb, 2014; Clement et al., 1994; Dewaele & Shan Ip, 2013; MacIntyre, Baker, Clément, & Donovan, 2003). MacIntyre, Noels and Clement (1997) compared the perceived L2 competence and actual competence of more and less anxious learners and found that more anxious learners tended to underestimate their proficiency.

The question whether FL learners' self-concept is dynamically changing or is a more or less fixed personality trait arises similarly to motivation and anxiety research. Mercer (2011) found that FL self-concepts of learners are dynamically changing and concludes that while task-related elements of FL learners' self-concepts tend to be more changeable there are more central parts of the self-concept that tend to be more fixed. This question is related to implicit theories of intelligence or mindsets which will be explicated in Section 2.5.

### 2.4.2. Young learners' FL competence beliefs

Systematic quantitative research on children's FL-competence beliefs is sparse. Wigfield, Harold, and Blumenfeld's (1993) study on young learners' competence beliefs in other academic domains than FL-learning, such as math, L1, sports and music examined 7-10-year-old children's competence beliefs and found that younger children had more positive, optimistic competence beliefs while older children turned out to be less positive, more realistic about their own competence levels.

A longitudinal study has been done by Mihaljević Djigunović (1993, 1995) who found that children starting to learn FLs at the age of 7-8-years had more positive estimations at the onset of FL instruction which became more objective and thus more negative three years later. Mihaljević Djigunović and Lopriore (2011) examined young (age 6-9) European learners' self-concept through focus-interviews and found that younger children were less capable to express themselves about their FL proficiency compared to their classmates than older children. They found that children's self-concept was overtly positive at the age of 6-7 and it turned more realistic at the age of 8-9

which corroborated with the findings of Wigfield et al. (1993). Mihaljević Djigunović (2014) found that 6-7-year-old Croatian EFL-learners' (early starters) self-concept was more positive than 9-10-year-olds' (late starters). Mihaljević Djigunović (2014) found furthermore that early starters' self-concept turned less positive throughout two years while late starters' self-concept turned more positive between their second and third year of EFL instruction. This finding is explained by Mihaljević Djigunović (2014) by the fact that late starters went through a difficult period in their year 2 and after getting used to the more difficult school tasks their self-concept turned more positive again. Mihaljević Djigunović (2014) measured students' self-concept with the help of an oral interview question about how good they thought they were at English compared to their classmates.

SLA researchers in Germany (Zaunbauer, Reteisdorf, & Möller, 2009) have examined children's competence beliefs toward EFL. Zaunbauer et al. (2009) related 11-12-year-old German students' EFL-specific competence beliefs to their EFL achievement and found that competence beliefs (they called it self-concept) were strong predictors of their EFL achievement. Zaunbauer et al. (2009) based their research on the scale used by Wigfield et al. (1997) who described children's competence beliefs and subjective task values (ratings of the usefulness and importance of the activities) in the domains of math, reading in the L1, instrumental music and sports but they did not include the academic domain of FLs. They used Wigfield et al.'s instrument because no other instrument about children's FL competence beliefs existed.

In the present dissertation, similarly to the study of Zaunbauer et al., questionnaire items are based on the scale used by Wigfield et al. (1993). ECB are treated as one among several other predictor variables for EFL achievement.

### 2.5. Mindsets

The term mindset has become a popular term and carries according to Merriam-Webster's dictionary the meaning 'a mental attitude or inclination'. Stanford psychologist Carol Dweck (2000) uses the term mindsets synonymously with implicit theories which was coined by herself and refers to beliefs about the malleability of intelligence. These are called implicit beliefs, because people are usually unaware of them. Dweck described people who believed in the malleability of intelligence as incremental theorists as opposed to people who believed that intelligence was fixed as entity theorists. Her research found that incremental theorists, also called persons with a growth mindset, who believed that success depended more on effort than abilities, liked challenging tasks because they regarded them as learning opportunities. They set themselves mastery learning goals in the

sense that they wanted to learn in order to acquire more knowledge and enjoyed the learning itself. These learners were also less afraid to make mistakes because they viewed mistakes as learning opportunities and not as a failure of their own abilities. Entity theorists, also called persons with a fixed mindset, on the other hand, believed that success depended on abilities, rather than effort. They preferred easy tasks, set themselves performance goals in the sense that they wished to appear proficient in test situations instead of aiming at learning something. Persons with a fixed mindset were more afraid of failure because they regarded mistakes as a threat that would reveal their low abilities.

### 2.5.1. Theoretical approaches to mindsets in SLA

Also in SLA, an important difference can be made between explicit beliefs, that people are aware of, and implicit beliefs, that people are not aware of or cannot articulate (Dörnyei & Ryan, 2015, p. 189). As stated above, mindsets are implicit beliefs.

It has been recognized for a long time that implicit learner beliefs about FL learning are an important part of learning. Elaine Horwitz (1988) was the first researcher within SLA who described beliefs as separate learner characteristics of L2 learners. She identified some common beliefs among American learners of L2 German, French and Spanish and designed the "Beliefs About Language Learning Inventory" (BALLI) (Horwitz, 1988). The inventory consisted of 34 items including the following five areas: (1) difficulty of language learning (2) FL aptitude; (3) the nature of language learning; (4) learning and communication strategies, and (5) motivation and expectations. The second area on beliefs about FL aptitude, which among others included items asking whether people are born with a talent for FLs and whether everyone can learn to speak a FL, is closely related to mindsets. Horwitz' BALLI can be regarded as a predecessor for the L2 mindset theory. Horwitz's study showed among other findings that around half of her informants, who were university students, agreed with the statement "Some people are born with a special ability to learn a foreign language" and 20-30 percent of the students disagreed with the statement "I have foreign language aptitude" and at the same time, the majority of the informants agreed with the statement that "Everyone can learn to speak a foreign language". Horwitz concluded that the concept of FL aptitude can have a negative effect on FL learning and that the belief that some people are unable or less able to learn a second language can lead to negative expectations about the students' own capability, especially when they believe that they do not have FL aptitude. The BALLI was used by several authors in different countries. For example, Peacock (1999) found significant correlations

between students' beliefs about language learning and EFL proficiency but for those items that resembled Dweck's and Lou and Noels' scales were not reported to be connected to L2 outcomes.

Just like motivation in SLA, research on L2 learning beliefs has been inspired by mainstream educational psychology research. Some research based on Dweck's (2000) theory has been done on the role of growth and fixed mindset in SLA, but research in this field is still sparse.

Mercer and Ryan (Mercer & Ryan, 2010; Ryan & Mercer, 2012) interviewed Austrian and Japanese EFL learners in an exploratory study about their experiences with learning English. They found that some believed more in the role of talent which indicated a fixed mindset, others believed more in the role of effort in language learning, indicating a growth mindset. But they also found that even if one of the mindsets was usually dominant for a person, many individuals seemed to have experienced both mindsets. Therefore, they concluded that the difference between a fixed and a growth mindset is more than a dichotomous distinction. Their data suggested that the reason for this could be that some learners seemed to have different mindsets toward different FLL domains, such as writing, reading or speaking. In the quantitative part of their exploratory study, Ryan and Mercer (2012) used Dweck's theory of intelligence questionnaire items asking a question about FL learning item and two control items about athleticism and geography. They found, that the beliefs on language learning were different from beliefs on athleticism and geography and that beliefs on FL learning differed strongly in the Austrian and the Japanese culture. While Japanese learners tended to hold a consequently growth mindset, there was a greater variation in Austrian learners' mindsets.

Based on Dweck's (2000) theory of intelligence scale of, theories about language learning and inspired by the questionnaire items of Ryan and Mercer (2012) Lou and Noels (2017) designed and validated the Language Mindsets Inventory (LMI) consisting of three subparts: general language intelligence beliefs, second language aptitude beliefs and age sensitivity beliefs about language learning. The aim of the first scale is to find out to what degree learners believe that general language intelligence is changeable or fixed. The second scale aims to find out to what degree learners believe in the importance of L2 aptitude versus effort for L2 learning success and to what degree they believe that L2 aptitude is fixed or malleable. The age sensitivity beliefs scale aims at finding out to what degree learners believe that starting age is crucial for the success of L2 learning. Lou and Noels found that the items on entity beliefs and incremental beliefs from the three subscales were each negatively correlated and could be grouped together to a more general entity and incremental beliefs scale. They also found that language mindsets were independent from mindsets in other academic domains, such as mathematics, sports and general intelligence.

Lou and Noels' (2017) study furthermore showed that university level FL learners' mindsets were connected to their goals, perceived competence and fear of failure. Learners with a growth mindset, regardless of their perceived FL competence level, endorsed learning goals and typically reported low anxiety and less fear of failure, while learners with a fixed mindset, regardless of their perceived FL competence level, endorsed performance goals or performance-avoidance goals in the sense that they wanted to show that they were good at the FL but tended to avoid difficult or challenging tasks in order to hide their possible insufficiencies.

Similar to research on motivation and language anxiety, the question of the stability or dynamicity of L2 learner beliefs is a relevant issue. Mindsets on general intelligence were found to be changeable by interventions (e.g., Blackwell, Trzesniewski, & Dweck, 2007; Paunesku et al., 2015). While Horwitz (1988) held the view that learner beliefs were more or less stable constructs, later research emphasized that L2 learning beliefs are dynamically changing and context-dependent (Barcelos & Kalaja, 2011; Kalaja & Barcelos, 2003). Lou and Noels' (2016) study also confirmed that language mindsets were changeable. They found that L2 learners' language learning mindsets could be manipulated and changed.

### 2.5.1. Mindsets of young learners

Until now no research has been done on children's L2 mindsets, only on the relationship between implicit theories of intelligence and learning outcome in other school subjects, such as mathematics and L1 literacy.

Blackwell, Trzesniewski and Dweck (2007) found that 13-14-year-old American students with a growth mindset had significantly higher achievement in mathematics than their peers with a fixed mindset. Concerning younger children, a study about implicit beliefs of 6-8-year-old American school children's math achievement (Park, Gunderson, Tsukayama, Levine, & Beilock, 2016) found that children endorsing a growth mindset performed significantly better on a standardized national math test than children who endorsed a fixed mindset. Claro, Paunesku and Dweck (2016) found that Chilean students who endorsed a growth mindset had significantly higher math and L1 achievement than students with a fixed mindset.

Paunesku et al. (2015) showed in a large-scale study that low achieving students' math achievement could be significantly increased through growth-mindset intervention administered through online training modules.

The present dissertation compares the implicit beliefs about general intelligence of two different age groups cross-sectionally and longitudinally. To measure children's mindsets the scale

on implicit theories designed for children of this age by Gunderson et al. (2013) was used. This scale was chosen because it was considered unlikely that children of this age would have the necessary metacognitive abilities to understand and rank statements about L2 mindsets like those used by Ryan and Mercer (2012).

### 2.6. Summary of background and motivation for the present study

The theoretical approaches to motivation and attitudes, FLCA, ECB and mindsets share some common aspects. One of their common aspects is that all four individual factors included in the literature review were found to be strongly correlated with learning outcomes in FL learning or other academic domains.

Another common aspect is the discussion on the issue whether these individual factors are fixed personality traits or situationally occurring conducts. It falls outside the scope of this dissertation to go deeper into the question to what extent individual factors are trait- or state-like. In this dissertation, it is assumed that some components of individual differences can be trait-like while others are situational.

Previous studies on young learners' motivation and attitudes have mainly used the same theoretical frameworks as studies on adults. One exception was Dörnyei's (2009) L2 Motivational Self-System which has not been used for children because children's ideal selves are not expected to be fully accessible before adolescence (Zentner & Renaud, 2007). Carmen Muñoz and Tragant (2014), however, suggested that it is worth examining possible precursors to children's ideal L2 selves even if it is not fully developed. One of the aims of this dissertation is to investigate the role of precursors to Ideal L2 selves in children's EFL learning.

Empirical studies comparing younger and older children's motivation and attitudes show that younger children tended to be more motivated and to have more positive attitudes toward learning FLs than older children. Longitudinal studies on young learners' motivation and attitudes showed varying results concerning the decrease (e.g., Chambers, 1999; Henry & Apelgren, 2008), stability (e.g., Mihaljević Djigunović, 1993) or increase (Muñoz & Tragant, 2001) of motivation and positive attitudes toward FL learning, depending on the learning environment. For gender differences, some researchers found that girls were more motivated and showed more positive attitudes toward learning EFL (e.g., Heinzmann, 2009) and other FLs, while others found no differences between boys and girls (e.g., Henry & Apelgren, 2008). Young learners' motivation and attitudes toward learning FLs mostly show positive correlations with FL outcome although results vary depending on the type of questionnaire items on motivation and attitudes and on the type of

proficiency tests used. In this dissertation age and gender-differences in motivation and attitudes, their relation to English proficiency and change of motivation and attitudes over time in the Danish learning context are investigated within one study.

In Denmark, like in other Scandinavian countries, English can be regarded almost as a second language (Henry, 2009; Henry et al., 2017; Sundqvist & Sylvén, 2016) because it is used in so many contexts in society (Phillipson & Skutnabb-Kangas, 1999). Research on attitudes and motivation of young learners of English as a foreign language (EFL), however, has mainly concentrated on countries where English is not used so extensively therefore children are not exposed to a lot of English input outside the EFL classroom, e.g. Spain (Tragant, 2006), Switzerland (Heinzmann, 2009, 2013), or Hungary (Nikolov, 1999). Ushioda (2013) argues that in contexts where English is a part of EFL learners' everyday life, it is a real challenge for teachers to sustain learners' motivation in the EFL lessons because they tend to be bored in the traditional school settings. In this dissertation, it is investigated what young Danish learners are motivated by to learn English.

Previous studies on young learners' FLCA have used the same theoretical frameworks as studies on adults. The limited data on changes in young learners' FLCA showed that younger learners tended to be less anxious than older learners and that learners' FLCA increased over time (e.g., Gürsoy & Akin, 2013). Studies including gender effects concerning FLCA showed mixed results. While some studies found that girls showed less anxiety (e.g., Heinzmann, 2009) than boys, others found the opposite (Abu-Rabia, 2004). The limited literature on young learners' FLCA showed negative correlations between FLCA and FL outcome. This dissertation investigates age and gender differences in FLCA and at the same time it investigates whether FLCA predicts EFL proficiency in the Danish context. No other studies investigated the FLCA of this young age group.

Studies concerning the foreign language anxiety of children found that test situations, fear of negative evaluation and fear of failing the language course were the most important causes of FLCA (e.g., Chan & Wu, 2004; Gürsoy & Akin, 2013). These studies were conducted in countries where students are regularly exposed to language tests, examinations, receive marks and may risk failing the course (Taiwan and Turkey). Children in Danish primary schools, are not given grades and do not have to take English tests until the age of 13. Despite this fact, in Paper 1 it was found that FLCA played an important role in Danish children's EFL learning gains. In this dissertation, it is investigated in which situations young EFL learners experience FLCA in the Danish learning environment. This follows the recommendation of Horwitz (2017) that further research should

identify the unique anxiety profiles for different cultural and demographic groups because this "would make important contributions to understanding and alleviating Language Anxiety" (Horwitz, 2017, pp 43.).

Research on adults' self-related factors within SLA cover several different concepts which fall out of the scope of this dissertation. The focus in this dissertation is on one of these concepts, namely competence beliefs. Similarly to other studies (e.g., Zaunbauer et al., 2009), the discussion of competence beliefs in this dissertation is based on the theoretical framework of Wigfield et al. (1997).

Concerning children's competence beliefs, younger learners tended to be more optimistic about their own competences, although they are less capable to express this (e.g., Mihaljević Djigunović & Lopriore, 2011). The sparse literature on young learners' competence beliefs showed that it tended to become less positive, thus more realistic over time. In one study, however, it was found that 9-13-year-old Croatian EFL learners' competence beliefs became more positive over time (Mihaljević Djigunović, 2014). The existing but limited literature on young learners' FL competence beliefs shows positive correlations with FL outcome which corroborates with research results concerning other academic domains. Mihaljević Djigunović (2014) emphasizes the importance of young EFL learners' competence beliefs because it is one of the best predictors of FL proficiency. In Mihaljević Djigunović's study, however, no EFL proficiency measures were used. In this dissertation, age and gender differences in competence beliefs and correlations with young Danish learners' EFL proficiency are investigated.

Research on the role of implicit beliefs about intelligence (mindsets) in learning is mainly based on the work of Dweck (2000). Within SLA there is an emerging new theory on L2-mindsets (Lou & Noels, 2016, 2017; Mercer & Ryan, 2010; Ryan & Mercer, 2012) which is inspired and based on the implicit theories of learning (Dweck, 2000). Lou and Noels validated a scale specifically for mindsets concerning second language learning for adults. In this dissertation, as described above in subsection 2.5.1, the children's version of Dweck's (2000) original scale is used.

Literature on young learners' mindsets has not examined the relationship between mindsets and FL outcome, but there is evidence that a growth mindset correlates positively with the learning outcome in other academic domains, such as math and the L1 (Claro et al., 2016; Paunesku et al., 2015). This dissertation is the first to investigate whether children's growth mindset predicts FL learning outcome.

Most of the previous studies described in subsections 2.2.2, 2.3.7, 2.4.2 and 2.5.1 focused on one of the individual factors above at a time. There are only a few studies that investigated more than one of these, e.g. Mihaljević Djigunović and Lopriore (2011) and Mihaljević Djigunović (2014, 2015) investigated attitudes, motivation and competence beliefs but without relating the measures systematically to EFL proficiency measures. In the present dissertation FLCA and mindsets are investigated together with attitudes, motivation and competence beliefs in relation to FL achievement. To my knowledge, this has not been done previously in age groups so young.

### 2.7. Research questions

On the basis of the literature review presented above the dissertation addresses the following specific research questions:

**RQ1: Are there age- and gender-related differences in relation to the individual factors and how do they relate to EFL outcomes?** (Paper 1)

RQ 1 aims at identifying age and gender differences regarding the young learners' individual factors based on cross sectional analysis of the quantitative data from questionnaire 1 presented in Paper 1. RQ1.1 aims at identifying the development of children's EFL proficiency between pre- and posttest. It is only indirectly related to the main aim of the dissertation but it is relevant because the cross-sectional data are examined in relation to proficiency measures. RQ1.2 and 1.3 are core questions of the dissertation.

RQ1.1: To what extent does first and third grade children's proficiency, as measured by their performance in receptive vocabulary and grammar tests, develop after one year of instruction?

RQ1.2: Are there age- and gender related differences in relation to the following individual factors: learners' FLCA, ECB, learners' motivation and attitudes, and learners' mindsets?

RQ1.3: Is there a relationship between the above mentioned individual factors and young Danish children's EFL development?

**RQ2: To what extent do early and late starters' individual factors change after one year?** (Paper 3 and Chapter 7)

RQ2 aims at identifying changes in the young learners' individual factors over time based on the longitudinal analysis of quantitative data from questionnaire 1 and 2, presented in Paper 3 and Chapter 7.

**RQ3: How do children describe experiences of FLCA in the EFL-lessons?** (Paper 2)

The cross-sectional analyses of the quantitative data from questionnaire 1 and pre- and posttest of receptive grammar and vocabulary have shown that FLCA correlated with children's gains between pre- and posttest. Therefore, RQ3.1 aims at identifying the situations that young learners mention can make them anxious. RQ3.2 examines whether there are age-related differences between what children say about their experiences with FLCA in the EFL classroom. Following the suggestion of Horwitz (2017), RQ3.3. aims at finding out more about how it is possible to decrease FLCA.

RQ3.1: Which situations do children in a learning environment without tests and grades say they are afraid of in their foreign language classes?

RQ3.2: Is there a difference between how younger and older children talk about FLCA in the FL classroom?

RQ3.3: What do children whose FLCA decreased from above average to under average after one year say about FLCA?

**RQ4: What motivating and demotivating factors to learn EFL do children describe?** (Paper 3)

Ushioda (2013) emphasized that maintaining EFL learners' motivation is an especially challenging task for teachers in contexts where English is a part of the learners' everyday lives which is the case in Denmark. Therefore, RQ4 aims at finding out what children say about what they like or dislike about English lessons and why it is worth learning English in their opinion.

The cross-sectional analyses of the quantitative data from questionnaire 1 and pre- and posttest of receptive grammar and vocabulary have shown that the majority of the attitudinal and motivational variables did not correlate with children's receptive vocabulary or grammar scores, the only variable that correlated negatively with proficiency scores was their reliance on parents and teacher as motivators for learning English. This goes partly against the findings of previous studies about motivation and attitudes. Therefore, RQ4.3 aims at finding out whether there are other differences between more and less proficient children's motivation in aspects not included in the questionnaire.

RQ4.1: What do children say about why they like/(dislike?) English lessons?

RQ4.2: Which reasons do children give for learning English?

RQ4.3: Are there differences between (dis)likes and motivators verbalized by younger and older learners or more and less proficient learners?

# Chapter 3

# Methodology

This subsection starts with some general methodological considerations about quantitative, qualitative and mixed approaches before presenting the participants of the study, the instruments used and the data analysis.

There has been a lively debate among SLA researchers arguing for a quantitative versus a qualitative approach for many years. Detailed descriptions are provided by Dewaele (2009) and Gkonou (2014). The quantitative method is rooted in the positivistic approach using mainly questionnaires formulated by the researchers as data sources and statistical analysis has traditionally been predominant in SLA research on affective factors (e.g., Dörnyei & Csizér, 2002; Gardner, 1985; Gardner & Lambert, 1959, 1972; Gardner & MacIntyre, 1993; MacIntyre & Gardner, 1991). On the other hand, there are more and more qualitative approaches, sometimes called relativistic, which build on narratives or interviews as data sources and analyze the content qualitatively in a much more bottom-up manner (e.g., Mercer & Ryan, 2010; Mihaljević Djigunović, 2012; Nikolov, 2001). Undoubtedly both methods have their strengths and weaknesses. Quantitative data collection in research on affective factors in SLA has the advantage of being "systematic, rigorous, focused, and tightly controlled, involving precise measurement and producing reliable and replicable data" (Dörnyei, 2007, p. 34). At the same time, quantitative methods have the disadvantage that they cannot capture the individual variation because "they average out responses across the whole observed group of participants and by working with concepts of averages it is impossible to do justice to the subjective variety of processes" as Dörnyei points out (p. 35). Therefore Dörnyei (2007) emphasizes that an advantage of qualitative methodologies is that participants give a rich description of their personal experiences in their own words. On the other hand, Dörnyei (2007) also describes that the disadvantages of qualitative methods are the small sample size and the idiosyncratic approach which can lead to biased results.

Based on these considerations more and more researchers emphasize that qualitative and quantitative methods have the potential to supplement each other instead of being irreconcilable approaches. It has been emphasized by Mertens (2014) that mixing methods is especially valuable when examining issues embedded in complex educational or social contexts. The role of affective

factors in instructed FL learning is a good example for such a complex educational and at the same time social context.

Dörnyei refers to Sandelowski (2003) when describing the two main possible purposes for combining methods. One of the purposes is to verify findings obtained with the one method with findings obtained with the other method often called triangulation. Another purpose is to achieve a more exhaustive understanding of the phenomenon examined by looking at it from different perspectives.

Within the literature on the affective factors both kinds of mixed methods research can be found. One example for triangulation is the study of Gürsoy and Akin (2013) on the FLCA of Turkish elementary school children. This article is primarily based on the quantitative analysis of questionnaire data and uses interview data to supply and exemplify the findings through interview data. Other examples are studies within the ELLiE project (Enever, 2011) where questionnaire data, interview data and classroom observation data are triangulated. A third example is Dewaele, MacIntyre, Boudreau, & Dewaele (2016) where "the purpose of the qualitative data is to provide illustrations of the closed items in the questionnaire, written by participants themselves" (p. 49). In these cases, qualitative data are not necessarily transcribed and coded but examples are picked out to underpin quantitative findings.

The other kind of mixed methods approach which aims at achieving a more exhaustive understanding of the phenomenon examined by using more than one method has, to my knowledge, not been used in studies about young learners' affective factors. An example where it is used about adult learners is Dewaele & MacIntyre (2014). In this article, qualitative data were not used to exemplify findings from the quantitative data but to find out what situations FL learners enjoyed in the classroom learning situation. In this case the qualitative data were transcribed, coded and analyzed by content analysis.

This dissertation makes use of both questionnaire data and interview data. As in Dewaele and MacIntyre (2014) the two data sources in this thesis are used to achieve a deeper understanding of the affective factors and examine them from different angles. The aim of the macro-level quantitative analysis is to find out about general trends concerning affective factors in young EFL learners. The aim of the micro-level qualitative analyses on FLCA and motivation is to gain a deeper insight into sources of children's FLCA to use English in the classroom and motivation to learn English. In Paper 1 only quantitative data are presented. In Paper 2 only qualitative data are presented, but quantitative data are used for sampling purposes. In Paper 3 both quantitative and

qualitative data are analyzed and discussed. Besides questionnaire and interview data classroom observations in some cases are used to supplement interview data with background information in Papers 2 and 3.

## 3.1. Participants

### 3.1.1. Participants of the questionnaire study

The larger sample that was used for the questionnaire study consisted of 276 children (139 boys and 137 girls). It included 165 early starters who started to receive classroom instructions in English in grade 1 (age=7-8 years) and 111 late starters who started in grade 3 (age=9-10 years). Both early and late starters began English instruction in 2014, in the year when the starting age was lowered from grade 3 to grade 1.

Data were collected in six Danish primary schools. Four of the schools (Munkebjergskolen, Rasmus Rask Skolen, Pårup Skole and Spurvelundskolen) were public elementary schools and two of them were semi-private (Rathlouskolen and Fredericia Realskole). The public schools are located in the municipality of Odense and were chosen by a stratified sampling technique with geographical location as stratification variable. The reason for adding two semi-private schools was to counterbalance the differences in teaching hours. In the public elementary schools the late starters were offered 2 hours per week (i.e., 90 minutes) and in one of them early starters were also offered 2 hours per week. However, in three of them – according to the minimal recommendations from the Danish Ministry of Education – early starters were offered only one lesson per week (i.e., 45 minutes). One of the semi-private schools (Rathlouskolen) was added, because their late starters only received 1 hour per week. The other semi-private school (Fredericia Realskole) was added because their early starters received two hours per week. Table 1 shows an overview on the informants of the questionnaire study.

Table 1

*Participants of the questionnaire study*

| | Early starters | | Late starters | |
|---|---|---|---|---|
| School | Number of early starters | Teaching hours per week | Number of late starters | Teaching hours per week |
| Munkebjergskolen | 25 | 2 | 20 | 2 |
| Rasmus Rask Skolen | 22 | 1 | 16 | 2 |
| Pårup Skole | 27 | 1 | 19 | 2 |
| Spurvelundskolen | 19 | 1 | 18 | 2 |
| Rathlouskolen | 35 | 1 | 38 | 1 |
| Fredericia Realskole | 37 | 2 | 0 | - |

### 3.1.2. The subsample: participants of the interview study

Since Danish children in these age groups, primarily children in the first and the second grade, are not able to write fluently, it was not possible to ask children to answer open questions. As it would not have been feasible to interview every child individually, a subsample for an interview study was chosen.

The subsample consisted of 33 children who were interviewed individually. The students came from an early starter and a late starter class from two schools. The two schools were chosen because the aim was to include students with different backgrounds and in one of these schools EFL teaching tended to be more grammar based while in the other school, where the early and the late starter class had the same teacher, EFL teaching tended to be more communicative.

The students within the classes were chosen on the basis of their receptive vocabulary scores (the description can be found in 4.2.1.) and their answers to the questions about FLCA (the description of the questionnaire can be found in 4.2.2.1.). Receptive vocabulary scores were chosen because children's scores on this test showed a much larger variation than the TROG test scores (a more detailed explanation can be found in Paper 1, section 5.4.). The factor FLCA was chosen because this turned out to be the only factor that correlated with children's vocabulary gains. The main purpose with the sampling was to include both high achievers and low achievers, i.e., children with high and low scores in the receptive vocabulary test, and children with high and low FLCA

within each group, as far as this was possible. This was done in order to reach maximum variation sampling described by Dörnyei (2007).

When choosing the subsample, attention was paid to include both early and late starters approximately proportionate to the number of early and late starters in the larger sample and to keep gender balance. But since the gender aspect was subordinate to the maximum variation sampling described above, and since some of the boys left the schools or were absent from class on the day when the interviews were carried out, finally 17 girls and only 14 boys were interviewed. Table 2 shows an overview on the informants of the interview study.

Table 2

*Participants of the interview study*

| | Low PPVT | | | | Medium PPVT | | | | High PPVT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Boys | | Girls | | Boys | | Girls | | Boys | | Girls | |
| | Low FLCA | High FLCA | Low FLCA | High FLCA | Low FLCA | High FLCA | Low FLCA | High FLCA | Low FLCA | High FLCA | Low FLCA | High FLCA |
| Age: 8 | 2 | 1 | 2 | 5 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 0 |
| Age: 10 | 0 | 1 | 1 | 6 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 0 |

### 3.1.3. Ethical considerations

The project was reported to the Danish Data Protection Agency and to the regional ethics committee. Parental consent was obtained from the schools and the parents through the larger project. The school principals were informed about the purpose of the project and the data collection details. Parents were informed about the project through the internal information website of the school. They had the opportunity to actively opt out of the project by responding via the school intranet.

The researchers and research assistants who collected the data informed children about the purpose of the study and assured them that they were allowed to withdraw anytime throughout the project and that their contribution would be handled anonymously.

## 3.2. Instruments

The instruments used in the dissertation were two language proficiency tests, a questionnaire about affective factors and a semi structured interview. Classroom observations were not an integral part

of the dissertation but the interview data were sometimes supplied by information obtained through classroom observation.

### 3.2.1. Language proficiency tests

Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) (Dunn, L.M, Dunn, 2007) and the Test for Reception of Grammar, TROG-2 (Bishop, 2003) were used as a part of a larger test battery to assess children's language proficiency. Receptive tasks were chosen instead of productive tasks because children were not expected to use English actively at this early stage of FL instruction. These tests were pilot tested with a few children before collecting the data. These tests had already been used for testing L2 English before (e.g., Dahl & Vulchanova 2014; Sun et al. 2016; Unsworth et al. 2014).

#### Description of the PPVT-4

The PPVT-4 consisted of a series of pictures where children had to point at a picture out of four which best corresponded to a word that they heard. For example, they saw a picture of a clown, a flower, a bird and a soap bar and they heard the word *'bird'*.

#### Description of the TROG-2

The TROG-2, similarly to the PPVT-4, consisted of a series of pictures where children had to select one picture out of four which best corresponded to a sentence they heard. For example, they saw a picture of a white scarf, a yellow duck, a yellow scarf and a white box and heard the sentence *'The scarf is yellow.'*

#### Administration of the tests

Besides the author of this dissertation two professors and two other PhD students participating in the larger project and some research assistants participated in the testing.

Instructions were given in Danish by the testers. Both tests had a training session which was administered first. In order to ensure uniformity, the sound stimuli for the PPVT-4 and the TROG-2 were recorded by one of the PhD students beforehand and the same recording was used by all of the testers. Testing was done according to the test manuals. The two tests were always given in the same order, first the PPVT, then the TROG.

Children were tested once shortly after they began FL instruction in the fall 2014 (pretest) and one year after in the fall 2015 (posttest).

### 3.2.2. Questionnaire about affective factors

#### Design and pilot testing

The questionnaire about affective factors was constructed to assess the individual factors included in the present dissertation. The questionnaire consisted of 38 questions[1]. Most of the factors were only represented by 2-3 items since the maximal time available for the administration of the whole questionnaire was 45 minutes and it is time consuming to administer the questionnaire to this young age group.

The questionnaire was pilot tested in two school classes from the same two age groups in a school that was not part of the project. The pilot testing showed that the majority of the items were understandable for the children. The administration process and some of the questions were modified according to the experiences of the piloting process. These are referred to during the description of the questionnaire.

The response format of the items was adjusted to the cognitive maturity of the informants as suggested by Enever (2011). The children received an answer sheet in the form of a workbook in size DIN A5. The questionnaire consisted of two different kinds of items. There were items that were formulated as a question beginning with "To what extent do you like…". These could be answered by choosing between five different smileys (Appendix 1). The other kind of items were formulated as statements and children had to decide to what extent they agreed with the statement. These could be answered by dots/rectangles of five different sizes (Appendix 2).

Some researchers recommend 4-point Likert scales for questionnaires used in this age group (e.g., Heinzmann 2013; Enever 2011) others, on the other hand, have used Likert scales with more than four options. Gunderson et al. (2013) have used 5-point Likert scales with 7-8-year-olds and Wigfield et al. (1997) used 7-point Likert scales with 6-12-year-old children. I decided on using a 5-point scale. The pilot test confirmed that early starters also could understand this and filled in the questionnaire with considerable variation over the whole scale.

The items were based on questionnaire items previously used with the same age group (Enever, 2011; Gunderson et al., 2013; Wigfield et al., 1997) or slightly older informants (Dörnyei, 2010b; Heinzmann, 2013; Olshtain et al., 1990).

The first block of the questionnaire started with items that could be answered on the 5-point smiley-scale. At the beginning two practice items were administered to ensure that children

[1] The questionnaire included another question *'Where do you think you have learned most of the English you know?'* that was to be used in another sub-project of the larger project.

understood the response format. The training questions were *'How much do you like to dance?'* and *'How much do you like broccoli?'*.

The first question was

*1) 'How much do you like to go to school?'*

This was added as a control question in order to see whether children's attitudes toward English lessons are different from attitudes toward school in general.

The next two items in the questionnaire regarding attitudes toward English lessons were adapted from Dörnyei's grouped item pool (Dörnyei, 2010b) designed for learners older than 10 years.

*2) 'How much are you looking forward to English lessons?'*

*3) 'To what extent could you imagine having more English lessons?'*

The following two questions from Dörnyei (2010)

*'I always look forward to English classes.'*

*'Would you like to have more English lessons at school?'*

These were reformulated in a format that could be answered by smileys and in a language that was comprehensible for children.

Questions 4-8 were based on the smiley questionnaire used in the ELLiE study (Enever, 2011) where children were asked to write down their favorite activities in the English lessons. Open questions were not allowed in this questionnaire because children in the younger age group were not expected to be able to write on their own and even if they could the open questions would have taken much longer time to answer. Based on the classroom observations done by Maria Vannessa aus der Wieschen, another PhD student in the larger project, the classroom activities usually done in all the classrooms were identified and the questions were reformulated as closed items:

*4) To what extent do you like to sing in English when you have English lessons?*

*5) To what extent to do you like to listen to music in English…?*

*6) To what extent do you like to write in English…?*

*7) To what extent do you like to read in English…?*

*8) To what extent do you like to speak in English…?*

Items 1-8 were all answered on the 5-point smiley-scale. The pilot test showed that this was easy to comprehend for the children.

The items on FLCA were borrowed from Heinzmann (2013). These were the following:

*9) 'To what extent do you like to say something aloud before the whole class in English?'*

*10) 'I am afraid of making a mistake when I speak English.'*

*11) 'I am afraid of giving a wrong answer in the English lessons.'*

Item 9 was reverse coded so that it could be part of a composite score together with items 10 and 11.

Heinzmann's (2013) original items designed for children aged 9-11 years were the following:

13. I often feel stressed because everything is so difficult.
14. I am afraid of making mistakes.
15. I prefer not to speak up in order to avoid wrong answers.
16. I am always glad if I don't have to say anything in English.

Heinzmann's (2013) item 13 was left out because it was considered to be more general than the others and in order to limit the number of items. The wording of Heinzmann's item 16 was changed to positive because in case of 7-8-year-old children it is recommended to avoid negative statements (Borgers, Leeuw, & Hox, 2000). Item 9 was answered by smileys as the previous eight questions. The following questions were answered by dots/rectangles of increasing size. These were preceded by the following two training items: to what extent do you agree with the statement *'Rabbits are cute'* and *'Spiders are cute'*. The pilots showed that children easily could follow and understand this response format as well. Items 10 and 11 were answered on the 5-point Likert scale with increasing dots.

Questions 13-16 concerned attitudes toward the English language or a kind of intrinsic motivation. The questions were adapted from the following sources:

*13) I think it is fun to listen to someone speaking English.* (Heinzmann, 2013)

*14) English sounds irritating.* (Olshtain et al., 1990)

*15) It is fun to learn new words in English.* (Enever, 2011)

*16) I like to say words in English aloud.* (Heinzmann, 2013)

The answer to items were given on 5-point Likert scales with dots increasing in size. Item 14 was reverse coded.

The next two items concerned children's favorite subjects. In the answer sheet children saw pictures related to six school subjects (Appendix 3). The pilot tests showed that children could easily recognize the subjects but before filling in these two questions children were asked to identify the pictures in each class in order to be sure that everybody could identify them. In item 17 children were asked to mark their favorite subject among the six school subjects which were

mathematics, music, Danish, gymnastics, English and visual arts. In item 18 they saw the pictures of the same six school subjects and were asked to mark their second favorite subject among these.

Items 19 and 20 concerned how much children were motivated by external authorities (parents and teacher) to learn English:

*19) I would like to learn English because my parents say I have to.*

*20) I would like to learn English because the teacher says I have to.*

These questions were adapted from Dörnyei's combined item pool (Dörnyei, 2010b) from questions about the Ought-to L2 self. The importance of the role of the parents and the teacher in case of young learners is also stressed by other researchers (e.g., Nikolov, 1999).

Items 21 and 22 concerned how much children were motivated by English being a lingua franca (a language spoken worldwide):

*21) I learn English because many people in the world speak English.*

*22) I learn English because then I can talk to people from all over the world.*

These questions were almost directly translated from Heinzmann (2013). Items 19-21 were answered on the 5-point Likert scale with dots of increasing size.

The items on ECB were borrowed from the scale on competence beliefs from Wigfield et al. (1997):

*23) 'How good are you at English?'*

*24) 'Are you good at learning something new in English lessons?'*

*26) 'If you think about all the children in your class, from the weakest to the best in English, how good do you think you are yourself?'*

The study by Wigfield et al. was originally designed to measure 6-12-year-old children's competence beliefs in the academic domains of mathematics, reading, instrumental music and sports. Their questions for mathematics were the following:

1. How good in math are you?
2. If you were to list all the students in your class from the worst to the best in math where would you put yourself?
3. Some kids are better in one subject than in another. Compared to most of your other school subjects, how good are you in math?
4. How well do you expect to do in math this year?
5. How good would you be at learning something new in math?

Questions 1, 2 and 5 were adapted almost directly but mathematics was modified to English. Question 3 was found to be difficult to comprehend for the children during the pilot test. Therefore, it was modified as a binary choice into the question: *'Which subject are you the best at? English or math?'* The results from this question were finally not included in the analysis because of the binary answer format. Question 4 was left out because children do not receive marks or any other measures on how well they do in English in the early years of primary school.

Items 23, 24 and 26 were answered on a 5-point scale with rectangles of increasing size from very bad/one of the worst to very good/one of the best.

Items 27-30 concerned the Ideal L2 self were proposed by Dörnyei (2009). The reason for calling these items "precursors to Ideal L2 self" was that according to Dörnyei (personal communication) based on Zentner and Renaud (2007) stable ideal-self representations do not emerge before adolescence. Zentner and Renaud, however, write that the emergence of ideal-self representations in middle childhood is an important area of study and Muñoz and Tragant (2014) suggested calling it precursors to ideal self. The items were the following:

*27) When I grow up, I will surely be good at speaking English.*

*28) I think I will be good at reading books in English when I grow up.*

*29) I would like to live in an English-speaking country.*

*30) I would like to have friends in English-speaking countries.*

The items were answered on a 5-point scale with rectangles of increasing size.

Items 32-39 were a translation of the mindset scale of C. Dweck (Gunderson et al., 2013):

*32) One will always be as smart as before, no matter what one does. (reversed)*

*33) One can become smarter and smarter if one works hard.*

*34) Would you choose to solve easy labyrinths to have a lot right? (reversed)*

*35) Would you choose to spell easy words to have a lot right? (reversed)*

*36) Would you choose to solve difficult labyrinths so you can be better at them?*

*37) Would you choose to spell really difficult words so you can be better at spelling?*

*38) Do you think it is right that if a person can't solve a math problem in ten minutes, then the problem is probably too hard for them to do? (reversed)*

*39) I know some kids who don't do well on their schoolwork. Do you think this means that they are not so smart?*

These items turned out to be difficult to comprehend for the children. The translations were modified after the pilot test without diverging too much from the original scale. Some of the items

were still difficult for the children to understand after the modifications but they received explanations from the researcher to ensure they understood them. Children were very keen on filling in all items precisely.

It also turned out that some children did not know what a labyrinth was. Therefore, before presenting item 36 the researcher asked the children whether they knew what a labyrinth was, chose one particular student to explain it and made sure that everybody understood it correctly.

**Administration of questionnaire about affective factors**

The questionnaire was administered twice, both times by the author of this dissertation. The first time (Q1) it was given at the end of the academic year 2014/15, approximately half a year after the pretest. The second time (Q2) the questionnaire was given at the end of the academic year 2015/16, approximately half a year after the posttest.

The researcher administered the questionnaire with the children during their regular English lessons. The questionnaire was administered in the Danish language.

The researcher started with presenting herself and the project and explaining what the questionnaire was about. The children already knew the researcher since she took part in the proficiency testing and in recording English lessons on video for the project. The items were read aloud one by one by the researcher, and the children marked the smiley or dot/rectangle of their choice. After filling in the first half of the questionnaire, the classes were given a short break where they sang the song “Head and shoulders, knees and toes” with the researcher in Danish and in English and did also the physical exercises that the song is usually accompanied by. In half of the classes, the first and the second halves of the questionnaire were administered in reversed order to avoid order effects. Answering all the questions took the students approximately 40 minutes on average. Children who were absent when the questionnaire was administered to their class completed the questionnaire with the researcher individually. In these cases, it took only 20-25 minutes to complete the questionnaire.

### 3.2.3. Interviews

**Design and pilot testing**

Before planning the interviews, methodological considerations were made about which interview type to choose. Dörnyei (2007) describes the following three main interview types: the structured interview with a fixed set of questions with almost no flexibility, the unstructured interview with a few opening questions to introduce the topic and with full flexibility to follow a natural

conversation with the interviewee, and the semi-structured interview which is a combination of the two former types with a more or less fixed structure but still allowing some flexibility to follow a natural conversation with the interviewee. Data from structured interviews have the advantage of being easily comparable across participants but they provide less richness about the phenomenon studied. Unstructured interviews, on the other hand, provide very rich data about the phenomenon studied but data are less comparable across interviewees.

The original plan was to design a semi-structured interview guide not completely structured but still close to the fully structured interview (Dörnyei, 2007) based on a fixed set of open questions including questions relatively close to the questionnaire items supplied with "why-questions" in order to find out more about the reasons behind the answers children gave in the written questionnaire. The questions were the following:

*'How is it for you to go to school?'*

*'Which things do you like the most / the least? Why?'*

*'What do you think about English?'*

*'What do you / don't you like about the English language?'*

*'Do you think it is important to learn English? Why?'*

*'Are your parents happy with what you are learning in English? How do you know?'*

*'What would you like to be when you grow up?'*

*'Do you think you will use English when you grow up?'*

*'You have written in the Q that your two favorite subjects are xxx and yyy. Are these still your favorite subjects? What do you like about them?'*

*'Could you describe an English lesson in your class? What do you do there?'*

*'If the child can't answer anything: can you remember your last English lesson? What did you do there?'*

*'What do you think about the things you are doing (that you have just told me about)? Why do/don't you like them?'*

*'Do you have a favorite teacher? What about your English teacher?'*

*'I can see that you are a little / very afraid of saying something before the class in English. Why are you afraid?'*

*'How do you know you are so good / not so good in your class in English?'*

*'Why do you think you are so good / not so good at English?'*

*'How do others do who are better than you (if any)?'*

This semi-structured but still almost fully structured interview was pilot tested with six 7-year-old children from a class in one of the project schools that was not part of the project and with three 7-year-olds and three 9-year-olds from another school not included in the project.

Pilot testing showed that several children only gave very short responses and it created an unnatural and awkward situation to sit face to face with a child, keep reading questions from a list and always checking whether all the questions had been read.

Therefore, it was decided to use a still semi-structured but more open interviewing style and to avoid yes/no questions. The researcher decided to engage in a natural conversation with the child and to follow the thread of the conversation. Instead of a long list of questions the researcher created a single page with headwords about the topics that had to be mentioned during the interview. This had the advantage that the interview could be conducted without reading the questions from a list, but it was still assured that all the important areas were covered during the interview. This format also had the advantage that children could talk much more freely which made it possible that data could be analyzed thematically without sticking rigorously to the questions asked. This gave a deeper insight into children's thoughts and feelings about the EFL learning process. On the other hand, this had the disadvantage that the interviews were not completely identical with each other, questions and answers did not follow a fixed order and in some cases some questions were left out.

At the beginning of the interview a general question was asked about what an English lesson was like. This is suggested by (Spradley, 2002) in order to ease the situation and keep the informant talking. This part of the interview is more like an unstructured interview. After this general question, more specific questions were asked about different aspects of the English lesson based on the headword list. Questions covered topics such as what children thought about the English lessons, what they enjoyed in the English lessons and what they did not like, what English could be used for and why it was important, how children felt during the English lessons, in which situations they felt embarrassed and why.

Researchers often take notes during the interview in order to have some written data before transcribing the interviews (e.g., Enever, 2011; Mihaljević Djigunović, 1995). The pilot interviews have shown, however, that it was unnatural to take notes while children were speaking. Children were curious, looked at the papers of the interviewer and could not concentrate on the topic. In order to avoid this unnatural situation, it was decided not to take notes during the interview.

The pilot interviews were audio recorded, but it turned out that children sometimes used hand movements or facial expressions that could be necessary in order to understand and to transcribe the interviews. Therefore, the final interviews were video recorded.

The original plan was to try out a metaphor elicitation technique (Jin, Jiang, Zhang, & Yuan, 2014) also in order to find out more about how children think about learning English. This technique was used with great success with Chinese students from the same age group by Jin et al. (2014). But the pilots showed that even though Danish children could understand the concept of metaphors it was very strange for them and they could not come up with any answers to this question. Therefore, it was decided not to use the metaphor elicitation technique.

**The interviewing process**

The interviewer agreed with the English teachers and the class teachers in the four classes which day she could come and interview some of the children. Each child was interviewed individually and only once. The interviews were conducted in the Danish language and lasted 15-25 minutes.

It is normally suggested that single interviews should take 30-60 minutes and that there should be a second follow-up interview. Children of this age, however, tend to get deconcentrated after 15-25 minutes, therefore the interviews were shorter. The lack of a follow up interview is a limitation of the study, but because of the tight schedule of the project it was not feasible to conduct more than one interview with the children. I hope this is compensated for by the relatively high number of students interviewed.

The researcher went to the class and asked the teacher to send a certain student to her. The student went to the interview room, where the camera had been set up beforehand, together with the researcher. This gave a good opportunity to have a conversation on the way and create rapport which is especially important in the case of children (Gibson, 2012). Already on the way to the interview room or after settling down in the interview room the researcher told the child about the purpose of the interview. This was easy, because the children were already familiar with the researcher. As suggested by Gibson, the researcher told the child that if he/she did not want to or could not answer a question, it was no problem to say “pass”, because the aim was to hear the honest opinion of the child and not that the child would fabricate some fake answers. The researcher also assured the child that the information that he/she would tell her would not be passed on to the teacher or the other children in the class.

### 3.2.4. Classroom observations

The researcher participated in several English lessons in the project schools while making video recordings. The researcher also watched some additional video recordings from the four classes where the interviewees came from. She noted observations about the teaching style and the tasks used by the different teachers. These observations are mentioned as supplementary contextual information in the description of the thematic analyses of the interview data.

## 3.3. Data analysis

### 3.3.1. Quantitative data analysis

Traditionally it is argued, that Likert scale data should not be analyzed by regression analysis, because Likert scale data are usually regarded as ordinal data i.e. the differences between each possible answer cannot be regarded as equal (Kristensen & Hussain, 2016). This means that unlike interval scale measurements, ordinal data permit only a rank ordering of scores. For example, it is not possible to determine whether the difference between “totally agree” and “agree” is the same as the difference between “agree” and “neither agree nor disagree”. In spite of this, data from composite scores consisting of several Likert scale questionnaire items, are often analyzed by inferential statistical methods such as ANOVA, t-test and regression analysis, as suggested by (Boone & Boone, 2012).

The cross-sectional analysis of the data from the Q1 on the individual factors was done by individual two-way ANOVAs. Starting grade and gender were used as the independent variables and each affective factor as the dependent variable. The scores were composite scores of the means of 2-8 questions that had been answered by the children on 5-point Likert scales. (Paper 1, Section 5.2)

To analyze how affective factors as independent variables relate to FL proficiency scores as dependent variables a mixed effects generalized linear model (Linck & Cunnings, 2015) was used. Pfenninger and Singleton (2017) emphasize the importance of using multi-level models in situations “where measurements within and between sampled students are nested in a hierarchical fashion within classes and schools” (p. 41). In this dissertation, the model includes the variable ‘class’ as a random effect. The variable ‘school’ was not included as a random effect because class was not systematically nested under ‘school’ since there was a school from which only early starters participated. A detailed description of the analysis procedure can be found in Paper 1, Section 5.3.

The longitudinal analysis of the data from both the Q1 and Q2 on the affective factors was done by regression analysis (Paper 3 and Chapter 7). Regression was used in order to examine

whether there were significant differences between the results from Q1 and Q2 and whether there were age- and gender-related differences when taking both questionnaires into consideration.

All analyses were done in the statistical program Stata, version 14, except for some of the analyses of the longitudinal data which were conducted in version 15.

### 3.3.2. Qualitative data analysis

Interview data were all transcribed and coded manually. Coding and analysis of the data was done by thematic analysis according to Braun and Clarke (2006). The thematic analysis was done in the following steps:

1. Relevant passages for different topics were identified. The topics were FLCA in the FL classroom (Paper 2), attitudes toward English lessons and motivation to learn English (Paper 3).
2. Relevant passages within the three topics were classified into different categories (themes).
3. Categories were grouped into larger groups.
4. The relevant passages identified in the first step were checked again and reassigned to categories if necessary.
5. The occurrence of the themes was compared between some relevant subgroups (younger and older children in Paper 2, children with high, medium or low PPVT scores and boys and girls respectively in Paper 3) within the sample.

In this way, the main themes could be identified about the following topics: why children were afraid or embarrassed in the English lessons, what children liked and disliked in the English lessons and what motivated them to learn English.

A limitation of the analysis is that interview data in fact do not reveal what children actually do, think or feel, only what they say they do, think or feel. What children actually do in certain classroom situations, could be analyzed by systematic classroom observations. This was not possible within the present time frame. Conclusions have to be drawn keeping these considerations in mind.

# Chapter 4

# Summary of results

The aim of this chapter is to give an overview of the results of the dissertation. Results are grouped according to the overall research questions presented in Section 2.8 which partially overlap with the research questions within each paper.

### 4.1. Are there age- and gender-related differences in relation to the individual factors and how do they relate to EFL outcomes?

In this section, the cross-sectional results from the analysis of Q1 and proficiency data, based on Paper 1, are summarized. Results include age and gender-related differences in EFL proficiency measured by receptive vocabulary and grammar and in individual factors from Q1 which was administered at the end of the first year of EFL instruction. In addition, results about how the individual factors relate to the pre- and posttest results of the receptive vocabulary and the receptive grammar tests are summarized.

Concerning receptive vocabulary and grammar scores, the following age and gender differences were found. Both age groups already had some knowledge of English at the beginning of EFL instruction. Both on the vocabulary and the grammar test, late starters started off with approximately the same proficiency level as early starters achieved after one year of instruction. Both age groups made similar gains over one year of instruction on both tests (Paper 1, Figure 1.A and B).

The following age and gender effects were found in the individual factors (Paper 1, Table 2).

Results on attitudes showed the following: Early starters had a more positive attitude toward English lessons than late starters. Concerning attitudes toward activities in English lessons the data showed that girls were more positive than boys in both age groups. There was no significant difference between age groups. Concerning attitudes toward the English language there was no significant effect of either gender or starting grade.

The role of external authorities (parents and teacher as motivators) differed between early and late starters. Early starters relied significantly more on the teacher and the parents than late starters. The variable “precursors to Ideal L2 self” showed that boys had a stronger picture of themselves as future English speakers than girls. The reliance on English as a lingua franca as a motivator did not show any age or gender differences.

Results on FLCA showed that early starters were less anxious than late starters regardless of gender, and girls were more anxious than boys regardless of age.

Results on ECB showed that early starters had generally higher competence beliefs than late starters and girls had lower competence beliefs about their English than boys. There was also a significant interaction between starting grade and gender showing that late starter girls had significantly lower levels of ECB than early starter girls and boys.

Questionnaire data on mindsets showed that late starters had a stronger growth mindset than early starters.

Results concerning the relationship between the various individual factors and receptive vocabulary (Paper 1, Table 3) and grammar (Paper 1, Table 4 and 5) test scores showed that only some of the examined individual factors had a clear influence on EFL proficiency. These factors were FLCA, ECB, the role of external authorities as a source of motivation and learners' mindset. ECB, the role of external authorities as a source of motivation and learners' mindset correlated with pre- and posttest vocabulary and grammar scores, meaning that the more positive competence beliefs and the more growth mindset a child has and the lower their reliance on external authorities is, the higher scores they obtained in the pre- and the posttest for both vocabulary and grammar. FLCA stood out among the factors because it not only correlated with pre- and posttest vocabulary and grammar scores but also with the gain between the pre- and the posttest.

### 4.2. To what extent do early and late starters' individual factors change after one year?

In this section, the results from the longitudinal data on the individual factors from both Q1 and Q2 are shown. Results are summarized from the quantitative analyses in Paper 3 and in Chapter 7.

Results on attitudes showed the following. Early starters had more positive attitudes toward English lessons than late starters, and attitudes toward the English lessons became significantly less positive with time for both early and late starters and both girls and boys (Paper 3, Figure 2 and Table 4).

In the longitudinal analyses, the two questionnaire items on children's first and second favorite subject (Appendix 3) were also included. Figure 1 in Paper 3 shows how many percent of boys and girls in each starting grade indicated English as their first or second favorite subject each year. Results showed a significant decrease between Q1 and Q2, and the decrease was stronger for girls than for boys (Paper 3, Figure 1 and Table 3).

Similarly, attitudes toward activities in the English lessons were more positive among early starters than late starters, and positive attitudes decreased with time for both early and late starters

and both genders. Besides these effects a main effect of gender showed that girls had more positive attitudes toward EFL activities than boys, when taking into consideration data from both questionnaires.

In the longitudinal analysis, time, age and gender effects were also analyzed separately for each of the five classroom activities (singing, listening to music, writing, reading and speaking) that were included in the questionnaire (Chapter 7, Figures 2-7, Tables 2-7). The results showed that children's positive attitudes toward singing decreased over time, early starters liked singing significantly more than late starters and girls liked singing significantly more than boys. Data showed that the enthusiasm for listening to music decreased significantly between Q1 and Q2 and early starters were more positive than late starters, independently of gender and the time of test. Data on writing showed only one significant effect which was an interaction between grade and gender, showing that late starter girls liked writing significantly more than boys and early starter girls. Children's liking of reading decreased significantly with time. Concerning speaking, data showed that early starters liked it significantly more than late starters.

Data on attitudes toward the English language showed no change between Q1 and Q1 (Chapter 7, Figure 8 and Table 8). Data from both questionnaires showed that early starters liked the English language more than late starters.

The role of external authorities as motivators decreased significantly between Q1 and Q2 (Paper 3, Figure 3, Table 5). At the same time, independently of the time of the test, early starters relied stronger on their teacher and parents than late starters. Data on the variable "precursors to Ideal L2 self" showed no significant change with time. Boys in both age groups had a more positive picture of themselves as future users of English, independently of the time of the test. A significant interaction between gender and starting grade showed that late starter boys' precursors to Ideal L2 self were stronger than girls' and early starter boys' (Paper 3, Figure 5, Table 7). The reliance on English as a lingua franca as a motivator was stronger for boys than for girls, independently of the time of the test and the starting grade (Paper 3, Figure 4, Table 6).

Children's FLCA level did not decrease significantly between Q1 and Q2. Data on FLCA showed that girls were generally more anxious of speaking English in the English lessons than boys. A significant interaction between gender and starting grade showed that late starter girls had significantly higher levels of FLCA than early starter girls and boys (Chapter 7, Figure 9 and Table 9).

Children's ECB levels showed a significant decrease between Q1 and Q2. A significant interaction between starting grade and gender showed that late starter girls' competence beliefs were significantly lower than early starter girls' and boys' (Chapter 7, Figure 10 and Table 10).

The longitudinal data on mindsets showed that late starters had a stronger growth mindset than early starters, independently of gender and the time of the test. A significant interaction between time and starting grade, however, indicated that while early starters' mindsets increased between Q1 and Q2, late starters' mindsets decreased with time (Chapter 7, Figure 12, Table 12).

### 4.3. How do children describe experiences of FLCA in the EFL-lessons?

In this section, results from the interview data on FLCA (Paper 2) are summarized.

Results from the thematic analysis of the interview data on FLCA showed that children mentioned that they could become anxious in three main categories of situations. The first category was making mistakes or being afraid of making mistakes. The second category was social situations when they were supposed to say something in English in front of the whole class. It was characteristic for these social situations that other children would laugh, criticize or correct the speaker. This situation was mentioned primarily by late starters. The third category was when children experienced uncertainty, such as not understanding what the teacher said in English. This happened especially in the beginning phase of EFL instruction for both early and late starters.

The main difference between early and late starters was that late starters mentioned being afraid of the reaction from peers to a much higher degree than early starters.

Concerning the reduction of FLCA, interview data revealed that some students experienced that their fear of mistakes decreased when they started to regard mistakes as a natural part of the EFL learning process. An 8-year-old boy, for example, emphasized that he used to be afraid of saying something in English but he was not afraid anymore because it was not a problem if he made small mistakes, it does not have to be perfect. Some other children who had problems with understanding the teacher's English experienced that their FLCA decreased as their comprehension of English developed or when they received help in understanding the message. The example of a 10-year-old girl revealed that she had been afraid to use English until she found out how much she had developed because of hard work. And now she was aiming at continuing to work hard in order to become even better at English. This is an example showing that growth mindset can help overcoming FLCA.

### 4.4. What motivating and demotivating factors to learn EFL do children describe?

This section summarizes the results from interview data on motivation and attitudes (Paper 3). Results from the thematic analysis of the interview data on attitudes showed that the interviewed children regardless of EFL proficiency and gender mentioned that they enjoyed following three kinds of activities in the English lessons. First, they enjoyed when they had to use English in imitated real-life situations in the EFL lessons, such as role plays on ordering in a restaurant or showing somebody the way on the street, while they mentioned that learning words and grammar without context was often boring. Second, they enjoyed varied activities and tasks in the EFL lessons while they thought repetition was not as much fun. Some of the students also emphasized that they enjoyed when the teacher differentiated between stronger and weaker students in the EFL lessons because then the tasks were adjusted to their level of English and were neither too difficult nor too easy.

Concerning motivation, children from both age groups and genders mentioned the following three aims as the main reasons for learning English: communication abroad and with foreigners in Denmark, professional goals and being able to use the English language media. When mentioning communication with foreigners in Denmark and abroad most children did not mention especially English speaking countries, but referred to all the other countries outside Denmark. Some children even mentioned that English is an international language and the knowledge of English enables them to communicate with foreigners from any country since people learn English everywhere in the world. Concerning communication children either referred to past experiences or future expectancies with foreigners in Denmark or other countries. When mentioning professional goals, children referred to future plans with using English in their studies or work life. About the media, children from both age groups and genders mentioned listening to music and watching films in English but mainly only boys with high receptive vocabulary scores mentioned gaming and watching YouTube videos about gaming in English as a motivator. Children with low receptive vocabulary scores often mentioned practicing English at home with their parents.

# Chapter 5

# Discussion

The main aim of this dissertation was to add empirical knowledge to the field of children's second language acquisition by examining the role of individual factors in the EFL learning of young learners in the Danish learning context. Therefore, in this chapter the empirical results presented in Chapter 4 will be discussed in the light of the empirical studies on the individual factors of young learners and also in the light of the relevant theoretical background described in Chapter 2.

In Section 5.1. vocabulary and grammar tests are discussed only shortly because this does not belong strictly to the main focus of the dissertation. In Section 5.2 age-related differences, changes of the individual factors, gender differences concerning motivation and attitudes are discussed and correlations between motivation and attitudes and the EFL proficiency test results are discussed. In Section 5.3 age-related differences, changes of the individual factors, gender differences concerning FLCA and correlations between FLCA and the EFL proficiency test results are discussed. Section 5.4 discusses age-related differences, changes of the individual factors, gender differences concerning ECB and correlations between ECB and the EFL proficiency tests. Finally, Section 5.5 discusses age-related differences, changes of the individual factors, gender differences concerning mindsets and correlations between mindsets and the EFL proficiency tests.

### 5.1. Receptive vocabulary and grammar results

Concerning early and late starters' receptive vocabulary and grammar scores the present study found that both age groups already had some knowledge of English before school instruction started. Late starters' level of English at the beginning of third grade corresponded approximately to early starters' level at the beginning of the second grade, after one year of EFL instruction. Both early and late starters made approximately the same gains on both tests within one year. This means that based on the results from the first year, no rate advantage for late starters was visible in contrast to previous studies with young learners in instructional FL learning contexts (e.g., Cenoz 2003; García Mayo 2003; Muñoz 2006). The reason for this difference could be that the one years' period was too short for the rate advantage to manifest itself. Analysis of the posttest 2 data from the larger project will show whether there was a rate advantage for the late starters after two years of EFL instruction.

The results from both the receptive vocabulary and grammar tests showed a significant interaction between starting grade and gender, showing that late starter boys scored higher than late starter girls. This can possibly be explained by boys' stronger precursors to Ideal L2 self (Section 5.2.2.) and more exposure to English outside school (Hannibal Jensen, 2017).

## 5.2. Motivation and attitudes

### 5.2.1. Age-related differences and change of motivation and attitudes over time

Concerning attitudes toward the English lessons the results from Q1 showed that late starters' attitudes toward the English lessons were significantly lower than early starters'. This was confirmed by the data analysis from both the Q1 and Q2 together, showing that attitudes toward English lessons also turned significantly less positive within one year of English instruction. The percentage of children indicating that English was their first or second favorite subject also decreased between Q1 and Q2. These findings are in line with the findings of Chambers (1999), Henry and Apelgren (2008), Heinzmann (2013) and Mihaljević Djigunović and Lopriore (2011).

Some of the cited previous studies included slightly older learners than this study. 9-11-year-old Swiss learners (Heinzmann, 2013), 10-13-year-old Swedish learners (Henry & Apelgren, 2008) and 11-17-year-old British learners (Chambers, 1999) which shows that the processes are the same for younger and older age groups: they start out with great enthusiasm which seems to vane with time independently of starting age except for some very favorable learning conditions or especially enthusiastic children and parents, as shown by Mihaljević Djigunović (1995). Mihaljević Djigunović and Lopriore concluded that the reason for the loss of interest could be that beginners start out with an overall enthusiasm due to the novelty of the experience of FL instruction. This could also be one of the reasons for the loss of interest in this study. Other reasons could be different for different learners. The older age group in the present project tended to receive more explicit teaching about grammar which some of the students thought was boring. Some students with high receptive vocabulary scores were bored by repetition. Some of the boys did not like singing which could lead to lower liking of English classes as a whole.

Concerning attitudes toward activities in the English lessons several age differences were found in the data. When analyzing questionnaire data on attitudes toward five different activities (singing, listening to music, writing, reading and speaking) together as a mean score, data from the Q1 showed no significant differences between the two age groups. Analysis of both questionnaires together, however, showed a significant age difference: late starters showed less enthusiasm for the activities in the English lessons than early starters. The longitudinal analyses showed also that

positive attitudes toward activities in the English lessons decreased significantly within one year of English instruction. This corroborates with the findings on attitudes toward the English lessons in general. Early starters are more enthusiastic at the beginning of EFL instruction than late starters and both age groups turn less positive over time.

Looking at the five activities separately (Figures 3-7 in Chapter 7) data showed that early starters had more positive attitudes toward singing and listening to music than late starters and both groups turned less enthusiastic for both singing and listening to music within one year. Loss of interest for singing corroborates with the findings of the ELLiE study (Mihaljević Djigunović & Lopriore, 2011). The same tendency is observable concerning speaking in the English lessons. Early starters showed significantly more positive attitudes toward speaking when analyzing both questionnaires although this did not change over time. For reading there was an interaction between starting grade and time showing that early starters were overtly positive about reading in Q1 and their attitudes dropped significantly within one year. This may be explained by the fact that at the time of Q1 many first graders did actually not practice reading in the EFL lessons, thus the positive attitudes toward reading could be due to their positive expectations toward reading or their experiences with reading English outside school. Responses from the late starters, however, showed more or less stable attitudes toward reading, with not significant change over time ($p = .67$). Concerning attitudes to writing, age-differences were moderated by an interaction with gender therefore these are discussed under gender effects in Section 5.2.2. These results are not directly comparable with Mihaljević Djigunović and Lopriore (2011) because they did not ask children the same questions at two different time points.

Concerning attitudes to the English language the analysis of Q1 alone did not show any significant age-differences but the analysis from both questionnaires revealed a slightly significant difference between early and late starters, late starters showing slightly less enthusiasm toward the English language than early starters. This result contradicts the findings from Burstall (1977), who found that early starters maintained more positive attitudes toward speaking the language over time. The difference can possibly be explained with the fact that while Burstall's questionnaire items focused more on the attitudes toward speaking the language the questionnaire items in this study concerned attitudes toward speaking and listening to English words and sounds.

Results concerning motivation, according to the analysis of the Q1, showed that early starters relied stronger on external authorities (parents and teacher) than late starters which was confirmed by the analysis of both Q1 and Q2. This finding is in line with Nikolov (1999) who found that

younger age groups mentioned more teacher-related reasons for learning English than older age groups. Children's reliance on external authorities as a motivator is related to Dörnyei's (2009) Ought-to L2 self because it means learning English because it is expected by external authorities, the teacher or the parents. It is outstanding that the Ought-to L2 self of Danish children already at this young age seems to become less significant and as it will be presented under gender differences in Section 5.2.2 the Ideal L2 self seems to gain importance with age.

Analysis of the interview data showed that in free conversations with the researcher early and late starters mentioned mainly the same likes and dislikes in the English lessons. Both age groups enjoyed real life situations, such as role playing on topics that also could occur in their real lives. Children interviewed in the ELLiE study (Mihaljević Djigunović & Lopriore, 2011) mentioned role playing as well which is similar to real life situations occurring in the present dissertation. Both age groups, in the present study, also mentioned in the interviews that they liked varied activities in contrast to repetitions which they thought were boring but this was mentioned only by children with higher receptive vocabulary scores.

Children regardless of age and PPVT level mentioned also that they liked differentiation between less and more proficient students in the English lessons as opposed to situations when all students were given the same tasks. The interviews revealed that this was necessary so that less proficient learners did not feel incompetent and become anxious and more proficient learners did not get bored. This aspect has not been mentioned in previous studies. The last finding can be explained by the fact that there appear to be relatively big differences between different Danish children's level of English probably due to the differences in out of school exposure to the English language as pinpointed by Hannibal Jensen (2017) and Sundqvist and Sylvén (2016).

These results partly differ from Nikolov's (1999) findings in her study on 6-14-year-old Hungarian EFL learners. She found that rewards, such as good grades and compliments, were important motivators in the case of children. Grades were not mentioned by the Danish children since they are not given grades before the 7$^{th}$ grade in English. Among the interviewees in the present study, only one late starter girl emphasized the importance of compliments from the teacher. A possible explanation of this difference is that Danish children already from an early age are strongly motivated by instrumental motives such as communication abroad and with foreigners in Denmark, professional goals and the use of media. These motives for learning English were mentioned by interviewees from both the younger and the older age group. Another possible explanation for the difference in the answers is the way the question was formulated in the two

studies. While in this study children were asked why they think it is important to learn English, Nikolov's questionnaire asked children why they learned English.

These findings can be related to Gardner's distinction between integrative and instrumental orientation. Integrative orientation in Gardner's terms refers to a positive attitude toward and an identification with the speakers of the L2. Therefore, it can be concluded that findings from the dissertation do not seem to be related to Gardner's integrative orientation in the narrower sense because the informants did not relate themselves to any L2 English community. In a broader sense, however, it is possible to relate findings to the integrative orientation if the L2 community is reinterpreted as a global international English speaking community instead of including only the countries where English is spoken as a mother tongue as suggested by Dörnyei (2009). The quantitative data from this study showed that Danish children already from the age of 7 were strongly motivated by English being an internationally used lingua franca. The qualitative data also showed that Danish children highly identified themselves with an international English speaking community since they mentioned on several occasions that English is spoken everywhere in the world and you can speak English with almost all foreigners in Denmark.

Gardner's instrumental orientation refers to the potential usefulness of the FL. Danish children already in these young age groups turned out to be strongly aware of the practical usefulness of English. This is in line with the findings of Mihaljević Djigunović (1993) but different from the findings of Nikolov (1999). This can most likely be explained by the fact that Danish children, probably similarly to Croatian children, are much more exposed to communication with foreigners already from a very young age in contrast to Hungarian children in the 70s and the 80s when Nikolov collected her data for the Pécs-project.

### 5.2.2. Gender-related differences in motivation and attitudes

Among the questionnaire variables covering motivation and attitudes the following five variables showed a gender effect: attitudes toward activities in the EFL lessons (mean score), attitudes toward singing and writing, precursors to Ideal L2 self and importance of English as a lingua franca as a motivator.

Previous literature generally showed that girls were more positive toward learning FLs than boys (Burstall, 1977; Dörnyei & Csizér, 2002; Henry, 2009; Henry & Apelgren, 2008). On the contrary, the data of the present study showed that there was no significant gender difference in attitudes toward English lessons. In addition, the present study found a nearly significant gender effect ($p$ = .087) for the proportion of girls indicating English as their favorite subject was lower

than of boys, showing that girls seem to prefer other subjects than English to a higher degree than boys. To my knowledge, no previous studies have found that girls showed lower interest toward EFL than boys. It seems to be a trend among young EFL learners in Denmark that boys' motivation and attitudes toward learning English are becoming stronger while girls' motivation and attitudes are becoming weaker. This can partially be explained by the results from Henry and Apelgren (2008) who found that boys and girls were equally positive toward learning English at school, in contrast to the stereotype that girls like learning foreign languages more than boys. On the contrary, Henry and Apelgren (2008) found that girls were more enthusiastic about learning other FLs than English than boys. Thus, it seems that the attitudes and motivation toward learning English differ from learning other FLs. This difference between motivation for learning global English on the one hand and other FLs on the other hand has newly been emphasized in a special issue of MLJ (e.g., Busse, 2017; Dörnyei & Al-Hoorie, 2017).

Another finding of the present study was that girls indicated significantly more positive attitudes toward the activities in the English lessons and especially toward singing than boys. The reason may be that while girls' positive attitudes toward English lessons depend more on their positive attitudes toward the activities in the lessons, boys' positive attitudes toward the English lessons depend more on their English activities outside school (Hannibal Jensen, 2017) which are instrumental reasons. Henry and Apelgren (2008) and Henry (2009) have also found that boys tended to be more motivated to learn English by instrumental reasons than girls. Singing, in the Danish EFL learning environment, seems to be especially demotivating for some boys.

Attitudes to writing were significantly more positive in third grade but only among girls, according to the analyses from both Q1 and Q2. This might be in connection with third grader girls being more afraid to speak in the English lessons (Section 5.3.2). Girls at the age of 10-11 years seem to be more ashamed or anxious of speaking before peers and more enthusiastic about written than spoken production.

Concerning precursors to Ideal L2 self, there was no effect of gender when analyzing only Q1 but a significant gender difference moderated by an interaction with starting grade appeared when analyzing data from both Q1 and Q2. This means that boys in the older age group had a significantly stronger picture of themselves as future users of English than girls and younger boys. The appropriateness of using questionnaire items on the Ideal L2 self with children based on Dörnyei's L2 Motivational Self System are questioned by Muñoz and Tragant (2014) and Dörnyei himself (personal communication) who did not use his scale with children under the age of 14.

Quantitative and qualitative data from the present study, however, show that Danish EFL learners as young as 8-11 old years are already aware of the usefulness of English in the future and can imagine themselves as future users of English. A possible reason for this may be that Danish children and especially 10-11-year-old boys, who indicated a stronger Ideal L2 self, have much contact to English outside school and the older boys who indicated a stronger picture of themselves as future English speakers and users use the English language actively in gaming activities as found in the interview data and by Hannibal Jensen (2017) on a subsample from the same sample as used by the present study.

Concerning the importance of English as a lingua franca as a motivator no gender effect was found in the data from Q1 but when analyzing both Q1 and Q2 there appeared to be a significant gender effect meaning that boys, irrespectively of the age group, indicated a stronger reliance on this motivator. This is in line with the above-mentioned finding that boys have stronger precursors to the Ideal L2 self and in contrast to the stereotype that girls are more motivated to learn foreign languages. Thus, it can be said that boys seem to catch up with girls concerning motivation toward learning English.

When relating the motivation of young Danish learners to self-determination theory (Deci & Ryan, 1985) it can be said that already 7-11-year-old young Danish learners' motivation was extrinsic to a high degree since children showed a strong reliance on the role of English as an international lingua franca and were mostly motivated by practical reasons to learn English such as travel and communicating with foreigners. This is in contradiction to Tragant (2006) who found that Catalonian EFL students under the age of 12 mentioned intrinsic and instrumental reasons to the same degree while learners above 12 years mentioned primarily instrumental motives. This difference can be explained by young Danish learners being exposed to English more in their everyday lives outside school than Catalonians since the English-exposure of the informants in Tragant (2006) was limited to the classroom.

### 5.2.3. Relation of motivation and attitudes to EFL proficiency

The present study found that only the factor reliance on external authorities correlated with the EFL outcome among all the motivational and attitudinal factors in the study. This correlation showed that children who relied less on external authorities (teacher and parents) obtained higher scores on both receptive tests. This meant that the less children relied on external authorities telling them that they should learn English the better their vocabulary and grammar scores were in both pre- and posttest regardless of the age group.

Concerning precursors to the Ideal L2 self, the present study found no correlations with EFL outcomes which contradicts Kim and Kim (2014) who found that children's Ideal L2 self directly predicted L2 English proficiency measured by their self-reported mid-term scores. Attitudes toward the English lessons, activities in the English lessons were not significantly related to EFL outcome. This is in contrast with the ELLiE study (Mihaljević Djigunović & Lopriore, 2011) finding that attitudes correlated with listening skills and lexical diversity. Muñoz and Tragant (2001) also found that positive attitudes toward language had a positive relation to cloze test and dictation scores.

Differences in results may be explained by the different language tests that were used and the difference between the cultural contexts. Another possible explanation for the lack of correlations between attitudinal and motivational variables on the one hand and EFL outcome on the other hand is that the study only took into account one year of EFL development. After including data from the second posttest, taken one year after the first posttest, and correlating these with the results of Q2 on individual factors possibly correlations between several motivational and attitudinal factors would appear.

The interview data from the present study revealed that less and more proficient learners' answers differed from each other in two main areas. One of these areas was that children with high and medium receptive vocabulary scores mentioned that learning words and grammar without context and too much repetition in the EFL lessons were boring for them. The other area was that students, mainly boys, with high receptive vocabulary scores mentioned that they were highly motivated by gaming, an activity where they made active use of the English language, and watching YouTube videos about gaming in English. This was more or less the same group of children who scored higher on the questionnaire items on precursors to Ideal L2 self. Several children with low receptive vocabulary scores, on the other hand, mentioned that they were motivated to learn English by practicing with their parents. This corresponds to findings of Hannibal Jensen (2017) and shows that children using the English language as a tool for self-initiated communication or for understanding videos that they are interested in reach a higher proficiency than children who are urged by their parents to learn English. This is in line with Dörnyei's theory on the Motivational L2 Self System saying that a strong Ideal L2 self is a stronger motivator than a strong Ought-to L2 self.

### 5.3. Foreign language classroom anxiety

In this section, gender-related differences are not discussed in a separate subsection since it was interrelated with both age differences and the relation to English proficiency scores.

### 5.3.1. Age and gender-related differences and change of FLCA over time

Concerning FLCA, the analysis of Q1 showed that early starters exhibited a lower degree of FLCA than late starters. In the analysis of both Q1 and Q2, however, the significant effect of starting grade disappeared while an interaction between starting grade and gender appeared (Figure 9 in Chapter 7) showing that girls in the older age group scored significantly higher on the questionnaire items on FLCA (between 3 and 3.5 on a 5-point Likert scale) than boys and younger girls (around 2.5 on a 5-point Likert scale). Analysis of both Q1 and Q2 also showed that FLCA did not change significantly between questionnaire 1 and questionnaire 2. This could be regarded as an argument for the position that FLCA, or at least some aspects of FLCA, could be more like a stable personality trait than a situationally occurring state. It is a limitation of this argument, however, that data were collected only twice. The gender difference found in the present study is in accordance with findings within mainstream psychology about females suffering generally more of anxiety than males (Christiansen, 2015).

Previous studies on children's FLCA (Chan & Wu, 2004; Gürsoy & Akin, 2013) showed that older learners tended to be more anxious than younger learners. The findings of the present study partly differed from these because the increase of FLCA in the present study was restricted to girls. The finding that boys did not turn anxious around the age of 10-11-years old can possibly be explained by the fact that many 10-11-year-old boys engage in English activities outside school to a significantly higher degree than girls of the same age (Hannibal Jensen, 2017) which makes them more confident and less anxious. This finding is in accordance with Sundqvist (2009) who found a correlation between Swedish adolescents' involvement in English activities outside school, primarily digital gaming, and their self-related anxiety related to speaking English.

The finding that FLCA stayed stable over one year also seems to contradict Nikolov's (1999) finding that "Hungarian children's anxiety developed gradually over the years" (p. 51). The reason for the seeming contradiction can be that data in the present study only include data throughout two years. Data from more than two years would possibly reveal that FLCA does increase over time. Another possible explanation for the difference between the Hungarian and the Danish finding is that while Hungarian children mentioned being anxious and becoming more and more anxious mainly because of being exposed to tests, Danish children were not exposed to language tests in the period when they filled out the questionnaires.

### 5.3.3. Sources of FLCA

Results from the present study showed that children mentioned that they could become anxious in three main types of situations. In this section the anxiety-provoking situations found in the present study will be related to the categories mentioned by MacIntyre (2017). A more detailed discussion on this topic can be found in Paper 2, Section 6.2.

The first was making mistakes or being afraid of making mistakes. This source can either be related to academic causes in MacIntyre's taxonomy, if the student would like to say everything perfectly and is aware of not being able to do this, as was mentioned by some of the interviewed children. Being afraid of making mistakes can also be interpreted as a social cause in the taxonomy of MacIntyre, if it is a fear of being laughed at.

The second source of FCLA found in the present study was social situations when students were supposed to say something in English in front of the whole class. It was characteristic for these social situations that other children would laugh, criticize or correct the speaker. This situation clearly belongs under social causes in MacIntyre's taxonomy. This situation was mentioned primarily by the older age group possibly meaning that they experience these social situations as more anxiety-provoking than their younger peers. An investigation of classroom data would allow to draw more conclusions about how these situations actually manifest themselves in the EFL lessons. It is a limitation of the present dissertation that anxiety-provoking situations mentioned by children were not systematically observed in the classroom.

The third type was when children experienced uncertainty, such as not understanding what the teacher said in English. This happened especially in the beginning phase of EFL instruction. This source of FLCA belongs also under social causes in MacIntyre's taxonomy.

Danish young learners did not experience test anxiety which turned out to be the most important source of anxiety in other studies with young learners (Chan & Wu, 2004; Gürsoy & Akin, 2013).

From this it can be concluded that the situations that were anxiety-provoking for young Danish EFL learners can mainly be regarded as social causes of anxiety.

### 5.3.4. Relation of FLCA to EFL proficiency

The results of the present study showed that FLCA had a complex relation to receptive vocabulary gains including starting grade and ECB as factors. The vocabulary gains of neither the younger age group nor older children with high ECB were impacted by FLCA. It was found, however, that late starters with low ECB and high FLCA made almost no gains on the receptive vocabulary test.

Previous research with somewhat older children above 10 years (Abu-Rabia, 2004; Chan & Wu, 2004) also found a negative correlation between FLCA and EFL proficiency but they did not relate FLCA to students' beliefs about their own English proficiency.

Similar to the findings of Abu-Rabia (2004) and Chan and Wu (2004), the receptive grammar test results in the present study correlated negatively with FLCA but only for the older age group. This shows that L2 outcomes of children in the first grade are less impacted by FLCA.

MacIntyre (2017) lists low self-esteem under the possible social causes of FLCA. The finding of the present study showed that low competence beliefs combined with high FLCA lead to low EFL development. This shows that competence beliefs, similarly to other anxiety-provoking situations of social kind, identified in Paper 2, are also an important factor connected to FLCA.

### 5.4. Competence beliefs

Similarly to FLCA (Section 5.3), gender-related differences are not discussed in a separate subsection since it was interrelated with both age differences and the relation to English proficiency scores.

#### 5.4.1. Age and gender-related differences and change of ECB over time

Concerning ECB, the results from Q1 showed that the older age group had significantly lower ECB than the younger age group, which is in accordance with Mihaljević Djigunović (1993) and (Mihaljević Djigunović and Lopriore 2011). The finding from Q1 was not confirmed by the analysis of the data from both Q1 and Q2 which showed that the effect of the starting grade disappeared. Nevertheless, there was a significant interaction between the starting grade and gender meaning that girls in the older age group had significantly lower ECB than younger girls and boys (Chapter 7). Besides this, the results showed that children's ECB decreased significantly between Q1 and Q2 which is in accordance with results by Mihaljević Djigunović (1993) and Mihaljević Djigunović and Lopriore (2011) as well as by Wigfield et al. (1993).

#### 5.4.2. Relation of ECB to EFL proficiency

As described in Paper 1, analysis of the receptive grammar test results showed that that ECB correlated significantly with the grammar scores meaning that ECB to a certain degree predicts L2 outcome. This result is in line with the results of Zaunbauer et al. (2009) who found 11-12-year-old German EFL students' competence beliefs were strong predictors of EFL achievement.

Concerning the receptive vocabulary test, the present study found that ECB was related to EFL proficiency in a complex manner including FLCA. Results showed that late starters with high

ECB made vocabulary gains independently of FLCA, while students with low ECB and high FLCA at the same time made very low vocabulary gains (Paper 1, Section 6.3). This result is in agreement with MacIntyre, Noels and Clement (1997) who in the case of adult learners found that more anxious learners tended to underestimate their FL proficiency. The finding adds knowledge to the findings of Zaunbauer et al. (2009) because their main focus was students' self-concept and they did not include FLCA as a variable.

Taking into consideration the finding on girls in the older age group having significantly less positive competence beliefs (Section 5.4.1), the same girls having significantly higher FLCA than younger girls and boys (Section 5.3.1), and the combined effect of ECB and FLCA on the receptive vocabulary test described in Section 5.3.4 it can be concluded that girls at the age of 9-11-years is a group at possible risk for falling behind in English. Nevertheless, this conclusion has to be interpreted with the limitation that results from the second posttest of receptive grammar and vocabulary were not included in the analyses.

## 5.5. Mindsets

### 5.5.1. Age- and gender-related differences and change of mindsets over time

Concerning mindsets, the results from Q1 showed that the older age group had significantly less growth (incremental) mindset than the younger age group. This finding was confirmed by the analysis from both Q1 and Q2. In addition, the analysis from both Q1 and Q2 showed that early starters' and late starters' mindsets changed differently over time. While the younger age groups' mindset turned from a more fixed to a more growth mindset, the older age groups' mindset turned from a more growth mindset to a slightly more fixed mindset. Analyses of the second posttest will allow to see how children's mindsets develop further over time.

### 5.5.2. Relation of mindsets to EFL proficiency

Previous studies on children's mindsets and achievement in mathematics (e.g., Blackwell, Trzesniewski, & Dweck, 2007; Park, Gunderson, Tsukayama, Levine, & Beilock, 2016) showed that children with a more incremental mindset, believing that intelligence is malleable, obtained higher school grades in math. Park et al. (2016) found that first and second graders' results on a standardized math test differed according to their mindset. Children with a more growth mindset performed better on the math test than children with a more fixed mindset. In accordance with (Park et al., 2016), results from Paper 1 showed that the more incremental mindset children had, the

higher their vocabulary and grammar test scores were. This dissertation is the first study to show that children's mindsets predict FL outcomes.

Blackwell et al. (2007) also found that the development of math achievement over a year was steeper for students with an incremental mindset than for students with an entity (fixed) mindset believing that intelligence is unchangeable. Further analyses from the second posttest data within the larger project will show whether the same is true for children's receptive vocabulary and grammar development.

Mercer and Ryan (2010) and Ryan and Mercer (2012) argued for the necessity of understanding and describing domain specific mindsets. Lou and Noels (2016) found that FL related mindsets were better predictors of language motivation than mindsets about general intelligence. Their study found a difference between incremental and entity theorists' learning goals. While FL learners with a growth mindset aimed at learning more even though they made mistakes, learners with a fixed mindset aimed at performing well and avoid failure. The present dissertation has found that mindset correlated significantly negatively with FLCA in both Q1 ($r = -.14$, $p = .018$) and Q2 ($r = -.21$, $p = .001$), showing that children with a more growth mindset were less afraid of speaking in the EFL lessons in both Q1 and Q2. The correlation was stronger in Q2, which is in line with the findings of Lou and Noels since it is their hypothesis that FL related mindsets are related to FL proficiency but no studies have been done on this issue yet.

# Chapter 6

# Conclusions

### 6.1. Main findings

The present dissertation showed that both early and late starters had previous knowledge of English vocabulary and grammar already at the beginning of EFL instruction. Late starters began EFL instruction with a higher level of vocabulary and grammar than early starters. The reason for this is most likely that Danish children learn a lot of English due to exposure outside school in form of watching English media. Due to their biological age, late starters were exposed to two years' more English outside school than early starters, therefore they had more knowledge of English at the beginning of EFL instruction. Despite the initial difference in EFL proficiency both age groups made similar gains within one year showing that there was no rate advantage for the older learners as previous literature suggested (e.g., García Mayo 2003; Muñoz 2006). The results of the dissertation showed also that late starter girls scored lower on both receptive language tests than late starter boys.

The dissertation showed that four factors predicted receptive vocabulary and grammar scores. These factors were FLCA, ECB, learners' mindset and the influence of external authorities as a source of motivation. First, the more positive beliefs children held about their own English competence, the higher the proficiency scores they obtained in both pre- and posttest. Second, the more incremental (growth) mindset children had, the higher their proficiency scores in both pre- and posttest. This is an important finding because previous studies showed that a growth mindset predicted higher math and L1 achievement, Paper 1 was the first to show that growth mindset predicted FL achievement. Third, the less children relied on external authorities as motivators, the higher their proficiency scores were in both pre- and posttest. Fourth, high FLCA predicted not only pre- and posttest results but also the gains between pre- and posttest among late starters. For vocabulary, high ECB had a protective effect against FLCA.

The dissertation showed the following age and developmental differences in Danish children's individual factors in learning English. First, both early and late starters' positive attitudes toward the English lessons and activities in the English lessons dropped within one year showing that children are more enthusiastic at the beginning of FL instruction but this enthusiasm weakens with time. Although attitudes did not correlate with EFL proficiency scores, this is an important

finding because it shows that an early start does not necessarily prevent children's overtly positive attitudes to turn less positive over time.

Second, early starters relied more on external authorities than late starters, showing that early starters had a stronger Ought-to L2 self than late starters which correlated negatively with children's EFL proficiency scores.

The dissertation showed three main gender-related findings. First, in contrast to previous literature and the traditional view that girls like to learn FLs more than boys, the present dissertation found that in the Danish context there was no difference between boys' and girls' attitudes toward the English lessons. The data on children's indication of their first and second favorite subjects showed that girls' interest toward EFL, after one year of instruction, dropped more than boys' for both early and late starters. Furthermore, boys in the older age group had a stronger picture of themselves as future speakers and users of English showing that they had stronger precursors to the Ideal L2 self. These findings about boys' and girls' motivation and attitudes toward learning English taken together show that, in the Danish learning environment, the late starter boys' motivation seems to be stronger for learning English than girls'. This is in line with the finding that late starter boys scored significantly higher on the receptive vocabulary and grammar tests.

Second, in contrast to the first gender-related finding, girls' attitudes toward activities in the English lessons were more positive than boys' in both age groups. The reason may be that boys prefer other English language activities outside school. While attitudes toward activities in the present dissertation did not correlate with EFL outcomes, engagement in English language activities outside school was shown to be related to higher outcomes in a subsample within the same larger sample used in the present dissertation (Hannibal Jensen, 2017).

Third, girls in the older age group (9-11 years) turned out to be special from several points of view. Their FLCA increased and their ECB decreased significantly compared to boys and younger girls. In addition, they preferred writing more than boys and younger girls compared to speaking. And since the results from Paper 1 showed that FLCA and ECB are important predictors of FL achievement, this group of girls, especially those girls with both high FLCA and low ECB, can be at a higher risk for falling behind in EFL in the Danish learning environment.

In contrast to young EFL-learners from countries where children are not exposed to so much English outside school and do not travel as much as Danish children, the dissertation showed that both age groups were similar to each other in the respect that they strongly relied on travel and communication with foreigners as motivators and both age groups were aware of the usefulness of

English for communication purposes. In line with the previous findings, interview data showed that Danish children preferred teaching which was related to their experiences from real life and their communicative needs.

Analysis of interview data on motivation and attitudes revealed that children in both starting grades emphasized the importance of differentiation between less and more proficient learners in the English lessons. This aspect has not been mentioned by previous studies on young learners. This can probably be explained by the fact that remarkable differences between the FL-level of young beginners is not typical in countries where children's access to the FL is limited to the FL-classroom (e.g. Spain and Hungary).

Analysis of interview-data on FLCA revealed that the main anxiety-provoking situations mentioned by young Danish EFL learners were making mistakes, having to say something in front of the class, experiencing criticism or laughter from peers, feeling uncertain and not understanding the teacher in English. The social situations were primarily mentioned by 10-year-olds and not by 8-year-olds showing that this aspect was more important among late starters and that late starters were more aware of it. Interview utterances of children whose FLCA decreased showed that the following factors contributed to the reduction of their FLCA: regarding mistakes as a natural part of the FL learning process, help with understanding the teacher and an increasing growth mindset.

### 6.2. Pedagogical implications

The results of the dissertation point to several pedagogical implications. As pinpointed by Ushioda (2013) it is difficult for teachers to maintain EFL learners' motivation for classroom learning who are exposed to a lot of English outside school. The findings suggest that in the Danish learning environment, differentiation between less and more proficient learners is a challenge for EFL teachers. Teachers, as early as in the case of early starters, are challenged to provide young learners with tasks at an appropriate level of complexity adjusted to their level of proficiency. The reason for this is that Danish children start learning English with different proficiency levels due to exposure to English outside school. This is in line with Sundqvist and Sylvén (2016) who wrote that EFL teachers since the 2010s in Sweden have been facing new challenges, different from the teacher role they had been used to. Traditionally, EFL teachers could control the learners' amount of exposure to English, moreover, in most cases the teacher was the only source of EFL exposure for the children. This situation in the Scandinavian language environment has changed to a great extent, due to children's out of school exposure leading to great heterogeneity in young learners' English competence levels (Sundqvist & Sylvén, 2016). It is important for teachers to be aware of the

heterogeneity of EFL learners' proficiency level and find appropriate methods for differentiation (e.g., Holmes, 1994).

Already the younger age group was highly motivated by instrumental motives such as communication abroad and communication with foreigners in Denmark and mentioned in the interviews that they enjoyed tasks related to real life. Therefore, it can be suggested that teachers relate teaching material to the communicative needs of the children. This could possibly be inspired by task based learning (e.g., Ellis, 2003; Thomas and Reinders, 2010). Task based learning has been applied among 10-12-year-old Chinese EFL-learners (e.g., Butler & Zeng, 2015). This could perhaps contribute to more positive attitudes toward the English lessons and higher motivation. Yet another possibility for teachers is to integrate children's out of school activities with English into classroom teaching, described as the flipped classroom approach by (Sundqvist & Sylvén, 2016).

Early starters were less affected by FLCA and low estimation about their own English proficiency compared to late starters. But especially girls in the older age group turned more anxious and less self-confident about their English proficiency, which also affected their EFL-proficiency. Therefore, it can be suggested to teachers that they should be aware of the fact that some students can be anxious and it is important to pay extra attention to the 10-11-year-old girls and support their learning process. Teachers can be inspired by the suggestions in the literature on how to create a low-anxiety classroom environment (e.g., Horwitz et al., 1986; Price, 1991), although the atmosphere in the classrooms in the primary schools participating in the present project seemed to be friendly and relaxed. Bledsoe and Baskin (2014) suggest that teachers should educate themselves and their students about anxiety and provide guidance on how to manage it, to be proactive in the communication with students in order to help ease student fears and provide icebreakers and active learning strategies to promote a stress-free environment. Rubio-Alcalá (2017), after summarizing the mechanisms of anxiety and low self-esteem in the FL classroom, suggests that teachers build rapport with their students, be empathetic and take the role of a facilitator of FL learning much more than an examiner. Furthermore, Rubio-Alcalá found that introducing explicit discussions of anxiety and emotions can be beneficial for the classroom atmosphere. Rubio-Alcalá also found that more student-centered methodology, such as interactive tasks between students, supports a low-anxiety classroom. Teacher-centered activities, however, such as asking students questions one by one, in front of the whole class or reading aloud one by one are more anxiety-provoking. Oxford (2017) pinpointed that learners with FLCA often feel a lack of agency, i.e. they lack the capacity to influence outcomes. This suggests that approaches of

learner autonomy could be beneficial for anxious language learners (Benson, 2013; Dam, 1999; Dam & Legenhausen, 2011). Findings from the present dissertation suggest that FLCA can be effectively reduced by e.g. making children aware of the fact that mistakes are a natural part of learning a FL and a possibility for development, urging more proficient learners to give constructive feedback instead of destructive criticism. It is also good practice to arrange for the less proficient students to receive help, when they do not understand the teacher, in a way that does not embarrass them.

The findings of this study showed that children with growth mindset achieved higher English proficiency scores and that FLCA could be reduced through acquiring a growth mindset. Another suggestion for teachers is that they should increase growth mindset in the EFL classroom. Dweck (2010) suggests that teachers should encourage a culture of risk taking, emphasize challenge instead of success and give students meaningful tasks so that they experience progress leading to mastery. Furthermore, Dweck (2007) emphasizes the importance of praising students in the right way. Research has shown (e.g., Gunderson et al., 2013) that praising students' intelligence fosters a fixed mindset, which results in students setting performance goals and helpless responses. Praising students' effort, hard work and strategies, however, fosters a growth mindset and results in students setting mastery goals. Research by Dweck and colleagues (Dweck, 2008) also showed that it is possible to teach a growth mindset to children by teaching them that the brain is like a muscle that grows stronger with use.

### 6.3. Limitations

The findings and conclusions must be interpreted in the light of several limitations.

From the developmental point of view, it must be emphasized that this study was only a short term longitudinal study with only two data points on individual factors. This makes it possible to draw conclusions about developmental trends but in order to identify developmental regularities more accurately, data from a longer period would be needed. Within the time-frame of this dissertation it was not feasible to analyze data from the second posttest of the TROG and the PPVT tests. The analysis of this test will allow conclusions concerning the further development of children's English vocabulary and grammar and the relation between this development and the individual factors. This would allow for further predictions on how individual factors influence L2 proficiency outcome.

Another limitation of the study relates to the data collection methods. It would have been important to include classroom observations to a greater extent for triangulation, because it is often

difficult for children to articulate their feelings and perceptions, as suggested by Mihaljević Djigunović (2012b). There could have been video studies about how teachers motivate children in the EFL lessons, how they treat anxious and less anxious learners etc. This was difficult to carry out because in most of the observed classes, there was a lot of direct interaction between individual students and the teacher on the one hand, and among students – for example when they worked in smaller groups –, on the other hand, which was not audible on the video recordings.

### 6.4. Future research directions within the larger project

Within the larger project *The younger, the better?: A usage-based approach to learning and teaching of English in Danish primary schools* a the PPVT and the TROG test were administered a third time, i.e. after two years of EFL classroom instruction (Posttest 2). The data from these tests will be used to find further relations between the individual factors in the two questionnaires and the development of children's EFL proficiency.

Within the larger project, data on language aptitude have been collected together with the Posttest 2. In addition to language aptitude measures, data on L1 proficiency from a national test are available for a subset of the children. In future studies, we will analyze children's scores on FLCA, language aptitude and L1 proficiency measures within one model to examine whether FLCA correlates negatively with L1 proficiency and language aptitude as suggested by the research of Sparks, Ganschow and colleagues (e.g., Sparks & Ganschow 2007; Sparks et al. 2009).

The question whether FL aptitude or other individual factors, such as motivation, competence beliefs or anxiety are stronger predictors of FL proficiency, has been discussed for a long time (e.g., Gardner et al., 1997) but systematic studies taking into consideration young learners' aptitude and several other individual factors are sparse. The data from the present project will allow the analysis of individual factors and FL aptitude measures within one model and the investigation of which of these is a stronger predictor of children's FL proficiency.

Sundqvist (2009) found that Swedish 9$^{th}$ graders' self-reported anxiety related to speaking English correlated with their involvement in activities with English outside school and that reduced anxiety levels were particularly characteristic for digital gamers. Hannibal Jensen (2017) within the larger project *The younger, the better?: A usage-based approach to learning and teaching of English in Danish primary schools* collected data on Danish children's English activities outside school within the same sample as used in the present dissertation. Correlating Hannibal Jensen's data with the data on children's FLCA from the present dissertation could shed light on whether Sundqvist's findings are true for 7-11-year-old young Danish learners of EFL. Correlating Hannibal

Jensen's data with data on other individual factors could yield insight into other possible connections between young learners' individual factors and English-related activities outside school.

### 6.5. Outlook: possible future directions

The present dissertation found that anxiety and competence beliefs interacted in predicting EFL vocabulary outcomes. This is in accordance with the findings described by Rubio-Alcalá (2017), presented in Section 6.2, who suggested several methods for teachers that they could use to cope with anxiety and strengthen FL students' competence beliefs. Further studies, in the form of intervention or action research, could examine the effect of these methods with young FL learners.

Research has shown that implicit theories have a great impact on learning outcomes in various academic domains (e.g., Blackwell et al., 2007; Claro et al., 2016). Present dissertation also found that children's growth mindset predicted EFL outcome. Mindset-based teaching has been implemented in Denmark with secondary school students with success (Nielsen, Andreasen, & Videsen, 2016). As described above (Section 6.2), growth mindset can be taught and trained. Future research could test the effectiveness of growth mindset training in young learners' FL teaching and learning.

Other possible research directions in the Danish linguistic environment emerge from the changes of the language situation around the world. One of the recent trends is that English tends to occupy the position of a globally used lingua franca. This trend has an influence on L2 learning motivation and is reflected in actual L2-motivation research. Recently, researchers have become more and more aware of the difference between motivation toward learning global English and other FLs (Dörnyei & Ushioda, 2017, Al-Hoorie & Dörnyei, 2017 etc.). The Danish FL learning environment gives a good opportunity to compare motivation and other individual factors toward learning global English and other FLs, such as German, which is typically the second FL studied after English. It would be an interesting and relevant area for future research to compare the motivation of Danish learners to learn L2 English and L3 German.

# Paper 1

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**The role of individual differences in younger vs. older primary school Danish learners of English**

Manuscript accepted for publication in International Review of Applied Linguistics in Language Teaching

# The role of individual differences in younger vs. older primary school Danish learners of English

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**Abstract**: This study investigated 276 Danish first and third graders' proficiency in English as a foreign language (FL) in relation to several socio-affective factors after their first year of instruction. The results showed that (a) both age groups made similar gains in receptive vocabulary and grammar, suggesting a similar rate of learning in this short time span; (b) the two groups had different socio-affective profiles. Younger learners exhibited lower levels of FL classroom anxiety and more positive English competence beliefs but had a less incremental mindset and relied more on external authorities as a source of motivation. In contrast, older learners relied less on external authorities and showed a more incremental mindset but exhibited higher levels of FL classroom anxiety and less positive English competence beliefs; and (c) only four socio-affective factors had a clear impact on proficiency: English competence beliefs and an incremental mindset had a positive influence while FL classroom anxiety and the influence of external authorities had a negative influence. The pedagogical implications of the different socio-affective strengths and weaknesses that characterize children in the two age groups are discussed.

**Keywords**: Danish young learners, FL classroom anxiety, EFL competence beliefs, learner’s mindsets, English receptive vocabulary and grammar

## 1. Introduction

The study of individual differences in second language acquisition (SLA) has become a major area of inquiry in the SLA field (Ellis 2004). One of the most studied factors is initial age of learning. Leaving aside the theoretical debate as to whether or not a critical period exists for second/foreign (L2) language learners (see Muñoz and Singleton 2011, for a review), empirical research conducted in naturalistic settings has provided evidence for a long-term advantage for younger starters but a rate advantage for older learners (e.g., Krashen, Long and Scarcella 1979).

In contrast, research conducted on foreign language (FL) instructional contexts (i.e., where the L2 is primarily learned in the classroom) has produced different results. Following the pattern observed in naturalistic contexts, younger classroom learners are slower than older learners, but, unlike their naturalistic counterparts, they fail to attain higher levels of L2 proficiency in the long run (e.g., García Mayo 2003; Muñoz 2006; Nikolov 2009). In other words, research on early starters in FL contexts show that the observed benefits of an early start in naturalistic contexts do not necessarily take place in limited-input FL contexts (Muñoz and Singleton 2011; Courtney et al. 2015).

These findings contradict legislation in several European countries where the starting age of compulsory FL education has been lowered over the past decades (Nikolov and Mihaljević Djigunović 2006). In Denmark, legislation in 2014 lowered the starting grade for English Foreign Language (EFL) instruction from third to first grade. The introduction of the new legislation constitutes the basis for the present study in that the year 2014 allowed a comparison of children at two different first exposure ages in one and the same school year: children who began English instruction in the first grade (i.e., 7 years old) with children who began in the third grade (i.e., 9 years old).

In addition to starting age, there are a number of other individual factors that may influence FL achievement. Crucially, most of this research has focused on adults. Studies on secondary school students are underrepresented and systematic research on primary school students is rare and piecemeal (Boo, Dörnyei and Ryan 2015; Gürsoy and Akin 2013; Mihaljević Djigunović 2015). In the existing literature on young language learners, two types of research can be identified. Whereas some studies have investigated individual learner factors in different age groups without relating them to L2 achievement (e.g., Gürsoy and Akin 2013; Heinzmann 2013) , other studies have examined the relation between learner factors and language achievement.

Building on previous research on young learners' foreign language learning (FLL), the first aim of the present study was to investigate age-related (first vs. third graders) differences in relation to a wide range of individual factors, including learners' gender, foreign language classroom anxiety (FLCA), EFL competence beliefs (ECB), leaners' motivation and attitudes, and learners' mindsets, a factor that has not previously been included in research on primary school children's FL learning. The second aim of the study was to examine the relationship between age-related learner factors and L2 receptive vocabulary and receptive grammar achievement after one year of instructed EFL learning. To our knowledge, no previous studies have conducted a systematic examination of such a wide range of learner factors in relation to L2 achievement in such young age groups.

## 2. Review of the literature

Research on individual differences in L2 learning in naturalistic and instructed contexts has revealed great variability in learning outcomes-in primary school-age learners (e.g., Courtney et al. 2015; Muñoz 2006; Pfenninger 2014; Unsworth et al. 2014). Next, we review the learner factors that are relevant for the present study.

### 2.1 Individual factors in young language learners

#### 2.1.1 Foreign language classroom anxiety

Gardner and MacIntyre (1993:159) defined language anxiety as an "apprehension experienced by the individual in the language class or any situation in which the language is used." Horwitz, Horwitz and Cope (1986) identified FLCA as a distinct phenomenon from other related forms of anxiety such as communication apprehension, test anxiety and fear of negative evaluation.

Few studies have examined FLCA in younger leaners. In a large scale mixed-methods study Chan and Wu (2004) investigated FL anxiety among fifth graders (aged 10-11) learning EFL in Taiwan and found that children of this age tended towards high FL anxiety, and that this was caused by factors such as low proficiency, fear of negative evaluation, competition of games, and pressure from parents and peers. Gürsoy and Akin (2013) examined the relationship between age and FL classroom anxiety in 84 Turkish children between 10 and 14 years of age and found that the younger students were less anxious about FL learning than the older students. Finally, Heinzmann (2013) investigated classroom anxiety in young Swiss learners in German-speaking cantons (aged 9-11 years) and found that anxiety was closely related to children's achievement-related self-concepts, i.e. the students' perception of their competence in a certain domain. The extent to which anxiety varied across the different age groups was not investigated in this study.

Concerning the relation between gender and anxiety, research has produced mixed results. Heinzmann (2009) found that after 8-9 months of EFL instruction, third grade girls (9 years) in Swiss primary schools were significantly less anxious about making mistakes than boys. Abu-Rabia (2004), however, found that that Israeli female seventh grade EFL students (aged 12-13 years) obtained poorer language proficiency results and had higher anxiety levels than male students. On the other hand, Gürsoy and Akin (2013), in their study of children's EFL learning in a state primary school in Turkey found no significant difference between the anxiety of girls and boys (aged 10-14 years). The varying results can possibly be explained by the different ages and/or cultural contexts where the studies were conducted.

### 2.1.2 Learner's EFL competence beliefs

Learners' evaluations of their own FL-competence can be considered part of, at least, three constructs used in the SLA-literature on individual factors, namely self-esteem, self-efficacy, and self-concept. These constructs share a common emphasis on an individual's beliefs about his or her abilities as a person (Valentine and DuBois 2005), but vary in their degree of specificity and the relative importance of cognitive and evaluative aspects of self-beliefs (Mercer 2011). Whereas self-esteem is a global construct focusing on the overall evaluation of one's value as a person, self-efficacy is more cognitive in nature and tied to individuals' expectancy beliefs in relation to very specific tasks in specific contexts. Self-concept, on the other hand, is less context-dependent and contains both cognitive and affective elements, being concerned with individuals' self-perceptions and self-evaluations in a specific domain (Mercer 2011). Given the difficulty involved in establishing a clear-cut separation between the three constructs, we use the term ECB (see also Wigfield et al. 1997) to refer to children's self-evaluation of their EFL competence in comparison to other school subjects and their classroom peers.

Researchers in the field of child development have found that elementary school children's view of their own abilities got more realistic around the middle childhood years (e.g., Wigfield et al. 1997), and that their competence-related beliefs (i.e., estimates of how good children themselves are at a given activity) in different school subjects, such as mathematics and sports, became less positive as children got older (Jacobs et al. 2002).

The few studies on young learners' FL competence beliefs have found parallel results. Concerning children's estimation of their own English language proficiency, Mihaljević Djigunović (1993) found that early starters (aged 7 or 8 years) had more positive estimations at the beginning of FL instruction but that these became more objective three years later. In the Early Language

Learning in Europe (ELLiE) study, young learners (aged 7-8 years) were interviewed about their conception of their own FL proficiency as compared to their classmates. Many of the younger learners claimed they were faster than their peers at learning the FL but as they grew older, more children claimed to learn as fast as their peers (Mihaljević Djigunović and Lopriore 2011).

Previous research about the relationship between learners' ECB and gender has found contradictory results. In a Swiss study on children's motivation and other individual factors, Heinzmann (2009) found that primary school girls in the third grade (aged 9 years) had significantly higher English-competence beliefs (achievement-related self-concept) than boys of the same age. In a later study, however, Heinzmann (2013) found that 9-12-year-old Swiss boys and girls were approximately equally confident in their English skills.

### 2.1.3 Motivation and attitudes

Motivation has been conceptualized in many different ways within the psychological and the L2 motivation literature. Research on the role of motivation in FL learning can be dated back to the work of the Canadian sociopsychologists Gardner and Lambert (1959) who focused on the distinction between integrative motivation – referring to a positive attitude toward the L2 language community and an emotional identification with its speakers – and instrumental motivation – referring to a more practical usefulness of the L2. In the 1990s insights from self-determination theory and educational psychology came to the front in research on L2 motivation, and additional types of motivation were suggested, such as intrinsic and extrinsic motivation. Intrinsic motivation refers to motivation driven by an enjoyment or interest in an activity whereas extrinsic motivation is based on rewards extrinsic to the activity itself (Noels et al. 2000). Dörnyei (2009) emphasized that the concept of integrative motivation was limited to the immersion context and was insufficient to describe motivation in many language learning environments, such as a classroom context where learners do not have direct contact to speakers of the L2 outside the classroom and in an international learning environment where English plays the role of a lingua franca and it is no longer clear who the speakers of the L2 are (Dörnyei & Csizér 2002). Therefore, based on recent development in mainstream psychology, Dörnyei proposed the "L2 Motivational Self System," which consists of three components: (1) the ideal L2-self, which refers to the learners' imagined ideal future self as an L2 speaker; (2) the ought to L2-self, which refers to the attributes the learner believes he/she should possess to meet expectations and avoid possible negative outcomes; and (3) the L2 learning experience, which concerns motivating factors such as the impact of the teacher, the curriculum, the peer group and the experience of success.

Additionally, research on young language learners' motivation and attitudes has included variables such as attitudes towards FL lessons (e.g., Dörnyei 2010; Enever 2011), attitudes towards the FL (e.g., Enever 2011; Heinzmann 2013; Olshtain et al. 1990), the importance of significant others, such as the parents and the teacher (e.g., Lindgren and Muñoz 2013; Mihaljević Djigunović 2012a; M. Nikolov 1999) and the importance of English as a lingua franca (e.g., Enever 2011; Heinzmann 2013; Muñoz 2014).

Longitudinal studies on child and adolescent language learners have typically found that younger children's attitudes towards the FL and its speakers are more favorable at the outset than 2 to 3 years later (although see Mihaljević Djigunović 2015). This was the case following children from about 7 to 9 years of age (Mihaljević Djigunović and Lopriore 2011); from 9 to 12 years of age (Heinzmann 2013); from 11 to 13, from 13 to 15, and 15 to 17 years of age (Chambers 1999).

A few studies have made cross-sectional comparisons. On the question of enjoyment of FL-class activities, Chambers (1999) found that British 15-year-olds enjoyed writing, reading, and speaking activities in their German lessons significantly less than 13-year-olds, the difference being about 0.4 points on a 5-point-Likert scale. While Mihaljević Djigunović (1993) also found that early starters (aged 6-7 years) liked learning English more than later starters (aged 9-10 years), she also showed that over the span of 3 years of instruction, the early starters maintained a more favorable attitude than the later starters. Burstall (1977) reported similar results from a study with 17,000 English children learning French. When looking at the children who were successful in their efforts to learn French, Burstall found that even though older children learned the FL more efficiently than younger children (the rate advantage), earlier starters (age 8) had the advantage of maintaining a more favorable attitude toward speaking the language than later starters who were first introduced to French at the age of 11 years.

Importantly, several longitudinal studies have shown that the nature of motivation tends to change with age. For example, in an ethnographic study of Hungarian children (age 6-14) learning EFL Nikolov (1999) found that younger learners tended to have more teacher-related motivation but as they got older, they shifted to more utilitarian and instrumental reasons for learning the FL. Similarly, Heinzmann (2013) found that young learners' intrinsic (i.e. self-determined) motivation decreased with time while lingua franca-related reasons (i.e., reasons for learning English because it is widely spoken around the whole world), gained in importance as age increased.

Concerning the relation between motivation and attitudes on the one hand and gender on the other, there seems to be an agreement that girls have higher motivation and more positive attitudes

towards learning foreign languages than boys. For example, Burstall (1977) found that girls had consistently more favorable attitudes towards FL-learning than boys. Heinzmann (2009) found that after 8-9 months of EFL instruction in the third grade of Swiss primary schools, girls were significantly more motivated to learn English than boys. Dörnyei and Csizér (2002) also found that 13-14 year old Hungarian girls were significantly more motivated for FLL than boys. Finally, a questionnaire study by Henry (2009) on gender differences in L2-motivation of 12 and 15 year old Swedish students of English found that boys' ideal L2-selves (items such as "Speaking English is cool") weakened from the beginning of grade 7 to the end of grade 9 while girls' ideal selves strengthened over time.

### 2.1.4 Learners' mindsets

Language learners have been found to have different beliefs about the role of linguistic ability in FLL (e.g., Horwitz 1999). Similarly, in the field of child development and educational psychology, Dweck's (2000) socio-cognitive theory has shown that whereas some people believe intelligence to be a fixed entity that people are born with and cannot change much, others believe that intelligence is malleable and can be developed considerably through effort. Mercer and Ryan (2010) have argued that the same distinction applies within the domain of language learning. In a study on the effect of foreign language mindsets on goal-setting and response in challenging situation, Noels and Lou (2015) and Lou and Noels (2016) found that students with a growth FL mindset aimed more at achieving learning goals and showed less helplessness while students with a fixed FL mindset – especially those who had strong perceived language skills – aimed mainly at performing well and were more afraid of failure.

## 2.2 Individual differences in relation to outcome measures of FL achievement

Previous studies of individual differences in early FL achievement have shown conflicting results (Mihaljević Djigunović 2012b). Using an affective profile score consisting of 13 questions about students' attitudes toward English and EFL classes, motivation, self-concept and language anxiety, Mihaljević Djigunović (2006) found a significant positive relationship between the affective profile and productive speaking and writing skills of Croatian students in 8th-graders and 12th-graders. The relationship was stronger for 8th-graders than 12th-graders. For the 12-graders, it was found that the positive correlations between affective profile and EFL results were stronger for speaking than for writing, and stronger for more complex speaking tasks (i.e., argumentative talk) than easier tasks (i.e., answering questions and picture description).

Studies have consistently found a negative relationship between foreign language anxiety and L2 achievement (e.g., Chan & Wu 2004, and see Horwitz 2001, for a summary). Abu-Rabia (2004), examining 12-13-year-old Israeli students using the FLCAS-scale in relation to reading comprehension, creative writing and spelling found significant negative correlations between FLCA and achievement scores on all three aspects of FL proficiency. Concerning gender differences, this study showed that boys had significantly lower FLCA scores and correspondingly higher scores on all three EFL-tests than girls.

Results from the ELLiE study (Mihaljević Djigunović and Lopriore 2011) showed that young primary school children's (age 7-10) attitudes towards FLL and motivation, as measured by questions about how they felt about learning the FL in general and learning new words in particular, were related to listening comprehension and lexical diversity in oral production. Furthermore, the students with more positive FL competence beliefs, as measured by interview questions on whether they think they learn faster, slower or as fast as other children, were better at listening comprehension and oral production tasks than those with less positive FL competence beliefs.

Regarding learner's motivation and attitudes, Olshtain et al. (1990) found a significant positive correlation between 11-12-year-old Hebrew-speaking children's attitudes and motivation and success in EFL, as measured by an achievement test of EFL listening, reading and writing, although motivation and attitudes only explained 5-8% of the variation in EFL-proficiency. Muñoz and Tragant (2001) found that upper primary school and secondary school students with positive attitudes towards EFL obtained significantly higher scores in a global language proficiency test consisting of a cloze test and a dictation. However, they found no significant relations between attitudes and the results of a grammar test and a listening comprehension test.

Finally, Kim and Kim (2014) found that primary school students' ideal L2-self, measured by imagining and believing oneself to be a competent English user in the future, had a direct influence on perceived EFL-proficiency and self-reported exam-scores.

In relation to learners' mindsets, a number of studies have explored the role of implicit theories of intelligence on achievement in mathematics and some L1-achievement for the age group 12-13 years (e.g., Blackwell, Trzesniewski and Dweck 2007; Claro, Paunesku and Dweck 2016) and found that an incremental mindset was related to higher grades. However, to our knowledge there are no previous studies relating an incremental mindset with outcome measures of L2-acquisition.

In sum, previous work on the relationship between individual factors and L2 proficiency shows that they impact children's FL achievement differentially. FLCA tends to be negatively correlated with FL-achievement whereas ECB tend to be positively correlated. Motivation seems to correlate with FL-achievement as well, depending on the type of motivation and type of language test. The above studies did not include the variable of gender. Most of the previous work on the relation between children's individual factors and FL achievement has focused on upper primary school and secondary school children. To our knowledge, the present study is the first to simultaneously examine the relation between a wider variety of learner factors and language achievement in such a young FL learner population.

## 3. Research questions

The present study addressed the following research questions:

1. To what extent does first and third grade children's proficiency, as measured by their performance in receptive vocabulary and grammar tests, develop after one year of instruction?
2. Are there age- and gender related differences in relation to the following individual factors: learners' FLCA, ECB, learners' motivation and attitudes, and learners' mindsets?
3. Is there a relationship between the above mentioned individual factors and young Danish children's EFL development as measured by their performance in receptive vocabulary and grammar tests?

## 4. Method

### 4.1 Participants

The sample consisted of 276 students (139 boys, 137 girls) who received EFL instruction at six primary schools in Denmark. There were two groups of children, first graders (age=7-8 years) and third graders (age=9-10 years), also referred to as early and late starters, that both began English instruction in 2014, the year the educational law was changed.

Data were collected in four Danish public elementary schools which were selected via a stratified sampling technique with geographical location as stratification variable. Two semi-private schools were added to the sample in order to counterbalance the differences in teaching hours offered to the early vs. the late starters at public schools. Following recommendations from the Danish Ministry of Education, the amount of weekly lessons offered in the public schools was one weekly lesson per week (e.g., 45 minutes per week) for the early starters and two weekly lessons

(i.e., 90 minutes per week) for the late starters. The two semi-private schools followed the opposite pattern to that of public schools. Differences between public and semi-private schools are relatively small in Denmark compared to many other countries. Both types of schools follow the curriculum guidelines of the Ministry of Education. Eighty to 85% of the funding for semi-private schools is public and fees are relatively modest as a consequence. It is within the economic reach of the majority of parents to send their children to semi-private schools and there is less of a difference between the socio-economic status compared to other countries (Patrinos 2001). There is no tradition in Denmark for extra-curricular English instruction.

### 4.2 Instruments

#### 4.2.1 Language proficiency tests

To assess children's English language proficiency development, the Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) (Dunn, L.M, Dunn 2007) and the Test for Reception of Grammar, TROG-2 (Bishop 2003) were used as a part of a larger test battery. The PPVT was used to measure receptive vocabulary skills, while the TROG was used to measure receptive grammar skills.[3]

Following previous studies on young language learners (e.g., Dahl & Vulchanova 2014; Sun et al. 2016; Unsworth et al. 2014), receptive tasks were chosen instead of productive tasks given that children's production was expected to be limited at the beginning of English language instruction. Both tests consisted of a series of pictures where children had to select one picture out of four which best corresponded to a word (PPVT) or a sentence (TROG) with potential maximum scores of 228 (raw scores) 271 (graded scores) for the PPVT. For the TROG, the maximum is 20 when scored by total blocks passed and 80 when scored by total items passed. In the PPVT the child saw a picture of a clown, a flower, a bird and a soap bar, and heard the word *'bird'*, or in the TROG the child saw a picture of a white scarf, a yellow duck, a yellow scarf and a white box and heard the sentence *'The scarf is yellow'*.

[3] Recall that the Peabody Picture Vocabulary Test and the Test for Reception of Grammar, TROG-2, were originally developed to test vocabulary and grammar knowledge in L1 populations. When used with L2 learners, however, the TROG test may be measuring more than the knowledge of certain English constructions. It may be considered a test of more general language receptive skills. In order to successfully complete the test, the testee does not only need to comprehend the meaning of the various types of constructions that he/she is presented with (e.g., negation, reversible *in* and *on)* but also the specific lexical items, i.e., the nouns and verbs that appear in the sentence stimuli.

### 4.2.2 Questionnaire

A questionnaire was constructed to assess the individual factors included in the present study. The factors included in the questionnaire and the sources of the questions are presented in Table 1. The questions were based on questionnaire items previously used with the same age group (Wigfield et al. 1997; Enever 2011; Gunderson et al. 2013) or modified versions of questions previously used with slightly older children (Heinzmann 2013; Dörnyei 2010; Olshtain et al. 1990). Children's self-concept is undergoing important changes between the ages of 6 and 10 years (see Eccles (1999) for an overview in relation to achievement) with older children tending to be more able to reflect on their performance in relation to themselves and younger children generally being more optimistic about future performances. We therefore included questions that did not require advanced self-reflection, viz. the questions about precursors to Dörnyei's ideal L2-self. Furthermore, the response format of the questions was adjusted to the cognitive maturity of the children as suggested by Enever (2011).

Table 1

*Individual factors included in children's questionnaire*

| Factor | Source | Questions / statements |
|---|---|---|
| FL classroom anxiety (FLCA) | Heinzmann (2013) | 1) To what extent do you like to say something aloud before the whole class in English?<br>2) I am afraid of making a mistake when I speak English.<br>3) I am afraid of giving a wrong answer in the English lessons. |
| EFL-competence belief (ECB) | Wigfield et al. (1997) | 1) How good are you at English?<br>2) Are you good at learning something new in English lessons?<br>3) If you think about all the children in your class, from the weakest to the best in English, how good do you think you are yourself? |
| Attitudes toward English lessons | Dörnyei (2010) | 1) How much are you looking forward to English lessons?<br>2) To what extent could you imagine having more English lessons? |
| Attitudes toward different activities in English lessons | Enever (2011) | 1) To what extent do you like to sing in English when you have English lessons?<br>2) To what extent to do you like to listen to music in English…?<br>3) To what extent do you like to write in English…?<br>4) To what extent do you like to read in English…?<br>5) To what extent do you like to speak in English…? |

| | | |
|---|---|---|
| Attitudes toward English language | Olshtain et al. (1990) | 1) I think it is fun to listen to someone speaking English.<br>2) English sounds irritating. (reversed)<br>3) It is fun to learn new words in English.<br>4) I like to say words in English aloud. |
| Reliance on External authorities | Dörnyei (2010) | 1) I would like to learn English because my parents say I have to.<br>2) I would like to learn English because the teacher says I have to. |
| English as Lingua Franca | Heinzmann (2013) | 1) I learn English because many people in the world speak English.<br>2) I learn English because then I can talk to people from all over the world. |
| Precursors to Ideal L2-self | Dörnyei (2010) | 1) When I grow up, I will surely be good at speaking English.<br>2) I think I will be good at reading books in English when I grow up.<br>3) I would like to live in an English-speaking country.<br>4) I would like to have friends in English-speaking countries. |
| Mindset | Gunderson et al., (2013) | 1) One will always be as smart as before, no matter what one does. (reversed)<br>2) One can become smarter and smarter if one works hard.<br>3) Would you choose to solve easy labyrinths to have a lot right? (reversed)<br>4) Would you choose to spell easy words to have a lot right? (reversed)<br>5) Would you choose to solve difficult labyrinths so you can be better at them?<br>6) Would you choose to spell really difficult words so you can be better at spelling?<br>7) Do you think it is right that if a person can't solve a math problem in ten minutes, then the problem is probably too hard for them to do? (reversed)<br>8) I know some kids who don't do well on their schoolwork. Do you think this means that they are not so smart? |

The questionnaire was administered in Danish and consisted of 39 items. Given that the first graders were not literate at the beginning of the study, the questions were read aloud by the researcher and children marked their answers on a scoring sheet with 5-point Likert scales. Questions on how much children liked something (e.g., *To what extent do you like to say something aloud before the whole class in English?* and *To what extent do you like to listen to music in English when you have English lessons?*) were represented by smileys (Enever 2011) while questions about how much they agreed with a statement (*"I am afraid of making a mistake when I speak English*." or *"It is fun to learn new words in English.")* were represented by dots of increasing size. Children received a brief training session before answering the questionnaire. The questionnaire was pilot tested in two school classes not included in the project. The pilot testing showed that children from both age groups could understand the questions and were able to appropriately mark the answers on the scoring sheets. A small number of questions that were difficult for children to understand were modified in the final version of the questionnaire.

### 4.3 Procedures

The project was reported to the Danish Data Protection Agency and to the regional ethics committee. The school principals were informed about the purpose of the project and the data collection details. Parents were informed about the project, through the information website of the school. They had the opportunity to actively opt out of the project by responding via the school intranet.

Two language proficiency tests, the Peabody Vocabulary Test (PPVT) and the Test for Reception of Grammar (TROG-2)) were administered twice to the two groups of children, i.e., the first graders and third graders. The first testing took place in the fall of 2014 when children had just begun English classes and the second one year later, in the fall of 2015, when the same children had started in the second and fourth grades respectively. Thus, both grade-levels had two scores, a pretest and a posttest.

At the time of the first data collection children had received different amounts of English lessons. This was due to the logistics of data collection which prevented all children from being tested at the same time, and the different amounts of English lessons that were offered to the children (1 vs. 2 weekly lessons, see 4.1. above). For this reason, the amount of English lessons was entered as a variable in the statistical analyses of the data. Despite the initial variation in the amount of lessons we made sure that each child received the second administration of the tests exactly one year after the first one.

The items on the PPVT and the TROG-2 were pre-recorded in English to ensure homogeneity in testing. The language tests were given individually to children in the same order of administration, with the PPVT preceding the TROG-2. For the PPVT, Form A was given at the first data collection point and Form B at the second. As the PPVT was used as a proficiency test of L2 vocabulary, the test was given from the beginning to every child, independent of their age.

The questionnaire was administered between the first and the second language proficiency tests during their regular English classes. The questions were read aloud one by one of the researchers, and the children marked the smiley or dot/rectangle of their choice. After filling in the first half of the questionnaire, the classes were given a short break where they sang an English song with the researcher and did some physical exercise. In half of the classes, the first and the second halves of the questionnaire were administered in reversed order to avoid order effects. Answering all the questions took the students approximately 40 minutes on average.

## 5. Results

### 5.1 Developmental changes in receptive vocabulary and grammar after one year of instruction

The first research question inquired about children's progress during the first year of their English instruction on the PPVT and TROG-2 after one year of instruction. As our sample included children from both public and semi-private Danish schools, we conducted independent samples *t*-tests for all four outcome measures (pretest and posttest for PPVT and TROG-2) comparing the results from semi-private and public schools. As expected, no significant differences were found, and thus we did not examine this factor further.

Figure 1A presents an overview of children's receptive vocabulary development in terms of their starting grade and their progress during their first year of English classes. As described in section 4.3, children at both grade-levels had two scores, a pretest and a posttest. Their answers were tallied according to the appropriate manuals (Dunn, L.M, Dunn 2007; Bishop 2003). Because the PPVT tests at pretest and posttest used different forms, the raw scores were converted into Grade Score Values (GSV) to allow comparison, following the procedure in the PPVT scoring manual.

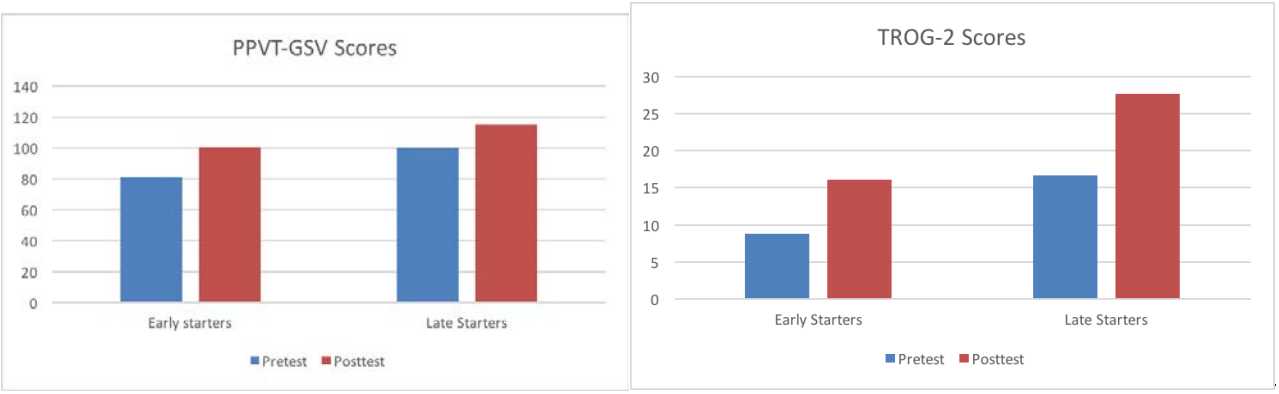


*Figure 1.A and B* - PPVT GSV scores and TROG scores (total items passed) for early starters and late starters at the time of pretest and posttest.

Overall on the PPVT, the first graders obtained an average score of 80.79 on the pretest and 100.37 on the posttest. The third graders obtained an average score of 99.77 on the pretest and 115.28 on the posttest. We conducted a repeated measures ANOVA with children's PPVT-GSV scores as a within-subjects variable (pretest vs. posttest) and the following factors as between-subjects variables, Starting Grade (first vs. third), Gender (boys vs. girls), and Weekly lessons of English instruction (1 vs. 2). There was a main effect of time of test, $F(1, 266) = 195.21$, $p < .001$, $\eta_p^2 = .42$, thus the difference between the average of the first and third graders' pretest scores of 88.48 and the average of their posttest scores of 106.41 was statistically significant. There was also a main effect of starting grade, $F(1, 266) = 76.43$, $p < .001$, $\eta_p^2 = .22$. Thus, regardless of time of test, the first graders' scores were significantly lower than the third graders' scores. The interaction between time of test and starting grade was not significant, $F(1, 266) = 1.08$, $p = .30$. The main effect of gender was marginally significant, at $F(1, 266) = 17.18$, $p < .07$, $\eta_p^2 = .06$. However, there was a significant interaction between gender and starting grade, $F(1, 266) = 4.44$, $p < .04$, $\eta_p^2 = .02$. In the first grade, boys' and girls' scores averaging across pretest and posttest were about equal, at 92.34 and 88.82, respectively. In the third grade, however, boys scored 112.77 on average, whereas girls scored about ten points lower, at 102.56.

Across the one year from pretest to posttest, children received a total of 40 lessons for the children who received 1 lesson per week (equal to 30 hours) and 80 lessons per week for children who received 2 lessons per week (60 hours). There was no main effect of the number of lessons per week, $F(1, 266) = 2.103$, $p = .15$, $\eta_p^2 = .01$.

However, there was a marginally significant interaction between time of test and the number of lessons per week $F(1, 266) = 3.56$, $p = .06$, $\eta_p^2 = .01$. At pretest, children with one lesson per week regardless of starting grade, obtained a score of 83.78 points and children with two weekly lessons a score of 93.39 points. At posttest, there was little difference, with 1 weekly lesson leading to a score of 104.41 and 2 weekly lessons leading to a score of 108.49. There were no other significant main effects or interactions.

We attribute this pattern to the fact that children could not all be tested at once. Thus, at pretest some classes had had more lessons than others. We confirmed this by tallying the number of lessons before the pretest and correlating them with pretest and posttest PPVT-GSV scores. The number of lessons before the pretest correlated modestly with children's pretest scores ($r = .19$, $p = .003$) but not with their posttest scores ($r = .08$, $p = .18$). Thus, if there was a tendency towards an initial advantage of having more weekly lessons before the pretest, it was not visible one year later.

For the TROG, we used total items passed (e.g., Unsworth et al. 2014) as the principal outcome measure. Scores at pretest and posttest came from the same form. Figure 1B presents an overview of children progress on the TROG in total items passed scores in terms of their starting grade. We used the same model as above for a repeated measures ANOVA with TROG scores as the within-subjects variable. However, as the distribution was positively skewed, we used square-root-transformed TROG total items passed scores for the statistical analysis although we report the averages in terms of the total items passed untransformed scores.

Overall, the first graders obtained average scores of 8.78 on the pretest and 16.11 on the posttest. The third graders obtained average scores of 16.69 on the pretest and 27.72 on the posttest. There was a main effect of time of test, $F(1, 268) = 297.97$, $p < .001$, $\eta_p^2 = .53$, thus the difference between the average of the first and third graders' pretest scores of 11.96 and the average of their posttest scores of 20.79 was statistically significant. There was also a main effect of starting grade, $F(1, 268) = 89.43$, $p < .001$, $\eta_p^2 = .93$. Regardless of time of test, the average of the first graders' scores was significantly lower than the third graders' scores. The interaction between time and starting grade was not significant, $F(1, 268) = 1.08$, $p = 0.8$. The main effect of gender was not significant. However, there was a significant interaction between gender and starting grade, $F(1, 268) = 4.09$, $p = .04$ $\eta_p^2 = .02$. In the first grade, boys' and girls' scores were about equal, averaging across pretest and posttest, at 12.35 and 12.55, respectively. In the third grade, however, boys scored 24.94 on average, whereas girls scored about 5 points lower, at 19.62. There were no other

significant main effects or interactions, indicating that for receptive grammar, the number of lessons per week did not make a difference, neither at pretest nor at posttest.

### 5.2 Age- and gender-related differences in individual factors

The second research question aimed at examining age and gender-related differences in relation to individual factors that have been shown to be critical for early FL learning. The individual factors and the scores by starting grade and gender are listed in Table 2 as well as the results of individual ANOVAs with each individual factor as the dependent variable and starting grade and gender as between-subject independent variables. The scores were composite scores of the means of 2 or more questions that students had answered on 5-point Likert scales.

Table 2

*Means, standard deviations, and significance levels from GLM of individual factors by starting grade and gender*

| | Starting-Grade | | | | | | | | Results of GLM | | | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | First | | | | Third | | | | | | | |
| | Boys | | Girls | | Boys | | Girls | | Gender | Grade | Gender* Grade | |
| | M | SD | M | SD | M | SD | M | SD | *p* | *p* | *p* | |
| FLCA | 2.44 | 1.05 | 2.71 | 1.06 | 2.64 | 1.07 | 3.24 | .96 | *.001* | *.004* | *.213* | 275 |
| ECB | 3.98 | .78 | 3.89 | .77 | 3.94 | .81 | 3.39 | .75 | *.001* | *.006* | *.016* | 274 |
| Attitudes to English lessons | 3.47 | 1.29 | 3.73 | 1.13 | 3.05 | 1.34 | 3.22 | 1.18 | *.158* | *.002* | *.770* | 274 |
| Attitudes to activities | 3.58 | .92 | 3.72 | .81 | 3.30 | .92 | 3.77 | .75 | *.004* | *.251* | *.127* | 274 |
| Attitudes to English language | 3.83 | .99 | 3.67 | .77 | 3.67 | .97 | 3.61 | .84 | *.316* | *.351* | *.649* | 275 |
| Reliance on external authorities | 3.05 | 1.33 | 2.88 | 1.31 | 1.98 | 1.2 | 2.24 | 1.03 | *.785* | *.001* | *.167* | 275 |
| (Precursors to) ideal L2 self | 3.77 | .84 | 3.57 | .81 | 3.94 | .72 | 3.58 | .77 | *.005* | *.350* | *.411* | 274 |
| Importance of English as lingua franca | 4.27 | 1.13 | 4.03 | 1.02 | 4.36 | .79 | 4.21 | .73 | *.100* | *.252* | *.662* | 273 |
| Mindset | 3.79 | .62 | 3.68 | .67 | 4.01 | .62 | 4.08 | .46 | *.800* | *.001* | *.238* | 274 |

Five of the individual factors showed a significant development with age. FLCA increased significantly between first and third grade, with girls being more anxious than boys regardless of starting grade. There was a significant main effect of starting grade $F(1, 271) = 8.47$, $p = .004$, $\eta_p^2 = .03$, and a main effect of gender, $F(1, 271) = 11.45$, $p = .001$ $\eta_p^2 = .041$, but no significant interaction, $F(1, 271) = 1.56$, $p = .213$. Boys' levels of FLCA increased from 2.44 in first grade to 2.64 in third grade, and girls' levels of FLCA increased from 2.71 in first grade to 3.24 in third grade.

ECB impacts boys and girls differentially at the different grades. For ECB, the results showed a statistically significant main effect of starting grade, $F(1, 270) = 7.69$, $p = .006$, $\eta_p^2 = .028$, and a main effect of gender, $F(1, 270) = 11.13$, $p = .001$, $\eta_p^2 = .04$. These effects were moderated by an interaction between starting grade and gender, $F(1, 270) = 5.91$, $p = .016$, $\eta_p^2 = .021$. This was the only significant interaction in the results presented in this section. In first grade, boys and girls showed equal levels of ECB, at 3.98 and 3.89 respectively. In third grade, however, the boys continued to have high ECB, at 3.94, whereas the girls had substantially lower levels, at 3.39.

Children's reliance on external authorities, i.e., their parents' and English teacher's opinions, decreased significantly with age, from 2.98 in first grade to 2.13 in third grade. This difference reflected a significant main effect of starting grade on the reliance on parents and teachers, $F(1, 271) = 30.95$, $p = .000$, $\eta_p^2 = .102$. There were no other significant effects.

Children's attitudes toward their English lessons became less positive with age. First graders indicated a mean liking of English lessons of 3.59 whereas third graders indicated a significantly less favorable attitude, at 3.13, $F(1, 270) = 9.39$, $p = .002$, $\eta_p^2 = .034$. There were no other significant effects.

Two of the individual factors showed no developmental changes but an effect of gender. This was the case for our measures of ideal L2 selves and of attitudes to activities in the English lessons. Children's ideas about their involvement with English language in the future, the factor ideal L2-self, were basically the same in first and third grade, at 3.67 and 3.75 respectively, $F(1, 270) = .88$, $p = .350$. However, boys' scores were higher than girls' scores, at 3.83 and 3.57 respectively, $F(0, 270) = 8.07$, $p = .005$, $\eta_p^2 = .029$. A higher score indicated that boys tended to have a stronger projection of themselves as speakers of English language in the future.

For children's attitudes toward different activities during their English lessons, there was no effect of starting grade, $F(1, 271) = 2.76$, $p = .096$. However, there was a significant effect of

gender, $F(1, 271) = 4.39$, $p = .037$, $\eta_p^2 = .03$. Boys indicated less average interest in activities involving English, at 3.49, than girls, 3.74.

The factor “English as lingua franca”, showed no significant change with starting grade, $F(1, 269) = 1.32$, $p = .252$, nor a gender difference $F(1, 269) = 2.71$, $p = .101$.

Children's beliefs about whether intelligence is malleable or fixed (the factor Mindset) also showed considerable developmental differences. There was a main effect of starting grade $F(1, 270) = 17.32$, $p < .001$, $\eta_p^2 = .06$, but no other significant effects. Their average score on the mindset scale was 3.74 in first grade and 4.04 in third grade. A higher score reflected a more incremental mindset.

### 5.3 The relationship between individual factors and change in receptive vocabulary and grammar achievement

The third research question of the study aimed at examining the individual factors presented in section 5.2 in relation to our language outcome measures, first for the PPVT and then for the TROG, with a mixed effects generalized linear model (Linck and Cunnings 2015). To arrive at the best fitting model, we entered the factors/effects one by one including all interactions. We eliminated non-significant higher-order interactions and then main effects ($p > .10$), leaving all lower-order terms of the significant interactions in the model. Table 3 presents the final fitted model for the PPVT-GSV scores.

Table 3

*Results of fitted mixed effects generalized linear model: the influence of individual factors on receptive vocabulary scores (PPVT-GSV)*

| PPVT-GSV scores | Coef. | Robust Std. Err. | Z | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| StartingGrade | -27.61 | 26.62 | -1.04 | 0.300 | -79.79 | 24.57 |
| Time | 36.97 | 10.33 | 3.58 | 0.000 | 16.72 | 57.23 |
| StartingGrade*Time | 61.69 | 14.74 | 4.19 | 0.000 | 32.82 | 90.58 |
| Lessons per week | 6.41 | 2.32 | 2.76 | 0.006 | 1.86 | 10.97 |
| Time*Lessons per week | -4.16 | 1.87 | -2.22 | 0.026 | -7.82 | -.49 |
| Gender | -4.57 | 1.55 | -2.94 | 0.003 | -7.62 | -1.52 |
| FLCA | -.08 | 5.47 | -0.01 | 0.99 | -10.81 | 10.65 |
| StartingGrade*FLCA | 8.24 | 8.58 | 0.96 | 0.337 | -8.57 | 25.05 |
| Time*FLCA | -8.68 | 3.08 | -2.81 | 0.005 | -14.73 | -2.64 |
| StartingGrade*Time*FLCA | -11.89 | 4.09 | -2.91 | 0.004 | -19.91 | -3.87 |
| ECB | 1.91 | 4.67 | 0.41 | 0.682 | -7.24 | 11.06 |
| StartingGrade*ECB | 12.12 | 6.73 | 1.80 | 0.072 | -1.07 | 25.31 |
| Time*ECB | -3.29 | 2.56 | -1.29 | 0.198 | -8.31 | 1.73 |
| StartingGrade*Time*ECB | -13.68 | 3.40 | -4.02 | 0.000 | -20.34 | -7.01 |
| ECB*FLCA | .23 | 1.39 | 0.17 | 0.866 | -2.49 | 2.96 |
| StartingGrade*ECB*FLCA | -2.49 | 2.24 | -1.11 | 0.265 | -6.87 | 1.89 |
| Time*ECB*FLCA | 1.98 | .87 | 2.28 | 0.023 | .28 | 3.69 |
| StartingGrade*Time*ECB*FLCA | 2.10 | 1.02 | 2.06 | 0.039 | .10 | 4.10 |
| Reliance on External Authorities | -1.22 | .44 | -2.81 | 0.005 | -2.08 | -.37 |
| Mindset | 3.80 | 1.28 | 2.98 | 0.003 | 1.30 | 6.30 |
| _Constant | 60.78 | 17.01 | 3.57 | 0.000 | 27.43 | 94.13 |

The model showed a main effect of time of test, but no main effect of starting grade. However, there was a four-way-interaction that involved both time of test and starting grade, so any lower-order effects involving these factors were moderated by the higher-order interaction. The model showed that gender played a role in children's vocabulary development, with boys scoring higher on the PPVT-GSV than girls by about 4.57 points when all other factors were held constant ($z$ = -2.94, $p$ = .003). Any interactions with gender were not significant in predicting children's vocabulary scores and were omitted from the model. Children's scores also depended on FLCA, but FLCA had differential impacts on gain depending on children's starting grade and level of ECB, as evidenced by a four-way interaction between FLCA, ECB, time of test and starting grade ($z$ = 2.06, $p$ = .039). Figure 2 shows the estimated marginal means when we dichotomized ECB at its mean into high and low ECB for the two different starting grades. Looking at first-graders, it is noticeable that the scores at the pretest were remarkably similar whether they had high or low ECB. In other words, whether or not they considered themselves competent in English at the pretest, both groups obtained scores from 80 to 90 points. However, compared to first-graders, third-graders were more accurate in assessing their own competences at pretest. Children with high ECB in fact had higher scores, in

the 100-110 range, while children with low ECB had scores between 90 and 100 points. When looking at gain, i.e., the distance between the lines for pretest and posttest, all children except third-graders with low ECB, showed gains of between 10 and 20 points during their first year of instruction. However, for children with low ECB in the third grade, their gain depended on their level of FLCA. When these children had low FLCA (equal to 1 or 2 points), they were predicted to make large gains of around thirty points. However, if these children had high FLCA (equal to 4 or 5 points), they were predicted to make almost no gains during one whole year of instruction.

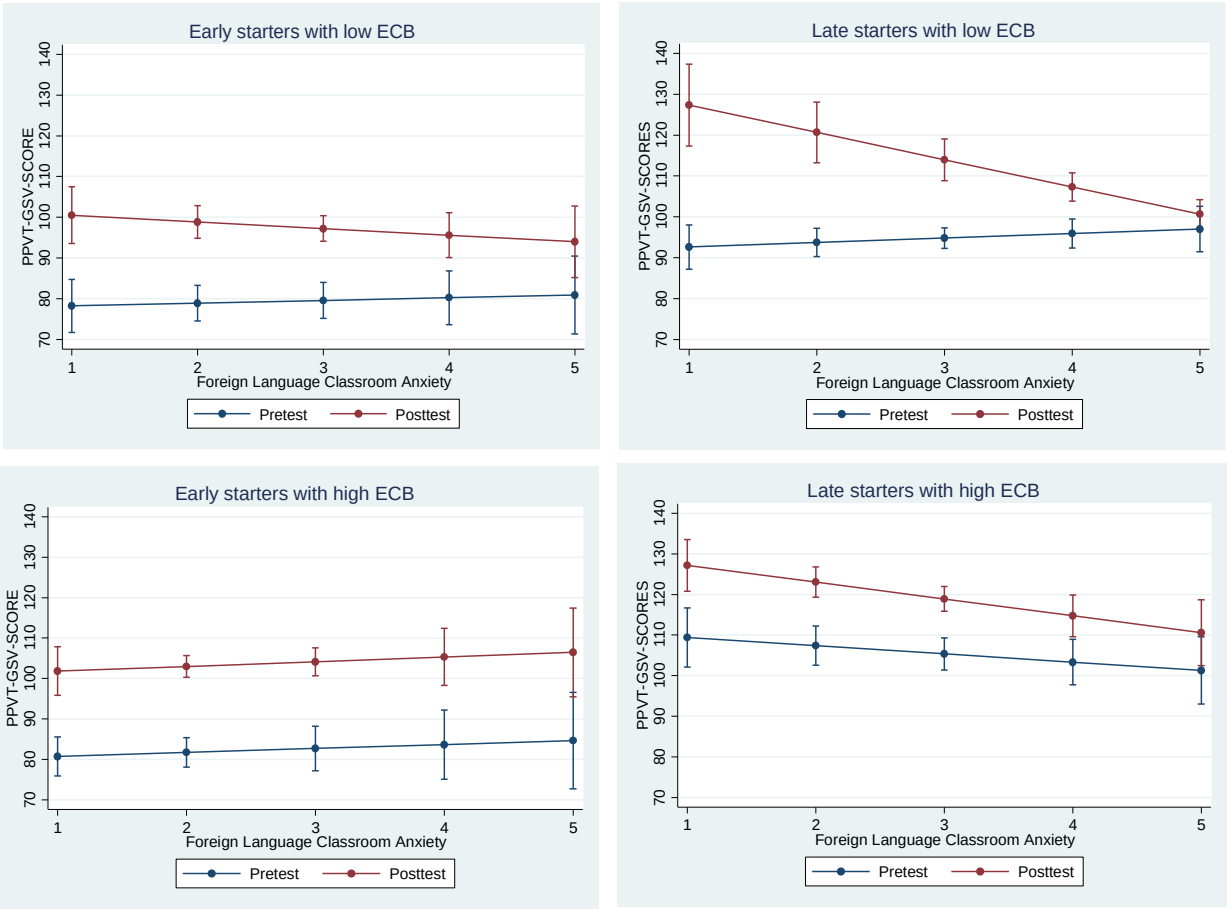


*Figure 2.* Predictive marginal means of PPVT GSV scores as a function of FLCA and ECB by starting grade and time of test, with 95% confidence intervals.

Children's mindset scores showed a main effect. Thus, the average child would experience an increase of 3.8 points in their vocabulary score for every 1 point their mindset score increased. Children's reliance on external authorities also made a difference. For every one point that the reliance on external authorities dropped, they gained 1.22 points in vocabulary.

We then proceeded to fit a full model for the TROG-2 total items passed, which is presented in Table 4. The final model to some degree resembled that for the PPVT.

Table 4

*Results of fitted mixed effects generalized linear model: the influence of individual factors on receptive grammar scores when scored by total items passed (TROG-2).*

| TROG Score (total items passed) | Coef. | Robust Std. Err. | Z | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Starting Grade | 17.94 | 3.2 | 5.60 | 0.000 | 11.67 | 24.21 |
| Time | 7.46 | .84 | 8.93 | 0.000 | 5.82 | 9.1 |
| Starting Grade*Time | 3.59 | 1.1 | 3.28 | 0.001 | 1.44 | 5.73 |
| FLCA | 1.19 | .97 | 1.21 | 0.225 | -.73 | 3.11 |
| Starting Grade*FLCA | -3.71 | 1.06 | -3.49 | 0.000 | -5.79 | -1.62 |
| ECB | 3.71 | .79 | 4.71 | 0.000 | 2.17 | 5.26 |
| Reliance on external authorities | -.97 | .39 | -2.5 | 0.013 | -1.74 | -.21 |
| Mindset | 1.39 | .77 | 1.81 | 0.071 | -.12 | 2.89 |
| _Constant | -10.9 | 5.1 | -2.14 | 0.33 | -20.9 | -.91 |

In fitting the model, it emerged that gender did not have a significant influence on children's scores on the TROG, so we dropped this factor. There were main effects of both time of test and starting grade, showing that children made gains at both starting grade levels. This analysis also showed an interaction between starting grade and time of test (z = 3.28, $p$ = .001), suggesting that third-graders made bigger gains than first-graders of about 3.59 points. Recall, however, that in the previously reported ANOVA, this interaction was not significant, so there is reason to question it, as we will discuss in section 5.4.

FLCA impacted the scores differentially depending on the starting grade of the children, as can be seen in the significant interaction in Table 4, $z$ = -3.49, $p$ < .001 and depicted in Figure 3. Third graders' TROG scores were influenced by their FLCA level in the foreign language classroom, with their scores dropping about 2.5 points for every 1 point that their FLCA increased whereas FLCA had relatively little influence on the first graders.

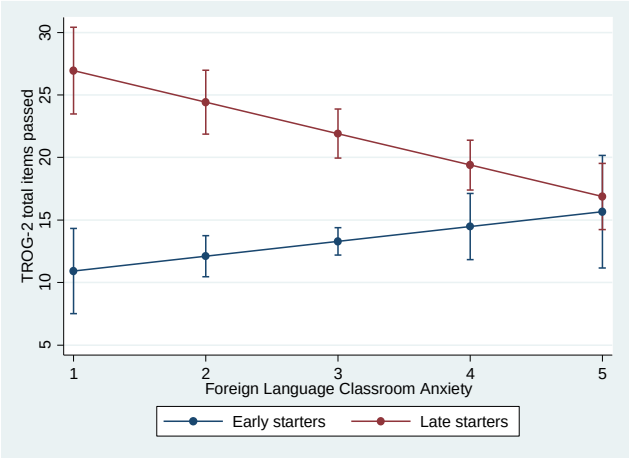


*Figure 3.* Children's TROG scores, total items passed, as a function of Foreign Language Classroom Anxiety by starting grade, with 95% confidence intervals.

For average children (meaning setting all other factors at their means), children's ECB showed a main effect, indicating that for each step of increase in ECB, their TROG scores rose by 3.71 points ($z = 4.71$, $p < .001$). Mindset scores predicted children's receptive grammar scores with each step towards an incremental mindset on the mindset scale corresponding to an increase of about 1.4 points on the TROG. However, this effect was marginally significant in the present analysis ($z = 1.81$, $p = .071$), but see section 5.4 below. Finally, relying less on external authorities led to an increase in TROG scores. For each 1 point that the reliance on external authorities decreased, children gained about 1 point on the TROG ($z = -2.5$, $p < .013$).

### 5.4 Statistical issues in the observed effects regarding TROG-scores

We now return to the issue of the significant interaction of starting grade and time on the TROG, and the marginally significant main effect of mindset in the above analysis. This is a critical issue because it suggests that children on the TROG make bigger gains in the third than in the first grade. However, we suspected that this interaction might be an artifact of the model. While the distribution of scores for TROG total items passed overall looked acceptable, we noticed that many children had very low scores. This resulted in a somewhat positively skewed distribution. As we did for the initial ANOVAs, we therefore applied a square root transformation to the scores and re-ran our mixed model. This made the interaction between time of test and starting grade insignificant ($z = 1.53$, $p = .18$). We wished to confirm the lack of interaction by tallying the scores differently. Rather than looking at the sum of total items passed on the TROG as above, the test may also be scored according to blocks of items passed, as each item belongs to a block of 4 items, according to

the TROG-2 manual. The score then becomes a score of total blocks passed. This way of scoring, however, engendered the problem that many of the younger children received a score of zero and therefore the distribution was still skewed, with no meaningful options for transformations to address the skewness. Instead, we recoded the scores into a binary score of zero or 1, where 1 was equal to 1 or more blocks passed. This allowed us to conduct a mixed-effects logistic regression with the binary score as the repeated-measures target variable with the same fixed effects and their interactions as above. The full model based on binary scores is presented in Table 5. Class was again included as a random effect. We again found a significant effect of time of test and starting grade but no significant interaction ($z = 1.24$, $p = .214$). Thus, for the moment we conclude that there is little indication in the data to suggest a rate advantage for the late starters. All other results retained the same pattern as the model with the total items passed although children's mindset scores changed from marginally significant to highly significant.

Table 5

*Results of fitted mixed effects logistic regressions model: the influence of individual factors on receptive grammar scores (TROG-2) when scored by total blocks passed and recoded into binary scores.*

| TROG Scores (total blocks passed) | Coef. | Robust Std. Err. | Z | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Starting Grade | 3.29 | .71 | 4.66 | 0.000 | 1.91 | 4.68 |
| Time | 1.68 | .17 | 9.75 | 0.000 | 1.34 | 2.02 |
| Starting Grade*Time | .37 | .30 | 1.24 | 0.214 | -.22 | .96 |
| FLCA | .24 | .2 | 1.23 | 0.219 | -.14 | .62 |
| Starting Grade*FLCA | -.56 | .23 | -2.38 | 0.017 | -1.02 | -.1 |
| ECB | .5 | .22 | 2.32 | 0.020 | .08 | .92 |
| Reliance on external authorities | -.42 | .05 | -8.15 | 0.000 | -.52 | -.32 |
| Mindset | .63 | .25 | 2.49 | 0.013 | .13 | 1.12 |
| _Constant | -5.41 | 1.21 | -4.49 | 0.000 | -7.78 | -3.05 |

## 6. Discussion

A change in the legislation in Denmark had presented the unique opportunity to compare early and late starters of EFL in one and the same year. The present study thus investigated the development of English receptive vocabulary and grammar after one year of instruction by first vs. third starting graders in Denmark. In addition, it examined children's age- and gender related differences in relation to individual factors such as learners' FLCA, ECB, learners' motivation and attitudes, and

learners' mindsets. Finally, we investigated the relationship between these individual factors and young Danish children's EFL development.

### 6.1 Developmental changes in receptive vocabulary and grammar after one year of instruction

Both early and late starters came to the FL class with some level of English vocabulary and grammar, which in the Danish context is likely due to informal learning. The late starters began their English classes in third grade roughly at a level corresponding to the results of the early starters after one year of instruction. Thus, the gains of the early starters in one year of instruction, plus potential informal learning during that year, corresponded to the sum of the informal learning that the late starters had achieved prior to formal instruction.

Children on average learned a significant amount of new vocabulary and grammar during the first year of English classes, be they early starters or late starters. This is in line with Unsworth et al. (2014), who found gains on the exact same two proficiency tests in preschool-aged learners of EFL in the Netherlands. The size of the gain both for vocabulary and grammar was roughly equivalent in both grades. Thus, our results at this point provide little evidence of a rate advantage for older learners which is in contrast with earlier studies conducted with young learners in instructional contexts (e.g., Cenoz 2003; García Mayo 2003; Muñoz 2006). However, a rate advantage may take longer to manifest itself. In fact, as presented in section 5.4, there is a hint of evidence for a rate advantage for grammar in the late starters when the TROG is tallied by total items passed. However, when tallying the TROG by total blocks passed, the late starters' advantage disappeared. Future data from the same students will allow us to determine the extent of a rate advantage.

Schools could choose to offer one or two weekly lessons during the first year of English instruction (see Section 4.1). Results showed that at posttest for both vocabulary and grammar, 1 or 2 lessons per week did not make a difference after one year of instruction. This finding is in line with that of Unsworth et al. (2014) who tested children in a Dutch setting starting at the age of 4 1/2 years. They found that it took on average 1.5 years of instruction before a difference between 60 minutes of English classes or less per week vs 60 minutes or more per week appeared to make a difference in children's results on tests of both receptive vocabulary and grammar. Thus, it may take more than 1 year of instruction before the number of lessons per week starts to have an effect. Also, informal classroom observations from another part of the larger project revealed that not all time allocated to classes was necessarily spent on English instruction.

### 6.2 Age- and gender-related differences in individual factors

Age-related differences primarily related to 5 individual factors. In line with previous studies (Gürsoy & Akin 2013; Chan & Wu 2004), late starters exhibited a higher degree of FLCA than early starters. Conversely, ECB decreased with age, as in Mihaljević Djigunović (1993) and (Mihaljević Djigunović and Lopriore 2011). In our results, however, this effect was moderated by an interaction with gender. In fact, boys showed equally high ECB in both starting grades, whereas girls' ECB showed a significant drop in the third grade. Attitudes towards English lessons also showed a decrease with age, in line with previous research (Chambers 1999; Heinzmann 2013; Mihaljević Djigunović and Lopriore 2011).

On a more positive note, with age, children became less reliant on external authorities (studying English because their parents and teachers say they must), a finding that is in line with Nikolov (1999). Their mindset also tended to become more incremental, i.e., taken together, students became more intrinsically motivated and tended to believe more in the value of effort to improve one's ability.

Regarding gender differences, our results showed that boys in both grades were less anxious than girls. Boys in the third grade had higher ECB and they tended to a have more positive projection of themselves as future English speakers than girls (Dörnyei 2009). Surprisingly, however, boys also to a lesser extent than girls enjoyed different activities during the English lessons (singing, listening, writing, reading, and speaking in English). The last finding is in line with Dewaele, MacIntyre, Boudreau, and Dewaele (2016) who found that the women in their study (ranging from 11 to 75 years of age with a mean age of 24) enjoyed activities in FL classes more than men, and Williams et al. (2002) who found the same pattern for British seventh and ninth-graders learning French or German.

It may be the case that boys enjoy activities in English outside the English classroom. Hannibal Jensen (2017) found that children in a subsample from the present study played computer games in English significantly more often than girls. Boys' frequent engagement with English games, which required them to understand oral and/or written English input in order to successfully complete them, may have made them less anxious (see also Sundqvist and Sylvén (2014) for similar results from adolescents, and more confident about their English language abilities). This, in turn, gives them a familiar scenario when projecting themselves as future users of the language.

### 6.3 The relationship between individual factors and change in receptive vocabulary and grammar achievement

Previous research with slightly older children, from 5th grade and up (Abu-Rabia 2004; Chan & Wu 2004) has suggested a straightforward negative correlation between FLCA and outcome measures of FLL. However, in young children, our results show that the relationship is much more complex. Looking at vocabulary, FLCA interacted significantly not only with starting grade but also with ECB (Figure 2). Early starters' level of FLCA had no influence on their vocabulary and grammar scores, be they high or low in ECB. However, for the late starters, the level of ECB made a difference. When students had high ECB, their level of FLCA essentially did not make a difference for their proficiency gain. However, if students had low ECB, FLCA impacted their gain: If in addition to low ECB, students were also highly anxious, there was hardly any vocabulary gain. But if students in addition to low ECB had low FLCA, then they made large gains, of up to 40 points in some cases. However, this result held up for vocabulary but not for grammar, where ECB did not seem to play a moderating role neither in relation to FLCA nor grammar gain. Instead, higher ECB predicted overall higher grammar levels, be it pretest or posttest.

Mihaljević Djigunović and Lopriore (2011) found a positive impact of competence beliefs on different types of tests: listening and oral production tasks. It may be the case that assessing one's and other students' level of vocabulary may be different from assessing the level of grammar proficiency. Recall that late starters were relatively accurate in assessing their level of English vocabulary. High ECB by and large corresponded to a high vocabulary score, whereas low ECB corresponded to a low vocabulary score. This component of accuracy in judgement shown by late starters for their own vocabulary level may take longer to manifest itself when it comes to grammar. For receptive grammar, it was also the case that in the third grade, the higher FLCA level, the lower the score, regardless of time of test (see Figure 3).

The influence of FLCA and ECB on our outcome measures was very different from the other individual factors: reliance on external authorities, and learners' mindset were independent of starting grade and time of test. The less students relied on external authorities to tell them that they must learn English, the better their score regardless of grade, time of test and type of outcome test.

For the mindset scale it was the case that the more incremental the child's mindset, the better the test scores at both pretest and posttest and both for vocabulary and grammar. Children's mindsets also became more incremental in the third grade compared to first grade. Other researchers have investigated mindsets from the point of view of a particular FL mindset (Mercer

2011; Ryan and Mercer 2012; Lou and Noels 2016) in adult FLL. However, in the present research, we used the original mindset scale for young children developed by Dweck and colleagues which in a more general sense tests children's beliefs about intelligence and ability. Still, these beliefs in children were related to our outcome measures of FLL. To our knowledge, it has not previously been demonstrated that the more incremental one's mindset, the better one's FLL acquisition in childhood. It suggests that at least in a Danish context, children who generally believe that effort may improve one's abilities have an advantage also when learning English as a foreign language. Theoretically, it may contribute to the argument that the ability to learn a foreign language, just like math skills, lends itself particularly well to a conception that it requires a special talent. Having a growth mindset may help overcome this conception.

Our study has found that attitudes towards the English lessons, towards different activities in the English lessons, and towards the English language had little relation to EFL-outcome. This contrasts with the ELLiE-findings (Mihaljević Djigunović and Lopriore 2011) that attitudes are related to listening skills and lexical diversity. Other studies (e.g. Muñoz and Tragant 2001) have also found that positive attitudes towards language had a positive relation to close test and dictation scores. Differences in results may be due to the different language dimensions being tested and the different cultural contexts where studies are conducted. Additionally, our study also found that precursors to ideal L2 self did not predict outcome. This finding contradicts Kim and Kim (2014) where children's ideal L2 self directly influenced L2 English proficiency. However, L2 proficiency in that study was measured by participants' self-reported mid-term scores, which is arguably a less reliable measure than the ones used in the present study. Furthermore, our results support Zentner and Renaud's (2007) claim that stable ideal-self representations do not emerge before adolescence, reaching maturation at age 17, but we also agree with their note that the emergence of ideal-self representations in middle childhood warrants more study.

While gender played a significant role in the results of 4 of the individual factors presented in section 6.2, it turned out not to be a moderator of the predictor variables when linked to the outcome measures. Rather, in the overall mixed models across starting grade and time, boys were predicted to have a modest but significant 4-point advantage over girls but this was only the case for receptive vocabulary and not grammar. However, three of the individual factors (FLCA, ECB, and precursors to ideal L2 self) favored boys over girls. It may be the case that the added effect of these three factors provide boys with an overall advantage.

## 7. Conclusion

The results of the present study point to four main findings. First, early and late starters begin English FL instruction with different levels of receptive vocabulary and grammar. For both language dimensions, third graders start off with roughly the same proficiency level as the one achieved by first graders after one year of instruction. Despite this initial difference in proficiency, both age groups make similar gains over one year of instruction, thus suggesting a similar rate of learning for both groups in the short span of one year. Future analyses of proficiency data collected from the same sample of children over time will allow us to determine the extent to which both age groups continue with similar learning rates or whether late starters end up with a rate advantage over early starters (e.g., García Mayo 2003; Muñoz 2006).

Second, the characterization of early vs. late starters (ages compared were 7-8 with 9-10-year-olds) in terms of a range of individual factors shows that each age group has strengths and weaknesses. The younger age group exhibited lower levels of FLCA and more positive ECB but tended to rely more on external authorities as a source of motivation, and they showed a slightly less incremental mindset. The older age group, on the other hand, relied less on external authorities and showed a more incremental mindset but they also exhibited higher levels of FLCA, they had less positive ECB (especially girls), and they liked English language and English lessons less, though the latter was more predominant for girls than for boys. Our findings are thus in line with Mihaljević Djigunović's (2014) call for gaining knowledge about possible differences (strengths and weaknesses) between younger vs. older learners in relation to individual factors that are relevant for early language learning.

Third, when examining the relationship between the various individual factors and receptive vocabulary and grammar, only some of the factors that were examined had a clear influence on L2 proficiency. These were FLCA, ECB, learners' mindset, and the influence of external authorities as a source of motivation. More specifically, the more positive ECB and the more incremental mindset a child has and the lower their reliance on external authorities, the higher the scores obtained in the pretest and the posttest (both for vocabulary and grammar), regardless of age. In addition, higher levels of proficiency in both language dimensions were also obtained by late starters with lower levels of FLCA, although for vocabulary, high ECB had a protective effect against FLCA. Other factors such as children's liking of the English language and the various activities done in class did not affect their vocabulary and grammar scores. In other words, what children say about their preferences does not prevent them from learning English.

Fourth, one particular factor in our study stands out among the rest. FLCA clearly had a detrimental effect on vocabulary and grammar acquisition in the third grade. This was particularly pronounced for vocabulary proficiency for late starters with low ECB. In contrast, for early starters outcome and FLCA were not related, reflecting perhaps a generally more optimistic outlook at younger ages (Eccles 1999). These results suggest that FLCA may be a determining factor in the discussion of when it is best to start learning a FL. Provided that early starters continue to gain at the same rate as in their first year of instruction, starting at a younger age might give students the advantage of lower levels of FLCA.

These results of the study have pedagogical implications. Primary school teachers could be made aware of the importance of maintaining low-anxiety English classrooms and of developing positive ECB in their pupils. Interventions targeted at developing learners' incremental mindsets in relation to FL learning could be developed following the spirit of successful interventions in relation to mathematics knowledge (Blackwell, Trzesniewski and Dweck 2007; Lanoë et al. 2015).

Finally, the present study has several limitations. In terms of EFL proficiency, we have only included receptive measures, and we have followed gains in receptive vocabulary and grammar for only one year. In future studies we will also include other measures of language proficiency such a production tasks and investigate the development of proficiency in the same children over a longer period of time. Individual learner characteristics are not stable across ages but present different strengths and weaknesses. Thus, future studies should examine how the various individual factors develop over time in the two age groups and how they affect L2 proficiency. Last but not least, we have not included aptitude measures in this study. As language aptitude can be related to growth mindset (Lou & Noels 2016) and to foreign language anxiety (Sparks & Ganschow 1991; Sparks & Ganschow 2007), such measures will be included in future studies conducted on the same cohort of children.

**Acknowledgements:** This study is part of a larger project funded by the Danish Research Council for Independent Research (DFF 4001 00046). We would like to thank Jan Nielsen and Jørgen T. Lauridsen for their help with the statistical analyses of the data, and the reviewers of this manuscript for their insightful comments. We alone are responsible for the contents of the article.

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# Paper 2

Katalin Fenyvesi

Young Danish Learners of English on Foreign Language Classroom Anxiety

Submitted to a peer reviewed journal, in external review

Young Danish Learners of English on Foreign Language Classroom Anxiety

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**Abstract:** This study investigated which situations were mentioned by young Danish learners of English as a foreign language (EFL) as anxiety-provoking or difficult. The second aim of the study was to examine differences between 8 and 10-year-old children's views. The third aim was to examine what children said about how their foreign language classroom anxiety (FLCA) decreased. The study was based on interviews with 32 8-10-year-old children in two Danish primary schools where children at this age are not exposed to tests and examinations. Interviews were analyzed by thematic analysis. The results revealed three main categories of situations children mentioned as anxiety-provoking. The first was being afraid of making mistakes. The second involved social situations when children had to say something in English in front of the whole class and experienced or feared that other children would laugh at them or criticize them. The third concerned uncertain situations such as not understanding the teacher speaking in the foreign language (FL), not knowing the meaning of words they were supposed to learn, not understanding the task at hand or having to do tasks they were not sufficiently prepared for. In addition, children who experienced a decrease of FLCA after one year of instruction indicated that appropriate support from the teacher had reduced FLCA in some of these situations. Pedagogical implications of the different anxiety-provoking situations are discussed.

**Keywords:** Danish young learners, FL classroom anxiety, fear of negative peer evaluation, use of L2 in the FL classroom

## 1. Introduction

The role of anxiety in foreign language learning (FLL) has become an important research area in second language acquisition (Dörnyei & Ryan, 2015). Research has mainly focused on adult and adolescent learners (Horwitz, 1986), and research on younger learners is sparse. In the past decades, however, foreign language (FL) instruction, first of all of English, tends to start earlier and earlier all over the world (Nikolov & Mihaljević Djigunović, 2006). And although there is an emerging body of research on the affective factors of young learners (e.g. Mihaljević Djigunović, 2012, 2015), less attention has been paid to foreign language anxiety among young learners under the age of 10.

The few authors who have written about the foreign language anxiety of children, have emphasized that factors such as test situations, fear of negative evaluation and fear of failing the language course have been found to be the most important causes of anxiety in the foreign language classroom (e.g. Chan & Wu, 2004; Gürsoy & Akin, 2013; Horwitz, Horwitz, & Cope, 1986). These studies have been conducted in countries where students are regularly exposed to language tests, examinations, receive marks and may risk failing the course (e.g., Taiwan and Turkey). Children in Danish primary schools, are not graded and do not have to take English tests until the age of 13. Despite of this fact, authors (2017) found in a larger sample within the same project, that Danish primary school children, especially 9-10-years-old girls, experienced foreign language classroom anxiety (FLCA) which correlated with their receptive vocabulary and grammar scores and with the gains they made in receptive vocabulary, in the third grade, but not in the first grade. No previous qualitative studies exist, however, on the sources of FLCA in primary school children in learning environments without tests and grades. In order to fill this gap, the first aim of this qualitative study is to explore in which situations 8-10-year-old primary school children experience anxiety in the Danish EFL learning environment. This follows the recommendation of Horwitz (2017) that further research should identify the unique anxiety profiles for different cultural and demographic groups because this "would make important contributions to understanding and alleviating Language Anxiety" (Horwitz, 2017, pp 43.). The second aim of the study is to investigate whether there are differences between how 8 and 10-year-old children talk about FLCA. In addition, following another recommendation of Horwitz (2017, p. 44.) the third aim of the study is to find out what children who experienced a decrease in FLCA tell us about how their anxiety decreased. This, in turn, may identify possible ways to overcome FLCA.

## 2. Literature review

### 2.1. Foreign language classroom anxiety

Anxiety is defined as "the subjective feeling of tension, apprehension, nervousness and worry associated with an arousal of the autonomic nervous system" (Spielberger, 1983, p.15). Researchers often differentiate between three types of anxiety (e.g., MacIntyre & Gardner, 1991). The first type is a general personality trait (trait anxiety), the second type is an emotional state (state anxiety), the third type is anxiety that consistently reoccurrs in specific situations (situational anxiety).

The role of anxiety has been the subject of study for a long time in second language acquisition research (Horwitz, 2010; Scovel, 1978). The first researchers to define a specific kind of anxiety responsible for language learners' uncomfortable experiences with FLL were Horwitz et al. (1986). They developed the Foreign Language Classroom Anxiety Scale (FLCAS) consisting of 33 items. The items included being afraid, worrying and panicking in situations such as speaking in the FL class, speaking in the FL in front of others, making mistakes, being asked to answer questions by the teacher, speaking without preparation, not understanding when the teacher speaks in the FL, comparing one's own FL competences to peers and being tested in the FL.

Krashen (1981) hypothesized that anxiety was part of an affective filter that prevents foreign language learners from utilizing the language input. Many studies have found a negative relationship between FLCA and L2 achievement (see Al-Shboul, Ahmad, Nordin, & Rahman, 2013 for a detailed summary). Nikolov (2001) found that unsuccessful language learners often experienced FLCA. There is an ongoing debate on whether foreign language classroom anxiety (FLCA) is the cause of lower foreign language (FL) achievement as proposed by Horwitz (2000, 2001, 2010), or whether it is rather a consequence than a cause as proposed by Sparks and Ganschow (1991). A related debate is whether anxiety has a positive or negative effect on FL performance. Kleinmann (1977) found that anxiety could help students do better in their language classes, called facilitating anxiety, while according to Scovel (1978) anxiety had the opposite effect, called debilitating anxiety. Concerning facilitating and debilitating anxiety Horwitz (2017) points out that while a lower level of anxiety can enhance performance, a higher than optimal level of anxiety leads to a sharp decline in performance. Studies on the relationship between FLCA and FL achievement have mainly been conducted with university students and adolescents and only few with younger age groups between 10 and 14 years (Abu-Rabia, 2004; Alshahrani & Alshahrani, 2015; Chan & Wu, 2004). All of them found a significant negative correlation between FLCA and foreign language achievement as operationalized by different FL test scores or school grades.

Literature on the FLCA of language learners under the age of 10 is sparse. Studies are mainly quantitative and use questionnaire items based on the FCLAS (Abu-Rabia, 2004; Chan & Wu, 2004). Authors (forthcoming) conducted a questionnaire study (n=267) on children who started learning EFL in first grade at the age of 7 and children who started it in third grade at the age of 9 and found that besides other individual factors, such as EFL-competence beliefs, motivation, attitudes and mindsets, FLCA was an important factor for young Danish learners of EFL. They found that 9-10-year-old children indicated significantly higher FLCA (M=2,94 on a five point Likert scale) than 7-8-year-olds (M=2, 58) and that girls indicated significantly higher FLCA (M=2,98) than boys (M=2,54). They also found that FLCA negatively correlated with both receptive grammar and vocabulary scores. In the case of receptive vocabulary, they found that especially children who believed that they were not very good at EFL and had high FLCA at the same time made significantly lower gains than their peers with lower anxiety.

### 2.2. Sources of foreign language classroom anxiety

Several researchers have sought to answer the question why anxiety arises in the foreign language classroom. Many studies have been based on the FLCAS (e.g., Alshahrani & Alshahrani, 2015; Liu, 2006)). Here, apart from a few studies with young learners, only studies based on open questionnaire items or interviews are mentioned.

Young (1991) grouped sources of FLCA identified by previous research into six categories: (1) personal and interpersonal anxieties which include competitiveness when language learners compare themselves to others or to an idealized self-image; (2) learner beliefs about language learning, in that FL-learners can hold unrealistic beliefs about language learning which can lead to frustration and to anxiety; (3) instructor beliefs about language teaching, meaning that the social context set up by the instructor in the classroom may have an impact on learners' anxiety; (4) instructor-learner interactions, meaning that some error-correction practices of the instructor can be anxiety-provoking; (5) classroom procedures, meaning primarily having to speak in the FL in front of a group; and finally (6) different aspects of language testing can trigger anxiety - and all these are interrelated.

Price (1991) interviewed highly anxious American university students about their FL-classroom experiences and identified the following sources of anxiety in the FL-class: (1) having to speak the target language in front of peers and being laughed at by the others; (2) having a foreign accent in the L2; (3) not being able to communicate effectively; and (4) the difficulty of the language class. Price also found that anxious learners believed that learning a FL required a special

language aptitude which they did not possess. Yan and Horwitz (2008) found in interviews with Chinese students of EFL that concern over the inability to find appropriate language learning strategies leads to anxiety. Similarly to Young (1991) they also found that comparison with peers was a main source of anxiety. Tóth (2009) asked Hungarian first year university students about the possible causes of FLCA in an open questionnaire item. According to the students' answers the main sources of anxiety were mistakes, peer derision, pronunciation in the L2 and not being good enough. Dewaele (2012, 2017) and Gregersen and Horwitz (2002) found that perfectionism was a possible source of FLCA. Strauss, U and Young (2011) interviewed international EFL students in New Zealand and found that groupwork with unknown peers could lead to uncertainty which in many cases caused anxiety. Effiong (2016) interviewed Japanese university students and found that factors, such as the unfriendliness and the dress code of the teacher as well as laughter and silence could induce anxiety in the classroom.

Research on younger age groups concerning causes of FLCA is sparse. Chan and Wu (2004) used Horwitz's FLCAS and conducted interviews with 11-12-year-old Taiwanese students and found that the main sources of anxiety in this age group were language tests, feeling less competent in EFL than peers and having to speak in front of others in the FL. Gürsoy & Akin (2013) used an adapted version of Horwitz's FLCAS and compared the level of test anxiety, fear of negative evaluation and communication apprehension of 10-14-year-old Turkish children (n=84) and found that examinations were the situation that caused the most anxiety to the children. They also conducted interviews with a subsample of the students. Interview responses were used for triangulation and the results showed that they corroborated the quantitative data. Macaro and Lee (2013) found that several 12-year-old Korean primary school children were concerned about not being able to understand every word that the teacher said in English.

As mentioned above, studies about the FLCA of young learners rely primarily on questionnaires based on the FCLAS, however, we know less about possible sources of FLCA beyond the FCLAS in this age group and in a learning context without tests and grades. Therefore, this study uses a bottom-up method of analyzing interviews to find out how 8-10-year-old children explain why and in which situations they experience anxiety or feel uncomfortable.

### 2.3. Age differences in foreign language classroom anxiety

Literature on age differences in children's FLCA is sparse. Gürsoy and Akin (2013) examined the FLCA of 84 10-14-year-old Turkish children in a cross sectional study and found that the 10-year-olds were less anxious about FL learning than the older students. They also found that children in

the older age groups were more afraid of tests and held more negative beliefs about FLL than younger children. Authors (submitted) similarly found in the larger sample of the same project that 8-year-old Danish EFL learners had significantly lower FLCA than 10-year-olds.

### 2.4. Change in foreign language classroom anxiety

Authors (conference paper) found in the larger sample of the same project that FLCA among 7-9 and 9-11-year-old children did not change significantly after one year, but the tendency was that it increased. Other studies also found that children's anxiety tended to increase with age (Gürsoy & Akin, 2013; Nikolov, 1999).

Horwitz (2017) emphasizes the importance of case studies of individuals who have overcome FLCA in order to find out how to help anxious students. Liu (2006) found that undergraduate Chinese EFL students' FLCA decreased with increasing exposure to spoken English in the classroom over a term. Another possible way of decreasing FLCA is connected to language mindsets. Lou and Noels (2017) described that university students' FLCA and fear of failure depended on their language learning mindset. Students with a growth mindset, who held the belief that the ability to learn a foreign language depended more on effort than on talent for languages, tended to have low anxiety. On the other hand, students with a fixed mindset, who held the belief that learning a foreign language mainly depends on talent for languages, had higher anxiety. Lou and Noels (2016) also showed that a fixed mindset toward language learning could be successfully changed toward a more growth mindset.

## 3. Research questions

The present study explores the situations in which children aged 8-10 years, experience anxiety in the EFL lessons in a school system without tests and grades in the EFL class. To my knowledge no qualitative study on FLCA has ever been done before in this young age group, to explore what children think about anxiety in the classroom. More specifically, the study addresses the following research questions:

1. Which situations do children in a learning environment without tests and grades say they are afraid of in their foreign language classes?
2. Is there a difference between how younger and older children talk about FLCA in the FL classroom?
3. What do children whose FLCA decreased from above average to under average after one year say about the decrease of FLCA?

## 4. Method

### 4.1. Participants

Participants for the study were drawn from a larger sample from a research project studying the role of EFL learning starting age funded by the Danish government. The larger sample for the questionnaire study consisted of 276 Danish EFL students (139 boys, 137 girls) (for details, see Authors (submitted)).

In the present study, 32 students (14 boys: 9 8-year-olds and 5 10-year-olds, 18 girls: 9 8-year-olds and 9 10-year-olds), a subsample from the larger sample were interviewed. 18 early starters (started learning EFL at the age of 7 and 8 years at the time of the interview) and 14 late starters (started learning EFL at the age of 9 and 10 years at the time of the interview), all of them born in Denmark. They were chosen by means of a maximum variation sampling technique in order to explore variation within respondents (Dörnyei, 2007). Children came from two early-starter classes and two late-starter classes from two schools. The individual students were chosen on the basis of their receptive vocabulary scores (below vs. above average compared to the larger sample) and their FLCA scores from the first questionnaire (below vs. above average compared to the larger sample). The purpose of this sampling was firstly to include both high and low achievers, since anxiety and FL competence were shown to be negatively correlated (Al-Shboul et al., 2013) and were also found to be negatively correlated within the same sample (Authors, submitted). Secondly the purpose of the sampling was to include more anxious and less anxious children as well. Table 1 shows the participants of the study.

Table 1.

*Participants*

| | High FLCA | | | | Low FLCA | | | |
|---|---|---|---|---|---|---|---|---|
| | Low PPVT | | High PPVT | | Low PPVT | | High PPVT | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Age 8 | 1 | 4 | 2 | 1 | 2 | 2 | 4 | 1 |
| Age 10 | | 6 | 1 | | | 1 | 4 | 2 |

### 4.2. Context of the study

The study was carried out in the Danish educational context where the starting grade for learning English used to be grade 3 of primary school (age 9-10 years) since 2003 but in 2014 it was lowered to grade 1 (age 7-8 years). Schools in Denmark enjoy a free choice of teaching material and methods.

Danish children usually do not receive private English teaching as children in many other countries do, for example in Spain (Muñoz, 2014) and Croatia (Mihaljević Djigunović, 2012b), but many children engage themselves in out of school activities in English such as playing computer games and watching videos online (Hannibal Jensen, 2017). Many children visit other countries in their holidays, because Danish families generally travel frequently compared to other European families (Tourism statistics - participation in tourism, 2016). Danish children also often meet people from other nationalities, because Denmark is a multicultural society (Denmark in Figures, 2016).

### 4.3. Instruments and procedure

The first instrument was a questionnaire on affective factors. It was administered twice: in spring 2015 at the end of the first year of EFL instruction and in spring 2016 at the end of the second year of EFL instruction.

To select high anxious and low anxious participants from the larger sample, the mean of three items on FLCA from a longer questionnaire on various affective factors (Authors, submitted) was used:

1. *'How much do you like to say something aloud in front of the whole class in English?'*
2. *'I am afraid of making a mistake when I speak English.'*
3. *'I am afraid of giving a wrong answer in the English lessons.'*

The questionnaire was administered in Danish during regular English classes. In item (1) children answered the question on a 5-point Likert scale represented by different smileys. In the case of items (2) and (3) children were asked to answer the question how much they agreed with the statements on a 5-point Likert scale represented by dots of increasing size.

The second instrument, the Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) (Dunn, L.M, Dunn, 2007) was administered as part of a larger test battery to assess receptive vocabulary development in fall 2015, at the beginning of the second year of EFL instruction. In the present study, the results from the PPVT were used to include both high and low achievers.

The third instrument was a semi-structured interview. In two of the classes, interviews were conducted shortly after the second questionnaire before the summer holidays 2016 in the other two classes fall 2016 after the summer holidays. In the case of interviewing children it is especially important to establish rapport with the interviewees (Gibson, 2012). This was ensured by the fact that the researcher took part in data collections in the project classes in 2014 and 2015 and established personal contact to many of the children. Participants were asked general questions about their experiences in the English lessons and questions related to FLCA in a semi structured

interview in Danish, their mother tongue. Children were asked about their favorite subject, about what they did and what they liked and disliked in the English lessons and what other children thought of the English lessons. They were asked whether English was difficult or easy for them, and if they said it was difficult, what was difficult about it. Children were also asked whether they were afraid to speak in the English lessons and if yes, why. If they said they were not afraid, they were asked whether they think others could be afraid and if yes, why. In this case, it was assumed that some children might not want to talk about their own experiences but would talk about others'. Another reason for asking this question was to gain insight into how children with low FLCA experience the situations that could be anxiety provoking for others. Children were also asked about the error correction practices of their teachers. Furthermore, they were asked whether they volunteered in the English lessons and how good they thought they were compared to other students.

Interview data were first transcribed and analyzed by thematic analysis (Braun & Clarke, 2006) in the following five steps:

1. Relevant passages for what situations children said they were afraid of were identified as themes. This was done partly by finding all the answers that included the Danish word for 'anxious' in the classroom and partly by finding all other utterances related to anxiety, nervousness etc. in the interviews.
2. Children in certain contexts said that activities they described as difficult could make them anxious in the English lessons, and there were overlaps between situations children described as difficult and as anxiety-provoking. Therefore, situations children described as difficult were identified as well, because these could possibly also lead to anxiety.
3. Both situations described as anxiety-provoking and/or as difficult by the children were categorized.
4. Categories were checked on a subset of the data by a team of researchers and modified accordingly.
5. Categories were grouped into larger groups.

Information from classroom observations was added to the description of the situations where the context made it necessary.

In the next step, potential differences in anxiety between the younger and the older age group were investigated. Subsequently, the retrospective utterances of children with above average FLCA

scores in the first questionnaire and below average FLCA scores in the second questionnaire were analyzed. The aim was to investigate what they said about how their FLCA decreased.

## 5. Results

### 5.1. Anxiety-provoking or difficult situations

Below, the themes which were identified in the analysis are presented, typical examples for the most noticeable situations are shown. In three of the four classes children had more than one English teacher before they were interviewed and they referred to the practices of different teachers. Therefore, the situation and the practices of the teacher will be shortly described in relevant cases. The interview quotes were translated from Danish into English.

(1) Being afraid of making mistakes

This theme includes situations where children experienced embarrassment when making mistakes. It was mentioned as an answer to the question whether children were afraid of saying something in the English lessons and in other contexts as well. An 8-year-old boy with high FLCA scores in the questionnaire, mentioned this situation in his answer to the question whether English was difficult for him. His utterance shows that he experienced embarrassment when he had made mistakes before, therefore he was too nervous to speak in class:

Researcher: *Is English difficult?*
Student11: *No, it's only a little, when you are embarrassed of saying something, for example if you happen to say something wrong.*

Two students who said that personally they were not afraid of speaking in English class, expressed their thoughts about why other children could be afraid in the EFL classroom. They both said that the others probably would like to say everything perfectly in English. Their utterances show that they noticed the signs of embarrassment on their classmates after they had made a mistake. Therefore, they inferred that they were afraid of making mistakes again. An 8-year-old boy said:

Student3: *I think there are some who want to have it perfectly correct. … For example, I have seen some who become like a little embarrassed and sad when they say something wrong.*

The utterances of student 11 and student 3 show that some children in fact experience embarrassment when giving the wrong answer. Another 8-year-old girl relates that there are several children in her class who almost never volunteer:

Student389: *I have noticed that there are some groups who always volunteer and there are others who have never volunteered in the English class.*
Researcher: *I see. Why do you think they never volunteer?*

Student389: *Maybe they are afraid of saying something wrong.*

(2) Laughter or criticism from classmates

This theme encapsulates the children's fear of making mistakes because others will laugh at them or express their criticism about their mistakes. Children from different classes described situations from their English classes where some children laugh, criticize or correct a mistake when one of their classmates makes one. In other cases, children correct their classmates' mistakes. Some children expressed that these situations are embarrassing. An 8-year-old girl with high FLCA scores spoke about a situation that usually happens when a student makes a mistake and others laugh at her. From the next quote, we can see that strong peer pressure is present in the classroom.

Researcher: *Are you a little afraid of saying something in the English lessons?*
…
Student390: *A little.*
…
Researcher: *Do you know what the reason can be for this?*
Student390: *Well, I don't think it is really nice when you happen to say something wrong and then all the others just say, haha, we knew that.*

Other children described the same kinds of situations as well, but indicated that this was not unpleasant for the children who had been laughed at or corrected, because it was "just fun".

(3) Not understanding the teacher and not knowing what to do

This theme includes situations when children talk about feeling anxious or embarrassed because they do not understand what has been said in English and consequently they do not know what to say or what to do. A 10-year-old girl reported the following:

Researcher: *And are you a little afraid of giving the wrong answer?*
Student324: *No, well, sometimes, because I don't really understand what she is saying. And then I absolutely don't know what to answer.*

Another 10-year-old girl refers to an English teacher who only used English in the classroom at that time. He spoke Danish to the children only when he left the classroom. This practice was apparently embarrassing for this weaker student especially at the beginning because she did not understand the teacher. It is a common practice in many classes that teachers primarily speak English and translate something into Danish only when they consider it necessary. Another common practice is that better students are supposed to help weaker students. When weaker students cannot understand the teacher, they must ask their neighbors before they ask the teacher.

Student339: … *in the beginning when we started English it was very-very difficult for me, I could not really understand, also because Klaus, he had this thing that he was only allowed to speak English after entering the room, so he was not allowed to speak Danish. … And that was also really hard, because when it was a completely wild language, then I could not understand what was explained this way. And that was of course a bit difficult.*

The next utterance is from a 10-year-old boy who reported that he was one of the best students in his class and this was confirmed by other children from his class. He reported that English was very difficult for him at the beginning because he could not understand it. The classroom observations revealed that the English teacher this student refers to explained a lot of grammar to the children already in third grade, and used both English and Danish in the classroom. Thus, the remark of this child refers either to the English language spoken by the teacher or other explanations given by the teacher that the student could not understand.

Student27: *But if you have to learn a new foreign language, then it can be a little difficult in the beginning.*
Researcher: *Was English difficult for you in the beginning?*
Student27: *Yes, then it was really difficult.*
Researcher: *What was difficult about it?*
Student27: *I didn't get it.*

(4) Difficulties with understanding word meanings

This theme consists of situations when children do not know the meaning of certain words and feel anxious or embarrassed because of this.

In the first example an 8-year-old girl describes a situation where she feels embarrassed because she is expected to learn a word without knowing the exact meaning of it:

Student390: *Sometimes some words are a little difficult. And then at other times they aren't that difficult at all. … . It is when I have to say the word itself. Because if you don't know what the word actually means, and you have to learn it like that.*

In the next example a 10-year-old girl described a situation where she felt embarrassed when she was asked by the teacher about the meaning of a word that she did not know:

Student29: *I am sometimes afraid. If I have to read something aloud, then it's not that bad, but if she asks me about why or what it means, then I am.*
Researcher: *What happens then?*
Student: *Then I don't know what to say.*

(5) Questions students cannot answer of feel unprepared for

This theme describes situations when children feel embarrassed because they do not know the answer to a question or they feel that they are not prepared well enough.

A 10-year-old boy speaks about a situation when the teacher asks the children to do role plays in front of the whole class without any previous preparation:

Student35: *Well, she just chooses some totally random children, and then, well, at the blackboard, then she says how it goes, and then, eeeh, she says, she just says what we have to say in Danish and we have to say it in English.*
Researcher: *Ahaa, then you don't get any preparation time, you just have to go to the front and start immediately?*
Student35: *Yes, it's just like that.*

Another 10-year-old boy refers to a situation when the teacher uses the traditional translation method. Children are supposed to read a text in English from the course book and translate it. The student feels anxious because of not knowing the meaning of all the words and possibly feels incompetent to solve the task.

Student336 *First we read it in English, then we translate it, and while you are translating, then you sort of can become a little afraid of making all too many mistakes. … I know there are some words that I won't know, and then I have to ask. … I don't know how to explain it, that eeeh, that I become a little anxious about making all too many mistakes.*

The next six themes, not presented in detail, are connected to situations mentioned by children as difficult, which could possibly cause embarrassment.

(6) when they felt that it was difficult to pronounce English words right
(7) when they experienced difficulties with writing
(8) when they experienced difficulties with grammar
(9) when they had to say long sentences
(10) when they had to read

Finally, several children mentioned that they were afraid of speaking in the English lessons but could not specify any reason.

### 5.2. Differences between the younger and the older age group

In general, 8-year-old children often mentioned anxiety without specifying the reason, while 10-year-olds gave a more detailed description of the classroom situations they felt anxious in. There was one factor where a difference between 8 and 10-year-old children could be found. Situation (2) when classmates laughed at others or criticized them was primarily mentioned by 10-year-olds. From this it can possibly be inferred that embarrassment coming from peer pressure was more important among the 10-year-old age group than among 8-year-olds. Another difference between the two age groups was that only 10-year-olds mentioned being afraid of having to speak

unprepared before the class. Concerning the other situations, no difference between the age groups has been found.

### 5.3. What children whose FLCA decreased below average say about how it changed

Some children's FLCA scores stayed stable, other students' scores increased, again other students' scores decreased from the first questionnaire to the second. In this section, relevant utterances from students will be presented who reported above average FLCA in their first questionnaire and below average in their second questionnaire. The aim of this section is to find out the possible ways how children's FLCA can be decreased.

Student381 was an 8-year-old boy who indicated above average FLCA (3) in the first questionnaire and much lower (1.66) in the second year. In the interview, he reported that he was not afraid to say something in the EFL lessons any longer. He emphasized that it was not a problem if he made small mistakes when pronouncing words because it is enough if it is approximately right, it does not have to be perfect.

Student27 was a 10-year-old boy, one of the best in his class, who indicated above average FLCA (3.33) in the first questionnaire and much lower, 1.33 in the second questionnaire. He said that English was very difficult for him at the beginning of instructed EFL learning because he could not understand it, but later on, as he understood more, it became easier.

Student27: *But if you have to learn a new foreign language, then it can be a little difficult at the beginning.*
Researcher: *Was English difficult for you at the beginning?*
Student27: *Yes, then it was really difficult.*
Researcher: *What was difficult about it?*
Student27: *I didn't get it.*

In the interview, he said very clearly that he was not at all afraid to say something wrong in the EFL lessons anymore, because "that is what you learn from".

Student339 was a 10-year-old girl who indicated maximal FLCA (5) in the first questionnaire and much lower, 2.5 in the second questionnaire. Her first thought about English was that she had to become better at it. She reported that she was a little afraid to say something in the EFL lessons, but she reported that she was very happy when the teacher praised what she said in English. She was aware of the fact that she was not very good at English but she felt encouraged by the feedback from the teacher, and believed that she could become better. At the same time, she began to like English as a school subject more and more. When asked about her favorite subject she said "*I think,*

*there are some subjects I cannot really choose from. These are home economics and woodwork classes, and I think, mathematics is slowly on the way up and English as well*."

Researcher: *What do you think of when you hear the word English?*
Student339: *Then I come to think of my teacher Jette, and then the first word I come to think of is that I have to become better at it...*
Researcher: *Why do you feel so strongly that you have to become better?*
Student339: *Because in the beginning when we started English it was very-very difficult for me, I could not really understand, also because of Klaus, he had this thing that he was only allowed to speak English after entering the room, so he was not allowed to speak Danish.*
Researcher: *I see.*
Student339: *So he was allowed to speak Danish only when he left the room through the door.*
Researcher: *Ahaaa.*
Student339: *And that was also really hard, because when it was a completely wild language, then I could not understand what was explained this way. And that was of course a bit difficult.*

The above mentioned retrospective utterances of children show that FLCA decreased in the following cases: when children understood that they were allowed to make mistakes, when children began to understand more of the English used by the teacher and did not feel lost in the language class anymore and when children started to believe that their English competence level was not fixed and they could become better at it.

## 6. Discussion

This study investigated the situations mentioned by 7-10-year-old Danish primary school children as anxiety-provoking or difficult in the EFL classroom. In (6.1) the situations mentioned by children as anxiety-provoking or inconvenient are discussed. In (6.2.) age differences between how 8 and 10-year-old children talk about anxiety are discussed. In (6.3) utterances of children whose FLCA questionnaire scores decreased over time are discussed.

### 6.1. Situations mentioned by children as anxiety provoking or difficult

Situation (1), being afraid of making mistakes, was mentioned by six children, five of them girls with high anxiety scores and one boy with low anxiety who did not talk about himself but about his classmates. This finding corroborates Horwitz (1986) and Horwitz et al. (1986) who in the case of anxious university students found that being afraid of making mistakes was an important source of FLCA. Children were also asked about what teachers do when they make mistakes. They reported that most teachers give encouraging feedback, such as "they should not be afraid to speak", "mistakes are normal, because English is difficult" or choose another student to answer the same

question. Anxiety connected to mistakes can possibly arise from actual language difficulties as mentioned in situations (4) and (7)-(11) and from peer pressure as in situation (2).

Situation (2) when classmates laughed at others or criticized them was mentioned by five children. Three other interviewees told about children laughing at their peers' mistakes, but in their opinion this laughter is not mean, and does not harm the children laughed at. This shows that children experienced peer pressure in the EFL classroom which prevented them from answering in English. This is in line with Price (1991) who found that one of the reasons why highly anxious university students were afraid in FL-classes was being laughed at by the others and with Chan and Wu (2004) who found that one of the situations 11-12-year-old Taiwanese EFL students were afraid of was speaking in front of the others in class.

Some cases within situation (1) and situation (2) could be subsumed under the broader category of social anxiety in the FL classroom.

Situation (3) mentioned by eight children was that they did not understand the teacher speaking English, as a result of which, in some cases, they did not understand what they were supposed to do. This is in line with the findings of Horwitz (1986) who found that the lack of understanding when the teacher speaks in the FL can be an important source of FLCA. Children reported anxiety in some cases when they did not understand the teacher and what they were supposed to do. This can be explained with the teaching practice followed by many Danish EFL teachers of speaking exclusively or mainly in the FL in the class and giving instructions in the FL. This can be related to the study by Macaro and Lee (2013) about 12-year-old Korean EFL learners. They found that not understanding every word from the English-only-instructions given by the teacher could make learners uncertain and prevent them from comprehending the message. Another possible explanation for not understanding the task is the lack of instructions or ambiguous instructions from the teacher.

Situation (4) difficulties with understanding word meanings, was mentioned by four children from three different classes. Children mentioned that sometimes they were supposed to understand words they had not learned before or they were uncertain about what the words meant, which made them feel uncomfortable. Possible reasons for their difficulties are the lack of explanation and the lack of tolerance of second language ambiguity. Dewaele and Shan Ip (2013) in case of secondary school students (aged from 16-20) found a significant negative correlation between FLCA and the tolerance of second language ambiguity. This suggests that the lack of ambiguity tolerance could lead to anxiety in the FL classroom.

Teachers in the classes observed followed different practices of asking children to answer questions in front of the whole class. Some teachers mainly asked only students who volunteered, while others asked students randomly. Situation (5) when asked a question that they cannot answer or that they were not prepared for was mentioned by two children from the same class where the teacher often asked children randomly to do a role play in front of the class. This practice apparently made some children feel uncomfortable.

Situation (6) included cases where children could not specify the reason for being anxious. Some of these children mentioned that they abstained from volunteering in the FL class because they felt anxious.

Situation (7) involved difficulties with pronunciation which seems to be an important factor because it was mentioned by eight children from different age groups and classes. In several cases children mentioned that they were not sure how to pronounce words correctly. Similarly, the adult interviewees of Price (1991) reported that they felt embarrassed because they experienced that they were not able to speak in the FL without a foreign accent. Children did not talk about a foreign accent, but about being uncertain about the correct pronunciation.

Situations (8) - (11) cover difficulties experienced in different learning situations such as writing, grammar, sentence formation and reading and were mentioned by one or two children each. Children considered these as difficult, possibly but not necessarily anxiety-provoking.

Situations (3), (4), (7) and (8) can be subsumed under the broader category “being in doubt or uncertain”. In situations (3) and (4) children were in doubt about what to do. In situation (3) the reason for being in doubt was the lack of understanding the teacher, in situation (4) it was the lack of understanding word meanings and in situation (5) it was the lack of preparation. Situations (7) and (8) also include answers where children express that the difficulty was that they were not sure about either the pronunciation or the orthography of a word.

In the following, the situations mentioned by 8-10-year-old Danish children will be compared with situations mentioned by FL learners from other studies. All situations mentioned by the children have also been identified in the case of adult FL learners. These were being afraid of making mistakes, being afraid that classmates will laugh at them, not understanding when the teacher speaks in the FL, when asked a question that they were not prepared for or that they could not answer and having difficulties with the pronunciation.

Written and oral test situations were recognized as anxiety-provoking by researchers in the case of adults (Horwitz et al., 1986) and adolescents (Chan & Wu, 2004; Gürsoy & Akin, 2013; Gürsoy & Arman,

2016). Such situations were not mentioned directly by the children in this study, because they are not exposed to any of these in Danish primary schools.

Another important anxiety-provoking factor mentioned by adults is the fear of negative evaluation (Horwitz et al., 1986) due to the error correction practice of the instructor (Young, 1991). Children interviewed in this study reported that teachers had a friendly and encouraging way of responding to errors, saying "*they should not be afraid*", "*just try*", "*it is ok to make mistakes*" etc. and said that the error correction practices of the teachers were not embarrassing. Another possible source of negative evaluation is peers. An anxious girl mentioned that she felt embarrassed when her classmates corrected or criticized her, and several other children from different classes also mentioned that this was a usual situation in the Danish EFL classrooms. In connection with the correction by classmates it is important to mention that it is a usual practice in Danish schools that teachers instruct good students to help weaker students. They tell weaker students to first ask their peers when they are in doubt about something, before they ask the teacher. As a consequence of this practice good students feel entitled to correct their peers, which some weaker students experience as embarrassing or anxiety-provoking.

Comparison with peers and low self-esteem was mentioned by adult learners (Price, 1991; Yan & Horwitz, 2008). The interviewees in the present study did not mention that they were not good enough at English compared to others when asked about reasons for anxiety. Groupwork with unknown peers was found to be anxiety-provoking in the case of international university students in New Zealand (Strauss et al., 2011). In the Danish primary school context, this was not an issue because the children already knew each other well before they started learning EFL. Teacher factors such as the lack of friendliness, strict tone of voice and formal dress code were found to be anxiety-provoking in a Japanese university context (Effiong, 2016), but not in the Danish primary school context. The above differences show that anxiety-provoking situations and factors are highly context and culture dependent.

### 6.2. Differences between the younger and the older age group

The main difference between the two age groups was that 10-year-olds mentioned social anxiety in the sense of being afraid of the reaction from peers to a much higher degree than 8-year-olds. The reason for this could be the difference between the cognitive maturity of the two age groups. Another difference was that only 10-year-olds mentioned being anxious when they were supposed to speak unprepared before the whole class. One reason could be that 8-year-old children worry less about the opinion of peers than 10-year-old children. This has been found in another Danish project on early teaching of German (Børn taler da tysk, 2016).

### 6.3. Children's utterances about the decrease of FLCA

This part of the study presented utterances by children who reported a decrease of FLCA. The aim was to find out how children's FLCA decreased.

Some of these children, who had been anxious to speak in the classroom one year before the interview, said that they were not afraid anymore, as they did not regard mistakes as a problem and their utterances in English did not have to be perfect. The fact that these students did not attempt to be perfect could be an important explanation for the decrease of their FLCA. This is in accordance with the statement of Dewaele (2012) that learning a foreign language can be a grueling experience for perfectionist language learners who would wish to skip the stage of "trial and error", and with the study of Gregersen and Horwitz (2002) who found that perfectionist students were more afraid of making mistakes and were unwilling to volunteer unless they were absolutely sure of the right answer and tended to make a slower progress. Dewaele (2017) also found that concern over mistakes, as a subcomponent of perfectionism, was positively correlated with FLCA.

An anxious girl who experienced a decrease in FLCA explained that she was not very good at English but believed that she could become better at it with hard work. This attitude, called "growth mindset" (Lou & Noels, 2017) which according to Lou and Noels' research on mindsets in L2 learning, leads to higher learning goals and lower fear of failure. Bledsoe and Baskin (2014) suggest teachers to encourage students to challenge their fears and adapt a less fixed mindset.

Other children who experienced a decrease of FLCA reported difficulties with understanding the teacher speaking English at the beginning of instructed EFL learning. Later as they became better at understanding English or as teacher practices changed and information told in English was translated, they experienced less anxiety and more confidence in the EFL lessons. The answers of these children revealed that they had expected themselves to be able to understand spoken English already from the beginning. A high achiever 10-year-old boy, who had learned English from the media already before he started school, explained that other children were not so good at English because they only started learning English "*all of the sudden*" when they started school. The difficulty that children feel they are supposed to understand spoken English already at the beginning of instructed EFL is in line with the findings of Young (1991) who found that FL learners can hold unrealistic beliefs about language learning which can lead to frustration and anxiety.

## 7. Conclusion

This study investigated which situations Danish children at the age of 8-10 mentioned as anxiety-provoking or difficult in the EFL classroom.

The thematic analysis of interviews revealed that children mentioned anxiety-provoking situations also experienced by adult and adolescent learners, which shows that anxiety in the foreign

language classroom is already an issue in the case of young learners in the age group of 8-10-year-olds.

While previous literature found that test situations were the most anxiety-provoking in the FL-classroom, this factor was not present in the Danish learning environment since children are not tested in the early years of school. Fear of negative evaluation by the instructor, which is another important factor in case of adult learners, seemed to be a less important factor in the Danish EFL classes because children interpreted teachers' feedback as friendly and encouraging.

The results showed that children in this friendly learning environment could become anxious in three main categories of situations. First, when making mistakes or being afraid of making mistakes. Second, in social situations when they had to say something in English in front of the class and others would laugh or criticize them, or correct them. This situation was mentioned primarily by 10-year-old children. Third, children often became anxious when they experienced uncertainty. A typically uncertain situation was when they did not understand the English of the teacher. This was true especially at the beginning of instructed EFL in those classes where the teacher primarily used English in the classroom. This means that although the practice of using mainly English in the EFL classroom can be profitable for students who already know some English before they begin with instructed EFL, it can be anxiety-provoking for some children with no prior knowledge of English. Another uncertain situation was having to do tasks they were not sufficiently prepared for.

Some students whose anxiety decreased experienced that their fear of mistakes was successfully reduced when they started to regard mistakes as a natural part of the FL learning process. Other students who had problems with understanding the teacher experienced a decrease in anxiety when their comprehension developed or when they received help in understanding the message. The example of yet another student showed that growth mindset could help overcoming anxiety and becoming more confident.

The results of the study have the following pedagogical implications. Teachers can help anxious students by assuring them that they are not expected to speak in the FL without mistakes and that mistakes are a natural part of the FL-learning process. Teachers can also help by telling them not to worry if they do not understand everything in the beginning and maintain a low-anxiety classroom by helping them to understand what is being said in English. Teachers can encourage children to give each other constructive feedback and avoid negative criticism. Finally, teachers can help to reduce learners' anxiety by fostering growth mindset in the classroom.

The article has some limitations. It is important to keep in mind that 'anxiety provoking' situations refer to situations described by the children as anxiety provoking rather than to actual observable anxiety. This may have been explored through systematic observation of children's behavior in the classroom. The data of this project, however, did not provide an ideal basis for such observations because of the large amount of direct communication between the teacher and the individual students. Observations of high and low anxious children in the FL classroom could contribute greatly to an understanding of anxiety in future studies.

## 8. Acknowledgements

This study is part of a larger project funded by the Danish Research Council for Independent Research (DFF 4001 00046).

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# Paper 3

Katalin Fenyvesi

English learning motivation of young learners in Danish primary schools

Submitted to a peer reviewed journal, in external review

English learning motivation of young learners in Danish primary schools

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**Abstract:** This study investigated in a quantitative survey how the attitudes toward English lessons and the English as a foreign language (EFL) learning motivation of 276 Danish EFL learners (starting age 7 and 9) changed within one year. Secondly a subsample of children was interviewed and it was investigated what they liked and disliked about English lessons and what motivated them to learn English. The results showed that children's positive attitudes toward English lessons decreased significantly over time, more boys than girls described English as their favorite subject and that children enjoyed real-life situations, variation and differentiation in the English lessons. The study also showed that children were strongly motivated by English being an international language, their reliance on significant others as motivators for FL learning decreased significantly with time, and high achievers, as opposed to low achievers, were motivated by engaging in gaming and watching YouTube videos in English.

**Keywords:**

Input-rich language environment, young learners, attitudes, motivation

“Maybe they should think that the subject was more fun then they would be more motivated to learn it” (Girl, 10)

## 1.Introduction

Foreign language (FL) teaching starts earlier and earlier all over the world (Cenoz, 2003; Mihaljević Djigunović, 2006). In Denmark, the starting age was lowered from grade 3 to grade 1 in 2014. A main argument for starting early is that younger children have more positive attitudes toward FL learning and are more motivated (e.g., Edelenbos, Johnstone, & Kubanek-German, 2006; Mihaljević Djigunović, 2012). According to Pfenninger and Singleton (2017) it is a generally accepted view that the primary benefit of starting early is exactly the development of positive attitudes and motivation. Research concerning age differences and development of motivation and attitudes toward learning a FL has shown mixed results. Children’s interest toward FL learning often declined (e.g., Chambers, 1999; Henry & Apelgren, 2008) but could be maintained in other cases (e.g., Mihaljević Djigunović, 1993) or even increased (Muñoz and Tragant, 2001).

In Scandinavia English is widely used in different contexts (Phillipson and Skutnabb-Kangas, 1999) and can almost be regarded as a second language (Henry, 2009; Henry et al., 2017; Sundqvist and Sylvén, 2016). Research on attitudes and motivation of young learners of English as a foreign language (EFL), however, has mainly concentrated on countries where children have less exposure to English outside school, e.g. Spain (Tragant, 2006), Switzerland (Heinzmann, 2009, 2013), or Hungary (Nikolov, 1999). Ushioda (2013) argues that in contexts where English is a part of EFL learners’ everyday life, it is a real challenge for teachers to sustain learners’ motivation in the EFL lessons because they tend to be bored in the traditional school settings.

This article is one of the first studies on the change of the attitudes and motivation of this young age group of EFL learners in the input-rich Scandinavian language environment. Learners starting EFL at the age of 7 and 9 after the introduction of the new legislation in 2014 are examined through questionnaire data. At the same time, interview data give insight into Danish primary school children’s views on what they like and dislike in the English lessons and what motivates them to learn English. This is the first qualitative research about EFL learning motivation in the Scandinavian context in this age group. Pedagogical implications are discussed.

## 2. Literature review

### 2.1. Motivational theories and young learners

Motivation refers to a factor that provides the impetus to start and later continue learning the second language (L2) (Dörnyei, 1998) whereas attitudes refer to feelings about the FL, the learning situation, the speakers of the FL, etc. (Gardner and MacIntyre, 1993). Although attitudes and motivation are two separate factors they are often examined together (Heinzmann, 2013; Mihaljević Djigunović, 2012).

A central motivator in Gardner and Lamberts (1959) theory of L2 motivation was identification with the L2 community called the integrative orientation in opposition to instrumental orientation referring to the practical usefulness of the L2. Later it was argued that the integrative-instrumental dichotomy could account for motivation in immersion contexts but not in others such as the FL classroom (Dörnyei, 2009) and in environments where English is increasingly regarded as a lingua franca the L2 community could no longer be identified (Dörnyei and Csizér, 2002). Therefore, Dörnyei suggested the L2 Motivational Self System consisting of the ideal L2-Self i.e., the learners' ideal future picture of him/herself as an L2 speaker, the Ought-to L2-Self i.e., the picture the learner believes he/she should become like in order to meet expectations or avoid possible negative consequences, and the L2 Learning Experience i.e., the impact of the elements of the learning situation such as the teacher, the peer group, the curriculum and the tasks as motivating factors. Another widely used distinction within L2 motivation research originating from self-determination theory (Deci and Ryan, 1985) is the differentiation between intrinsic and extrinsic motivation. Intrinsic motivation is based on enjoying doing something for its own sake, whereas extrinsic motivation is based on doing something for external reasons. Studies on the L2 motivation of young learners tended to include variables from more than one of the above mentioned theories; such as attitudes toward the L2 or to its speakers (e.g., Burstall, 1977; Heinzmann, 2013; Mihaljević Djigunović & Lopriore, 2011), attitudes toward the FL lessons (Chambers, 1999; Mihaljević Djigunović and Lopriore, 2011), attitudes toward English as a globally used lingua-franca (Heinzmann, 2013). Some research with older learners even include items on the ideal and the ought to L2 self (Csizér and Dörnyei, 2005; Csizér and Kormos, 2009; Henry and Apelgren, 2008; Lamb, 2012) although Zentner and Renaud (2007) suggested that children who did not reach adolescence were unlikely to possess possible selves that would influence their L2 learning behavior.

**2.2. Motivation and attitudes of young learners toward FL learning in quantitative studies**

Several cross sectional studies have found that younger children had more positive attitudes toward FL learning than older children (e.g., Chambers, 1999; Henry & Apelgren, 2008). Authors (2017) in a cross sectional study on the same informants as this study found that 8-year-old EFL learners' attitudes toward English lessons were significantly more positive than 10-year-olds'.

Longitudinal studies on young learners' attitudes toward FL lessons often showed a decline in interest with time. Chambers (1999) followed 11, 13 and 15-year-old German learners of English and English learners of German, Mihaljević Djigunović and Lopriore (2011) followed 7 to 9-year-old learners of English from the Netherlands, Sweden, Italy, Spain and Croatia and learners of French from England; Heinzmann (2013) followed Swiss learners or English and French from 9 to 12 years and all three found that attitudes toward FL lessons and FL learning became less positive over time. In some cases, however, attitudes toward learning and/or using FLs could be increased or maintained over time for young learners under the age of 11; Burstall (1977) in a study with 17,000 English children learning French found that earlier starters (age 8) had the advantage of maintaining a more favorable attitude toward speaking the language than later starters who were introduced to French at the age of 11. Mihaljević Djigunović (1993) found that 6-7-year-olds liked learning English more than 9-10-year-olds, she also showed that over the span of 3 years of instruction, the early starters maintained a more favorable attitude than the later starters. Mihaljević Djigunović (1995) found that the number of children who mentioned the FL as their most favorite school subject increased after two years. Munoz and Tragant (2001) found that both earlier and later starters had more positive attitudes toward learning English after 416 instruction hours than after 200 hours.

Longitudinal studies also showed that children's motivation became increasingly more instrumental and oriented toward future goals. Heinzmann (2013) found that young learners' motivation shifted from primarily intrinsic to more instrumental or was related to the role of English as an international language (lingua-franca). Authors (2017) found that 10-year-old Danish EFL learners relied less on external authorities such as the parents and the teacher than 8-year-olds.

Concerning the relation between young FL learners' motivation and attitudes and FL proficiency results are mixed. Muñoz and Tragant (2001) found that EFL learners' proficiency correlated strongly with their motivation and attitudes, while Olshtain, Shohamy, Kemp and Chatow (1990) found only a weak correlation. Authors (2017) found in the same sample that attitudes toward the FL and the English lessons had a relatively weaker correlation with children's

English scores than other affective factors such as anxiety and perceived competence. The only motivational factor that correlated with children's proficiency scores was their reliance on external authorities, such as the parents and the teacher as motivators.

### 2.3. Motivation and attitudes of young learners toward FL learning in qualitative studies

Several qualitative studies have investigated young learners' FL learning motivation through oral interviews or answers to open questions in written questionnaires.

Studies comparing which activities children in different age groups liked in FL lessons found that while younger learners (age 7) preferred playing activities, older learners (age 10) tended to prefer more specific teaching activities (Mihaljević Djigunović, 1993; Mihaljević Djigunović and Lopriore, 2011).

Several qualitative studies compared the most frequent reasons for learning FLs mentioned by different age groups. Mihaljević Djigunović (1993, 1995) found that communication and travel were the most frequently mentioned reasons for learning different FLs among 7-year-old learners and this trend became even stronger after two years. Nikolov (1999) found that younger EFL learners showed more teacher-related motivation, whereas older age groups were more motivated by utilitarian reasons. Dam (1999) in her interview study with Danish EFL learners who started at the age of 10 found that their main reason for learning English was travel. Tragant (2006) found that Catalonian EFL students under the age of 12 mentioned intrinsic and instrumental reasons (travel and career) to the same degree while learners above 12 years mentioned primarily instrumental motives.

## 3. The study

Since longitudinal studies on young learners' attitudes toward learning FLs in different learning environments showed contradicting results and since research on EFL learners in the 7-10-year-old age group in the input-rich Scandinavian language learning environment is sparse, this study examines how young Danish learners' attitudes and motivation changed between the end of the first year and the end of the second year of EFL instruction.

Qualitative studies about the L2 motivation and attitudes of young learners found that younger children were more motivated by the teacher and the playing activities while older learners tended to have more external motives. No qualitative research about the motivation for learning EFL, however, has been done in the Scandinavian countries with this young age group. The second aim of this study is to examine 8-10-year-old Danish children's attitudes toward learning English at

school and what motivates them to learn English. An additional aim of the study is to examine whether there is a difference between the EFL learning motivation and attitudes of highly proficient and less proficient learners on the one hand and younger and older learners on the other hand. Quantitative studies had mixed results but this has, to my knowledge, not been examined in previous qualitative studies.

The study addresses the following research questions:

RQ1: How did 7-8 and 9-10-year-old children's attitudes toward English lessons, reliance on external authorities, the importance of English as a lingua franca and precursors to Ideal L2-Self as motivators for learning English change between the end of the first and the second year of instructed EFL learning?

RQ2: What do children say about why they like/(dislike?) English lessons and which reasons do children give for learning English? Are there differences between younger and older learners or highly proficient and less proficient learners?

RQ1 will be answered by regression analysis of questionnaire data and RQ2 will be answered by thematic analysis of interview data. This kind of mixed methods with both an etic and an emic perspective has, to my knowledge, not been applied with this age group before.

## 4. Methods

### 4.1. Participants

This study included a larger sample who completed questionnaires and a smaller subsample of the larger sample who were interviewed individually. The larger sample consisted of 276 EFL students (139 boys, 137 girls) at six primary schools in Denmark. There were two cohorts of children that both began English instruction in 2014, the year the educational law was changed. The first cohort started in grade 1 (age=7-8 years), referred to as early starters, the second cohort started in grade 3 (age=9-10 years), referred to as late starters.

The smaller sample was a subsample of the larger sample and consisted of 33 children from two Danish primary schools. Children came from two early-starter classes who started learning EFL at the age of 7 and were 8 years old at the time of the interview and two late-starter classes who started learning EFL at the age of 9 and were 10 years old at the time of the interview. The individual students were chosen on the basis of their receptive vocabulary scores: low, medium and high scores (Table 1). The proportion of low, medium and high achievers and boys and girls

respectively was similar to the proportion of these groups in the larger sample (Table 2) as far as this was possible. The maximum variation sampling technique was used in order to explore variation within respondents (Dörnyei, 2007).

Table 1

*Participants of the interview study*

| | Low PPVT | | Medium PPVT | | High PPVT | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| Age 8 | 3 | 7 | 4 | 2 | 2 | 0 |
| Age 10 | 1 | 7 | 3 | 2 | 2 | 0 |

Table 2

*Proportion of low, medium and high achievers on the PPVT in the larger sample*

| | Low PPVT | | Medium PPVT | | High PPVT | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| Age 8 | 51,76% | 70,89% | 44,88% | 25,32% | 2,35% | 3,8% |
| Age 10 | 31,48%% | 57,89 | 55,56% | 40,35% | 12,96% | 1,75% |

### 4.2. Instruments and procedure

The Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) (Dunn, L.M, Dunn, 2007) was administered as part of a larger test battery to assess receptive vocabulary development at the beginning of the second year of EFL instruction. A receptive task was chosen because children's productive skills were expected to be limited at this stage of EFL learning. This test has been used with young EFL learners by several researchers (Dahl and Vulchanova, 2014; Sun et al., 2016; Unsworth et al., 2014). The results from the PPVT were used to include high, medium and low achievers.

A questionnaire on affective factors was administered in spring 2015 at the end of the first year of English instruction (Q1) and in spring 2016 at the end of the second year of English instruction (Q2). It included items on children's favorite school subjects, attitudes toward the English language, attitudes toward English lessons, related to the learning situation in Dörnyeis model, the motivating role of English as a lingua franca, which is related to integrativeness, and the role of significant others, such as the teacher and the parents as motivating factors which is related to the ought-to L2-self. And a factor called "precursors to ideal L2 selves", coined by Muñoz and Tragant (2014) and related to the ideal L2-self.

Individual interviews were conducted in Danish in two schools with an early starter and a late starter class in each right before and after the summer holidays. The researcher participated in the collection of proficiency and questionnaire data in the project schools in 2014 and 2015. This provided the opportunity to meet many children and establish rapport with them, which is of great importance in case of interviewing children (Gibson, 2012). The interviews were semi-structured, but similarly to the ethnographic interview, they started with a "grand tour question" (Spradley, 2002) about what an English lesson was like. After this general question, more specific questions were asked about English lessons, and learning English. The interview guide consisted of headwords, in order to avoid reading questions from a list, which would have been very unnatural in this setting. The interviewer followed the thread of the conversation, questions were not asked in a specific order.

The researcher observed several English lessons through personal participation and video recordings from the English lessons. Situations mentioned by the children are supplied by information from classroom observations when necessary.

### 4.3. Data analysis

Quantitative data were analyzed by regression analysis in order to examine whether there were differences between children's responses in the first and the second questionnaire, between early and late starters and between boys and girls. Analyses were done in the statistical program Stata, version 14.

Qualitative data were transcribed and analyzed manually by thematic analysis (Braun and Clarke, 2006) in relation to RQ2. The thematic analysis was done in the following steps:

1. Relevant passages for what situations children said they enjoyed in English lessons and what English could be used for were identified as themes. Themes in both topics were not limited to any specific questions but occurred throughout the whole interview.
2. Situations described by the children as enjoyable/less enjoyable and where English could be used were categorized.
3. Reliability check of the categorization was done by another researcher.
4. Categories were grouped into larger groups.
5. The relevant passages identified in the first step were checked again and reassigned to categories if necessary.

6. The occurrence of the themes was compared between low, medium and high achievers on the receptive vocabulary test, between boys and girls and between early and late starters.

## 5.Results

### 5.1. Quantitative data

Concerning attitudes toward English lessons two questionnaire items about children's favorite subject and two items about their liking of English lessons are reported. Figure 1 shows how many percent of boys and girls among early starters and late starters indicated that English was either their first or second favorite subject at the end of the first year of instructed EFL learning (Q1) and at the end of the second year (Q2).

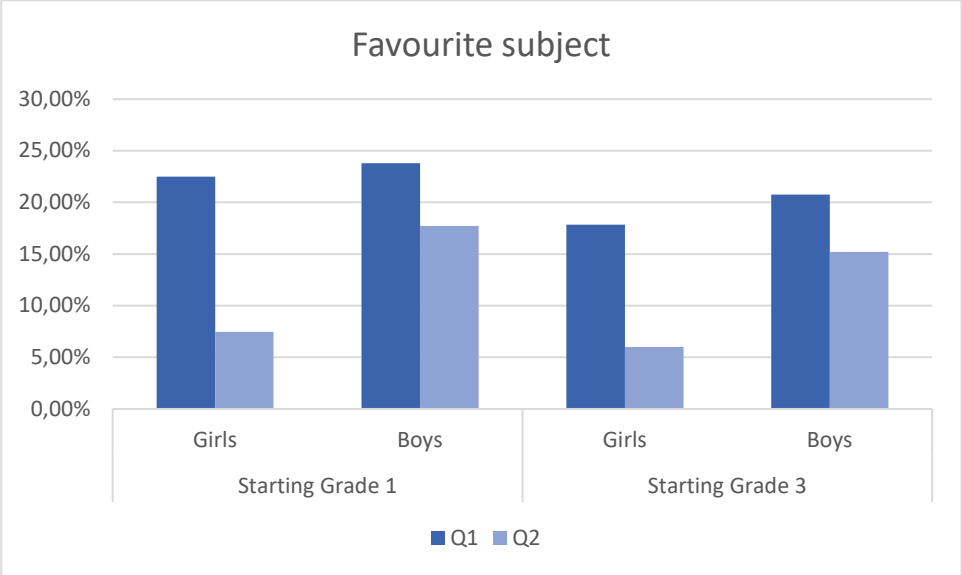


Figure 1

The percent of children who marked English as their first or second favorite school subject decreased from questionnaire 1 to questionnaire 2 among both girls and boys. An ordered logistic regression (Table 3) with the scores coded into binary scores – either English was the first or second favorite subject or none of them – showed that there was a significant decrease between the first and the second test $p = .004$. The degree to which girls indicated that English was their first or second favorite subject decreased strongly after the second year of EFL instruction, whereas the degree to which boys indicated that English was their first or second favorite subject did not change significantly after the second year of EFL instruction. There was a nearly significant main effect of gender $p = .087$ but no significant interaction between the factors (Table 3).

Table 3

*Results of an ordered logistic regression model: first and second favorite subject*

| | | | |
|---|---|---|---|
| Logistic regression | Number of obs | = | 515 |
| | LR chi2(3) | = | 12.50 |
| | Prob > chi2 | = | 0.006 |
| Log likelihood = -229.24 | Pseudo R2 | = | 0.026 |

| Favorite subject (binary scores) | Odds Ratio | Std. Err. | Z | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | .49 | .12 | -2.90 | 0.004 | .30 | .79 |
| Starting Grade | .89 | .11 | -0.92 | 0.360 | .70 | 1.14 |
| Gender | .66 | .16 | -1.71 | 0.087 | .41 | 1.06 |
| _Constant | 1.26 | .68 | 0.43 | 0.670 | .43 | 3.65 |

The means of the two questionnaire items about how much children liked English lessons are reported as one variable:

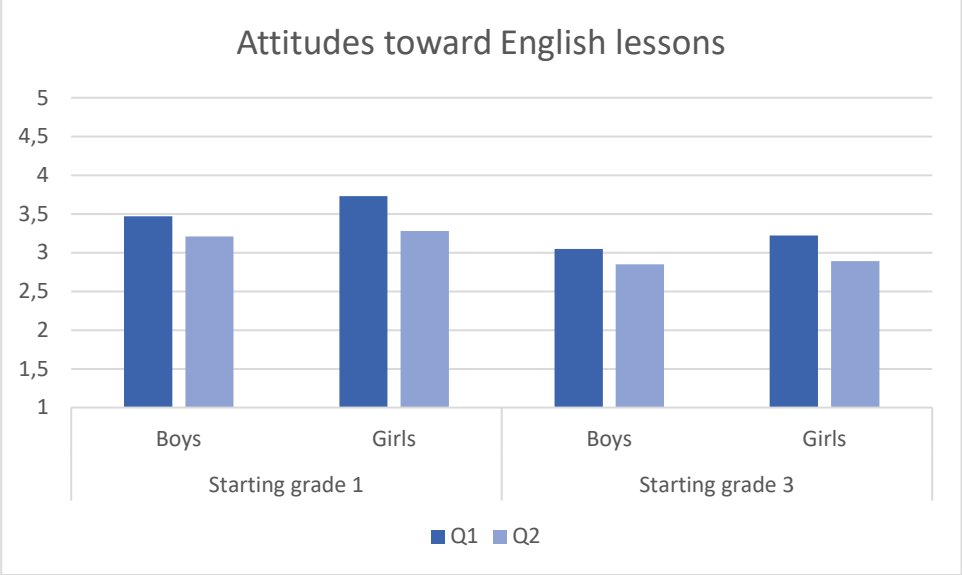


Figure 2

Figure 2 shows children's mean scores regarding attitudes toward English lessons. Children in the younger age group started out with a more positive attitude than in the older age group (Authors, 2917). According to regression analysis (Table 4), after one year children's attitudes toward English lessons became significantly less positive in both age groups, $p = .002$. By the end of the second year of instructed EFL learning, i.e. by the end of grade 2, the attitudes of the early starters toward English lessons decreased almost to the same level as the one arrived at by the late starters after one

year of EFL learning, by the end of grade 3. There were no significant interactions between time and gender/starting grade.

Table 4

*Results of a multiple linear regression model: attitudes toward English lessons*

| Source | SS | Df | MS | Number of obs | = | 517 |
|---|---|---|---|---|---|---|
| | | | | F(3, 513) | = | 9.08 |
| Model | 37.71 | 3 | 12.57 | Prob > F | = | 0.000 |
| Residual | 710.50 | 513 | 1.38 | R-squared | = | 0.050 |
| | | | | Adj R-squared | = | 0.045 |
| Total | 748.21 | 516 | | Root MSE | = | 1.177 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.317 | .10 | -3.06 | 0.002 | -.52 | -.11 |
| Starting Grade | -.213 | .05 | -4.02 | 0.000 | -.32 | -.11 |
| Gender | .149 | .10 | 1.44 | 0.150 | -.05 | .36 |
| _Constant | 3.889 | .24 | 16.14 | 0.000 | 3.42 | 4.36 |

Figure 3 shows that 8-9-year-old children attached greater importance to external authorities (their parents and teachers) in their English learning than 10-11-year-olds, $p < .001$ in both questionnaires (Table 5). Besides this age effect also described by Authors (2017), the reliance on external authorities weakened nearly significantly after one year $p = .065$.

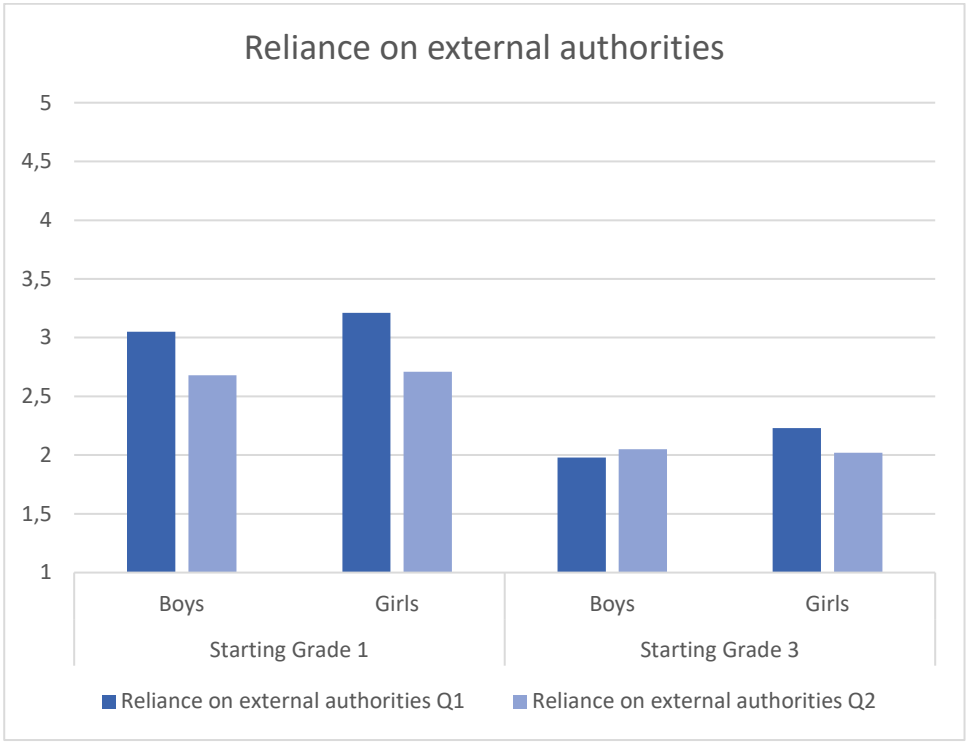


Figure 3

Table 5

*Results of a multiple linear regression model: external authorities as motivators*

| Source | SS | Df | MS | Number of obs | = | 518 |
|---|---|---|---|---|---|---|
| | | | | F(3, 513) | = | 17.85 |
| Model | 76.41 | 3 | 25.47 | Prob > F | = | 0.000 |
| Residual | 733.53 | 514 | 1.43 | R-squared | = | 0.094 |
| | | | | Adj R-squared | = | 0.089 |
| Total | 809.94 | 517 | 1.57 | Root MSE | = | 1.195 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.19 | .11 | -1.85 | 0.065 | -.40 | -.01 |
| Starting Grade | -.37 | .05 | -8.08 | 0.000 | -.48 | -.27 |
| Gender | .00 | .11 | 0.03 | 0.947 | -.20 | .21 |
| _Constant | 3.30 | .24 | 14.31 | 0.000 | 3.02 | 3.98 |

The motivating role of English as a lingua franca seemed to be high (mean=4.24, SD=.96) in both age groups in both questionnaires (Figure 4) compared for example with the motivating role of external authorities (mean =2.58, SD=1.72). Regression analysis showed that both age groups attributed an equally high role to English as a lingua franca and this did not change significantly between the first and the second administration of the questionnaire. The same gender effect as found by Authors (2017) remained, $p$ = .022 (Table 6).

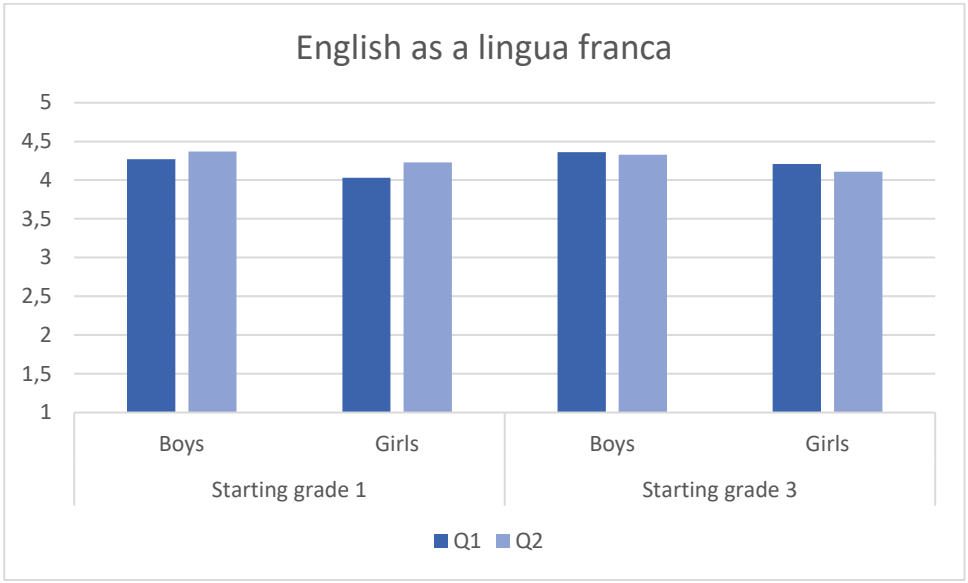


Figure 4

Table 6

*Results of a multiple linear regression model: English as a lingua franca*

| Source | SS | Df | MS | Number of obs | = | 516 |
|---|---|---|---|---|---|---|
| | | | | F(3, 513) | = | 1.97 |
| Model | 5.40 | 3 | 1.80 | Prob > F | = | 0.12 |
| Residual | 467.24 | 512 | .91 | R-squared | = | 0.05 |
| | | | | Adj R-squared | = | 0.01 |
| Total | 472.64 | 515 | .92 | Root MSE | = | .96 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | .62 | .08 | 0.74 | 0.462 | -.10 | .23 |
| Starting Grade | .02 | .04 | 0.38 | 0.702 | -.07 | .10 |
| Gender | -.19 | .08 | -2.29 | 0.022 | -.36 | -.03 |
| _Constant | 4.40 | .19 | 22.46 | 0.000 | 4.02 | 4.79 |

Figure 5 shows the data on precursors to the ideal L2-self (mean=3.69, SD=.8). According to the regression analysis there was no significant difference between questionnaire 1 and 2 in neither of the groups and no interactions with time of test (Table 7). The significant interaction between gender and age, $p$ = .03, showing that third grader boys believed stronger that they would become good speakers of English in the future was identical with the results from Authors (2017).

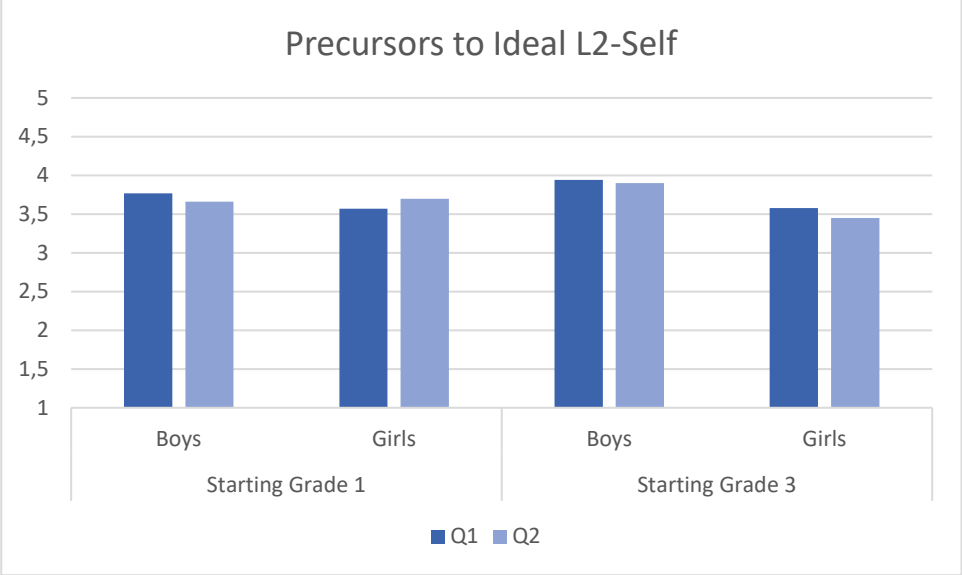


Figure 5

Table 7

*Results of a multiple linear regression model: precursors to Ideal L2-Self*

| Source | SS | Df | MS | Number of obs | = | 517 |
|---|---|---|---|---|---|---|
| | | | | F(3, 513) | = | 3.62 |
| Model | 9.22 | 4 | 2.30 | Prob > F | = | 0.01 |
| Residual | 326.16 | 512 | .64 | R-squared | = | 0.03 |
| | | | | Adj R-squared | = | 0.02 |
| Total | 335.38 | 516 | .65 | Root MSE | = | .80 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.03 | .08 | 0.74 | 0.462 | -.10 | .23 |
| Starting Grade | .20 | .04 | 0.38 | 0.702 | -.07 | .10 |
| Gender | -.09 | .08 | -2.29 | 0.022 | -.36 | -.03 |
| Starting Grade#Gender | -.31 | .14 | -2.18 | 0.030 | -.59 | -.03 |
| _Constant | 3.76 | .12 | 30.90 | 0.000 | 3.52 | 3.10 |

## 5.2. Qualitative data

### 5.2.1. Children's views on enjoyable and less enjoyable situations in the FL class

This section presents an overview on enjoyable and less enjoyable situations described by the 33 interviewed children. Table 3 shows the main themes on what they enjoyed and what they did not enjoy in the English lessons and which subgroups mentioned the particular themes, if any.

Table 8

| **Main themes** | | | |
|---|---|---|---|
| **Enjoyable situations** | **Subgroups** | **Less enjoyable situations** | **Subgroups** |
| Variation | All | Repetition | Only high and medium PPVT |
| Differentiation | All | | |
| Real life situations | All | Linguistic information without context | All |

Besides the themes mentioned in Table 8 several children mentioned preferences for different tasks in the English lessons. Some preferred writing, others preferred singing, again others preferred playing. Each activity occurred in both age groups and genders and among children with all PPVT levels. Some girls mentioned that they preferred a rigorous teacher while some boys explicitly mentioned that they preferred a permissive behavior from the teacher. In this section examples for some of these themes will be presented.

**Variation vs. repetition**

Several children expressed that they enjoyed new and fun activities such as this 10-year-old girl:

Student340: Hmm, I like it, when we, instead of just reading and writing such things, try some new things. For example, we play some other things that still have something to do with English, but are a little bit fun…

Several children with high and medium PPVT, as the following 8-year-old boy, expressed that repetition of the same task was a less enjoyable activity in the English lessons:

Student8: Sometimes in English it was a little boring that we had to do the same page we had done last time in English, because we had a book, called Duffy the Dragon, in which we had to read the sentences and so on. So we had to do them last time and we had to do them again.

**Differentiation**

Several children, independently of proficiency level, expressed that they liked tasks challenging on the right level, neither too difficult nor too easy. Others said that they liked when the teacher took differences between children's level of English into consideration and gave them tasks accordingly, i.e., a 10-year-old girl:

Student333: And he also made some levels, … I mean he had a difficult book, a medium one that was a little bit easier and a very easy one. …So we could choose ourselves. If it was very difficult, then he took it into consideration that some were not so good and if some were very good.

**Real life situations vs. linguistic information without context**

Several children mentioned that they enjoyed activities in the English lessons that resembled situations from real life, such as Christmas, Halloween and other holidays, as opposed to learning words without context. They also mentioned enjoying role-plays reminding of real-life situations such as the next 10-year-old girl:

Student340: … sometimes, right before the fall holidays, we practiced such things where we had to talk to each other as if we were English or something. I think that was very fun.

### 5.2.2. Children' views on what English can be used for

This section presents the most noticeable situations where English can be used according to the children. Some typical or interesting examples for the main themes are shown. Any remarkable age or gender differences or differences between children with low, medium and high receptive vocabulary scores will be mentioned. Table 9 shows the main themes on what English can be used

for from the interviews with 33 children and which subgroups mentioned the particular themes, if any.

Table 9

| Main theme | Subthemes | Subgroups |
|---|---|---|
| Communication | Travel | All |
| | Holiday | All |
| | Moving abroad | All (only a few children) |
| | English as a lingua franca | All |
| | Foreigners in Denmark | All |
| | Practicing with parents | **Mostly children with low PPVT scores, some with medium, mostly girls** |
| Future professional life | Work | All |
| | Education | All (only a few children) |
| Media | Music | All |
| | Film | All |
| | Gaming | **Mostly children with high PPVT scores, some with medium, mostly boys** |
| | YouTube | **Mostly children with high PPVT scores, some with medium, mostly boys** |

**Communication**

**Travel and Holiday**

Communication abroad was one of the situations mentioned by children, irrespectively of age, gender and vocabulary scores, where English could be used. Travelling abroad is usual among Danish families (Tourism statistics - participation in tourism, 2016). In most of the cases they mentioned ordering food or drinks in a restaurant or talking to hotel personnel that for the time being was done by their parents, but they prepared to do this themselves in the future when they grew up, such as the 8-year-old boy in the next example:

Student8: …When you go out in the world or when you grow up, or when you are travelling, then it could also be helpful if you want to ask for a drink, or something.

Some of the children were already able to ask something themselves in another country, as the 10-year-old girl in the next example talking about a visit to Rome:

Student37: Well, yes, I asked too, because we were at a restaurant, then I also asked where a toilet was in English.

**English as a Lingua Franca - Everywhere outside Denmark**

When mentioning that English can be used to communicate in other countries, children either did not refer to any special country or listed countries such as Greece, Italy, Germany or France indicating that English could be used there. Only a few children referred to English speaking countries (USA, England, Ireland and Canada). These children had typically been to the country they talked about. This shows that Danish children primarily regard English as an international language that can be used anywhere outside of Denmark, as in the next example from an 8-year-old girl:

Researcher: Is it important to learn English?
Student19: Yes, I think so, because other people in other countries, they also learn English. Then you can sort of talk to them.

An 8-year-old boy also described English as an international language:

Researcher: Where have you been?
Student8: To Tunis and Bulgaria.
Researcher: Wow. Do people also speak English there? In Bulgaria?
Student8: Ja.
Researcher: Do you know where else people speak English?
Student8: Isn't it because it is an international language?

This theme was also mentioned by both age groups, both girls and boys irrespectively of vocabulary scores.

**Foreigners in Denmark**

Children in Denmark have many possibilities to meet foreigners (Denmark in Figures, 2016). When talking to visitors in Denmark children do not limit the use of English to persons with English as a mother tongue. They regard English as a communication tool with all none-Danes, similarly to the case of travelling abroad, i.e., this 10-year-old boy:

Student336: But if somebody asks you where something is, then instead of being completely gone and not knowing what they are talking about, then you can actually help the person, because it is possible that somebody is from Germany or from other places far away, they can't just speak Danish…

**Practicing with parents**

Interviews revealed that English teachers usually do not give children homework neither in the younger, nor the older age group. Only sometimes if children could not finish a task in class, they

were supposed to finish it at home. Some teachers suggest to weaker students that they practice with their parents as mentioned by a 8-year-old girl:

Student19: And then I sometimes sit with my mom, and there is a picture with some vegetables, and then the name of it is written there, and then I have to say it.

And an 8-year-old boy:

Researcher: Why is English your favorite subject?
Student384: Because I do many activities in English too… For example sometimes I talk to my Dad and Mom, and then sometimes we watch TV in English.

**Professional life**

Several children mentioned that English would be important for their future education or work, which is related to their Ideal L2-selves. This 8-year-old girl spoke about the importance of English for education:

Student390: English is important because if you would like to get an education, then it is necessary to be able to speak many different languages.

**Work**

Some children from both age groups and genders mentioned that English could be used at work when they grew up, so did an 8-year-old boy:

Researcher: Why do you think it is important?
Student327: If I am a businessman and I only speak Danish, then it is kind of a little problem.

**Media**

Most of the children used some kind of media in their spare time, often in English. These could be music, film, gaming and YouTube. These activities were not related to future plans but to actual activities in the present.

**Music**

Children from both age groups and genders mentioned listening to music in English but they mostly did not aim at understanding the lyrics.

**Film**

Films were mentioned by many children as an activity that English could be used for. Children from both age groups, genders and regardless of proficiency level seemed to agree that English films were better than Danish films.

### Gaming

Many children mentioned playing computer games as an occasion when English can be used. This activity was only mentioned by children with medium and high PPVT scores, primarily by boys from both age groups. No children with low PPVT scores mentioned gaming.

### YouTube

Children also mentioned watching YouTube videos as a situation where English could be used. There was a special kind of YouTube videos especially recorded by people playing games on YouTube where viewers could follow how they played. This type of YouTube videos were mentioned by 10-year-old boys with high PPVT scores and some other 10-year-old boys with medium PPVT-scores i.e. this 10-year-old boy:

Student327: Yes, for example, I play games, and for example, YouTube.
Researcher: What do you like to watch on YouTube the most?
Student327: The kind of videos where somebody is playing games.
Researcher: Okay. And are those the same kind of games you are also playing?
Student327: No, because they are playing computer games that I can't play, that's why I would like to see how they are playing.
Researcher: Okay. But do they speak much English?
Student327: Yes.
Researcher: And are you able to understand them?
Student327: Yes.

No children with low PPVT scores mentioned this situation except for one 8-year-old girl who had just started to play games and watch gamers on You-tube who was inspired by her older brother.

## 6.Discussion

### 6.1. Change of EFL learning attitudes and motivation

The results of this study showed that the number of children stating that English was their first or second favorite subject decreased significantly with time in both age groups. Results concerning children's attitudes toward English lessons revealed that the older age group started with significantly less positive attitudes and that attitudes lowered further with time. So even if the early starters' attitudes toward English lessons were more positive than late starters' at the end of the first year of EFL instruction, after the second year of EFL instruction their attitudes decreased approximately to the same level as the late starters' attitudes after the first year. This shows that children have not benefited from the early start regarding attitudes toward the learning situation. These results are in agreement with findings from Chambers (1999), Tragant (2006) and Mihaljevic

Djigunovic and Lopriore (2011) but contradict findings from Burstall (1977), Mihaljevic Djigunovic (1993, 1995) and Muñoz and Tragant (2001). One reason for the difference is that the learners in Mihaljevic Djigunovic' (1993, 1995) studies and the older learners in Muñoz and Tragant's study learned in classes with exceptionally high quality teaching and selected students. Another reason is that Burstall (1977) and Muñoz and Tragant focused their questions more on the attitudes toward speaking English, while this study asked more precisely about attitudes toward the learning situation.

This study has shown that both age groups' reliance on external authorities as motivators became significantly weaker with time. This is in accordance with findings from previous research that young FL learners' motivation changed from more teacher related to more instrumental (Nikolov, 1999) and that the type of motivation became more instrumental and future oriented with age (Tragant, 2006). Data showed in accordance with Authors (2017) that younger learners relied stronger on external authorities than older learners.

Furthermore, this study showed that the role of English as a lingua franca was relatively high in both age groups compared to other motivators and this did not change over time. A possible explanation for this finding could be that in the Scandinavian language context English is a part of children's everyday life as Henry et al., (2017) have pinpointed. The role of precursors to the Ideal L2-Self was lower than the role of English as a lingua franca but also relatively high. Boys in general, but especially older boys, had a stronger picture of themselves as future English speakers as was found by Authors (2017) and this did not change over time. These findings are in agreement with Henry and Apelgren (2008) who found that instrumental orientation and the Ideal L2-Self of Swedish 4-6$^{th}$ graders did not change within a span of three years.

This study was the first to show that girls seemed to be less enthusiastic toward learning English as measured by their indication of English as first or second favorite subject. This contradicts earlier results (Burstall, 1977; Dörnyei and Csizér, 2002; Heinzmann, 2009) where girls were more enthusiastic toward learning foreign languages and differs also from Henry and Apelgren (2008) and Authors (2017) who found that boys and girls had equally positive attitudes toward learning English in contrast to other foreign languages. The reason for the latter difference is that in Authors (2017) only the questionnaire items on the liking of English lessons were analyzed, whereas in this study the items on the favorite subject were analyzed as well. A possible explanation for more boys indicating English as a favorite school subject than girls is that boys

engaged more in English-related activities outside school, as shown in Hannibal Jensen's (2017) with the same informants.

### 6.2. Attitudes and motivation in qualitative studies

Thematic analysis of the interviews showed that both early and late starters regardless to EFL proficiency and gender enjoyed real life situations, varied activities and differentiation between stronger and weaker students in the English lessons. On the other hand, both age groups mentioned that learning words and grammar without context and too much repetition in the English lessons was boring. The latter was mentioned by children with medium and high PPVT scores only. These findings are in line with Henry et al. (2017) who argued that motivating EFL learners in contexts with constant exposure to English in everyday life may require special strategies from the teacher different from contexts without much English exposure outside school.

The main reasons mentioned by both 8 and 10-year-old Danish children for learning English were communication abroad and with foreigners in Denmark, professional goals and use of the media independently of age group and gender. These results differ from Mihaljević Djigunović and Lopriore (2011) and Nikolov (1999) because in their studies 6-8-year-old children mainly mentioned teacher- or course-related motivators whereas in this study already early starters mentioned mainly utilitarian motivators. The reasons could be that compared to other countries where English is not used as much in society, in the Scandinavian environment already 8-year-old children have a strong instrumental motivation, e.g. travel. Children, mainly boys with higher PPVT scores, mentioned gaming and watching You-tube videos about gaming in English as a motivator. Children with low PPVT scores on the other hand often mentioned practice with their parents as a motivator. This corresponds to findings of Hannibal Jensen (2017).

Both quantitative and qualitative data confirmed that Danish children already from the age of 7 are very motivated by the fact that English is a lingua franca that is used everywhere in the world.

## 7.Conclusion

The results of this study point to the following conclusions concerning children’s attitudes toward English lessons: (1) young EFL learners’ positive attitudes toward the learning situation decreased significantly within one year in both age groups, which means children who started learning English in the first grade did not retain their more positive attitudes toward English compared with those who started in the third grade; (2) more boys than girls described English as their favorite subject;

(3) independently of gender and proficiency level the interviewed children enjoyed real-life situations, variation and differentiation in the English lessons, and some of the high achievers did not like boring repetitions.

Concerning children's EFL learning motivation it can be concluded that (4) children's reliance on their parents and teacher as motivators for FL learning decreased significantly with time; (5) children were strongly motivated by English being a global lingua franca; (6) among the interviewed children, high achievers, as opposed to low achievers, were motivated by engaging in gaming and watching YouTube videos in English.

The results of this study can have several pedagogical implications. One is that young learners of EFL can best be motivated by presenting new linguistic information in relation to real-life experiences, possibly inspired by task-based learning (Ellis, 2003; Thomas and Reinders, 2010). EFL teachers in input-rich environments are increasingly facing the challenge of teaching students with higher and lower EFL proficiency within the same class. Another implication of this study is that it is advisable for teachers to adapt differentiation methods (e.g., Holmes, 1994) and possibly avoid repetition with highly proficient students. Further research about differentiation in the EFL classroom with young learners is definitely needed.

## 8.Funding

This work was supported by the Danish Research Council for Independent Research (DFF 4001 00046).

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# Chapter 7

# Longitudinal analyses

In this chapter the results of the longitudinal analyses of the data from the first questionnaire (Q1) and the second questionnaire (Q2) are presented. Only the variables not included in Paper 3 are included which are the following: attitudes toward activities in the English lessons, attitudes toward the English language, foreign language classroom anxiety, English language competence beliefs and mindsets. Activities in the English lessons are analyzed as a means of the scores on five activities (singing, listening to music, writing, reading and speaking) and after the analyses of the mean scores each activity is analyzed separately as well.

Descriptive statistics on each variable are presented in form of figures. Early and late starter girls' and boys' scores are shown separately for Q1 and Q2. After each figure, inferential statistics are presented in form of a multiple linear regression model. The aim of the regressions is to test whether the three binary factors time, starting grade and gender and their interactions predict each variable. Only significant interactions are shown.

Figure 1 shows the mean scores of the five questionnaire items about how much children liked different activities in the English lessons.

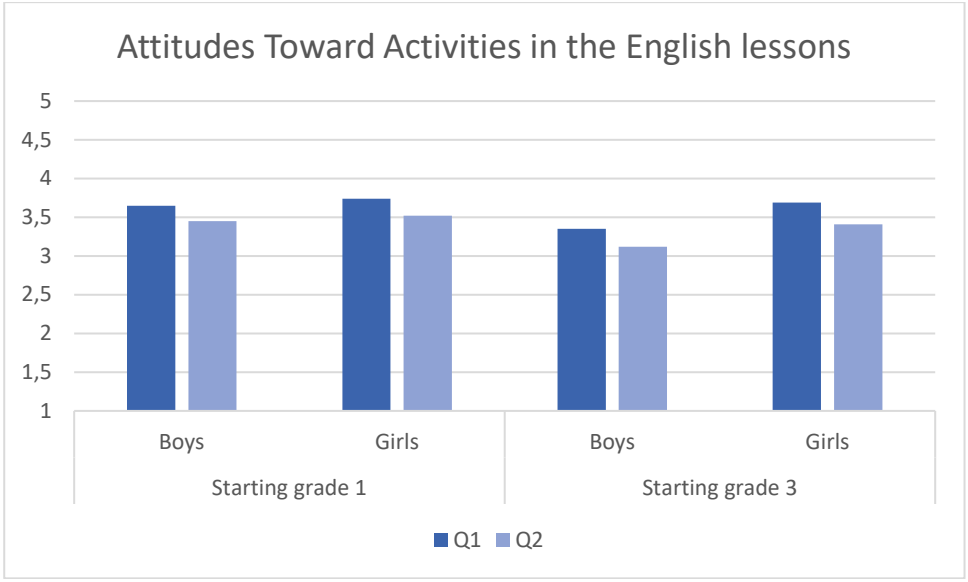


Figure 1

The regression (Table 1) shows that children's liking of the English lessons decreased significantly ($p$ = .002) between time 1 and time 2 in both age groups and genders. Based on the data from both

questionnaires it can be concluded that early starters generally liked the activities in the English lessons more than late starters ($p$ = .008), which is a new result compared to the cross-sectional results (Paper 1) and that girls generally like the activities more than boys ($p$ = .015), which is identical with what has been found in the cross-sectional analysis of the data from Q1 (Paper 1). There were no significant interactions between any of the factors.

Table 1

*Results of a multiple linear regression model: attitudes toward activities in English lessons*

| Source | SS | Df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 518 |
| | | | | F(3, 514) | = | 7.52 |
| Model | 15.14 | 3 | 5.05 | Prob > F | = | 0.0001 |
| Residual | 344.87 | 514 | .67 | R-squared | = | 0.0421 |
| | | | | Adj R-squared | = | 0.0365 |
| Total | 360.01 | 517 | .69 | Root MSE | = | .819 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.228 | .07 | -3.16 | 0.002 | -.37 | -.09 |
| Starting Grade | -.097 | .04 | -2.65 | 0.008 | -.17 | -.02 |
| Gender | .176 | .07 | 2.45 | 0.015 | -.03 | .32 |
| _Constant | 3.769 | .17 | 22.49 | 0.000 | 3.44 | 4.1 |

Now the attitudes toward each of the five activities included in the questionnaire will be presented independently. These data have not been analyzed cross-sectionally in Paper 1. Figure 2 shows the means of each activity in Q1 and Q2 in comparison to eachother.

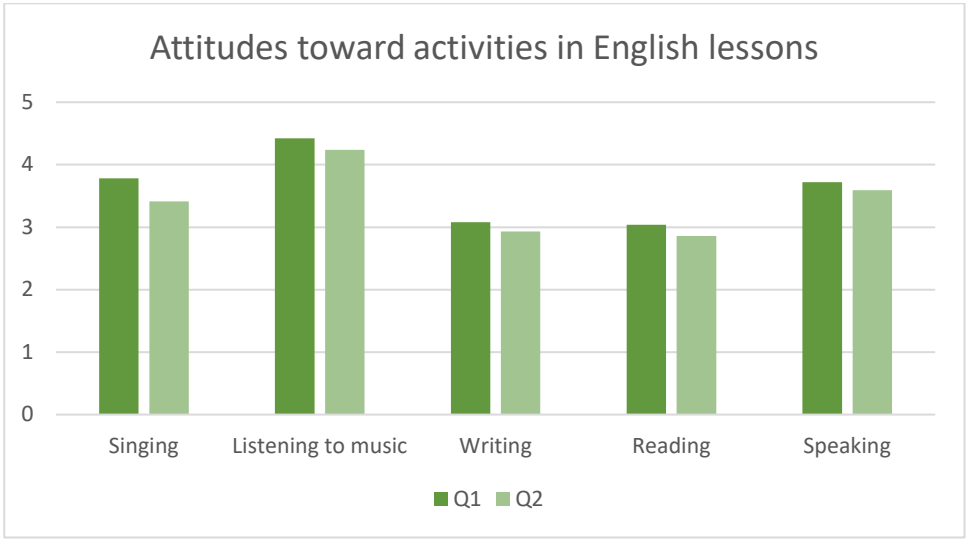


Figure 2

Table 2 shows means and standard deviations of the five variables in the two questionnaires to compare children's liking of the different activities. Listening to music appeared to be the most

popular activity in both questionnaires, singing and speaking were the second most popular activities while writing and reading were less popular than these.

Table 2

*Descriptive statistics of the attitudes toward activities in English lessons*

| | Q1 | | Q2 | |
|---|---|---|---|---|
| | Mean | Std. Dev. | Mean | Std. Dev. |
| Singing | 3.78 | 1.29 | 3.41 | 1.33 |
| Listening to music | 4.42 | .98 | 4.24 | 1.09 |
| Writing | 3.08 | 1.31 | 2.93 | 1.24 |
| Reading | 3.04 | 1.31 | 2.86 | 1.25 |
| Speaking | 3.72 | 1.22 | 3.59 | 1.13 |

In Figure 3 attitudes toward singing are presented separately for each starting grade and gender.

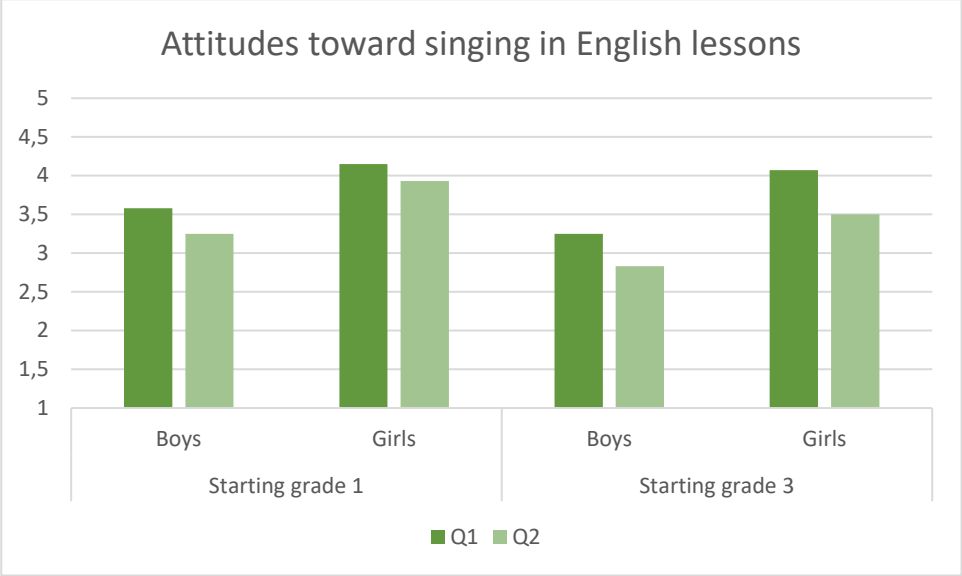


Figure 3

The strongest effect on the attitudes toward singing is the gender effect ($p$ = .000). Girls in both age groups and independently of time of test liked singing significantly more than boys. The positive attitudes toward singing in English lessons dropped significantly between Q1 and Q2 for both genders and starting grades ($p$ = .001). The effect of starting grade was also significant regardless of gender and time of test ($p$ = .007). There were no interactions between any of the three factors.

Table 3

*Results of a multiple linear regression model: attitudes toward singing in English lessons*

| Source | SS | Df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 516 |
| | | | | F(3, 512) | = | 17.84 |
| Model | 85.27 | 3 | 28.42 | Prob > F | = | 0.0000 |
| Residual | 815.65 | 512 | 1.59 | R-squared | = | 0.0947 |
| | | | | Adj R-squared | = | 0.0893 |
| Total | 900.92 | 515 | 1.74 | Root MSE | = | 1.2622 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.364 | .11 | -3.28 | 0.001 | -.58 | -.15 |
| Starting Grade | -.153 | .06 | -2.7 | 0.007 | -.26 | -.04 |
| Gender | .671 | .11 | 6.03 | 0.000 | .45 | .89 |
| _Constant | 3.418 | .26 | 13.20 | 0.000 | 2.91 | 3.9 |

In Figure 4 attitudes toward listening to music with English lyrics in the English lessons are presented separately for each starting grade and gender.

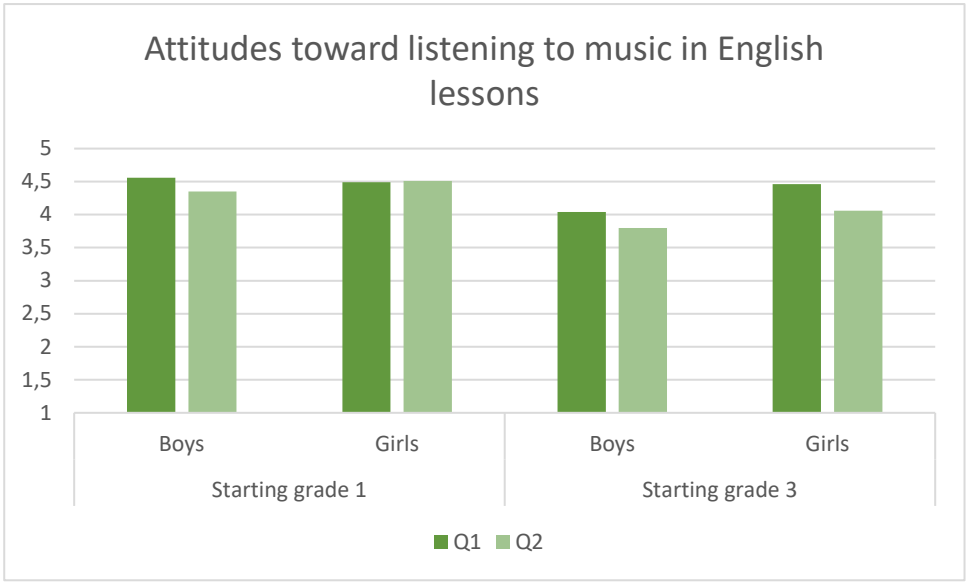


Figure 4

As shown in Figure 4, early starters liked listening to music significantly more than late starters ($p$ = .000). Nevertheless, the liking of listening to music decreased significantly for both age groups and genders ($p$ = .040).

Table 4

*Results of a multiple linear regression model: attitudes toward listening to music in English lessons*

| Source | SS | Df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 512 |
| | | | | F(3, 508) | = | 7.84 |
| Model | 24.24 | 3 | 8.08 | Prob > F | = | 0.0000 |
| Residual | 523.64 | 508 | 1.59 | R-squared | = | 0.0442 |
| | | | | Adj R-squared | = | 0.0386 |
| Total | 547.88 | 511 | 1.07 | Root MSE | = | 1.0153 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.185 | .09 | -2.06 | 0.040 | -.36 | -.01 |
| Starting Grade | -.189 | .05 | -4.13 | 0.000 | -.28 | -.1 |
| Gender | .155 | .09 | 1.73 | 0.085 | .02 | .33 |
| _Constant | 4.713 | .21 | 22.47 | 0.000 | 4.3 | 5.12 |

In Figure 5 attitudes toward writing in English language in the English lessons are presented separately per starting grade and gender.

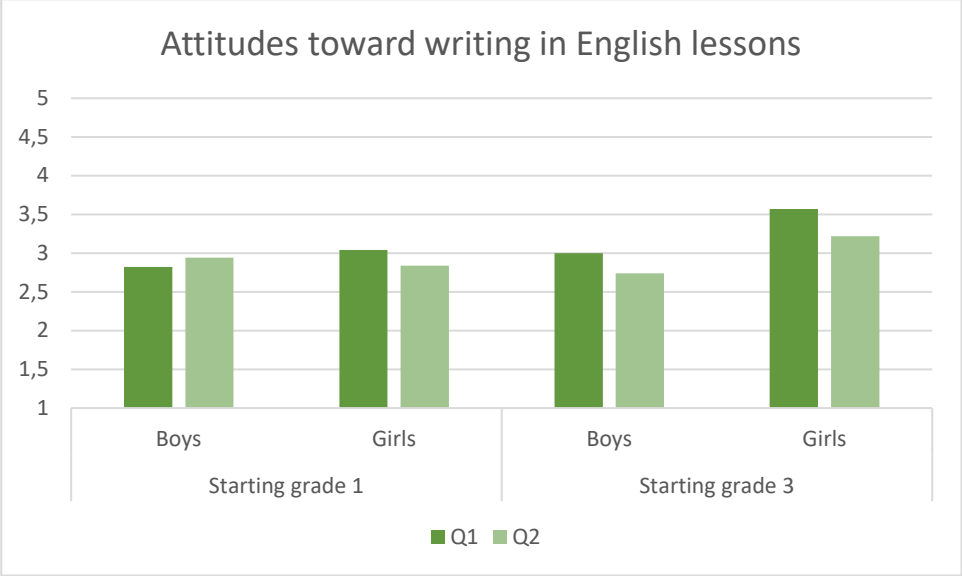


Figure 5

The change of children's attitudes toward writing in English lessons was not significant between Q1 and Q2 (Table 5). Nor had gender or starting grade an effect but there was a significant interaction between gender and starting grade ($p$ = .041) meaning that late starter girls liked writing in English lessons significantly more than boys and early starter girls. It must be added here that in some of the early starter classes children did not write in the lessons, so many of them actually left out this question.

Table 5

*Results of a multiple linear regression model: attitudes toward writing in English lessons*

| Source | SS | Df | MS | Number of obs | = | 504 |
|---|---|---|---|---|---|---|
| | | | | F(4, 499) | = | 3.90 |
| Model | 24.91 | 4 | 6.23 | Prob > F | = | 0.0039 |
| Residual | 796.04 | 499 | 1.59 | R-squared | = | 0.0303 |
| | | | | Adj R-squared | = | 0.0226 |
| Total | 820.95 | 503 | 1.63 | Root MSE | = | 1.263 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.149 | .11 | -1.32 | 0.186 | -.37 | .07 |
| Starting Grade | -.006 | .16 | -0.04 | 0.970 | -.33 | .31 |
| Gender | .06 | .15 | 0.41 | 0.681 | -.23 | .35 |
| StartingGrade*Gender | .47 | .23 | 2.05 | .041 | .02 | .92 |
| _Constant | 4.713 | .2 | 15.71 | 0.000 | 4.3 | 3.49 |

In Figure 6 attitudes toward reading in English language in the English lessons are presented separately per starting grade and gender.

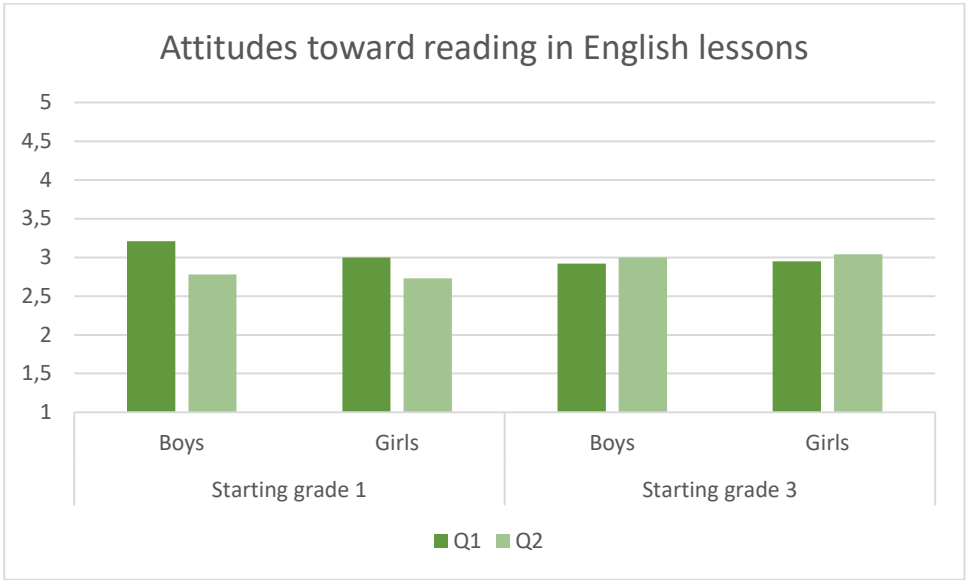


Figure 6

Table 6

*Results of a multiple linear regression model: attitudes toward reading in English lessons*

| Source | SS | Df | MS | Number of obs | = | 495 |
|---|---|---|---|---|---|---|
| | | | | F(4, 490) | = | 1.52 |
| Model | 9.927 | 4 | 2.48 | Prob > F | = | 0.1961 |
| Residual | 802.00 | 490 | 1.64 | R-squared | = | 0.0122 |
| | | | | Adj R-squared | = | 0.0042 |
| Total | 811.93 | 494 | 1.64 | Root MSE | = | 1.279 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.353 | .15 | -2.34 | 0.020 | -.65 | -.06 |
| Starting Grade | -.164 | .16 | -1.01 | 0.314 | -.48 | .16 |
| Gender | -.059 | .12 | -0.52 | 0.607 | -.29 | .17 |
| StartingGrade*Time | .43 | .23 | 1.84 | .064 | -.03 | .89 |
| _Constant | 3.20 | .2 | 15.99 | 0.000 | 2.81 | 3.59 |

Figure 7 shows the attitudes toward speaking in English language in the English lessons separately per starting grade and gender.

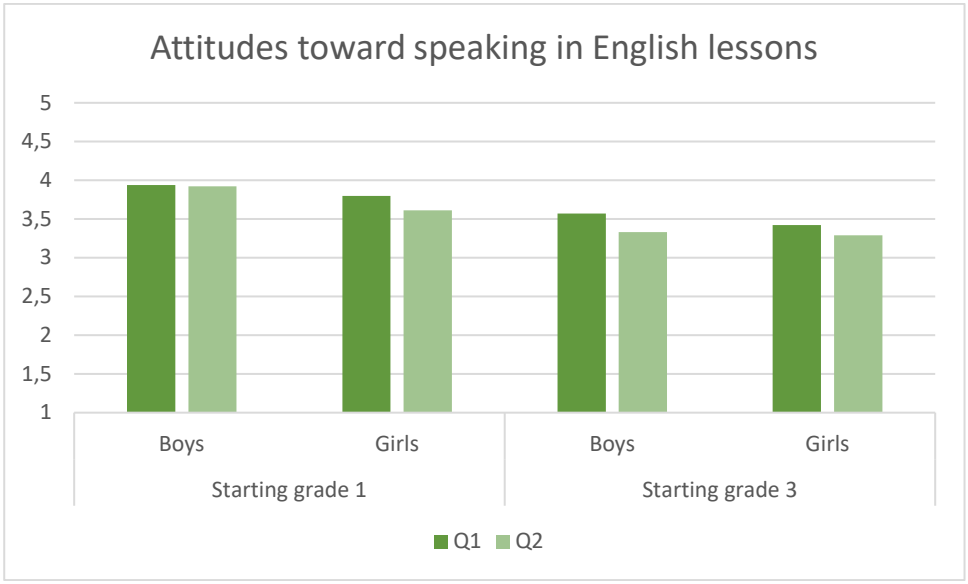


Figure 7

Results on attitudes toward speaking English in English lessons show that early starters are significantly more positive toward speaking in the lessons than late starters ($p$ = .000). There was no significant difference between boys and girls and there was no significant difference between Q1 and Q2 nor were there any significant interactions.

Table 7

*Results of a multiple linear regression model: attitudes toward speaking in English lessons*

| Source | SS | Df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 518 |
| | | | | F(3, 514) | = | 6.97 |
| Model | 28.17 | 3 | 9.39 | Prob > F | = | 0.0001 |
| Residual | 692.03 | 514 | 1.34 | R-squared | = | 0.0391 |
| | | | | Adj R-squared | = | 0.0335 |
| Total | 720.20 | 517 | 1.39 | Root MSE | = | 1.1603 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.130 | .10 | -1.27 | 0.204 | -.33 | .07 |
| Starting Grade | -.208 | .05 | -3.99 | 0.000 | -.31 | -.11 |
| Gender | .170 | .10 | -1.67 | 0.096 | .37 | .03 |
| _Constant | 4.479 | .24 | 18.87 | 0.000 | 4.0 | 4.95 |

Figure 8 shows the attitudes toward English language in Q1 and Q2 per starting grade and gender.

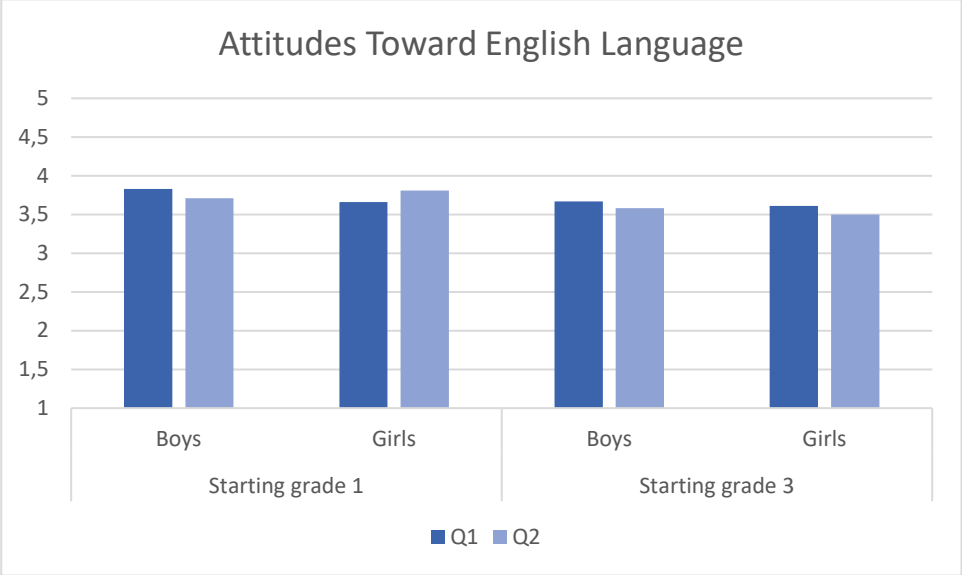


Figure 8

Attitudes toward English language did not change significantly between Q1 and Q2. The only statistically significant difference was that early starters had a little more positive attitude toward English language than late starters ($p$ = .045).

Table 8

*Results of a multiple linear regression model: attitudes toward English language*

| Source | SS | Df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 518 |
| | | | | F(3, 514) | = | 1.62 |
| Model | 3.67 | 3 | 1.22 | Prob > F | = | 0.1831 |
| Residual | 387.80 | 514 | .75 | R-squared | = | 0.0094 |
| | | | | Adj R-squared | = | 0.0036 |
| Total | 391.47 | 517 | .76 | Root MSE | = | .8686 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.040 | .08 | -0.53 | 0.598 | -.19 | .10 |
| Starting Grade | -.078 | .04 | -2.01 | 0.045 | -.15 | -.00 |
| Gender | .051 | .08 | -0.66 | 0.507 | .20 | .09 |
| _Constant | 3.964 | .18 | 22.31 | 0.000 | 3.62 | 4.31 |

In Figure 9 FLCA is presented separately per starting grade, gender and questionnaire.

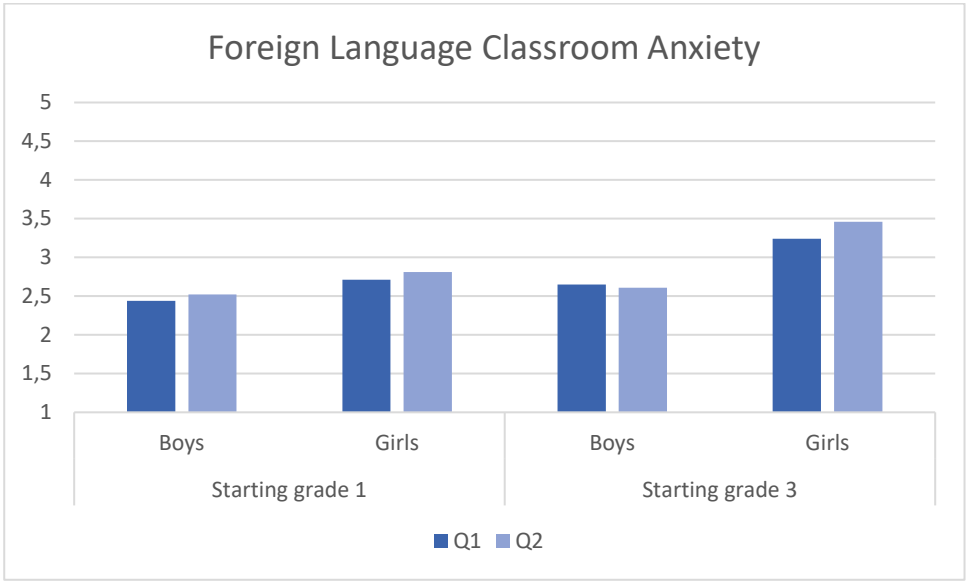


Figure 9

The regression analyses showed that girls were more anxious to speak up in the EFL classroom ($p$ = .016) but especially late starter girls were more anxious than the other three groups which is shown by an interaction between starting grade and gender ($p$ = .019). FLCA did not change significantly between Q1 and Q2 in neither of the subgroups.

Table 9

*Results of a multiple linear regression model: foreign language classroom anxiety*

| Source | SS | Df | MS | Number of obs | = | 518 |
|---|---|---|---|---|---|---|
| | | | | F(4, 513) | = | 12.53 |
| Model | 52.56. | 4 | 13.14 | Prob > F | = | 0.0000 |
| Residual | 538.18 | 513 | 1.049 | R-squared | = | 0.0890 |
| | | | | Adj R-squared | = | 0.0819 |
| Total | 590.75 | 517 | 1.143 | Root MSE | = | 1.0243 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | .095 | .09 | 1.05 | 0.293 | -.82 | .27 |
| Starting Grade | .154 | .13 | 1.18 | 0.239 | -.10 | .41 |
| Gender | .280 | .12 | 2.41 | 0.016 | .05 | .51 |
| StartingGrade*Gender | .432 | .18 | 2.35 | 0.019 | .07 | .79 |
| _Constant | 2.337 | .15 | 15.00 | 0.000 | 2.0 | 2.64 |

Figure 10 shows children's ECB for Q1 and Q2 per starting grade and gender.

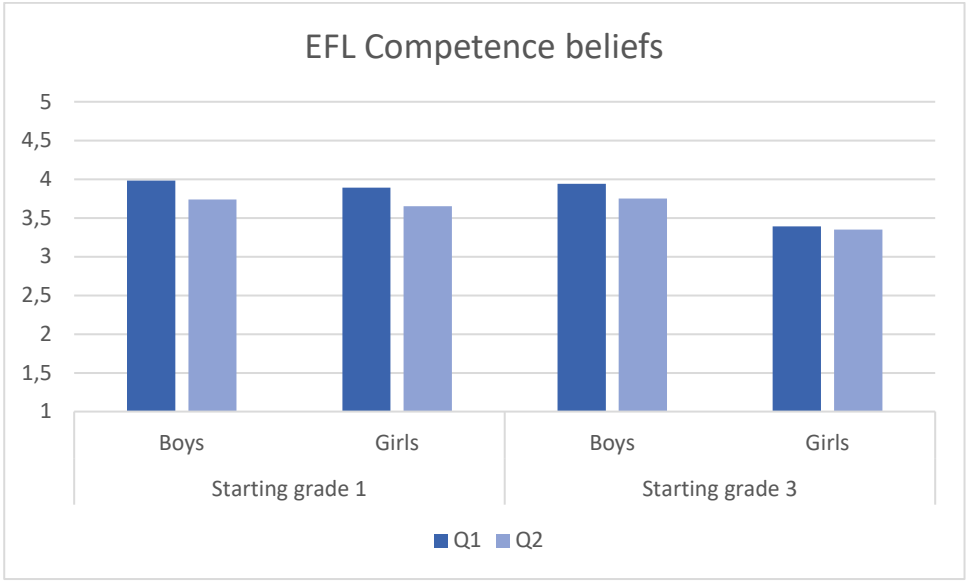


Figure 10

The regression analyses showed that children's competence beliefs for English language decreased significantly between Q1 and Q2. Besides this there was a significant interaction between starting grade and gender meaning that late starter girls had significantly lower ECB than early starter girls and boys.

Table 10

*Results of a multiple linear regression model: English language competence beliefs*

| Source | SS | Df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 517 |
| | | | | F(4, 512) | = | 8.32 |
| Model | 52.99 | 4 | 5.75 | Prob > F | = | 0.0000 |
| Residual | 353.75 | 512 | .69 | R-squared | = | 0.0610 |
| | | | | Adj R-squared | = | 0.0537 |
| Total | 376.74 | 516 | .73 | Root MSE | = | .8312 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | -.188 | .07 | -2.57 | 0.010 | -.33 | -.044 |
| Starting Grade | -.015 | .11 | -0.14 | 0.888 | -.22 | .19 |
| Gender | -.089 | .09 | -0.95 | 0.344 | -.28 | .10 |
| StartingGrade*Gender | -.387 | .15 | -2.59 | 0.010 | -.68 | -.09 |
| _Constant | 4.142 | .13 | 32.68 | 0.000 | 3.89 | 4.39 |

Figure 12 shows children's growth mindset in both questionnaires separately per starting grade and gender.

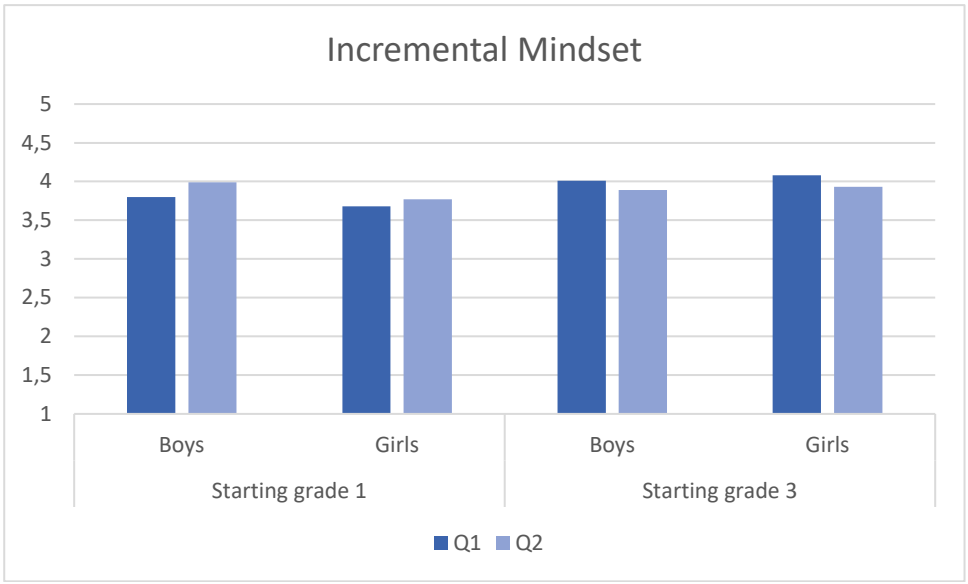


Figure 12

Table 12

*Results of a multiple linear regression model: incremental mindset*

| Source | SS | Df | MS | | Number of obs | = | 517 |
|---|---|---|---|---|---|---|---|
| | | | | | F(4, 512) | = | 5.46 |
| Model | 7.19 | 4 | 1.80 | | Prob > F | = | 0.0003 |
| Residual | 168.62 | 512 | .33 | | R-squared | = | 0.0409 |
| | | | | | Adj R-squared | = | 0.0334 |
| Total | 175.82 | 516 | .34 | | Root MSE | = | .5789 |

| | Coef. | Std. Err. | t | P > \|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Time | .147 | .07 | 2.25 | 0.025 | .02 | .27 |
| Starting Grade | .313 | .07 | 4.43 | 0.000 | .17 | .45 |
| Gender | -.072 | .05 | -1.42 | 0.157 | -.17 | .03 |
| | | | | | | |
| Time*StartingGrade | -.288 | .10 | -2.79 | 0.005 | -.49 | -.09 |
| _Constant | 3.85 | .09 | 43.92 | 0.000 | 3.67 | 4.02 |

Table 13. gives an overview on the descriptive statistics and the results of the regression analyses.

Table 13

*Means, standard deviations, and significance levels from regression of individual factors by starting grade, gender and time of test*

| | | Starting Grade 1 | | | | Starting Grade 3 | | | | Results a of multiple linear regression | | | | | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Boys | | Girls | | Boys | | Girls | | Time | Grade | Gender | Grade* Gender | Grade* Time | |
| | | M | SD | M | SD | M | SD | M | SD | *p* | *p* | *p* | *p* | *p* | |
| Attitudes to English lessons | Q1 | 3.47 | 1.29 | 3.73 | 1.12 | 3.05 | 1.34 | 3.22 | 1.18 | ***.002*** | ***.000*** | *.150* | | | 274 |
| | Q2 | 3.21 | 1.16 | 3.28 | 1.03 | 2.85 | 1.29 | 2.89 | .99 | | | | | | 243 |
| Attitudes to activities | Q1 | 3.65 | .87 | 3.74 | .81 | 3.35 | .90 | 3.70 | .81 | ***.002*** | ***.008*** | ***.015*** | | | 275 |
| | Q2 | 3.45 | .72 | 3.52 | .76 | 3.12 | .93 | 3.41 | .78 | | | | | | 243 |
| Singing | Q1 | 3.58 | 1.36 | 4.15 | 1.13 | 3.25 | 1.37 | 4.07 | 1.12 | ***.001*** | ***.007*** | ***.000*** | | | 274 |
| | Q2 | 3.25 | 1.37 | 3.93 | 1.18 | 2.83 | 1.34 | 3.5 | 1.22 | | | | | | 242 |
| Listening to music | Q1 | 4.56 | .93 | 4.49 | .90 | 4.04 | 1.26 | 4.46 | .78 | ***.040*** | ***.000*** | *.085* | | | 275 |
| | Q2 | 4.35 | 1.00 | 4.51 | .88 | 3.79 | 1.30 | 4.06 | 1.17 | | | | | | 237 |
| Writing | Q1 | 2.82 | 1.41 | 3.04 | 1.21 | 3 | 1.27 | 3.58 | 1.22 | *.186* | *.970* | *.681* | ***.041*** | | 261 |
| | Q2 | 2.94 | 1.29 | 2.84 | 1.14 | 2.74 | 1.20 | 3.26 | 1.30 | | | | | | 243 |
| Reading | Q1 | 3.21 | 1.44 | 3 | 1.22 | 2.92 | 1.34 | 2.96 | 1.22 | ***.020*** | *.314* | *.607* | | *.067* | 252 |
| | Q2 | 2.78 | 1.28 | 2.73 | 1.23 | 3 | 1.35 | 3.04 | 1.13 | | | | | | 243 |
| Speaking | Q1 | 3.94 | 1.24 | 3.8 | 1.14 | 3.57 | 1.23 | 3.42 | 1.24 | *.204* | ***.000*** | *.096* | | | 275 |
| | Q2 | 3.92 | 1.08 | 3.61 | 1.03 | 3.33 | 1.27 | 3.29 | 1.10 | | | | | | 243 |
| Attitudes to English language | Q1 | 3.83 | .99 | 3.66 | .77 | 3.67 | .97 | 3.61 | .84 | *.598* | ***.045*** | *.507* | | | 275 |
| | Q2 | 3.71 | .94 | 3.81 | .72 | 3.58 | .89 | 3.5 | .78 | | | | | | 243 |

Table 13. continued

| | | Starting Grade 1 | | | | Starting Grade 3 | | | | Results a of multiple linear regression | | | | | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Boys | | Girls | | Boys | | Girls | | Time | Grade | Gender | Grade* Gender | Grade* Time | |
| | | M | SD | M | SD | M | SD | M | SD | *p* | *p* | *p* | *p* | *p* | |
| Reliance on external authorities | Q1 | 3.05 | 1.33 | 3.21 | 1.20 | 1.98 | 1.20 | 2.24 | 1.03 | ***.065*** | ***.000*** | *.974* | | | 275 |
| | Q2 | 2.68 | 1.20 | 2.71 | 1.14 | 2.05 | 1.16 | 2.02 | 1.03 | | | | | | 243 |
| (Precursors to) Ideal L2 self | Q1 | 3.77 | .84 | 3.57 | .81 | 3.94 | .72 | 3.58 | .77 | *.674* | ***.048*** | *.328* | ***.030*** | | 274 |
| | Q2 | 3.67 | .84 | 3.70 | .78 | 3.90 | .78 | 3.45 | .77 | | | | | | 243 |
| Importance of English as a lingua franca | Q1 | 4.27 | 1.13 | 4.03 | 1.02 | 4.36 | .79 | 4.21 | .73 | *.462* | *.702* | ***.022*** | | | 273 |
| | Q2 | 4.37 | .95 | 4.23 | .93 | 4.33 | .78 | 4.11 | 1.10 | | | | | | 243 |
| FLCA | Q1 | 2.44 | 1.05 | 2.71 | 1.06 | 2.65 | 1.07 | 3.24 | .96 | *.293* | *.239* | ***.016*** | ***.019*** | | 275 |
| | Q2 | 2.52 | 1.00 | 2.81 | 1.00 | 2.61 | 1.06 | 3.46 | .99 | | | | | | 243 |
| ECB | Q1 | 3.98 | .78 | 3.89 | .77 | 3.94 | .81 | 3.39 | .75 | ***.010*** | *.888* | *.344* | ***.010*** | | 274 |
| | Q2 | 3.74 | .86 | 3.65 | .84 | 3.75 | 1.00 | 3.35 | .89 | | | | | | 243 |
| Mindset | Q1 | 3.79 | .62 | 3.68 | .67 | 4.01 | .62 | 4.08 | .46 | ***.025*** | ***.000*** | *.157* | | ***.005*** | 274 |
| | Q2 | 3.99 | .56 | 3.77 | .53 | 3.88 | .60 | 3.93 | .41 | | | | | | 243 |

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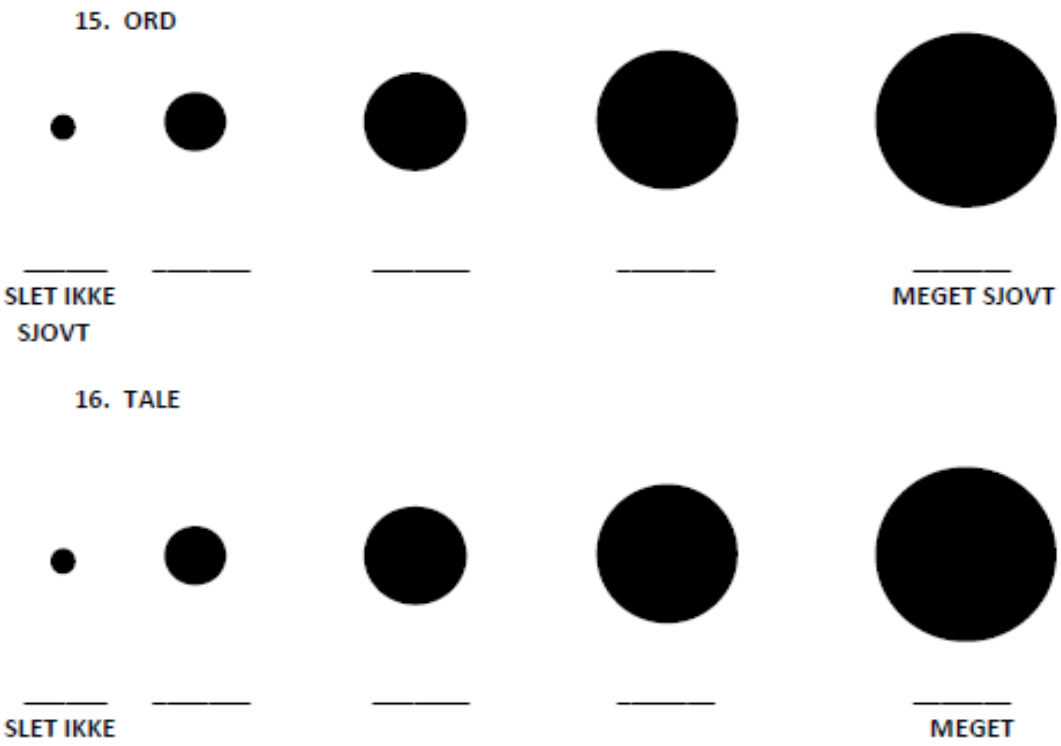
# Appendices

**Appendix 1**
Answer sheet with smileys

5. HØRE MUSIK

6. SKRIVE

**Appendix 2**
Answer sheet with dots



**Appendix 3**
Answer sheet for favorite subjects

17. YNDLINGSFAG

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