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# **Metalinguistic Awareness and Cross-Linguistic Interaction in Third Language Learning: English and German as L3 in the Hungarian Classroom**

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Thesis for obtaining a PhD degree at the Multilingualism Doctoral School of the  
University of Pannonia

in the branch of Linguistics

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This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of Modern Philology and Social Sciences in partial fulfillment of the requirements for the degree of Doctor of Philosophy. The content and research methodologies presented in this work represent the work of the candidate alone.

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## Abstract

Multilingual approaches to teaching and learning offer numerous benefits, including enhanced language proficiency in the European context, cognitive advantages, cultural awareness, improved academic performance, and preparation for global citizenship.

There is a notable discrepancy between the objectives outlined in European and Hungarian language policies, which advocate for the promotion of multilingualism and language contact in education, and the prevailing instructional practices in Hungarian schools. Despite these guidelines, many schools in Hungary continue to maintain monolingual instructional approaches, often emphasizing the extensive use of the target language even in third language teaching scenarios.

Multilingualism encourages the development of metalinguistic awareness—the ability to think about and reflect on language itself. An enhanced level of metalinguistic awareness often stands with a heightened level of cross-linguistic interaction from a dynamic perspective. Cross-linguistic interaction comprises the awareness of making connection between various languages and it draws attention to the similarities and differences between language systems.

The order of language acquisition is considered to be a controversial issue in the Hungarian education system. Formerly, learning German as first foreign language (L2) was recommended but the popularity of the English language led to the widespread acquisition of learning English as an L2 in the school context.

This thesis focuses on metalinguistic awareness and cross linguistic interaction in third language learning with special attention to English and German as L3 in the Hungarian educational context. Comparing the order of language acquisition is a cardinal aspect of this investigation. Furthermore, this thesis examines whether factors – like prior linguistic knowledge, L2 exposure, order of language acquisition, multilingual awareness and motivation influence the process of third language acquisition. 7<sup>th</sup> graders started learning the L3 in the year of investigation meanwhile 8<sup>th</sup> graders were in their second year of L3 acquisition. 7<sup>th</sup> and 8<sup>th</sup> grader participants were divided into 4 different groups based on their order of language acquisition (7EG, 7GE, 8EG, 8GE). Altogether, 44 students participated in the pilot phase and 152 participants were the subjects of investigation in the test phase. Four different research instruments were employed during the research year: a Language History Questionnaire, English and German C-tests, a Multilingual Competence Test and a motivational questionnaire. The language history questionnaire explored the linguistic background of the participants. The C-test measured the global proficiency of English and German both in L2 and in L3. The Multilingual Competence Test examined two components of multilingual awareness, including cross-linguistic awareness and metalinguistic awareness.

Concerning the effect of L2 exposure on L3, only the 8GE group performed better than the 7GE group both in German as L2 and English as L3. A significant difference could be found in English as L3. One of the most surprising results that emerged from the data was the performance of the EG groups. Findings indicated that the 7EG group performed better than the 8EG group. A possible explanation might be that the 8<sup>th</sup> graders were not motivated at the time of testing. The results proved that the 7EG group outperformed the 8EG group both in meta- and cross-linguistic awareness tasks of the MCT. The results of the multilingual competence test showed that the 8GE group outperformed the 7EG group in terms of multilingual awareness. The performance of the EG groups demonstrated that the order of acquisition may influence L2 exposure and multilingual awareness.

As for the comparison of the 7<sup>th</sup> graders, the 7GE group outperformed the 7EG group in the L3 test and in the metalinguistic part of the MCT. Additionally, the 8GE group achieved better results than the 8EG group both in the L3 and the multilingual competence test. Significant differences were found between groups in these tasks, indicating that different learning experiences may influence multilingual competence differently. The results indicated that the order of acquisition had an impact on L3 proficiency and multilingual awareness.

Students learning English as a third language in the 7th grade group showed greater motivation and more positive attitudes towards L3 compared to students in the 7th grade German group. This positive attitude could contribute to better learning outcomes and overall engagement with the language. The GE groups demonstrated higher motivation to learn L3. The comparison between 8th-grade groups revealed that students learning English as a third language were more motivated compared to those learning German as a third language. Findings suggested that the choice of the target language may influence motivation levels among learners. Significant differences were found in the motivation between the two 8<sup>th</sup> grader groups, with the 8GE group showing higher motivation regarding L3 language, lessons, and self. This finding indicates that the specific language being learned (English vs. German) can impact students' motivation differently. Consequently, students learning German as L2 had higher motivation to learn English as L3 in both age groups. Results revealed that the order of acquisition played an important role in each of the research questions.

To address the issue of monolingual practices, it may be necessary to undertake comprehensive reforms that prioritize multilingualism in education. These innovations could involve providing professional development opportunities for teachers to enhance their skills in multilingual instruction, revising curriculum frameworks to include more opportunities for language contact and the development of multilingual competencies, and allocating resources to support schools in implementing these changes effectively. Overall, these findings provide valuable insights into the complexities of language learning and multilingualism, highlighting the interplay between factors such as age, exposure, order of acquisition, and specific language learning contexts. The results underscore the importance of considering these factors in educational practices and are aimed at promoting multilingual proficiency and awareness. The most striking result emerging from the investigation is that learning German as L2 had a positive impact on multilingual awareness, L3 proficiency and motivation.

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## List of abbreviations and acronyms

BL .....	Background language
CAH.....	Contrastive Analysis Hypothesis
CDST .....	Complex Dynamics System Theory
CEFR .....	Common European Framework of Reference
CLI.....	Cross-linguistic influence
CLIN .....	Cross-linguistic interaction
CTT .....	Classical Test Theory
CS.....	Codeswitching
DMM .....	Dynamic Model of Multilingualism
DYME.....	Dynamics of Multilingualism with English
EuroCom.....	Euro-Comprehension
EC .....	European Commission
E-C Model .....	Entrenchment and Conventionalization Model
FLAM .....	Foreign Language Acquisition Model
FLA .....	Foreign Language Acquisition
IDI.....	Item Difficulty Index
K-S test .....	Kolmogorov-Smirnov Test
L <sub>1</sub> , L <sub>2</sub> , L <sub>3</sub> , L <sub>n</sub> .....	First /Second/Third/N <sup>th</sup> Language
LHQ .....	Language History Questionnaire
LME.....	Language Maintenance Effort
MCT.....	Multilingual Competence Test
M-factor .....	Multilingualism factor
MLA.....	Metalinguistic awareness
MLX.....	Multilingual operations in cross linguistic awareness
SLA.....	Second Language Acquisition
SL.....	Source Language
S-W test .....	Saphiro-Wilk test
TL.....	Target Language
TLA.....	Third Language Acquisition

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# 1. INTRODUCTION

In a globalised world, monolingualism is considered a peculiarity which emphasizes that the new norm is multilingualism (Herdina & Jessner, 2002). This shift in perspective reflects the acknowledgement of language diversity as a standard feature of human communication. Studying multilingualism has posed significant challenges due to its complex and diverse nature. At the international level, multilingualism has been researched for more than 30 years so far (Cenoz & Jessner, 2000; Jessner, 1999). While multilingualism is noted as a natural phenomenon observed in multilingual settings, like Africa or Asia (Cenoz, 2013b), European documents regulate the significance of multilingualism in the educational context. The linguistic landscape of Europe is shaped by centuries of historical, political, and geographical influences. The European Union (EU) recognizes this diversity and actively promotes multilingualism as a core value. Initiatives outlined by the European Commission (2007) emphasize the values of linguistic diversity, advocating for language learning and usage across member states. The EC (2007) defines multilingualism as “the ability of societies, institutions, groups and individuals to engage, regularly, with more than one language in their day-to-day lives” (Marsh et al., 2009, p. 3). The EU's language policies serve several crucial purposes. Firstly, they facilitate communication and foster cohesion among member states by ensuring that language barriers do not impede understanding or cooperation. Additionally, these policies promote cultural exchange, allowing for the sharing of ideas, values, and traditions across borders. By nurturing multilingualism, the EU contributes to fostering mutual understanding and peace throughout the continent while upholding its citizens' linguistic rights and identities. The EU's commitment to multilingualism reflects its broader objectives of fostering unity, diversity, and prosperity across Europe. By embracing linguistic diversity and promoting language learning and usage, the EU aims to build a more interconnected, inclusive, and prosperous community of nations. The White Paper on Education and Training (1995) highlights the importance of proficiency in three European languages, supporting the idea of multilingual citizens.

## **1.1 Statement of the problem**

Hungary is considered a multilingual state due to the 13 minorities living in the country (The National Assembly, 2010). 98% of the people speak Hungarian as their mother tongue which shows the predominant role of the L1 (Kenesei, 2017). Hungarian people acquire additional languages in educational settings like at schools, language schools, or universities, but Hungarians do not need to use foreign languages in public places like administration, banking, shops, and restaurants. As a consequence, the Hungarian language is extensively used in the classroom by teachers and students (Nagy, 2009), which makes foreign language learning more challenging for primary school pupils. In Hungary, the ability to speak foreign languages, especially beyond the basic level, is often seen as a distinctive skill rather than a common one. While learning foreign languages is part of the education system, the overall proficiency rates are relatively low compared to other European countries. Therefore, 58% of the population could not speak a foreign language based on the Eurobarometer survey 2006 (Eurobarometer, 2006).

Despite the European Union's and Hungary's language policies that encourage multilingualism and the integration of multiple languages into the curriculum, the reality in most Hungarian schools is different. The dominant teaching approach remains monolingual, focusing heavily on the use of a single language —usually the target language — in instruction, even when teaching a third language (Horvath & Jessner, 2020; Szabó & Failasofah, 2022). This approach might not fully embrace the multilingual environment that language policies aim to promote, potentially limiting the opportunities for students to develop proficiency in multiple languages simultaneously. This recent phenomenon has sparked a growing interest in adapting the most adequate methods that enable pupils to leverage their previously learned languages and cognitive skills in the process of acquiring a new foreign language (L3) (Horvath & Jessner, 2023).

## **1.2 Relevance of the topic**

Research in third language acquisition (henceforth TLA) delves into the complex interplay of factors that contribute to the ability of learners to acquire an additional language beyond their second one. Scholars such as Cenoz (2001), Herdina & Jessner (2002), Jessner (2008), and De Angelis (2007) have explored how various elements

influence this process. Notably, prior experience with foreign languages plays a significant role, as learners can leverage their existing linguistic skills and strategies developed from learning previous languages. This ability to transfer knowledge and skills from one language to another is a crucial component in the multilingual development process, as highlighted by Jessner (1998) and Hufeisen (2003). Many studies underscore the importance of understanding the multifaceted nature of language learning, particularly in multilingual contexts, where the interplay of cognitive, linguistic, and experiential factors can enhance the acquisition of a third language (Hofer, 2017; Hofer & Jessner, 2017, 2019a). The number of research papers has been increasing over the last twenty years, however, far too little attention has been paid to the phenomenon of multilingualism and TLA (Horvath & Jessner, 2022; Navracscics, 2010, 2022a; Navracscics & Molnár, 2017; Perge, 2017; Szabó & Failasofah, 2022; T.Balla, 2013). Researchers have shown an increased interest in TLA as pupils learn additional languages in the Hungarian context (Bacsa, 2012; Horvath & Jessner, 2020; Navracscics, 2022b, 2022a; Navracscics & Molnár, 2017; Perge, 2017; Szabó & Failasofah, 2021; T.Balla, 2009). Over the past decade, the question of acquisition order concerning English and German as a foreign language received particular attention in the educational context (Tápai-Balla, 2012; Perge, 2017; Bacsa, 2012; Boócz-Barna, 2007; Horvath & Jessner, 2020; Szabó & Failasofah, 2022). The motivation of the current thesis is to examine English versus German as L3 in the Hungarian primary school context.

The Dynamic Model of Multilingualism (henceforth DMM) is the main theoretical framework that investigates the components of multilingual awareness, namely metalinguistic- and cross-linguistic awareness in TLA (Hofer, 2017, 2023; Jessner et al., 2016; Jessner & Allgäuer-Hackl, 2020). Multilingual awareness is considered to be an under-researched area in the Hungarian context (Horvath & Jessner, 2023; Szabó & Failasofah, 2021, 2022) so the current dissertation aims to explore the components of multilingual awareness as one of the decisive factors in TLA.. The current study focuses on the different factors that –influence third language acquisition like prior language knowledge, L2 exposure, multilingual awareness, motivation and order of language acquisition from a dynamic perspective (Cenoz et al., 2001; De Angelis, 2007; Jarvis & Pavlenko, 2008; Jessner et al., 2016) as there is lack of research in the Hungarian context. The role of motivation has been investigated in L2 and L3 learning (Cenoz et al., 2007; Csizér et al., 2004; Dörnyei, 1998, 2008, 2014). However there is a lack of research

concerning comparative studies, which examine the connection between the order of acquisition and motivation in TLA (Csizér & Lukács, 2010; Djigunović, 2008, 2012) in the Hungarian context.

Research conducted in various international contexts has extensively documented the benefits of implementing multilingual methodologies and incorporating students' prior language knowledge in foreign language learning (Cenoz & Gorter, 2011; Cenoz, 2008, 2013b; Jessner, 2006, 2014; Lindgren & Muñoz, 2013; Munoz, 2014). Little is known about TLA and it is not clear what factors can have an impact on L3 learning in the case of Hungarian pupils. Therefore, the research questions have been formulated based on tentative assumptions from international research. There is a large volume of published studies describing the role of multilingual awareness in the classroom mostly from the Tyrolean context (Hofer, 2017; Hofer & Jessner, 2019a; Jessner et al., 2016; Jessner & Allgäuer-Hackl, 2020). However, far too little attention has been paid to multilingual awareness, especially in the Hungarian educational context (Horvath & Jessner, 2022, 2023; Pilbauer-Horvath, 2023). In addition, no research has been found that surveyed multilingual awareness at the primary school level from a dynamic point of view.

### **1.3 Outline**

The overall structure of the dissertation takes the form of six chapters, including this introductory chapter. The first chapter gives a brief overview of the significance of the topic, namely the importance of multilingualism from the European perspective. The first subchapter introduces the problem statement of the current thesis. The second subchapter sheds light on the importance of TLA and multilingual awareness in the Hungarian context. The third subchapter presents an outline of the chapters (Chapters 2-6).

The second chapter begins by laying out the theoretical dimensions of the research. Chapter 2 comprises nine subchapters. The first subchapter focuses on the differentiation of the bi- and multilingualism paradigm, then moves on to cover the distinctions between second language acquisition (henceforth SLA) and TLA in the second subchapter. The third subsection explains the relationship between bilingualism and third language acquisition. The fourth subchapter introduces the different models of bi- and multilingualism. The fifth subchapter presents the research's main theoretical framework, the DMM. The sixth subsection discusses the notion of multilingual competence, while

the seventh subsection explains the concept of metalinguistic awareness (henceforth MLA). The eighth subsection gives a brief overview of transfer, cross-linguistic influence (henceforth CLI) and cross-linguistic interaction (henceforth CLIN) phenomena. The last subchapter instantiates the influential factors in TLA.

The third chapter provides a brief overview of the Hungarian foreign language education and its background. The first subsection of Chapter 3 concentrates on language policy in the Hungarian context. The second section presents details about the Hungarian education system regarding the primary section. The third subchapter introduces the national regulations of instructed foreign language learning. The fourth subsection describes L1, L2 and L3 in the Hungarian context. The last subpart of this chapter aims to explore the limited number of research focusing on multiple language acquisition and teaching in the Hungarian educational context.

The fourth chapter is concerned with the methodology used for the dissertation. The first subsection contains a detailed outline of the chosen method used in this PhD dissertation. The second subchapter presents the context of the research while the third subchapter moves on to introduce the research questions. The fourth subpart illustrates the testing population then the fifth subchapter leads into a detailed discussion of the research instruments. The sixth and seventh subchapters describe the data collection and analysis procedures used for the study. The last subchapter covers the results of the pilot phase, which provide research methodological considerations for the test phase.

The fifth chapter is divided into four main sections. The first subsection includes students' performance on the various research instruments. The second subchapter comprises the analysis and results retrieved from the data collected in the research year. The third subchapter presents a discussion of the major findings. The fourth subchapter discusses the limitations of the dissertation.

The sixth chapter consists of three subchapters. The first subpart gives a summary of the results. Then, the second subchapter moves on to the pedagogical and theoretical implications of the findings. The last subchapter presents the possible future research directions.

## **2. THEORETICAL OVERVIEW**

The purpose of this chapter is to review relevant literature for the current dissertation, which is divided into nine main subsections. The first subsection provides essential insights into bi- and multilingualism from the European perspective. Then, a differentiation is drawn between Second Language Acquisition (henceforth SLA) and TLA (Subchapter 2.2). As a next step, the effect of bilingualism on TLA is briefly described (Subchapter 2.3). The following section presents bi- and multilingualism models (Subchapter 2.4). Then, the main theoretical framework of the thesis, namely the DMM, is discussed in detail (Subchapter 2.5). The next subsection explains the notion of multi (lingual) competence (Subchapter 2.6). It is followed by introducing the notion of MLA (Subchapter 2.7). The following section explains transfer phenomena, CLI and CLIN (Subchapter 2.8). The last subchapter considers the decisive factors in additional language learning (Subchapter 2.9).

### **2.1 Bi versus multilingualism paradigms**

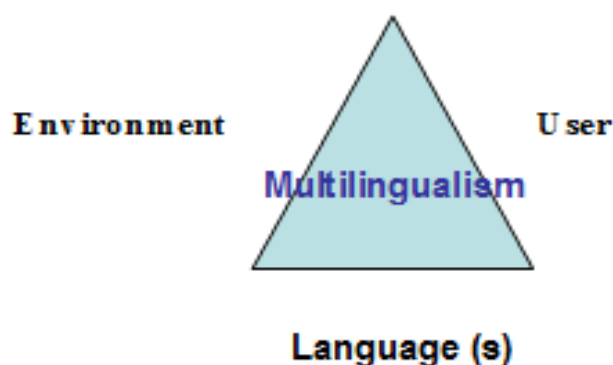
Over 7.000 distinct languages are spoken as someone's first language or mother tongue, and people operate in multiple languages in many countries (King, 2018). During the past 200 years, the assessment of bi- versus multilingualism has undergone dramatic changes around the globe. Most of the world's population is proven to be bi- or multilingual as one may infer that multilingualism research mirrors the linguistic reality in which we live. Although more research studies have been conducted in Asia, Africa, and Latin America, the centre of gravity in bi- and multilingualism research is still limited to North America and Europe (Stavans & Jessner, 2022). Terminological discussions about bi- and multilingualism often focus on the distinctions and similarities between these two phenomena. Researchers explore whether multilingualism inherently includes bilingualism or whether they should be viewed as separate entities. A historical development of bilingualism is introduced, and then the development of multilingualism is presented.

Earlier, bilingualism was not respected; however, nowadays, researchers value the skills of knowing several languages (Siemund, 2023). In its early stages (1800-1950), bilingualism was considered detrimental to cognitive abilities. Earlier investigations ascertained that favouring a monolingual model would benefit both everyday life and

education (Saer, 1923). In the next phase (approx. 1950-1990), researchers concluded that bilingually raised children were not deficient; mentally, they could separate both languages like their monolingual peers (Peal & Lambert, 1962). Several examples from the literature highlight the positive effect of bilingualism on monolinguals (Bialystok & Majumder, 1998; Hakuta, 1987; Hakuta & Diaz, 1985). A large and growing body of literature has investigated the issue of whether bilingualism is a variant of multilingualism or whether the two concepts should be treated separately as two entities (Aronin, 2015; Aronin & Hufeisen, 2009; Auer & Wei, 2008; Singleton & Aronin, 2018; Singleton & Cook, 2014). Haugen (1956) believes in his pioneering work that bilingualism includes multilingualism. According to him, the term 'bilingualism' embodies many concepts, and no universal definition exists. Various descriptors can influence the individual's language learning processes, leading a language learner to become bi- or multilingual. The level of linguistic proficiency is influential in describing the degree of bilingualism in bi- and multilingualism research (Haugen, 1973). Minimalist and maximalist viewpoints of bilingualism are distinguished based on language proficiency. At one end of the spectrum, Bloomfield (1933) argues that bilingualism "is a native-like control of two languages" (Bloomfield, 1933, p. 56). The critical problem with this definition is that it seems too extreme, maximalist and ambiguous. As an alternative, Haugen (1953) proposes that bilingualism starts at "the point where a speaker can first produce complete meaningful utterances in the other language" (Haugen, 1953, p.7). In contrast, Diebold (1964) suggests the concept of the incipient bilingual, which means having minimal competence in a second language. Taking these disparate views into account, Valdés (2003) indicates that we need to view the languages of bilinguals as existing on a continuum (from A to B). In this aspect, Valdés' perspective can be a synthesis of the formerly mentioned three viewpoints (Valdés, 2003). There is a wide range of terms for bilingualism, but there is no generally accepted definition (Baker & Wright, 2017). The distinction between bi- and multilingualism is multifaceted and can be viewed from different perspectives. For Braun (1937), multilingualism has to involve "active, completely equal mastery of two or more languages" (Braun, 1937, p. 115). By contrast, Grosjean (2001) points out that bilinguals use two or more languages daily, so the focus is on regular use and not on fluency. Braun (1937) and Grosjean (2001) express their views about bilingualism, but they refer to two or more languages, which can also be defined as multilingualism based on the up-to-date definition (Braun, 1937; Grosjean, 2001).

According to Edwards (1994), multilingualism is no longer the exception but the rule from a global perspective (Edwards, 1994). He defined the essential components of multilingualism as speaker, setting, and language. Aronin & Singleton (2012) have updated Edward's (1994) terminology (Aronin & Singleton, 2012; Edwards, 1994). These components represent the fundamental elements of multilingualism, capturing the individuals using a specific language, the settings or environments in which the language is used, and the languages themselves, as represented in Figure 1. These elements are constantly changing because they generate a different kind of multilingualism, i.e., the diversity of social practices connected to language use in a separate space and time.

**Figure 1. The three components of multilingualism**



The following categorisation is made by Cenoz (2013). Firstly, bilingualism can be seen as a generic term and refers to research that includes only two languages rather than multiple languages. Secondly, multilingualism is viewed as a generic term that is now considered the mainstream position. This view makes it possible that bi- and trilingualism are claimed to be part of multilingualism research. Thirdly, bi- and multilingualism can be contemplated as two different terms. Some scholars use the notion of 'bilingualism', which refers to using two languages. In opposition to this, multilingualism comprises acquiring two or more languages. The third viewpoint stands the closest to the author's opinion along with Aronin & Jessner (2014), who emphasise that "multilingualism is a separate field of study with its subject and methods of research" (Aronin & Jessner, 2014, p. 271). Furthermore, Montanari & Quay (2019) assert that multilingualism is someone's ability to interact in two or more languages. Alongside the formerly mentioned scholars, Clément (2008) also summarized the distinction in a similar way: bilingualism as "the

ability to speak two languages: the frequent oral use of two languages,” and multilingualism as “of, containing, or expressed in several languages” and “using or be able to use several languages” (Clément, 2008, p. 1). Multilingualism differs from mono- and bilingualism as multilingualism requires more complex interactions and enhances multilingual awareness due to the increased number of languages in the multilingual individuals’ repertoire (Stavans & Jessner, 2022). Collectively, these studies provide important insights into the discrepancies between bi- and multilingualism research. Drawing on an extensive range of sources, the author set out to highlight the terminological discrepancies between bi- and multilingualism. The current thesis handles the notion of bi- and multilingualism as two separate entities and the research uses the term multilingualism in the following sections of the dissertation. To sum up, the author completely agrees with the following quotation supporting the view of multilingualism as a separate field: „Although the study of multilingualism largely stems from the study of bilingualism, multilingualism is now widely seen as a separate field of study with its own subject matter, models, theories and methods of research” (Singleton & Aronin, 2018, p. 12).

## **2.2 Second Language Acquisition vs. Third Language Acquisition**

After having focused on the debate between the bi- and multilingualism paradigms. This subchapter describes differences between SLA and TLA (Siemund, 2023). It has to be noted that the term TLA will be used to describe the phenomenon of learning an L3 in the school context. It has been an issue of interest how individuals master several languages and to what extent even in the past decade (Vildomec, 1963; Weinreich, 1979). TLA research was a neglected phenomenon in bilingualism studies and SLA research. Before 1980, learning a third language was recognized as a variant of second language learning. It was assumed that the same principles governed additional language acquisition (Mitchell et al., 1998; Singh & Carrol, 1979) as the SLA. The historical perspective outlined here highlights a time when the study of SLA did not necessarily distinguish between learning a first non-native language and learning additional languages (Larsen-Freeman & Long, 2014; Spolsky, 1988). Consequently, research in SLA and bilingualism historically considered learners or users of both second and third

languages within the same theoretical framework. The study of SLA focuses on the learning process of second languages (Saville-Troike & Barto, 2016; Singleton & Cook, 2014). Traditionally, no clear distinction was made in the SLA literature between learning one's first non-native language (henceforth L2) and learning a further language (henceforth L3). The practice was treating all language learners within the same system, considering them second language learners. Most researchers believe that the development and processing of an L2 include the same mechanisms needed to acquire an L3 (Jessner, 2008a).

The intense activity in the scope of TLA began approximately between 1980 and 2000 (Cenoz & Jessner, 2000; Clyne, 1997; Dentler et al., 2000; Dewaele, 1998; Hufeisen & Lindemann, 1998). This historical context sets the stage for the later emergence of TLA as a distinct domain of study because scholars started recognizing the need to differentiate between L2 and L3 acquisition (Cenoz, 1998; Cenoz & Jessner, 2000; T. Balla, 2012). Research on TLA is still limited, although this particular field is becoming popular, as evidenced by the works of scholars (De Angelis, 2007; Fouser, 1995; Franceschini, 2011; Hammarberg, 2001; Hoffmann, 2001; Jessner, 1999). Several monographs, special issues and edited volumes have recently been published on different aspects of TLA (Aronin & Hufeisen, 2009; De Angelis, 2011, 2015; Hobbs, 2012; Leung, 2009; Safont Jorda, 2005). The increased interest in TLA has led to a need for research on the potential differences between multilingualism and TLA. Scholars have undertaken investigations to explore the nuances and distinctions between these language acquisition processes (Aronin & Hufeisen, 2009; Hammarberg, 2014; Kemp, 2009).

In some literature, TLA is a synonym for multilingualism, but TLA refers to the acquisition of a third or additional ( $L_n$ ) language. Cenoz (2013) formulates the connection between multilingualism and TLA in the following way: "TLA can be regarded as a specific aspect of the study of multilingualism" (Cenoz, 2013a). Recognising TLA as a separate field reflects a deeper understanding of the complexities of acquiring a third language and acknowledges that the dynamics may differ significantly from the processes observed in SLA (Herdina & Jessner, 2000, 2002). This distinction allows researchers to explore TLA in a more focused and specialized manner. The definition of TLA is based on quantitative and qualitative changes in the language learning process. In many European contexts - like in Germany, France, Italy, Spain, Austria – the individual can grow up with three or even more languages or acquire two more languages, adding to

their first language (Cenoz, 2009; Cummins, 2008). Additional language learners start to acquire their L3, L4, and Ln on a bilingual basis, so their language acquisition progress is affected by all the previous languages (Cenoz et al., 2001; Cenoz & Jessner, 2000).

De Angelis (2007) proposes four possibilities by labelling TLA research: (a) Multiple Language Acquisition, (b) Multilingual Acquisition, (c) Third Language Acquisition and (d) Third or Additional Language Acquisition. TLA cannot be well defined in one meaningful way, as many definitions can be found in relevant literature. An L3 may stand for "a) the chronologically acquired L3, b) the next language encountered after the simultaneous acquisition of two languages in early infancy (Cenoz & Jessner, 2000), c) any non-native language currently being acquired by a speaker who is already familiar with one or more other non-native languages (Hammarberg & Williams, 2009) and d) the notion third or additional language is used instead of a L3. Researchers working in the field tend to use the latter two versions, so TLA or additional language acquisition are the common terms (De Angelis, 2007). Cenoz (2013) defines Third Language Acquisition (TLA) as the process of acquiring a language that is distinct from both the first language (L1) and the second language (L2). This means that TLA happens after the acquisition of L1 and L2. Unlike Second Language Acquisition (SLA), where the learner moves from their native language to a new one, TLA introduces an additional layer of complexity, as learners now have experience with two languages and must navigate how these interact during the learning process of the third language (L3). Jessner (2006) supports the idea of emergent qualitative changes in multilingualism, particularly in the context of acquiring three languages. Jessner (2006) argues that the process of learning a third language (L3) involves not just quantitative changes—such as adding a new set of vocabulary and grammar—but also qualitative shifts in how learners process and manage their languages.

Apart from all the individual and social factors affecting second language acquisition, the process of learning and the product of having learnt a second language can potentially exert influence on the acquisition of an L3, and this involves a quality change in language learning and processing (Jessner, 2006, p. 14).

### **2.2.1 TLA from three perspectives**

This subchapter presents TLA from sociolinguistic, psycholinguistic and educational perspectives (Jessner, 2008b). Many researchers have investigated TLA from a psycholinguistic point of view (Cenoz and Valencia, 1994; Cenoz et al., 2001; Herdina & Jessner, 2002; Jessner, 2006; Cenoz, 2003; Hammarberg, 2001; Munoz, 2000).

Psycholinguistic studies concerning tri- and multilingual learners delve into various aspects, including the developmental trajectories of TLA, the maintenance, attrition, and loss of languages, as well as the characteristics of multilingual language production and its cognitive mechanisms. This perspective includes early trilingualism, the effect of bilingualism on TLA (see: Subchapter 2.4), and metalinguistic awareness (Subchapter 2.7) and cross-linguistic influence. It has to be highlighted that trilingualism needs to be clarified as the other notions will be described in the next sections of the current thesis. Hoffman's (2001, p.3) classification of trilingual individuals into five categories — those with two home languages different from the community language, those in bilingual communities with a different home language, third language learners, immigrants, and those in trilingual communities — provides a nuanced understanding of the diverse pathways to trilingualism. This framework highlights the importance of context in shaping language acquisition and use, offering valuable insights for research, education, and policy development. Cases of trilingualism can indeed be divided into four interrelated variables, which provide a comprehensive framework for understanding the complexities involved in acquiring and using three languages: 1) age of first important contact with the language, 2) input received (type, modality, and quantity), 3) level of proficiency in each language and the order of language acquisition (Hoffmann, 2001). Knowing more than two languages facilitates additional language learning because one acquires multiple lexical and grammatical cues in acquiring a further language. The psycholinguistic approach makes it possible to examine the field of TLA concerning the previously acquired language, including proficiency level, exposure to the language, and usage-based variables like individual learning experience (Woll, 2016). Learners of two or more languages face the challenge of developing effective strategies and skills to successfully navigate the complexities of language learning tasks. Multilingual speakers

can reflect on their learning process and more successfully explain the usefulness of prior linguistic knowledge (Jessner, 2008b) (see also Subchapter 2.3,2.4, 2.5,2.8).

Sociolinguistics considers language to be a behaviour that involves regional and social situations. Language is not only used for communicating, but it also has the power to form one's identity (van Coetsem, 1992). Recent publications on multilingualism frequently highlight the prevalence of multilingualism both at the national level and among individual citizens. In a global context, multilingualism is portrayed as the norm rather than the exception, as emphasized by scholars such as Edwards (1994). Many countries worldwide are characterized by linguistic diversity, with multiple languages spoken within their borders (Jessner, 2008b). The societal aspect of multilingualism is emphasized by multiple languages within a society, which can include official, unofficial, international, national, foreign, or native languages (Okal, 2014). Aronin (2018) conceptualizes societal multilingualism as encompassing organized and unorganized language practices involving three or more languages. This multilingualism extends beyond the mere coexistence of languages within a territory, involving active engagement in language use by individuals within the society. The spectrum of multilingualism ranges from a more passive coexistence of languages to a more integrative form where individuals actively engage with multiple languages. According to Aronin (2018), language use within a multilingual society is influenced by various underlying factors. These factors include individuals' attitudes towards different languages, their language behaviour shaped by underlying assumptions, and the management of language policies within society. These elements collectively contribute to shaping the dynamics of multilingualism within a given societal context.

Cenoz (2013b) discusses the use of multiple languages within a society, highlighting multilingualism as a social phenomenon. She differentiates between additive and subtractive multilingualism. Additive multilingualism is where an additional language is acquired while maintaining the development of the first language. Subtractive multilingualism is where learning a new language replaces the speaker's initial language (Cenoz, 2013b, p. 5). Emphasizing a holistic understanding of multilingualism, Cenoz (2013) advocates for recognizing the dynamic interplay between multilingual speakers and the communicative contexts in which they interact. Becoming a competent multilingual involves acquiring the skills necessary to be recognized and accepted as a

member of a specific community. Multilingual speakers actively shape the communicative contexts in which they operate through their language practices (Kramsch & Whiteside, 2007). Cenoz & Gorter (2020) point out that in recent decades, the communicative context has become increasingly multimodal, incorporating diverse elements such as visuals, sounds, texts, and other symbolic systems. They argue that multilingual competence is intricately connected to the social context in which language practices occur. In these contexts, the boundaries between languages and various semiotic devices often blur, allowing for complex and dynamic forms of communication (Cenoz & Gorter, 2020).

Learning third languages at school presents a common experience for many children worldwide. Most of these children study two foreign languages at school such as English and French, in Austria or Germany. TLA also exists in certain European schools where several languages are used as a medium of instruction (e.g. Baetens-Beardsmore, 1995) or due to double immersion, as described by Genesee (1998). In most European countries, bilingualism and bilingual education have a more extensive literature background. TLA in school is considered a multidisciplinary phenomenon that includes linguistic and psycholinguistic processes and educational aspects of teaching two or more languages (Cenoz et al., 2001). One significant distinction could be found between trilingual education and TLA. „Whereas TLA is used to refer to learning an L3 as a school subject, trilingual education involves the use of three languages as languages of instruction ” (Aronin & Hufeisen, 2009, p. 123). Trilingual education is a common issue, and some countries offer the possibility of teaching additional languages besides the children's home language(s). Examples of multilingual schooling can be found in countries where minority languages are used, like in Spain, in Luxembourg, in different parts of Austria and Slovenia and the Netherlands (Cenoz & Jessner, 2009) (See also Subchapter 2.6.2).

### **2.3 The effect of bilingualism on TLA**

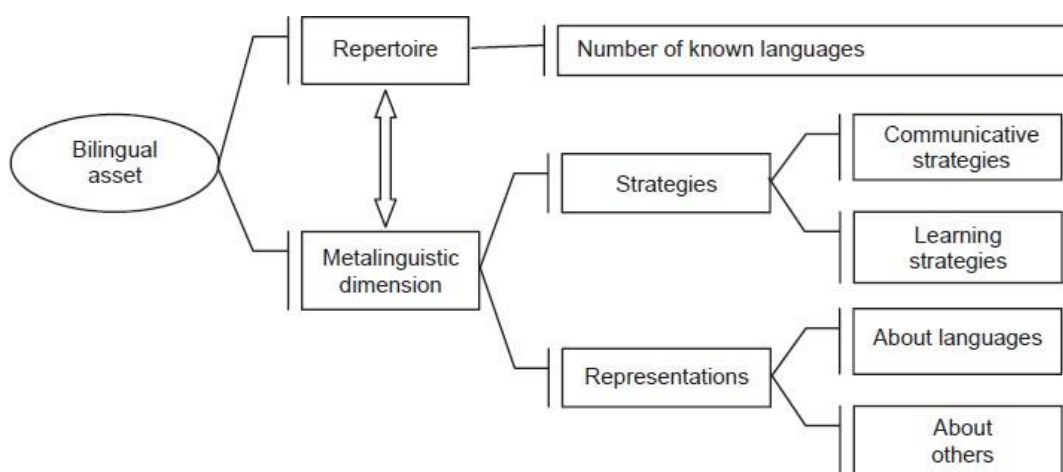
The first subchapter has drawn distinctions between bilingualism and multilingualism, and the second subsection has shown differences between SLA and TLA. The third subchapter presents studies investigating the link between bilingualism and third language acquisition. Cenoz (2013) contemplates that both TLA studies and studies

highlighting the positive role of bilingualism on TLA add valuable insights into language acquisition studies. Herdina & Jessner (2002, p.117) define bilingualism in the DMM:

We see bilingual systems as variants of multilingual systems but not equated with multilingual systems since multilingualism ranges from monolingual acquisition, that is the learning of an L2 by a native speaker, to balanced bilingualism or even ambilingualism and to the command of three or more language systems to point out a few stages.

Bono & Stratilaki (2009, p. 212) proposed a model to represent the bilingual asset in L3 learning. Metalinguistic awareness reinforces different skills to supplement one's linguistic competence while learning an additional language.

**Figure 2. The bilingual asset in L3 learning**



Large scale studies affirm that previous language knowledge positively impacts learning additional language(s). Cenoz & Valencia (1994) studied the influence of bilingualism on the acquisition of English (L3). Only students aged between 17 and 19 years were included in the study. A general achievement test in English was used to measure their knowledge of English, such as L3. Multiple regression tests showed that bilingualism had an impact on English proficiency. After the experiment, they concluded that bilingualism can mediate towards third language learning (Cenoz & Valencia, 1994). Gibson & Hufeisen's (2003) study also focused on the positive role of bilingualism in the additional language learning process. 64 men and women were recruited to be involved

in this research. Certain stages of foreign language and L2 production stood in the centre of the investigation using translation tasks. Participants needed to translate texts from unknown into known languages (Gibson & Hufeisen, 2003). A pen and paper task was employed, requesting that the correct preposition be filled in to fit the verb best.

Gibson&Hufeisen (2003, p.87) have formulated their view after the project:

Knowing more foreign languages, especially similar ones like English and German, facilitates the learning, especially the reception and perception, of yet further languages in general, because learners tend to use – among other conscious and subconscious strategies - transfer techniques which make use of their different (foreign) languages in order to understand or produce the target language item(s).

Sanz (2000) examined Catalan/Spanish high school students learning English as L3. The 201 subjects were selected based on the number of their languages, so 77 monolinguals and 124 bilinguals were chosen for this observation. A questionnaire was applied to elicit data on participants' age, gender, exposure to the English language, motivation and attitudes towards British/American English. Raven's Progressive Matrices Test was used to evaluate the level of intelligence of the subjects. English proficiency test was administered to estimate the level of language proficiency. In summary, these results suggest an association between bilingualism and L3 learning (Sanz, 2000).

Furthermore, a study conducted by Haenni Hoti et al. in 2011 aimed to investigate the influence of acquiring an L2 on the development of reading skills in an L3 among students in Switzerland whose L1 was German. The first group consisted of learners whose L3 is English from grade 5 meanwhile, the second group included participants who were learning French as L2. The key findings indicate that students learning English as an L3 outperformed those who did not have English as an L3 in terms of their French reading and listening skills. This suggests a positive impact of acquiring English as an additional language on the development of proficiency in French (Haenni Hoti et al., 2011). There is consistent evidence supporting the positive impact of bilingualism on various L3 skills and structures (Cenoz, 2013b; Cenoz & Valencia, 1994; Hambly et al., 2013; Zare & Mobarakeh, 2013). Overall, these studies collectively contribute to the understanding that bilingualism, especially in the context of knowing multiple languages, positively influences various aspects of L3 acquisition, including vocabulary, reading skills,

metalinguistic awareness, and language production. The findings emphasize the interconnectedness of language skills across different languages in a multilingual learning environment. An example of this is the study carried out by Zare & Mobarakeh (2013) in which L3 vocabulary acquisition was explored to compare Iranian monolinguals (Persian) and bilinguals (Persian, Arabic) of 100 high school male participants. Bilinguals outperformed monolinguals in L3 vocabulary production. Another study conducted by Kassaian & Esmae'li (2011) compared L3 vocabulary knowledge between monolinguals (Persian) and bilinguals (Persian and Armenian). Bilinguals demonstrated a larger vocabulary size and better word reading skills. This is also exemplified in the work undertaken by Peyer et al (2010).

The role of multilingualism on L3 German reading was examined in adult university learners (312/Italian, 194/French) whose mother tongue was either French or Italian. They had other languages at their disposal like English and Spanish as L2. Multilingual competence was found to be conducive to the reading comprehension of German sentences. Rauch et al (2012) explored the role of literacy on metalinguistic awareness and L3 reading acquisition in secondary school learners (Turkish and German). Bi-literate learners outperformed monolingual learners in L3 English reading and metalinguistic tests. Hanbay (2013) investigated the role of L2 (English) in learning L3 (German) in Turkish high school learners. A significant correlation was found between English and German achievement test scores. Sánchez (2015) conducted a longitudinal study on the role of L2 (German) on the written production of L3 (English) in young learners. The study highlighted the importance of background languages during L3 production, with stronger interlingual connections between L2 and L3 at the beginning of L3 acquisition. The bilingual advantage in L3 acquisition is attributed to the cognitive benefits of bilingualism, such as enhanced attention, inhibition, and metalinguistic abilities (Bialystok, 2005; Jessner, 2008b; Sanz, 2000).

According to Bialystok (2005), bilingualism is suggested to accelerate the development of a general cognitive function related to attention and inhibition. Bilingual individuals may exhibit enhanced metalinguistic skills, allowing them to analyse and understand the structure and rules of language systems. The development of cognitive functions through bilingualism may contribute to improved performance in tasks and processes that require these functions. The sequential acquisition of two languages is

proposed to contribute to developing meta-skills that play a role in grasping language systems, potentially influencing the learning process of additional languages (Herdina & Jessner, 2002; Jessner, 2006). This explanation aligns with research highlighting bilingual individuals' cognitive and metalinguistic advantages in various linguistic contexts.

## 2.4 Multilingualism Models

This section presents models which are connected to multilingualism studies. During the past 30 years, much more information have become available on models of multilingualism. In research on TLA, which aims to bridge SLA and bilingualism, scholars often draw on models and theories from both fields to investigate how individuals acquire and use an L3 in addition to their first two languages (Jessner, 2008b). By integrating insights from psycholinguistics, SLA, bilingualism and Dynamic Systems Theory (henceforth DST), researchers can develop a more comprehensive understanding of multilingualism and inform language education practices that cater to the needs of multilingual learners (Jessner, 2008b). This subchapter explores existing models of multilingualism presented in Table 1 in chronological order: the Foreign-language acquisition Model by Groseva (2000), the Factor Model designed by Hufeisen (2005), the DMM found out by Herdina & Jessner (2002) (which represents the main theoretical framework of the current thesis and is discussed in more detail in Subchapter 2.5), the Multilingual Processing Model by Franz-Josef Meißner (2004), the Entrenchment and Conventionalization Model by Schmid (2015, 2020).

**Table 1. Models of Multilingualism**

Models	Functions
Foreign-language acquisition Model by Groseva (1998,2000)	The second language is the source of comparison and contrast while acquiring an L3.
Factor Model by Hufeisen (1998) and Hufeisen and Marx (2003,2007)	The Factor Model emphasizes the differences between second and third language acquisition by describing the different interrelated factors.
The Dynamic Model of Multilingualism by Herdina and Jessner (2002)	The DMM investigates the process of multilingual development by exploring the interrelated variables i.e. the individual, social and psycholinguistic factors. It emphasizes the key role of the M-factor in multilingual development.

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Biotic Model of Multilinguality by Aronin & O' Laoire (2004)	This sociolinguistic model describes the phenomenon of multilingualism in society. It concentrates on the societal aspect of multilingualism.
Multilingual Processing Model by Meißner (2004)	It highlights the syntactic structure transfer from the second language to an additional one by true-beginner learners.
Entrenchment and Conventionalization Model by Schmid (2015,2020)	This model tackles the multilingualism notion from a socio-cognitive basis in which the linguistic system is based on the interactions between communicative activities and social and cognitive exigencies

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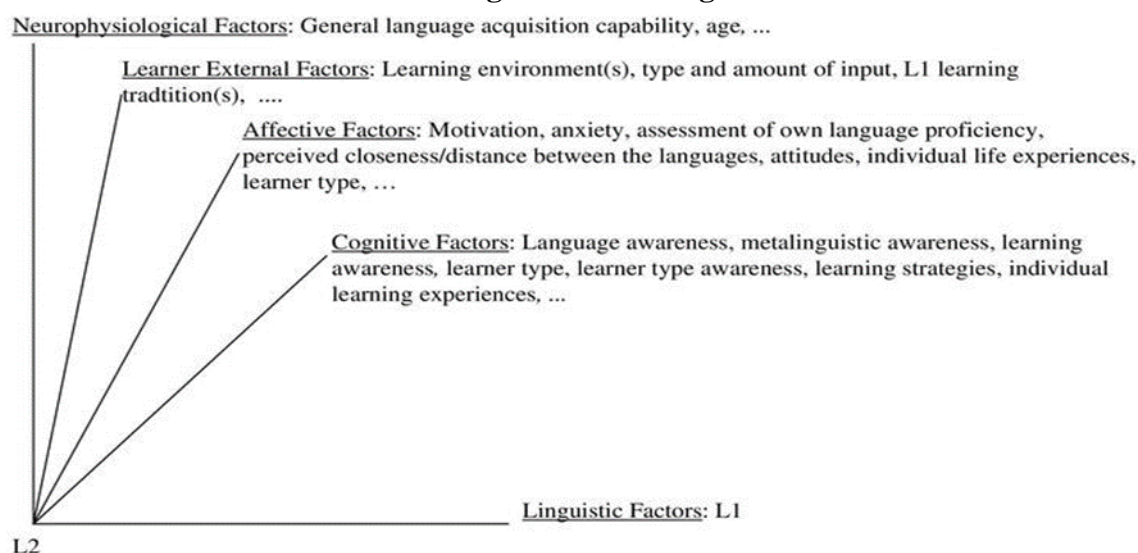
### 2.4.1 Foreign-language Acquisition Model

Groseva (1998) made significant contributions to understanding the acquisition of additional languages, particularly in the context of the role of an L2 in subsequent language learning (L3 or beyond). The Foreign Language Acquisition Model (henceforth FLAM) emphasizes the influence of the L2 as a reference point for learners when acquiring an L3 or additional language. Groseva's model suggests that learners drawing from their knowledge of an L2 can use it as a basis for comparison and contrast when acquiring an L3 or additional language. This means that learners may consciously or subconsciously compare linguistic features, structures, and vocabulary between the L2 and the new language, which can facilitate or hinder the acquisition process depending on the similarities and differences between the languages. Groseva highlights the distinction between the acquisition of the L1 and subsequent languages, particularly the L3. While L1 acquisition typically occurs unconsciously during early childhood and is deeply ingrained, learners of L3 or beyond possess metalinguistic awareness skills that allow them to consciously compare and contrast the new language with their L1 and L2. Unlike learners acquiring their L1 or L2, L3 learners have the advantage of being able to compare the new language with both their L1 and L2. This comparative advantage can accelerate language learning by leveraging existing linguistic knowledge and highlighting similarities and differences between languages (Groseva, 1998). The FLAM has indeed been influential in shaping subsequent models that delve into the complexities of language learning and the role of the first language in this process. Hufeisen's Factor model, introduced by Hufeisen in various works spanning from 1991 to 2020 and in collaboration with Gibson in 2003, and Meißner's Multilingual Processing Model from 2002 both build upon the foundation laid by the FLAM.

### 2.4.2 The Factor Model

Hufeisen (1998, 2000, 2003, 2005, and 2011) has developed a comprehensive model to elucidate the processes involved in first, second, third, and even fourth language acquisition, particularly focusing on the initial stages of successive language learning. The author posits that L2 learners are often regarded as novice foreign language learners due to their lack of familiarity with the language learning process and their relative inexperience. In line with Groseva's model, they view the L2 as a bridge language, implying that it serves as a reference point or intermediary in subsequent language acquisition. According to the model, L1 learning is controlled by neurophysiological factors, which consist of age and general language acquisition capabilities. Moreover, learner external factors involve the learning environment and time and amount of input (also called language exposure). In L2 learning, the learner's L1 learning traditions further influence these neurophysiological and external factors. This means that the individual's experiences and strategies in acquiring their first language can shape their approach to learning subsequent languages. Additionally, L2 learning introduces new sets of affective, cognitive, and linguistic factors that interact with the existing factors. These may include affective, cognitive and linguistic factors represented by Figure 3 (Hufeisen, 2003).

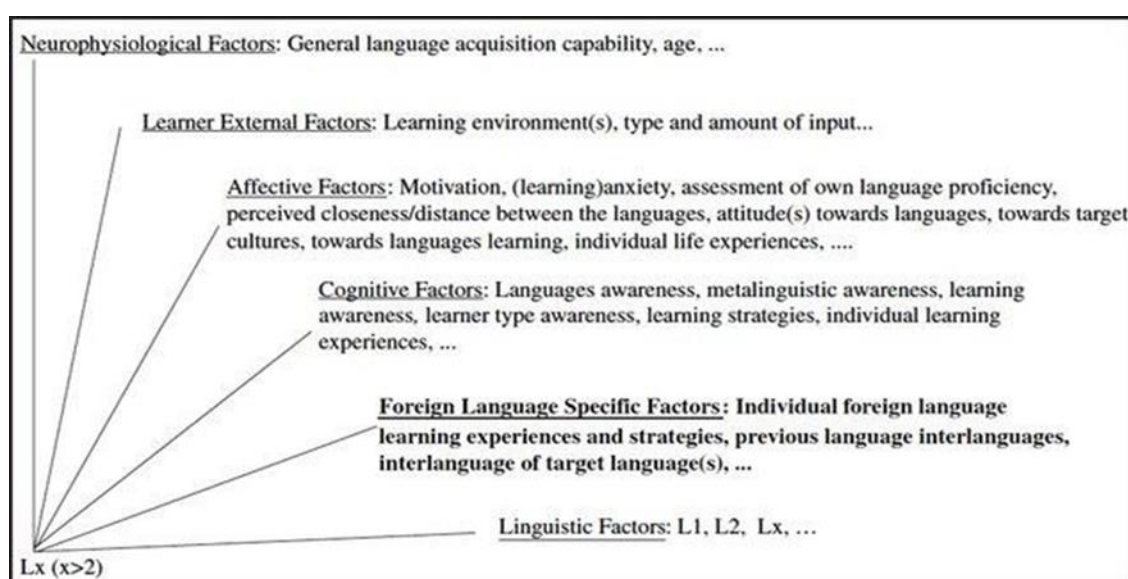
**Figure 3. Learning of an L2**



The Factor Model (Hufeisen, 2003) categorizes factors influencing language acquisition into neurophysiological factors and learner external factors, as represented in

Figure 4. The model provides a nuanced understanding of the complexities involved in language acquisition. Considering the learning of an L3, the Factor Model recognizes the influence of foreign language-specific factors on the learning process and L2, L3 and L<sub>x</sub> linguistic factors. By delineating the differences between L2 and L3 acquisition and identifying the multifaceted influences on language learning, this model offers valuable insights for language educators and researchers aiming to optimize language instruction and support multilingual learners (Hufeisen, 2003; Hufeisen & Marx, 2007).

**Figure 4. The Factor Model**



### 2.4.3 The Biotic Model of Multilinguality

The Biotic Model of Multilinguality proposed by Aronin and O’Laoire (2004) offers a sociolinguistic perspective on the phenomenon of multilingualism. The model draws on ecological metaphors to better understand the dynamics of language use and acquisition in multilingual individuals and societies. This model distinguishes between individual multilingualism and multilinguality at the community level, providing insights into the general characteristics of multilingualism within society. As outlined by the authors, these characteristics serve as critical indicators of language behaviour within a given context: complexity(1), multifunctionality(2), inequality of function(3), interrelatedness(4), fluctuation(5), self-balance(6), self-extension(7), non-replication(8), and variation(9). In the following, the formerly mentioned characteristics are described in detail. Multilingual environments are inherently complex, involving multiple languages that interact in varied

and intricate ways. This complexity can be seen in the diverse linguistic practices and competencies of multilingual individuals. (1) Languages in a multilingual setting serve multiple functions. They are not only tools for communication but also carry cultural, social, and identity functions that vary depending on the context and the individuals involved. (2) Not all languages in a multilingual setting have equal status or function. Some languages may dominate certain domains (e.g. education, government), while others are used in more restricted or informal contexts. (3) The languages within a multilingual individual's repertoire or within a multilingual community are interrelated. The use and proficiency of one language can influence and be influenced by the others. (4) Language use in a multilingual context is not static; it fluctuates based on various factors such as social context, personal needs, and exposure. This fluctuation can occur over time or across different situations. (5) Multilingual systems tend to achieve a state of self-balance, where the use of multiple languages is managed in a way that meets the communicative needs of individuals and communities, even amidst changing conditions. (6) Languages and linguistic practices in a multilingual context are capable of self-extension, meaning they can adapt and expand to new domains and functions as needed by the speakers. (7) Each multilingual context is unique and cannot be exactly replicated. The specific combination of languages, their functions, and their interactions are distinct to each individual or community. (8) There is significant variation in multilingual practices and competencies among individuals and communities. This variation is influenced by factors such as personal history, social networks, and broader sociopolitical dynamics. (9)

By elucidating these characteristics, the Biotic Model of Multilinguality provides a holistic framework for studying and understanding the complex dynamics of multilingualism within diverse sociocultural contexts (Aronin & Ó Laoire, 2004).

#### **2.4.4 Multilingual Processing Model**

The Multilingual Processing Model, developed within the *EuroCom* project (Klein & Stegmann, 1999), delineates the processes of perceiving written or oral texts in a foreign language that shares typological similarities with other languages known to the learner. This model provides insights into how individuals navigate comprehension and production tasks when encountering a foreign language closely related to their native or

other acquired languages (Meißner, 2004). The first is the etymological connection, which means that the languages involved must have a historical or etymological connection for transfer to occur effectively. The second condition is proficiency in the bridge language. Learners need to be proficient in the intermediary or bridge language to leverage it effectively for transferring linguistic knowledge to the target language. The third condition is giving clear instructions. Educational institutions must provide explicit instruction that enables learners to benefit from their previously acquired language knowledge. The reception process unfolds in several stages. The first is to formulate a hypothesis. Learners initially form hypotheses about the grammar rules of the target language based on their knowledge of the intermediary language. For example, a Syrian English learner may initially decode German by relying on their prior knowledge of English. The second is to create an inter-lingual correspondence between grammar rules. Learners establish rules that allow them to compare and contrast structures between the intermediary and target languages, facilitating cross-linguistic transfer. The third is to establish a multilingual intersystem. Learners develop successful cross-linguistic transfer and inference processes, creating a multilingual framework that aids in understanding the additional language. This involves six transfer cases: transfer of communicative strategies, inter-lingual processing procedures transfer, cognitive principle transfer, retroactive overlap transfer, learning strategies transfer, and learning experiences transfer. Finally, learners store metacognitive strategies acquired through the learning process in the target language, enhancing their ability to comprehend and use the language effectively. Overall, Meißner's model highlights the intricate process of language acquisition and the importance of leveraging prior language knowledge, particularly from typologically related languages, to facilitate learning additional languages (Meissner, 2004)

#### **2.4.5 Entrenchment and Conventionalization Model**

This subsection outlines Schmid's (2015, 2020) conceptualization of the linguistic system, mainly through the lens of his Entrenchment and Conventionalization Model (henceforth EC-model). Schmid employs the analogy of a 'Tinguely' machine to describe the linguistic system as a continuously running dynamic feedback system comprising interacting subsystems such as usage, conventionalization, and entrenchment. Conventionalization and entrenchment represent the social and cognitive processes,

respectively, that influence linguistic use. Conventionalization pertains to social processes that establish and reinforce linguistic norms, while entrenchment refers to cognitive processes within individuals' minds. The next key point is the characteristics of the linguistic system, which can be broken down into three key elements: the usage-based apparatus, the socio-cognitive basis and the dynamic nature of the system. The usage-based apparatus means that the linguistic system is viewed as rooted in functional and interactive processes. The socio-cognitive basis refers to the interplay between social and cognitive factors, reflecting identity, solidarity, power, and authority dynamics. The dynamic nature represents the linguistic system undergoing continuous and unpredictable changes driven by language users' activities. The next element is the role of the usage activities, which provide input for conventionalization and entrenchment cycles while influenced by social and cognitive factors across language levels and contexts. Specific forces affect the linguistic processes, which can be found at all three levels. Usage describes forces like repetition, cognitive economy, salience, and power influencing linguistic usage. Conventionalization includes factors such as co-semiosis, subjectivity, identity, mobility, and repetition frequency that impact conventionalization. Entrenchment contains forces like similarity, analogy, salience, and iconicity that affect entrenchment processes. The EC model aims to handle social variation, managed through processes like equalisation and diffusion, with equalisation promoting conformity to contextual utterance profiles and diffusion accommodating individual differences. While based on the English language system, Schmid suggests that the EC-model can be applied to other multiple-language learning contexts. Overall, Schmid's EC-model offers a comprehensive framework for understanding the dynamics of the linguistic system, emphasizing the interplay between usage, social factors, and cognitive processes in shaping language structure and change (Schmid, 2015).

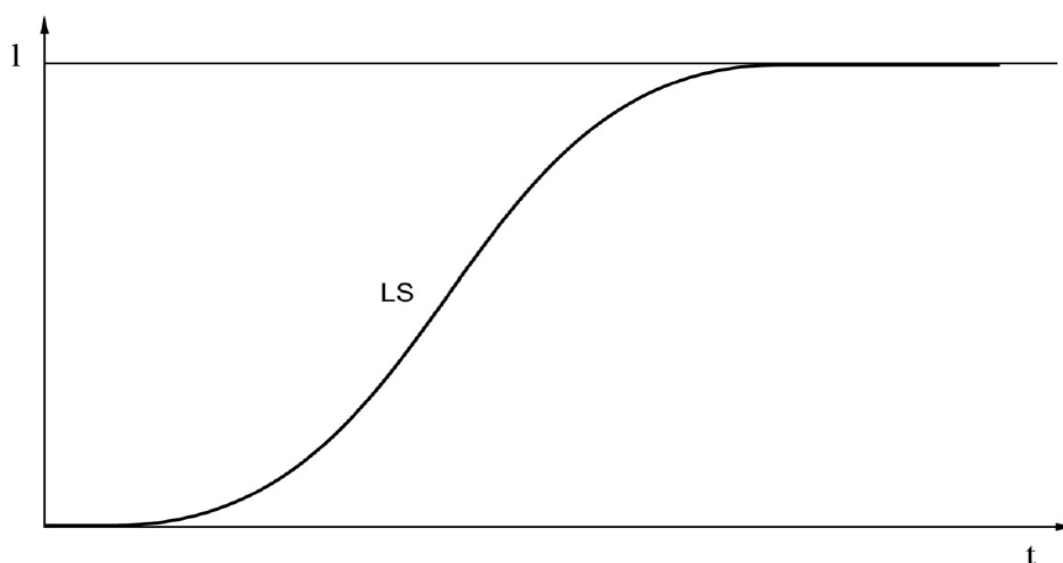
## **2.5 The main theoretical framework: The Dynamic Model of Multilingualism**

The former subsection has presented the most important bi- and multilingualism models. The following subsection (2.5) is devoted to the main theoretical framework of the current study which is embedded in the DMM. Many researchers believe language development should be surveyed as embracing the multilingual norm in language acquisition research

(Cenoz et al., 2001, 2003; Cenoz, 2013a; Cenoz & Jessner, 2000; Cook & Wei, 2016; Herdina & Jessner, 2002).

The DMM uses holistic approaches such as Grosjean's view of bilingualism (2001) and Cook's concept of multicompetence in TLA (2016). These approaches view bilingual individuals as competent or multicompetent speakers whose minds operate differently from monolinguals in each language. Herdina & Jessner (2002) extend this holistic perspective to multilingualism, emphasizing the dynamic nature of multilingualism as essential to understanding it fully. They draw on DST, chaos theory or complexity theory to analyse multilingual development. DST suggests that interactions between subsystems within a complex system (such as language development) cannot be simply additive; instead, they influence overall and individual development in non-linear ways, as represented in Figure 5.

**Figure 5. Biological growth**



*LS = language system; t = time; l = language level* (Herdina & Jessner, 2002, p. 90)

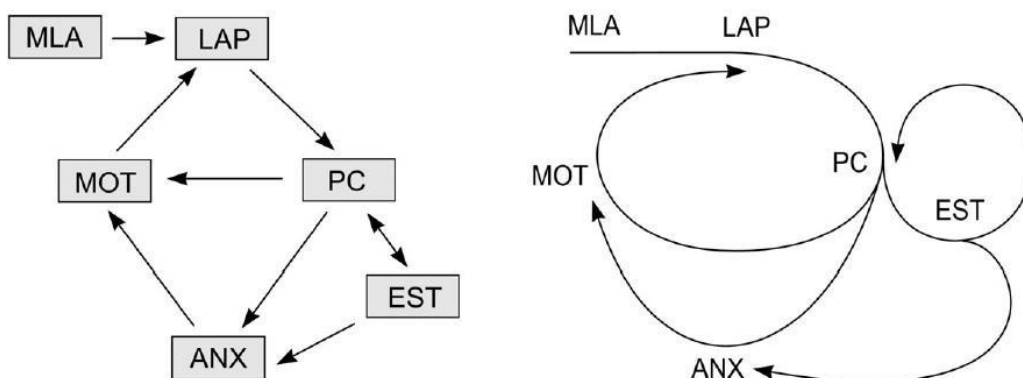
This perspective, borrowed from other scientific disciplines like meteorology, physics, biology, and mathematics, provides a new metaphor for understanding the changing nature of multilingual development (Jessner, 2023). A dynamic systems or complexity theory approach was adopted by various experts (Cameron & Larsen-Freeman, 2007; De Bot et al., 2007; Herdina & Jessner, 2002; Piccardo, 2014, 2020) in the field of multilingualism research. Herdina & Jessner (2002) published their work entitled "The

Dynamic Model of Multilingualism”, which is recognised as the core publication on multilingual development from a dynamic point of view. This model is one of the most appropriate frameworks for multilingual acquisition and development from a holistic perspective. Language systems are interdependent and cannot be viewed as autonomous within this psycholinguistic model.

### 2.5.1 Characteristics of the DMM

The DMM has various features: non-linearity, reversibility, stability, interdependence, and the change of quality, stability, and complexity. Multilingual systems can be seen as flexible and dynamic organisations so they can conform to the learners' perceived communicative needs. The dynamic system is “a set of variables that mutually affect each other's changes over time” (Van Geert, 1994, p. 50). This multilingual model is learner-oriented because the learner stands at the centre of language acquisition. A dynamic perspective of the multilingual speakers' learning system combines the learner-oriented system and the changes within the language systems. The DMM is grounded in the DST approach and claims that any language system in the learner’s mind is an open system interrelated with psychological and social factors like anxiety, motivation, metalinguistic abilities, language acquisition progress, perceived language competence, self-esteem represented in Figure 6 (Herdina & Jessner, 2002).

**Figure 6. Individual factors**



*MLA = metalinguistic abilities; LAP = language acquisition progress; MOT = motivation; ANX = anxiety; PC = perceived language competence; EST = self-esteem.* (Herdina & Jessner, 2002, p.138).

In contrast to SLA studies, the routes of learning or order of acquisition show a greater variety in multilingual acquisition. Language acquisition is acknowledged as a complex and dynamic process. Language systems (LS) are treated as interdependent systems. Therefore, they change over time, and they are unstable. The terms primary (LS<sub>1</sub>), secondary (LS<sub>2</sub>), and tertiary (LS<sub>3</sub>) language systems are generated in the development of a multilingual system to distinguish among L1, L2 and L3 – language learning paradigms.

### **2.5.2 Key components of the DMM**

Multilingual proficiency is identified by the dynamic correlation between the different psycholinguistic systems (LS<sub>1</sub>, LS<sub>2</sub>, and LS<sub>3</sub>) in which the individual languages are embedded (Jessner, 2008a). One of the most essential features of multilingual proficiency (henceforth MP) is that MP can be regarded as a fluctuating and unstable construction. Herdina and Jessner (2002) introduce the concept of the M-factor, which refers to a set of skills specifically developed by multilingual speakers. They claimed that “these skills show several characteristics clearly distinguishing the monolingual from the multilingual speaker and are taken to include skills in language learning, language management, and language maintenance” (Herdina & Jessner, 2002, p. 131).

Jessner et al (2016) defined the M-factor which “is made up of a set of skills and abilities that the multilingual user develops owing to her/his prior linguistic and metacognitive knowledge” (Jessner et al., 2016). After having defined the M-factor, Herdina and Jessner (2002) create the formula of the M-factor in the following way: M-factor = f (of n) where the M –factor constitutes how the interaction between the number of the language systems (n) function in a multilingual system. As previously mentioned, the multilingual system is a nonlinear and constantly changing system, which is why the multilingual learner improves specific skills and abilities. This model offers new proficiency skills, either language-specific or general cognitive skills. Multilingual learners use these skills in language learning and apply them in case of language management or maintenance. One can distinguish the monolingual learner from the multilingual one due to increased language contact (Jessner, 2008a). Furthermore, metalinguistic awareness is the main cornerstone element of the M-factor. Another

critical component is the awareness of establishing contact between various language systems, which refers to cross-linguistic interaction based on the model. Metalinguistic awareness includes the set of skills /abilities that develop owing to prior linguistic and metacognitive knowledge. The influence of MLA can be a beneficial factor regarding further language learning from a long-term perspective. MLA is often researched with cross-linguistic awareness (henceforth XLA), the interaction between the languages in the multilingual repertoire. MLA and XLA can form multilingual awareness, that is, the awareness of multilingual individuals in acquiring different languages.(Hofer & Jessner, 2019a). Multilingual awareness has a positive impact on learner-users' linguistic, cognitive, and metacognitive development, their information-processing capacity and literacy skills (Bono, 2011; Cenoz et al., 2007; De Angelis & Jessner, 2012; Jessner et al., 2016; Lasagabaster, 1998). The process involves both language acquisition and attrition.

The DMM is used to model the dynamics of language systems. According to this approach, language acquisition mirrors language attrition. The processes of acquisition and attrition are interconnected. Maintenance is crucial for multilingual proficiency. If one language is actively maintained, the other may erode due to lack of use. Language attrition is explained by the active competition between language systems (Jessner, 2003). The absence of maintenance can lead to language loss. The DMM clarifies the relationship between language maintenance and attrition in multilingual systems (Herdina & Jessner, 2000). It emphasizes that these processes coexist. Attrition is seen as a gradual process, while replacement (acquisition) is also gradual. Multilingual proficiency depends on the effort invested in maintaining language systems. The DMM highlights the importance of maintaining a dynamic balance between language attrition and acquisition. Language maintenance is a crucial factor in achieving this balance. Language maintenance is essential for the stability of the language system. Lack of time and energy invested in maintenance can jeopardise the stability of language systems.

The proficiency of multilingual learners, according to the DMM, results from the interaction between different psycholinguistic systems (LS1, LS2, LS3, and LSn), CLIN, and the M-factor. This can be expressed by the following formula:  $LS_1, LS_2, LS_3 + CLIN + M\text{-factor} = MP$  (Herdina & Jessner, 2002)

## 2.6 Multi(lingual) competence

After having presented the main theoretical framework of the current thesis, this subsection presents the notion of multi-(lingual) competence. This subchapter is divided into two main subsections: the first one investigates the relationship between multicompetence and the DMM and the second one reflects upon multilingual education and methodologies used in the classroom. The holistic perspective of bilingualism introduced by Grosjean (1985) maintained the idea of the fully competent speaker-hearer in both languages. Cook (1992) introduced the holistic view of multicompetence, which regards the language systems as two interrelated systems in the mind of a multilingual individual. This approach includes a qualitative distinction from the competence of the monolingual speakers (Cook, 1992). A state-of-art definition of multicompetence claims that multicompetence refers to a mind or a community that uses more than one language. Monolingual speakers view their languages differently than multilinguals (Cook, 2020; Cook & Wei, 2016). Grosjean (2010) highlighted that the bilingual is a human communicator (as is the monolingual), he or she has developed a communicative competence that is sufficient for everyday life (Grosjean, 2010). Grosjean (1997) indicates that “bilinguals usually acquire and use their languages for different purposes in different domains of life, with different people” (Grosjean, 1997, p. 165).

Kecskés (1998) drew on both Grosjean’s (1989) bilingual view of bilingualism and Cook’s (1991) multicompetence view in order to bring into practice an alternative approach to bilingual development. The investigations of Kecskes show evidence of the bidirectional influence of language transfer by incorporating the Common Underlying Conceptual Base (henceforth CUCB) approach in the Hungarian school context. He defines “language from a multilingual perspective as a system of signs resting upon an underlying conceptual system that is unique to each culture” (Kecskes, 2008, p. 31). This definition suggests that there are a linguistic and a conceptual level, which function together in language processing. A dual language approach was proposed as an alternative option instead of interlanguage. Kecskes (2008) argues that the learner is not inbetween languages in the learning process but is collecting new information from prior linguistic and conceptual knowledge. Qualitative changes are apparent in the original (first) conceptual system, and the emergence of the new (second) conceptual system originates from the first system. The two language systems are constantly moving; hence, they

mutually affect each other via the common underlying conceptual system. Kecskés (2008) indicates that we need to make investigations not only  $L1 \rightarrow L2$  but vice versa,  $L2 \rightarrow L1$ . The dual language approach highlights that the language system construction is a dynamic process that involves “conceptual changes, bidirectional influence between languages, and movements not only up, but also down the developmental continuum” (Kecskés, 2008, p. 31)

### **2.6.1 Multicompetence and DMM**

The concept of multicompetence can be interwoven with the dynamic view of multilingualism. As proposed by Jessner (2007; 2017), individuals possess a unique set of language skills and perspectives in bi- and multilingual programs that differ from those of monolingual speakers. Multicompetence emphasizes that multilingual individuals do not simply possess multiple languages as two separate entities but rather have an integrated linguistic system, influencing their perception of the world. Multilingualism can be associated with advantages such as higher creativity and flexibility in mental processes. This suggests multilingual individuals may possess cognitive benefits beyond language proficiency alone (Hofer & Jessner, 2017, 2019c). Within the framework of multicompetence, there is an emphasis on holistic approaches to language proficiency development. Jessner's publications (2016, 2022) highlight the importance of adopting multicompetence and holistic approaches in understanding and promoting language proficiency development from the perspective of the DMM.

The multicompetence view further supports the promotion of multilingualism by highlighting the learner's language proficiency across multiple languages. These perspectives emphasize the integrated nature of multilingualism and the dynamic interplay between language, cognition, and sociocultural factors. This approach is instrumental in addressing the diverse challenges present in multilingual education (Hofer, 2017). Cenoz & Gorter (2011, 2014) also emphasize the holistic view of multilingualism, which has prevailed in various countries over the past decade. Three key entities could be differentiated namely the multilingual speaker, the whole linguistic repertoire, and the social context. The multilingual speaker refers to the individual language learner who possesses and utilizes multiple languages. The focus is on understanding multilingual individuals' cognitive and sociolinguistic aspects. The whole

linguistic repertoire encompasses all of the languages known and used by multilingual individuals, recognizing that proficiency in one language can influence the acquisition and use of others. The social context acknowledges the importance of social factors in shaping multilingualism, such as societal attitudes toward languages, language policies, and the sociocultural environment in which language learning occurs (Cenoz & Gorter, 2011; Cenoz & Gorter, 2014). Moreover, the holistic view also recognizes that the development of multilingual competence is dynamic. It involves ongoing changes in language acquisition and language use over time. This dynamic perspective highlights the fluid nature of language learning and the importance of considering the evolving linguistic abilities of multilingual individuals (Jessner, 2014).

### **2.6.2 Multilingual education and multilingual methodologies**

This section discusses the emerging field of multilingual education and methodologies, emphasizing the advantages of multilingual approaches in language teaching. We need to reorient our approach to the dynamics of multilingualism instead of adhering to the conventional monolingual norm (Jessner, 2008a, 2012). Various models including the FLAM, the Factor Model, and the DMM, highlight the complexity of L3/Ln acquisition and learning, considering factors such as the role of the L2, internal and external factors, and time dimension in language development. The multicompetence approach is suggested to address the multifaceted challenges of multilingual education. One example of the implementation of a multilingual approach is the work of the DyME (Dynamics of Multilingualism with English) research group, led by Ulrike Jessner at the University of Innsbruck, which explores the benefits of multilingual approaches in educational settings, particularly in Austria and South-Tyrol (Allgäuer-Hackl et al., 2021). The multilingual methodology introduces ideas about classroom activities both primary and secondary school contexts. Research by Hofer (2015) and Allgäuer-Hackl (2017) in South Tyrol demonstrates the advantages of extensive exposure to multiple languages in improving linguistic and metalinguistic awareness, leading to enhanced language learning outcomes. One example is the *Riflessione Lingua* class which focuses on primary schoolers in multilingual educational programmes in South Tyrol based on Hofer's study (Hofer, 2015, 2023). The Multilingual Seminar is a good illustration of implementing multilingual methodology in upper-secondary school classes based on the Austrian school

context (Jessner & Allgäuer-Hackl, 2020) The aim of these classroom activities is to integrate MLA and XLA pieces of training allow for comparing and contrasting different structures, vocabulary, and concepts among instructed languages and languages taught at home. Teachers are urged to promote multilingual awareness in students and participate in multilingual training programs. Teacher involvement is crucial in developing multilingual materials for students. Innovations such as PlurCur, EUROCOM, and Multilingual Seminar can be implemented in language teaching to facilitate the acquisition process for learners. These approaches incorporate multilingual perspectives and strategies to cater to the diverse needs of language learners (Jessner et al., 2016). Teachers should promote multilingual awareness among students and actively participate in multilingual training programs. These programmes can provide educators with the tools and strategies to develop multilingual materials and effectively support learners. Language teachers also play a significant role in enhancing meta-competences in multilingual individuals, which include skills like metacognition, self-regulation, and XLA. These skills can be developed in the classroom to support effective language learning.

The holistic approach advocated by the DMM model considers all languages in a learner's mind and supports leveraging learners' existing linguistic knowledge in teaching processes. Holistic language testing offers a comprehensive understanding of multilingual individuals based on the studies conducted in Tyrol and in South-Tyrol (Hofer, 2017; Hofer & Jessner, 2019a, 2019c; Jessner et al., 2016; Spechtenhauser & Jessner, 2024). This approach enables a deeper insight into multilingual interaction and behaviour within classroom settings, emphasizing the integrated nature of language skills and competencies. The Multilingual Competence Test (MCT) is a valuable tool for assessing and understanding multilingual abilities, with potential applicability in other Western European countries, such as Hungary (Hofer & Jessner, 2019b). The MCT suggests possible solutions for assessing multilingual competence, including multilingual proficiency and metalinguistic awareness among young learners. Hofer (2015,2023) contributes to this discourse by investigating the influence of multilingual awareness on early multilingual acquisition in her two publications (Hofer, 2015, 2023).

The Basque country of Spain has been actively investigating multilingualism, as highlighted in the works of Cenoz and Gorter (2011; 2020). The "Focus on Multilingualism" approach is significant in this context, offering a holistic perspective on

studying multilingualism within educational settings. This approach emphasizes considering both the acquisition and use of languages in conjunction with the social context. Multilingual speakers and their linguistic repertoires are central to the "Focus on Multilingualism" approach. It aims to explore the TLA of bilingual individuals. TLA can manifest in various educational settings, from dedicated bilingual and multilingual programs to regular programs for teaching foreign languages. This approach places the learner at the forefront, recognizing them as multilingual individuals who provide valuable insights into language learning and teaching processes. It challenges the notion of entirely monolingual norms by acknowledging the adaptability and flexibility, but most of all the unique sensibility to the initial conditions of learners acquiring multiple languages simultaneously.

These studies underscore the importance of adopting holistic approaches to studying and promoting multilingualism in educational contexts. By considering the complex interplay of language acquisition, use, and social factors, researchers and educators can better support multilingual individuals' linguistic development and learning outcomes. In summary, this section advocates for a shift towards a multicompetence approach in language education, recognising the advantages of multilingualism and emphasising the need for teacher training and awareness to implement multilingual methodologies in the classroom context effectively.

## **2.7 Metalinguistic awareness**

After having the theoretical and practical underpinnings of multilingual competence, this subchapter intends to present the evolution of the term 'metalinguistic awareness' (MLA). The notion is used both in bilingual and multilingual studies. MLA is investigated from a holistic point of view which is recognized as a cornerstone element in the M-factor embedded in the DMM (see: Subchapter 2.5) in the current PhD dissertation. The first subsection of this subchapter introduces the terminology of MLA while the second subsection gives an overview of some of the MLA studies in the field of TLA.

### **2.7.1 The individual development of MLA**

Language awareness has been preoccupying many scholars, even in the past. The notion dates back to the 1800s in Germany, where intellectuals like Humboldt (1767-1835), Hildebrand (1867), Jespersen (1904) and von der Gabelentz (1901) paved the way for

“studial capacities of language studies” (van Essen, 2008). Vygotsky (1962) claimed that MLA is witnessed as having a positive impact on a learner’s cognitive development as the child can see “language as one particular system among many, to view its phenomena under more general categories, and this leads to an awareness of his linguistic operations” (Hofer, 2023, p. 53). Later, Odlin (1989) proposed that language awareness plays a vital role in multiple language acquisition and interacts with CLI. Odlin also used the term MLA as a synonym for language awareness. He also suggested that awareness of a language can be a conscious or an unconscious process in the mind (Jarvis & Pavlenko, 2008). Bialystok (1987) introduced a dual component model for measuring MLA in bilingual processing. Two main focuses of the model are the analysis of linguistic knowledge and the control of linguistic processing.

Malakoff (1992) highlights the importance of MLA as it “allows the individual to step back from the comprehension or production of an utterance to consider the linguistic form and structure underlying the meaning of an utterance” (Malakoff, 1992, p. 512). Later on, other scholars tended to deal with MLA throughout the years. Gombert (1992) and Wehr (2001) have contributed significantly to understanding metalinguistic awareness. Their works suggest that this ability involves recognizing the patterns and rules within a language and applying this understanding in practical contexts, such as communication, writing, and problem-solving. For monolingual individuals, metalinguistic awareness allows them to navigate and comprehend the complexities of their native language, including grammar, syntax, and semantics. It enables them to analyse language features, such as word meanings, sentence structures, and linguistic conventions, facilitating effective communication and literacy skills. In the case of multilingual individuals, metalinguistic awareness becomes even more crucial as they navigate multiple linguistic systems. Their ability to compare and contrast different languages, identify similarities and differences, and transfer language skills between languages relies heavily on metalinguistic awareness. Multilinguals often develop a heightened sensitivity to language structures and functions, which can enhance their language learning and communication abilities across multiple languages.

Jessner's article (2006) approaches the term from a dynamic systems perspective. MLA is “the ability to focus attention on language as an object in itself or to think abstractly about language and, consequently, to play with or manipulate language” (Jessner, 2006, p. 42). According to Jarvis & Pavlenko (2008), MLA is denoted as the

“attention to and awareness of language, conscious control of language use, and metacognitive and metalinguistic analysis of language” (Jarvis & Pavlenko, 2008, p. 194). Hofer & Jessner (2022) interpret the notion of language or linguistic awareness as related “to a person’s capacity to focus attention on language forms and functions” (Hofer & Jessner, 2022, p. 166).

### **2.7.2 MLA Studies**

Studies provide scientific evidence for metalinguistic awareness in multilingual development (Hofer, 2017; Hofer & Jessner, 2022; Jessner et al., 2007, 2016; Sanz, 2012). Many TLA studies discuss the crucial role of MLA, and the concept is a vital segment in multilingual competence based on the DMM, as pointed out in an earlier subsection (Herdina&Jessner, 2002; Jessner, 2006). Jessner (2006) interprets the role of MLA in further language learning in the following way: „the learning of additional languages beyond the L1 leads to increased levels of metalinguistic awareness, and that this in turn leads to accelerated rates of acquisition for subsequent languages” (Jarvis & Pavlenko, 2008, p. 196). Nagy and Anderson's (1995) argument aligns with the broader research indicating that exposure to second languages can enhance specific aspects of metalinguistic awareness, even with limited contact or proficiency in those languages. This suggests that even minimal exposure to a second language can positively impact individuals' understanding of language structure and function. Yelland et al. (1993) support this idea by highlighting that learners with limited exposure to second languages still show improvements in metalinguistic awareness. This finding underscores the notion that even brief interactions with a second language can contribute to developing metalinguistic skills. De Bot & Jaensch (2013), Sanz (2000), and Thomas (1988) highlight the significance of formal instruction for bilingual learners, drawing attention to how exposure to literacy in two languages enhances metalinguistic awareness. This heightened awareness enables bilingual learners to focus on linguistic forms and pay attention to relevant features in the input. Researchers have emphasized this aspect in their work, underlining the importance of formal instruction in facilitating language learning and development among bilingual individuals (Jung, 2010).

In the following, the role of MLA is presented in TLA studies. Wrembel (2015) conducted a study that examined the role of MLA on phonological awareness of 17

German university learners in Leipzig, paying particular attention to verbal protocols that unravelled the mental protocols of the participants. The results showed that a higher level of phonological awareness could be detected between English (L2) and German (L3) than between English and French as a consequence of language distance (Wrembel, 2015). Another study by Falk et al. (2015) delves into the role of L1 explicit metalinguistic knowledge in L3 Dutch oral production at the initial state. 40 Swedish participants took part in the study with different degrees of MLA in their L1, and they have various L2. Oral production was at the centre of this investigation as researchers provoked the subjects to define the place of the finite verb (Falk et al., 2015). Spellerberg (2016) investigated the role of MLA on general academic achievement. The study included 219 Danish learners between 14 and 16 years old. One hundred six monolinguals and 113 bi/multilingual individuals who have 38 different languages at their disposal participated in the research. A strong relationship between school leaving exams and MLA has been reported based on this study (Spellerberg, 2016).

## **2.8 Transfer, codeswitching and CLI(N)**

The DMM is the main theoretical framework of the current thesis and the model incorporates the notions of transfer, codeswitching, cross linguistic influence and cross linguistic interaction. The aim of the first subchapter is to reveal the terminological distinction between transfer and codeswitching. The second subchapter presents the differences between CLI and CLIN.

### **2.8.1 Transfer vs. codeswitching**

Transfer is a central notion in language acquisition and learning, transfer phenomena play a distinctive role in TLA compared to SLA (Cenoz et al., 2001). Most studies have been published on bilingualism and SLA studies in transfer (Young, 1966; Müller, 1998; Grosjean, 1998, Marian, 2007), although increasing attention has been paid to transfer in TLA studies in the past 30 years. Transfer phenomena are one of the most crucial components and characteristic properties of the multilingual system. In the DMM, transfer phenomena are acknowledged as important features in the multilingual system.

One can differentiate terms like codeswitching, codemixing and borrowing which are connected to transfer phenomena. Odlin (1989, p.6) explains that whenever speakers not

sharing the same language meet and need to communicate, we have a language contact situation at hand. In language contact situations, language mixing may occur in the form of combining the characteristics of the different languages involved, in the form of borrowings from one language into another, or of code-switching, in which certain elements of different languages are interchanged (Odlin, 1989, p.6-7). Language transfer may take place in different language situations, such as language contact, dialect contact phenomena, and foreign language learning. An early definition provided by Weinreich (1953, p.1) defines interference as “instances of language deviation from the norms of either language which occur in the speech of bilinguals as a result of their familiarity with more than one language”. Odlin (1989, p. 27) provides a similar definition: "transfer is the influence resulting from similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired.” Odlin (1989:36-41) extends his definition to include positive, facilitative transfer as well as negative transfer phenomena such as underproduction or overproduction, production errors, misinterpretations, and the differences in the length of time that individual learners need to acquire the target language (Murphy, 2005). Research on codeswitching has also started in the field of bilingualism research and in SLA studies. Weinreich (1953) described codeswitching (CS) in the following way: when a speaker has acquired more than one language, the language systems do not coexist as two entirely isolated spheres, which may lead to transfer and interference phenomena. On the one hand, multilingualism seems to have a negative influence on one’s mind which can also have a detrimental impact on the intellectual and cognitive abilities. On the other hand, bilingualism research has concentrated on the double monolingualism hypothesis, which describes language systems as two separate entities. These entities are recognized as identical systems. Therefore, two phenomena could be distinguished in the earlier era of multilingualism research: transfer phenomena and codeswitching. The transfer phenomenon refers to interference, and code-switching refers to “the continuous alternation between two or more language systems” (Herdina & Jessner, 2002). Codeswitching can be interpreted from two main viewpoints. It can be defined based on theoretical assumptions like the switch theory or the continuous operating monitor system which will be described as follows.

On the one hand, codeswitching can be understood due to different theoretical underpinnings. The switch theory was introduced by Penfield & Roberts (1959) and they

defined codeswitching as the alternation between two language systems where an external switch or monitor should rule these systems. Subsequently, Albert & Opler (1978) proposed the notion of the continuous operating monitor system, which regulates the switch from the use of one language system to another system. CS has widespread implications, as drafted by Hamers and Blanc (1989):

This single-switch hypothesis implies the existence of two psycholinguistic systems, one for each language, and a certain degree of independence between two sets of language-specific information processors. The existence of language-specific processors versus a common mechanism is the major debate in psycholinguistic research on bilinguals (Hamers & Blanc, 1989, p. 85).

On the other hand, codeswitching is known as a performance-oriented phenomenon. As a performance-based phenomenon, CS cannot influence the structure of language systems involved in the process. Formerly, researchers believed that CS worked based on certain rules due to the isolated manner of the language systems. 37 years later, Myers-Scotton (1990) claims that “codeswitching is defined as the use of two or more linguistic varieties in the same conversation. It can be intra- or extra-sentential and also intra-word” (quoted after Herdina&Jessner, 2002, p. 23). CS and borrowing are sometimes used interchangeably as variants of the transfer phenomena. Code-switching can involve longer constructions, changing one language into the other one, while borrowing can be limited to a word, so there is a difference between the two notions. The differences between code-switching, codemixing and borrowing are seen rather from a grammatical or lexical point of view rather than from a psycholinguistic angle. One can distinguish codemixing from codeswitching based on the interpretation of Hamers & Blanc (1998): “codemixing transfers elements of all linguistic levels and units ranging from a lexical item to a sentence, so that it is not always easy to distinguish codeswitching from code-mixing” (Herdina & Jessner, 2002, p. 24).

### **2.8.2 Transfer in the learner system: CLI and CLIN**

The study of transfer in second language acquisition (SLA) has a long history and has enjoyed a central role in SLA research. The idea of language transfer or cross-linguistic influence (CLI) appeared in the 1950s and 60s with the behaviourist approach, which supported the idea that old habits formed when learning the L1 would influence the way

in which new habits were learnt in the L2. The behaviourist approach considers transfer as a crucial factor in SLA (Ortega, 2004; 2008). Contrastive Analysis (CA) was laid by Robert Lado's seminal work in 1957, "Linguistics Across Cultures," which introduced the Contrastive Analysis Hypothesis (henceforth CAH). Lado's hypothesis suggested that the greater the difference between the native language (L1) and the target language (L2), the greater the difficulty the learner would experience. This is based on the idea that similarities would facilitate learning, while differences would hinder it. The traditional Contrastive Analysis Hypothesis provides a foundational understanding of how language transfer can affect language learning, highlighting the role of structural similarities and differences. While it has its limitations, the insights gain from CAH continue to inform language teaching practices and contribute to the development of more nuanced SLA theories. In 1972, Selinker introduced the concept of interlanguage theory which suggests that learners create a dynamic, evolving linguistic system influenced by both L1 and L2, but also containing unique elements. This system evolves over time and can produce errors that are neither directly attributable to L1 nor L2.

Cummins presented his Interdependence Hypothesis to describe linguistic transfer that activates the learners' prior knowledge. Cummins' Interdependence Theory (1991) refers to the central processing system in bilinguals, which develops from the common underlying proficiency of linguistic knowledge, skills, and concepts, as introduced in his Common Underlying Proficiency/Interdependence Hypothesis. Cummins affirms that L1 linguistic development enhances L2 acquisition. He portrays the two linguistic systems as two icebergs overlapping underneath the surface level. The two languages are two separate systems in terms of vocabulary, pronunciation, and grammar, but at the same time, they share the cognitive and linguistic abilities of the speaker.

When one considers transfer in the language learning system, the contrastive nature of transfer can be detected. The traditional Contrastive Analysis Hypothesis (CAH), while foundational in understanding language transfer, was eventually seen as too simplistic. This is because many investigations revealed that learners often produce errors that cannot be solely attributed to their native language (L1). Firstly, a unidirectional influence is traceable. Secondly, a bidirectional influence transfer is not only perceptible from the first language towards the second language ( $L1 \rightarrow L2$ ), but also the second language affects the first language ( $L2 \rightarrow L1$ ). There is a backlash effect in the second case. Thirdly, interaction phenomena between language systems are complex; hence, Kellerman &

Sharwood-Smith (1986) recommended the concept of cross-linguistic influence. Factors thought to be influencing SLA have been explored, and many of them are connected to the TLA, namely the transfer phenomena from one language to the other or vice versa. Therefore, most publications have dealt with instances of transfer between two non-native languages or between the non-native language and the native language formerly (Cook, 2003; Jarvis, 1998; Jarvis & Pavlenko, 2008; Kecskes & Papp, 2000; Pavlenko, 2002). Second language learners have two language systems that can influence each other ( $L1 \leftrightarrow L2$ ) as it was formerly mentioned here in this section. It should be noted that other two bidirectional relationship could be found in the case of TLA. The L3 may have an impact on the L1 meanwhile the L1 exerts influence on L3 ( $L1 \leftarrow \rightarrow L3$ ). Furthermore, there is a bidirectional influence between the L2 and L3 when the person has three language systems in the repertoire (Cenoz et al., 2001).

Teaching for cross-linguistic transfer was found in the works of Cummins (1979, 1981) who examined the academic aspects of L1 and L2 related to reading comprehension tasks. On the basis of the cross-lingual relationships, he introduced the notion of ‘interdependence hypothesis’ in which it is explained that the languages are not separate but connect with each other by means of a common underlying proficiency. The evidence suggests six major types of cross-lingual transfer that will operate in varying ways depending on the sociolinguistic and educational situation: transfer of conceptual elements (e.g., understanding the concept of photosynthesis), transfer of specific linguistic elements (e.g., knowledge of the meaning of photo in photosynthesis), transfer of more general morphological awareness (e.g., awareness of the function of –tion in acceleration [English] and acceleration [French]), transfer of phonological awareness – the knowledge that words are composed of distinct sounds, transfer of metacognitive and metalinguistic learning strategies (e.g., strategies of visualizing, use of graphic organizers, mnemonic devices, vocabulary acquisition strategies, etc.) (Caldwell & Harris, 2014).

CLI has primarily focused on the influence of L1 on L2. Research on cross-linguistic influence or one-to-many associations has been rare in multilingualism research. However, scholars have already pointed out that transfer can manifest from L1 to L2, vice versa or even in the case of three language systems or more (Cook, 2003; De Angelis, 2007; De Angelis & Selinker, 2001). CLI is a relatively neutral concept, and it behaves like an umbrella term “for the effects of transfer, interference and delayed effects of a

change in the factors determining language acquisition” (Herdina & Jessner, 2002, p. 26). Subsequently, Sharwood-Smith (1994) used a more subtle definition for cross-linguistic influence: “the influence of the mother tongue on the learner's performance in and development of a given target language, and it means the influence of any other tongue known to the learner on that target language” (De Angelis, 2007, p. 19). The DMM proposes a difference between language processing features and systems-relevant phenomena. A dynamic view predicts that the existence of one or more language systems exerts influence not only on the second language but on the whole multilingual system. A distinction can be seen between CLI and CLIN. In DMM, we differentiate transfer, interference, cross-linguistic influence, and cross-linguistic interaction. A negative transfer is also defined as interference in the literature on SLA. We often think about CLI when we encounter transfer phenomena. The problem is that it can lead to ambiguity in the literature because CLI includes, besides transfer, “interference, avoidance, borrowing and L2 related aspects of language loss” (Sharwood Smith & Kellerman, 1986). CLIN was introduced by Herdina & Jessner (2002) to avoid the ambiguity of the terminology. CLIN is an umbrella term that covers transfer, interference, and codeswitching and borrowing phenomena. CLIN is not a further category but a more expansive concept than CLI in multilingualism research, which “represents the non-reducible dynamic aspect of the multilingual system” (Herdina & Jessner, 2002, p. 29).

## **2.9 Decisive factors in additional language learning**

This subchapter aims to raise awareness of the decisive factors in additional or further language learning. Indeed, the study of TLA has gained attention in recent years, shedding light on the distinct characteristics and challenges faced by individuals who already have experience acquiring one or more non-native languages. In contrast to L1 acquisition and SLA, TLA introduces unique dynamics influenced by the learner’s linguistic background and previous language learning experiences (Hammarberg, 2018).

Williams & Hammarberg (1998, 2009) classified four interacting factors in further language learning recency, i.e. the extent to which the learner has used the language recently; the learner's level of proficiency in the background language (henceforth BL), the degree of typological similarity between the BL and the L3, L2 status, i.e. if the BL is an L2 for the learner (in Hammarberg, 2018, p. 19).

Cenoz (2001) compiled a list of factors that affect third language acquisition. 1) psychotypology, that is the learner's perception of the linguistic distance between the language being acquired and the languages already familiar to the learner is a major factor in the learning process; 2) the level of proficiency both in the target language as well as in the other languages known by the speaker; 3) the context of the acquisition, 4) the language mode, 5) the foreign language effect, 6) the age of the learners, and 7) the recency of use. De Angelis (2007) extended the list of Cenoz (2001), which contains psychotypology, age, order of acquisition, level of proficiency in the source language (henceforth SL) and target language (henceforth TL), language mode, foreign language effect, L2 status and recency of use. A detailed description of the factors is essential to gain insights into the operating elements of L3 learning. Numerous studies have attempted to explain that more factors are involved in the process of TLA (Cenoz et al., 2003; De Angelis, 2007; Hammarberg, 2010, 2018; Hammarberg & Williams, 2009). Factors have also been suggested, like language activation, natural setting, age and learner's emotional attitude towards the language (Cenoz, 2013b; Hammarberg & Williams, 2009; Heine, 2016; Ringbom et al., 1987). CLI is a cornerstone element in TLA studies, so some factors are related to the transfer between language systems. The study of CLI in TLA is a complex issue as it interacts with several factors meanwhile other components are also responsible for successful language learning (like motivation). The following factors will be described in the next eight subsections: language proficiency, language exposure and recency of use, formality of the context, L2 status, psychotypology, and order of acquisition, age factor and motivation.

### **2.9.1 Language Proficiency**

A number of research papers examine whether proficiency in the TL and in the SLs impacts transfer in further language acquisition. Previous studies have reported that an individual's level of proficiency both in the source and recipient languages influences the nature and the extent of CLI (De Angelis, 2007; Jarvis & Odlin, 2000; Odlin & Jarvis, 2004; Ringbom et al., 1987). First, we need to consider the role of one's SL-s in learning an L3. In the case of this PhD study, L1 or L2 are the supplier languages in the process of learning an L3. Research on forward transfer showed that a high level of proficiency in an L2 can influence the performance and acquisition of an L3. The impact of the L2 on L3 acquisition may be significant, when the learner particularly has a high level of

proficiency in the L2 (Dewaele, 1998; Hammarberg, 2001; Odlin & Jarvis, 2004; Ringbom et al., 1987).

Cenoz (2003) differentiates between two types of language switching phenomena in multilingual language acquisition: interactional strategies and transfer lapses. Interactional strategies are called “intentional switches into languages other than the target language” (Cenoz, 2003, p.107) and they are similar to code-switching. Transfer lapses are non-intentional switches that occur “when another language has been erroneously accessed” (Cenoz, 2003, p. 107). One study by Cenoz (2003) supports the two types of language switching phenomena. The studies by Cenoz (2001, 2003) examined Basque-Spanish children learning English as an L3, and the role of supplier language was investigated in this research. Examples from the study of Cenoz (2003) are given to support the role of SL in learning an additional language. Findings have shown that Spanish and Basque are SLs but fill different positions. Cenoz (2003) makes a distinction between two types of language switches: interactional strategies and transfer lapses. Spanish was responsible for transfer lapses and the following examples provide evidence for that: \*CHI: # and # and the dog **salt** /salt/ the window (Sp. saltar= jump) \*CHI: and if #**perseguin** /persegin/ to the dog (Sp. perseguir=pursue) (Cenoz, 2003,p.5). Basque served the role of interactional strategies and two examples of interactional strategies from Basque are given: \*CHI: eh nola da oreina? (How do you say ‘deer’?) \*CHI: eeh is one eeh zuloa? (...eeh hole?)

Hammarberg (2001) observed the language switches in the speech of a multilingual speaker with English (L1), proficient German (L2) or Swedish (L3). He found that English (L1) was the only supplier language, while German was used for interactional strategies (T. Balla, 2012). In his detailed analysis of target language proficiency, Sikogukira (1993) investigated Kirundi (L1) learners of French (L2) acquiring English (L3). Results indicated that learners do not use French English cognates but prefer non-cognate English counterparts (Sikogukira, 1993). Odlin (1989) found that transfer and target language determine the learner's proficiency level. Moreover, he observed the type of transfer in the learning process is inversely related to the learning stages; the earlier in the learning process, the more negative the transfer is. Ringbom (1987, 2006) confirms the role of SL in the transfer phenomena process in the case of third language acquisition. His study deals with the language scene in Finland where Finnish, Swedish and English as an L3 play a role in the language acquisition process.

## **2.9.2 Language exposure and recency of use**

Some authors (De Angelis, 2007; Hall & Ecke, 2003; Tremblay, 2006) claim that language exposure also plays a significant role in L3 learning. Although exposure to language can encompass a variety of means, from the language being the environmental language of the learner to foreign language classroom contexts, language proficiency and exposure are probably two interrelated factors in the sense that the longer the learner is exposed to the language in one form or another, the more likely it is for him or her to reach a higher level of proficiency (Sánchez, 2020; Tremblay, 2006).

Odlin (1989) claimed that the amount of exposure could lead to negative or positive language transfer, and “the younger, the better” principle is not a universal truth in language acquisition. The role of language exposure affects additional language learning. Two types of exposure have been researched: frequency and length of language exposure. Jarvis & Pavlenko (2008) differentiate two types of language exposure: frequency and length of language exposure. Exposure, frequency and intensity are usually estimated by the number of hours per day or week of L2 instruction. It can be calculated by the cumulative hours of contact they have had with the L2 (Cenoz et al., 2001). This factor is highly related to this dissertation as one question is whether the amount of L2 exposure affects L3 learning. The exposure length is considered the second type of language exposure.

De Angelis (2015) highlights the significant impact of exposure to a second language on enhancing second and third-language acquisition. She argues that exposure is among the most influential factors in foreign language development. Specifically, she found consistent exposure to a second language correlates positively with proficiency in additional languages. This underscores the importance of immersion and regular practice in language learning endeavours: Exposure to a second language environment (German) was believed to be a potentially strong predictor of German L2 proficiency development and, in turn, of English L3 proficiency development (De Angelis, 2015, p. 446). Studies conducted in South-Tyrol (Hofer, 2015, Hofer&Jessner, 2019, Hofer&Jessner, 2017) highlighted the extensive exposure of the L2 both on L3 proficiency and on metalinguistic abilities and awareness of the participants. Lindgren and Munoz (2013) conducted a longitudinal study that delved into the acquisition of English as a foreign language (EFL)

among children in the European Union. This study provided valuable insights into how young learners develop English language skills over time within the context of the EU's multilingual environment. Their research involved a sample of 1,300 children aged 10-11 across seven EU countries, including Spain, where the children were bilingual in Spanish and Catalan. Their findings highlighted that exposure to a foreign language and the parents' use of foreign language at their workplace were the two most influential predictive factors for the children's acquisition of English receptive skills (Lindgren & Muñoz, 2013).

A factor that is somewhat less tightly connected to language proficiency is the recency of use (Cenoz, 2001; Hammarberg, 2001; Jarvis & Pavlenko, 2008). Williams and Hammarberg (2001) describe the recency of use among the four leading factors: whether the language will be based on the supplier's role in the production process. Recency of use means the frequency of language use in acquiring a new language. Shanon's (1991) study sought to determine the existence of a last language or recency effect on the last learned language. Many earlier papers and reports have found that "instances of transfer from languages which were not learned last and that had even gone unused for decades". (De Angelis & Selinker, 1999, 2001; Rivers, 1996). Schmidt & Frota's (1986) seminal paper has linked recency of use with language proficiency. Their findings suggest that an English (L1) learner of Portuguese was influenced by his most fluent non-native language (Arabic) compared to the most recent language (De Angelis, 2007).

### **2.9.3 Formality of the context**

The formality of context plays an integrative role in this dissertation as participants mainly acquired and used L2 and L3 in the educational context. Formality of context has been identified as one of the major contributing factors in additional language learning. The formal environment may positively or negatively influence students' achievement in the school context. Investigations of codeswitching in foreign language classrooms primarily focus on learner-initiated codeswitching patterns and highlight learners' inefficiency in foreign language production (Bentahila, 1983; Poulisse, 1997; Dewaele, 2001; Poulisse and Bongaerts, 1994). The study conducted by Dewaele (2001) compared high school students' performance in formal and informal situations. The aim was to examine whether the formality of the communicative situation led to more effective

monitoring of speech output. Using a series of t-tests, he measured the proportion of mixed utterances in the French L2 or L3 speech of Dutch L1 speakers who had prior knowledge of English as an L2 or L3. The analysis revealed that students interviewed in more formal situations produced less mixed speech than those interviewed in informal situations, possibly due to increased monitoring activity in the formal context.

Thomas's findings from 1988 underscore the significant role of linguistic experience in shaping metalinguistic awareness, particularly in bilingual individuals. According to Thomas, adults who have acquired a second language through formal instruction tend to exhibit a heightened capacity to grasp a third language compared to those who have not received structured language education. This advantage is attributed to the exposure to grammar explanations and formal learning contexts inherent in classroom settings. Such insights highlight the intricate relationship between language learning methodologies and metalinguistic proficiency in multilingual contexts (Thomas, 1988).

Jessner & Mayr-Keiler (2017) delve into language choice and language use of Austrian bi- and multilingual school children, focusing on social inclusion within the educational setting. These children use language in a particular context and evaluate the communicative situation by considering multiple contextual factors. This aligns with the idea that language choice is not arbitrary but strategic, influenced by socio-contextual information available to the speakers. By employing a Complex Dynamics System Theory (henceforth CDST) approach, there is an intricate interplay between various contextual factors and language use. The empirical data from language background surveys adds weight to the findings, providing concrete examples of the complex interactions of contextual parameters shaping language choice and use in the classroom. By highlighting these dynamics, it sheds light on how language preferences among pupils contribute to their social inclusion within the educational environment. Overall, this study offers valuable insights into the complex dynamics of language use among bi- and multilingual school children in Austria and its implications for social inclusion within educational settings (Jessner & Mayr-Keiler, 2017).

#### **2.9.4 L2 status or foreign language effect**

The L2 status plays a vital role in the language learning process. Williams & Hammarberg (1998) put forward the idea of 4 influencing factors in additional language learning, and they proposed L2 status as one of the significant factors (Hern & Hammarberg, 2014).

The phenomenon was observed early on by Meisel (1983), who labelled it the “foreign language effect”. Since then, the L2 status factor has been considered one of several possibly interacting factors that may determine the transfer source (L1, L2/s) in many studies on L3 vocabulary (e.g., Cenoz 2001; De Angelis 2005, 2007). An L2 status effect has been illustrated in different areas of language, such as lexicon, syntax, phonetics, and phonology (Bardel & Falk, 2012; De Angelis, 2005; Falk et al., 2015; Hammarberg & Williams, 2009; Williams & Hammarberg, 1998). Various explanations for the L2 status factor have been suggested. Williams & Hammarberg (1998, 2009) proposed a list of possible reasons: (1) a different acquisition mechanism for L2s as opposed to L1s, and hence a reactivation of the L2 type mechanism in L3 acquisition, and (2) a desire to suppress L1 as being inherently “non-foreign” and to rely rather on another “foreign” language as a strategy to approach the L3 (Hammarberg, 2018). L2 status, as described in TLA, is crucial for understanding how learners interact with their second language (L2) versus their first language (L1). It essentially denotes the inclination of learners to utilize their L2 over their L1. Research conducted across various cultural settings and for different language pairings consistently highlights a predominant usage of the L2 over the L1. This trend is observed in numerous TLA studies, as summarized in reviews by De Angelis & Dewaele (2011) and Jessner (2006).

### **2.9.5 Psychotypology**

In the literature on TLA, several terms are used to describe phenomena critical to understanding the acquisition processes. These terms, while sometimes used interchangeably, reflect two distinct perspectives: objective and subjective. Kellerman (1977, 1978, and 1983) proposed the term psychotypology as a prevailing factor in additional language learning (Kellerman in De Angelis 2007). The term stems from typology and language distance, constituting the linguistic distance or similarity between the learners' language systems. Jarvis and Pavlenko (2007, p.177) clarify this distinction by introducing the terms objective similarity (and difference) and subjective similarity (and difference). They argue that objective similarity refers to the actual, measurable linguistic characteristics that languages share or do not share. This refers to the actual degree of linguistic similarity or difference between languages. Terms associated with this perspective include structural factor (Odlin, 1989), linguistic distance (De Angelis, 2007), cross-linguistic influence (Ringbom et al., 1987), linguistic and psycholinguistic

factors (Jarvis & Pavlenko, 2008). In contrast, subjective similarity pertains to how learners perceive these characteristics, which may differ from the objective reality. Subjective perspective concerns the perceived similarities or differences between languages as experienced by language learners which includes psychotypology (Cenoz, 2001; Kellerman, 1995). In the same vein, Neuser (2017) identified the difference but she used typology instead of linguistic distance: “Typology or objective similarity between languages is the actual degree of congruence between them, while psychotypology or subjective similarity is the degree of congruence the learner perceives there to be” (p.59).

The concept of linguistic distance plays a crucial role in TLA, as highlighted by various studies. Schepens (2015) defines linguistic distance as a measure of how distinct linguistic structures are, whether at the lexical or morphological level. The effects of linguistic distance can vary depending on factors such as the degree of similarity between languages, the status of the L2, and proficiency levels in both the L1 and L2. Rothman (2011) confirms that languages with the lowest linguistic distance will exert the most influence. For instance, speakers using typologically closely related languages tend to transfer from one language to the other more frequently. Cenoz et al. (2001) compared the influence of Basque and Spanish on learning English as an L3, finding that Spanish had a more positive effect due to its greater proximity to the English language. Many studies have reported language transfer from the second language rather than the first language. For example, Vildomec (1963) observed lexical transfer from L2 to L3, particularly when the L1 is not phonetically similar to the L2 and L3.

Similarly, Williams & Hammarberg (1998) found that a significant portion of language switches in a Swedish L3 learner with English L1 and German L2 originated from the L2 language. However, De Angelis (2007) argues that non-native background languages can inhibit the role of the native language in processing a third language. In her investigation of an L3 Italian speaker with French as L1 and Spanish as L2, he found an evident reliance on the rusty knowledge of Spanish as an L2, even after not speaking it for thirty years, suggesting that the L2 language may override the L1 as the primary source of information in specific contexts. This finding is surprising given that Spanish, French, and Italian are all Romance languages.

### 2.9.6 Order of Acquisition

Learning three or more languages has more routes, as Cenoz (2000) talks about four different orders of acquisition:

- (1) Simultaneous acquisition of L1/L2/L3,
- (2) consecutive acquisition of L1, L2 and L3,
- (3) simultaneous acquisition of L2/L3 after learning the L1,
- (4) simultaneous acquisition of L1/L2 before learning the L3.

Cenoz (2003) explains that third language acquisition involves temporal diversity, as seen above in acquisition orders. When two languages are part of the system, the language contact seems bidirectional ( $L1 \rightarrow L2$  or  $L2 \rightarrow L1$ ). Acquiring a third language brings along the complexity of the routes; therefore, we can talk about the simultaneous or consecutive acquisition of all three languages or two languages that are learned parallel after learning the L1 or before learning an L3. When more than two languages are involved in the acquisition procedure, those opportunities for order variation increase tremendously. The number of languages is a significant factor in TLA, but complexity and routes for learning are other vital factors in the process of learning an additional language (Jessner, 2008b).

We know several examples from the literature that can support the diversity and complexity of learning additional languages. Additional language learning is strongly related to the context and background of the language learner. By way of illustration, Jessner (2008b) collected three various ways of learning a third language in her paper. One notable example of a learning route is when children are growing up with three languages from birth (e.g. (Barnes, 2006; Hoffmann, 1985; Oksaar, 1996). The second example of learning a third language was undertaken by the work of Cenoz (2009) and Jessner (2006). They investigated bilingual children learning English as an L3 at school at an early age, in the Basque country or in South Tyrol. The third type has been exemplified in a study by (Brizic, 2006). In her investigation, bilingual migrant children moved to a new linguistic environment, such as Kurdish/ Turkish children learning German (L3) in Austria

Only a few scholars investigated the differences between learning English and German as L3-s in the framework of comparative studies in the European context (Cedden, 2007;

Tápai-Balla, 2009; Kacjan, 2010; Penner, 2007). Two studies show the disparities between learning English as L2 and acquiring German as L2 in the L3 learning process. The comparative study conducted by Cedden (2007) sheds light on the experience of learners acquiring English (L2/L3) and German (L2/L3) from the perspective of Turkish speakers. The interviews with learners revealed exciting insights into their proficiency levels and learning processes. For learners who studied German as their L2 before learning English as their L3, the study found that they encountered minimal difficulties in acquiring German as their L2. Additionally, they attained high proficiency levels in their L3, English, within relatively short timeframes. This suggests that the prior knowledge and experience gained from learning German facilitated the acquisition of English as an additional language. Conversely, learners who studied English as their L2 and German as their L3 faced more challenges in learning German as their L3 than participants acquiring German L2. Specifically, they encountered difficulties with various aspects of German grammar, including articles, the case system, passive constructions, and the conjunctive. These findings indicate that the order in which languages are learned can influence the ease or difficulty of acquiring subsequent languages. Learners who start with a language structurally similar to their target language may have an advantage in acquiring additional languages. Another study of Tápainé Balla (2008) conducted among two groups of L1 Hungarian learners learning L2 English and L2 German prior to starting to learn L3 German and L3 English, respectively, supports Cedden's conclusion about the ideal acquisition order of German and English for learners with a typologically distant L1. This finding suggests that exposure to German may offer a more decisive advantage in learning English than the reverse scenario of learning German from English. Therefore, the argument is made for introducing German instruction before English in schools based on the premise that this sequence could facilitate language learning more effectively (Tápainé Balla, 2008).

### **2.9.7 Age factor**

Age is the most controversial area in the learning process of any additional language. The age factor has been investigated in the SLA as Singleton (1995) examined the role of age and L2 exposure on L2 proficiency. He stated that age cannot be explored solely in the

learning process. Studies from the field of TLA have also been examined the role of age in the process of additional language learning. Jessner (2015) also mentioned that the role of age cannot be studied or isolated from other variables (p. 67). Research has dealt with both the biological age (age at the time of testing) and starting age (age of onset) (Muñoz, 2019; Muñoz & Singleton, 2011; Pfenninger & Singleton, 2017, 2019; Singleton & Pfenninger, 2018).

The relationship between age and the CLI have been also studied. The project of Muñoz (2006) investigated the role of age in learning English as L3 in the primary vs. secondary school context. The results showed that older learners had an advantage over younger learners. Cenoz's (2001) study with Basque-Spanish bilingual children learning English as a third language sheds light on an intriguing aspect of language acquisition. Contrary to previous findings, Cenoz (2001) observed that older learners exhibited more cross-linguistic influence than younger learners. Despite having higher English proficiency, the older group transferred more elements from Spanish, typologically closer to English than Basque. This finding challenges the notion that lower proficiency leads to increased cross-linguistic influence, as earlier research like Ringbom (1987) suggested. Cenoz (2001) suggests that older learners might be less influenced by their knowledge of other languages as their proficiency in English increases. This speculation points towards a complex interplay between proficiency levels and the extent of cross-linguistic influence in bilingual language acquisition. Cenoz's (2001) study also examined the occurrence of "Interactional Strategy" from L1 (Basque) and L2 (Spanish) into L3 (English). "Interactional Strategy" occurs when a student mixes words from their L1 and L2 lexicon when speaking in their L3 language. Students were asked to use their L3 language when interacting with their examiner. "Interactional Strategy" is a form of negative lexical transfer. Cenoz (2001) found that older learners (10 years old) made more "Transfer Lapses" from both Basque L1 and Spanish L2 to produce L3 English lexicon than younger learners (8 years old) (Cenoz, 2001; Cenoz et al., 2001).

### **2.9.8 Motivation**

Motivation research is known to have a long tradition (Dörnyei, 1990; Gardner & Lambert, 1959, 1972; Nikolov, 1999, 2002; Vilke, 1979) in the SLA literature.

Motivation, in particular, has been identified as a crucial factor that influences learners' desire to achieve language learning goals and directs their efforts.

There are four types of motivation: instrumental, integrative, intrinsic, and extrinsic motivation. Two motivational orientations, integrative and instrumental, are discussed based on the work of Gardner & Wallace (1959). Integrative motivation is driven by the learners' desire to communicate in a social context, while instrumental motivation is linked to practical benefits such as education, job opportunities, or promotions. Several studies have found a relationship between language acquisition and motivation. For instance, Gardner & MacIntyre's (1991) study on integrative and instrumental motivation in learning French and English vocabulary positively impacted vocabulary acquisition. Léger & Storch (2009) found that students' perceptions of speaking activities and themselves as foreign language learners affected their willingness to communicate in oral activities. The distinction between intrinsic and extrinsic motivation in language learning is a well-recognized concept in educational psychology. According to Harmer (2001, p.51), intrinsic motivation originates from within the individual, driven by personal satisfaction and the joy of learning. For instance, a learner may be motivated to learn a language because they enjoy the process, find it intellectually stimulating, or derive personal fulfilment from acquiring new knowledge. This type of motivation is often associated with higher levels of engagement and long-term success in language acquisition. Conversely, extrinsic motivation is influenced by external factors. Learners driven by extrinsic motivation might focus on learning a language to achieve specific outcomes such as passing an exam, securing a better job, receiving financial rewards, or preparing for future travel.

Gardner & MacIntyre (1991) revised their earlier views on integrative and instrumental motivational orientations, proposing that motivation in language learning is more dynamic and complex than previously thought. They argued that the traditional dichotomy between integrative and instrumental orientations is overly simplistic and static, failing to capture the fluid and multifaceted nature of motivation.

Dörnyei (2005) introduced the “L2 Motivational Self System” as a framework for understanding motivation in second language (L2) learning. This system integrates various perspectives on motivation, traditionally categorized as integrative and instrumental, into three components: Ideal L2 Self, Ought-to L2 Self, and L2 Learning Experience. Coetzee-van Rooy (2006) argues that integrative motivation, or

integrativeness, is not a tenable concept for learners of World Englishes. Dörnyei and Csizér (2002) acknowledge this shift and suggest that the concept of integrativeness needs to be re-examined. They propose the L2 Motivational Self System as a more dynamic framework that better accommodates the realities of learning English in a globalized context. Given the inconsistent findings regarding integrative and instrumental motivation, Dörnyei underscores the necessity to reassess these concepts within L2 motivation research. In his extensive study involving 13,391 eighth graders, Dörnyei proposed the L2 Motivational Self System in contexts where integration or identification with L2 communities is not a primary goal (Dörnyei and Csizér, 2006). Dörnyei also investigated motivation among 200 Hungarian learners of English as a Foreign Language (EFL). This study identified three types of motivational constructs: Integrative Motivation, Linguistic Self-Confidence, and Appraisal of the Classroom Environment. Hungarian researchers have examined the relationship between motivation and learning English as L2/L3 due to globalization and the increasing popularity of English as a foreign language (Csizér&Dörnyei, 2005; Csizér&Lukács, 2010). The research conducted by Csizér and Lukács (2010) investigates the motivational and attitudinal dispositions of students learning both English and German simultaneously. Using data collected from a standardized questionnaire administered to 237 learners aged 16-17, the study examines differences in motivation and attitudes towards these two foreign languages. Drawing on Dörnyei's (2005) L2 Motivational Self System, the study concludes that the Ideal L2 Self is the most significant predictor of motivated learning behavior for both English and German, regardless of whether they are learned as a first or second foreign language.

However, very little is known about the relationship between motivation and additional- or L3 learning; this field is becoming increasingly popular amongst scholars. Motivation could be researched from a dynamic point of view, and an increasing number of papers focus on the role of motivation and learning third- or additional languages (Dégi & Kovasch, 2021; Djigunović, 2008, 2012; Dörnyei et al., 2014; Hofer, 2021; Horvath & Jessner, 2022). Dörnyei (2009) proposed that the dynamic approach to language learning acknowledges the complex interplay of various factors including the learner's multilingual background in shaping the learning process and developing additional languages. This suggests a need for further exploration and synthesis of existing research to understand better how motivation influences language learning outcomes.

The works of Henry (2011, 2012, 2014, and 2015) draw on motivation using a dynamic perspective. Henry's investigations focus on the effect of English as L2 on the L3 motivation. Moreover, one of his pioneering studies investigated the relationship between cross-linguistic awareness and motivation (Henry, 2013). Scholars such as Munoz (2014), Nagy & Nikolov (2009), and Nikolov (2009) have contributed to this field of study, shedding light on how these attitudes take shape and evolve among young language learners. Indeed, investigations into the language-related attitudes of young learners have unveiled that children begin to develop perspectives and maintain beliefs regarding languages and the process of language learning from an early stage. The multilingual approach embraces motivation-driven and goal-directed forces such as attitude, determination, learning motivation, task persistence, academic curiosity, self-efficacy, and self-esteem. These factors are crucial for successful language learning and development. Mercer (2014), drawing on DSCT, conceptualizes the 'self' as a multifaceted and dynamic entity that is inherently complex, situated, and embodied. According to Mercer, the self is not a static or singular construct but rather comprises a network of interconnected self-beliefs, emotions, and experiences that interact with one another. Central to this perspective is the notion that the self does not operate in isolation; it is continuously shaped and influenced by various external factors, including environmental contexts, life experiences, and interpersonal relationships (Rubio, 2014).

Mercer (2014) emphasizes that understanding the self requires acknowledging these influences and the fluid, ever-changing nature of the self. Hofer (2023) also investigated the role of motivation and attitude in L3 learning for young learners from a DMM perspective. Using multilingual methodologies stand in the focus of her research at the primary school. Hofer's study concentrated on learners' attitude and motivation and she also investigated the L2/L3 self. The questionnaire appeared to focus on understanding young emerging multilinguals' attitudes and their perceptions of themselves as learners and users (Hofer, 2023).

### **3. FOREIGN LANGUAGE EDUCATION IN HUNGARY**

The following section discusses foreign language education in the Hungarian context. The introductory section provides a brief overview of Language policy in the Hungarian context (Subchapter 3.1).It then discusses the Hungarian primary education section

relevant to the thesis (Subchapter 3.2). The following subsection presents foreign language learning in the Hungarian education context (Subchapter 3.3). The next subchapter explains the notions of L1, L2 and L3 based on merely international research (Subchapter 3.4). The last subchapter describes relevant studies on multiple language acquisition in the Hungarian foreign language classroom (Subchapter 3.5).

### **3.1 Language policy in the Hungarian context**

This subchapter concentrates on the language policy in the Hungarian context which is embedded in the EU's language policy. Hungary is in the Carpathian Basin of Central Europe, bordered by Slovakia, Ukraine, Austria, Slovenia, Romania, Serbia and Croatia. The Hungarian language belongs to the Finno-Ugric language family. In 2002, 98.2% of the population spoke Hungarian; 1.8% spoke other languages. Medgyes & and Nikolov (2014) argue that every country is multilingual to a certain extent (p.504). Hungary is acknowledged as a multilingual country because more than 13 official minorities were recognised according to Act LXXVII of 1993 of the Rights of National and Ethnic Minorities: Bulgarian, Roma, Greek, Croatian, Polish, German, Armenian, Romanian, Ruthenian, Serb, Slovak, Slovene and Ukrainian ethnic groups (The National Assembly, 2010). According to the European Union's language policy, the main priorities are the promotion of language knowledge preservation and the protection of linguistic diversity (Károly, 2008).

The European Union indeed set an ambitious goal in 2002, aiming for all its citizens to learn two foreign languages in addition to their mother tongue. Since then, several documents support that European citizens should be competent in two foreign languages besides their mother tongue (Eurobarometer, 2006, 2012; Kommission Der Europäischen Gemeinschaften, 2005). The two most popular foreign languages are known to be English and or German, in different order of language acquisition (namely, they can be taught as L2 or L3) (Pilbauer-Horvath, 2023; T. Balla, 2012).

While promoting linguistic diversity and multilingualism is a key priority for the European Union, Hungary ranks last among the member states regarding foreign language knowledge (EMMI, 2012). The Eurobarometer survey 2012 indicates that while English and German remain the most commonly taught languages in the Hungarian context, there has been a noticeable decline in the percentage of individuals who can

communicate in at least one foreign language amongst the Hungarian people. Specifically, there is a 7-points drop from the previous Eurobarometer survey in 2006, leading to only 35% of the Hungarian population being able to speak one foreign language (Eurobarometer, 2006, 2012). The Hungarian Ministry for Human Resources published the *White Paper on the National Strategy for the Development of Foreign Language Teaching from Kindergarten to University* (EMMI, 2012), a guideline for raising awareness of the problems in foreign language education. One of the central recommendations of the White Paper is for language learners and their parents to prioritize German as the second language (L2) and English as the third language (L3). This suggestion is based on the premise that German's more intricate grammatical structure can serve as a solid foundation for subsequent language learning. By introducing German first, learners can build skills in handling complex grammatical constructions, which may lead to a more positive experience when they eventually study English. Since English generally possesses a more straightforward grammatical structure and holds significant global prestige, learners may find their engagement with it more accessible and rewarding. Conversely, the White Paper warns against beginning with English as L2 and then transitioning to German as L3. Such an approach could lead to a decline in motivation for students when faced with the greater complexities of German, which can be discouraging and hinder their overall language-learning journey. In light of these insights, the White Paper stresses the pedagogical importance of a strategic sequence in language learning. By carefully considering the order in which languages are introduced, educators can significantly enhance students' motivation and effectiveness in mastering foreign languages (Horvath & Jessner, 2022).

### **3.2 The Hungarian education system: primary section**

The Hungarian primary education and the National Core Curriculum are presented in this subchapter. This subsection is limited to one primary school type: the regular curriculum although some explanations are given to the other types of primary schools in the Hungarian context. While the educational systems vary across different countries, completing grade 8 is considered a foundational level of education in many places. However, primary school does not mean eight years of education in most of the European contexts –where L3 acquisition is investigated – like in Austria, Spain, Germany (Jessner,

2008; Hofer, 2023; Cenoz, 2003). Hungary has a single-structure education in the primary school context, which was introduced in 1945. It is called an eighth-grade primary school with a lower and upper stage (4 grades each). This system offers essential knowledge and skills to the 6-14 age groups. At this point, it must be highlighted that pupils volunteering to participate in this research attended primary schools with a standard curriculum. Standard curriculum refers to the single structure primary school, namely pupils visit lower stages (1-4) and upper stage of primary education. The Hungarian education system typically consists of 8 years of primary education (általános iskola) Therefore, completing grade 8 marks the end of primary education (Eurydice, 2023a). The primary education is followed by four years of secondary education (gimnázium or szakközépiskola). Since 1993, the final four years of single-structure primary schools have been overlapping with the institutions of lower secondary education in some of the institutions This also exists in Hungary and it is called sixth (6 osztályos gimnázium) and eighth-grade (8 osztályos gimnázium) general secondary schools. Therefore after 4 or 6 years of primary education, pupils can attend lower secondary education from grade 5 or grade 7 like in the case of Tyrol or the Basque Region of Spain.

The Hungarian National Core Curriculum, articulated in the 5/2020 Kormányrendelet, prioritizes functional language skills essential for everyday life, higher education, and professional environments. It recognizes language acquisition as fundamental to personal growth and professional prospects, while also fostering a sense of national and European identity (5/2020 Kormányrendelet, 2020, p.314). In alignment with the European Union's language policy, the curriculum promotes cross-cultural and cross-linguistic understanding within educational institutions. Teachers play a pivotal role in this framework, as they are tasked with building on students' prior language knowledge and helping them identify similarities among various foreign languages, thus facilitating further language acquisition. Ultimately, the curriculum seeks to equip students with the necessary linguistic competencies and cultural insights to thrive in an increasingly interconnected global landscape (5/2020 Kormányrendelet, 2020, p.314). One major drawback of the new National Core Curriculum is that pupils are not required to learn two foreign languages at the primary school context which was articulated by the older version of the namely the 110/2012. (VI. 4.) Korm. rendelet (OFI, 2012). It should be explicated that this PhD study was relied on the older version of the National Core Curriculum.

### **3.3 Foreign language learning**

After having described the language policy and primary education in the Hungarian context, this subsection introduces the background of foreign language learning. The first subsection (3.3.1) focuses on the similarities and differences between the three languages, namely Hungarian, English and German. The second subsection of this subchapter (3.3.2) explores the curricular regulations of foreign language learning based on the National Core Curriculum (2012).

#### **3.3.1 Similarities and differences between the three languages**

The discussion of foreign language education in Hungary highlights the importance of considering linguistic relationships between the three languages investigated in the current dissertation. English and German, the two most commonly taught foreign languages in Hungary (Petneki, 1993). The two languages derive from the Germanic language family, while Hungarian is a member of the Finno-Ugric family, which significantly influences the language learning process for Hungarian speakers. The German language was taught as a foreign language at school until 1949 but it was replaced by Russian due to political changes. The German language gained its fresh prominence during the regime change in 1989/1990. After that, the English language is becoming more and more widespread due to globalization and the increasing popularity of English as a foreign language (Murray, 2006). A survey conducted by the European Commission in 2009 showed that 2% more pupils learned the German language than did English; meanwhile, English was taught to over twice as many pupils between 2007 and 2008. (Education Audiovisual and Culture Executive Agency (EACEA), 2009).

Research by Horváth & Jessner (2023) underscores the concept of mutual intelligibility between languages that share linguistic roots, such as English and German, even though their mutual intelligibility is not particularly high (Heuven et al. 2015). This limited but existing overlap, especially in vocabulary, syntax, and phonetics, can be leveraged when learning a third language (L3) from the same family. For Hungarian students, learning English as a second language (L2) could potentially serve as a valuable bridge when approaching German as an L3. Given the vast linguistic differences between German and Hungarian, the shared roots between English and German offer Hungarian learners a potential advantage. For instance, familiar English vocabulary and grammatical

structures may help learners acquire similar constructs in German. Additionally, the phonetic similarities between the two languages could enhance learners' pronunciation and listening comprehension. As noted by Pilbauer-Horváth (2024), integrating English into the curriculum for Hungarian students learning German fosters a more supportive language learning experience, reinforcing the benefits of using an L2 to aid in L3 acquisition. This research points to the value of cross-linguistic influence and suggests that Hungarian students can rely on their knowledge of English to facilitate their German learning, making the language acquisition process more efficient and less daunting. However recent Hungarian studies provide evidence for the fact that learning German as L2 could serve as a solid basis for learning English as an L3 for primary school pupils (Szabó & Jessner, 2024; Szijártó, 2023).

### **3.3.2 Curricular regulations**

It should be highlighted that the curricular regulations of language learning are tied to the National Core Curriculum (2012) in the current dissertation. Pupils can start learning their L2 in the 4<sup>th</sup> grade although the compulsory starting time is the 5<sup>th</sup> grade based on The National Core Curriculum (2003) (243/2003. (XII. 17.) Government Decree on the Introduction and Implementation of the National Core Curriculum, 2003). The chosen participants in this study started to learn their L2 from the 4<sup>th</sup> grade. Neither the Public Education Act nor NCC specified a compulsory foreign language between grades 1-3, so schools could provide some foreign language classes to offer optional lessons depending on the local curriculum of the schools (Einhorn, 2015; Nagy, 2009). Notably, there are two extra lessons at every level, allowing pupils to start learning foreign languages earlier, not just from the fourth grade. Integrating these extra lessons as foreign language lessons depends on the school's local curriculum. In the lower primary section (presumably the first three grades), 25 weekly lessons are dedicated to educating the young generation. In the fourth grade, the number of lessons increases to a maximum of 27 per week per the National Core Curriculum (OFI, 2012). Furthermore, the curriculum makes the two extra lessons possible at the upper primary level. Learners have 28 lessons in the 5<sup>th</sup> and 6<sup>th</sup> grades; meanwhile, they are overloaded with 31 compulsory lessons in the 7<sup>th</sup> and 8<sup>th</sup> grades. Nowadays, Hungarian primary schools are equipped with both German and English as a first foreign language. Learning a second foreign language is not compulsory at the primary level. Therefore, many students only start to acquire a second language in

secondary school (Öveges & Csizér, 2018). Pupils are required to learn one foreign language during their years spent in the primary school context based on the new National Core Curriculum (2020) (Eurydice, 2023b). It should be highlighted that the pupils participated in the investigation acquired the foreign languages according to the older version of the National Curriculum as they were the last ones who learnt foreign languages (L2 and L3) based on the former version of the National Core Curriculum (243/2003. (XII. 17.) Government Decree on the Introduction and Implementation of the National Core Curriculum, 2003). Therefore, this PhD study relies on the National Core Curriculum of 2012 regulations, where two foreign languages could be taught at the primary schools.

So far this subchapter has focused on foreign language learning in the Hungarian educational context. The following section will discuss the notions of L1, L2 and L3 in terms of the acquired languages of the Hungarian participants.

### **3.4 Describing L1, L2 and L3 in the Hungarian context**

What follows is an outline of the notions: mother tongue, L1, second vs. foreign language acquisition particularly in the Hungarian context. The notion of L1 or mother tongue refers to the first language that an individual acquires in the first place (Stavans & Hoffmann, 2015, p. 41). Overall, the definitions of ‘mother tongue’ and ‘first language’ may vary, and the terms are often used interchangeably. In the Hungarian context, an example of the mother tongue is Hungarian. Languages like German, English, actively employed in the school context, are regarded as second or third languages (Medgyes & Nikolov, 2014). The distinctions between second language (SLA) and foreign language acquisition (FLA) were identified by Kecskés & Papp (2000) in the Hungarian context. They highlighted two factors: sociocultural environment of the acquisition process and the linguistic background of the learners.

„In the second language environment (SLE), language learners have full exposure to the target language (not only to the language system, but to its frame as well) because it is the dominant or the only language of the community. This is not the case in the foreign language environment (FLE) where students' experience and activities in the target language are almost always restricted to the time spent in the classroom ” (Kecskes & Papp, 2000, p. 2).

In Hungary, foreign language learning is commonly used, so foreign- or additional-language learning is used interchangeably with the aim of embedding the DMM in the Hungarian context. Having focused on the differences between SLA and FLA, current studies have incorporated the notions L1, L2 and L3 in the Hungarian foreign language classroom. More and more Hungarian studies focus on the role of cross-linguistic aspects in understanding trilingualism and TLA (Boócz Barna, 2014; Horvath & Jessner, 2022, 2023; T. Balla, 2012). Additionally, these studies contextualise these concepts (L1, L2 and L3) using a DMM perspective within the linguistic landscape of Hungary (Herdina & Jessner, 2002; Hofer, 2023). In the Hungarian context, the terms foreign- or second-language learning play an integrative role. Currently, research on third language acquisition has permeated the Hungarian context. In the Hungarian context, students predominantly use a second or third language in the primary school setting. The terms L2 and L3 are used interchangeably with "foreign language" aligning with current Hungarian studies based on multilingualism (Szabó & Failasofah, 2021, 2022).

### **3.5 Multiple language acquisition and teaching**

Bi- and multilingualism research was a neglected area in the Hungarian context, however a handful of studies have appeared from 2000 onwards (Horvath & Jessner, 2020; Navracsecs, 2010, 2016, 2022a, 2022b; Navracsecs & Molnár, 2017; T.Balla, 2009, 2012, 2013). In recent years, the necessity of research into multiple language acquisition has been emphasized by numerous studies, demonstrating its benefits and complexities.

Kecskés presented foreign language learning from a multilingual perspective (Kecskes, 2008, 2010; Kecskes & Papp, 2007, 2000). In his pioneering research, Kecskes (1998) showed that people with more than one language have different knowledge of their L1-s than monolingual people. The study is a longitudinal experiment of Hungarian native speakers studying English, French, or Russian in different classroom settings. The objective of this experiment was to investigate “how foreign language learning influences mother tongue development and use in a decisive period (age 14-16) when the acquisition of the mother tongue is intensive, and individual writing, learning, and problem-solving strategies and styles are being developed” (Kecskes, 1998, p. 323). The L2 effect on the L1 was investigated from three aspects: “(1) structural well-formedness; (2) use of linguistic and visual memory; and (3) metaphorical density” (Kecskes, 1998, p. 321). . It

is observed that transfer is possible from Lx to Ly and Ly to Lx unless the exposure and motivation conditions are adverse. Additionally, the interdependence hypothesis may work both ways in a foreign language environment under certain conditions, and Cummins and Swain (1986) were right when they considered motivation and exposure as criteria for positive transfer from L2 to L1:

To the extent that instruction in a certain language is effective in promoting proficiency in that language, transfer of this proficiency to another language will occur, provided there is adequate exposure to that other language (either in the school or environment) and adequate motivation to learn that language (Cummins & Swain, 1986, p.87).

Moreover, the works of Boócz-Barna (2007, 2010, 2014), Boócz-Barna et al. (2015), and T. Balla (2010, 2013) provide compelling evidence for the importance of acquisition order. Boócz-Barna's research, spanning several years from 2006 to 2010, focused on Hungarian L1 speakers learning English as L2 and German as L3. In 2007, qualitative differences were examined between acquiring German as L2 or L3 in the Hungarian school context. The focus of her investigation was multilingualism and CLI. The pupils' mother tongue was Hungarian (L1), and their first or second foreign language was English or German (L2/L3). Participants aged between 14 and 17 took part in the investigation. According to Boócz-Barna (2010), teaching an L3 can lead to transfer previously acquired knowledge and strategies into L3 learning. Particularly for Hungarian L1 learners, whose native language is unrelated to the target language (German), L2 English plays a crucial role in the L3 German learning process. While L2 and L3 are genetically related, T. Balla (emphasizes the need to leverage prior L2 knowledge more intensively. Her observations suggest that L3 German learners may rely on English words to find German equivalents with or without the teacher's assistance. Sometimes, German words are learned alongside their English counterparts (T. Balla, 2013) However, Boócz-Barna (2010) also notes instances of negative transfer from English to German, where learners make mistakes due to similarities between the two languages without being aware of it. Boócz-Barna argues the importance of recognizing false friends and providing contrastive explanations to address transfer issues. She suggests that teachers can enhance the L3 learning process by providing linguistic guidance and raising learners' consciousness about transfer phenomena. Lesson observations indicate that learners can self-correct when guided by the teacher, highlighting the importance of identifying and addressing

transfer errors. Overall, Boócz-Barna's conclusions, based on classroom observations, contribute valuable insights into L3 learning processes for Hungarian L1 speakers. Her work aligns with international research on L3 acquisition and complements other studies on similar topics (Boócz-Barna, 2007; Boócz Barna, 2010, 2014).

Perge (2007) investigated receptive multilingualism in 3 different languages (Hungarian, English, and German). Text analysis, reading strategies and text comprehension (understanding texts) are central to the investigation (Perge, 2017). Tápai-Balla (2013) observed two groups of Hungarian students who acquired English (L3) or German (L3). The study presented various factors affecting foreign language learning in the Hungarian school context. The study indicates that the ideal order of language acquisition is German (L2) and then English (L3). The results suggest that factors like typological relatedness and proficiency in TL and SL also contribute to further language learning. Tápai-Balla (2012) carried out a unique study in the Hungarian context, which sought answers to the question of the role of English (L2) in the acquisition of the German language (L3) in the secondary school context. She also employed multilingual research instruments to assess multilingual secondary school pupils.

Horváth&Jessner (2022) also investigated 9<sup>th</sup>-grade school learners who started to acquire German L3 at the beginning of their secondary school studies. The languages involved in the study are the following: Hungarian (L1), English (L2), and German (L3). The study also explored the multilingual awareness of the participants with the help of multilingual teaching- and assessment tools developed by the researcher. Horvath & Jessner (2023) examined the role of motivation in L3 learning using the directed motivational current based on the research of Dörnyei & Ushioda (2011). Horvath & Jessner (2023) summarized that monolingual instructional assumptions, which prioritize the exclusive use of the target language (TL) in the classroom, continue to dominate many educational settings, including those for third language (L3) instruction. These assumptions are rooted in traditional language teaching methods, where immersion in the TL is believed to promote optimal learning outcomes. The idea is that extensive exposure to the TL, whether it's the second (L2) or third language (L3), accelerates language acquisition by forcing learners to use and understand the language in context.

A unique study was carried out by Szabó & Failasofah (2022). This experiment investigated the language use and awareness by 14 English and 14 German as foreign language teachers (L2/L3) in the Hungarian primary school context. Two types of schools

participated in this study: regular and minority curricula. Schools with minority curricula mean that pupils learn German as a minority language. Their curriculum consists of cultural activities embedded in the German minority culture in Hungary. The foreign languages taught were English or German, and the acquisition order played an integrative role. However, L2 and L3 teachers could not be compared due to the heterogeneous number of participants. Descriptive statistics revealed differences between German and English participants regarding their social variables (e.g., age, gender, education). In the study of Szabó & Failasofah (2022), they compared teachers working at schools with teaching German as a minority language to teachers working at schools with standard curriculum. The results showed that the average degree of the target language use was higher in the case of minority teachers. One of the most surprising aspects of the data was that English teachers used more mother tongue than German teachers in- and outside of the classroom for administration, talking about informal issues or chatting between lessons. According to the literature, learning and teaching German is more complicated than English due to the structural complexity of the German language (Tápai Balla, 2013). It was also shown that foreign language teachers exploited translation and paraphrasing in the foreign language classroom. One of the more significant findings to emerge from the study of Failasofah and Szabó (2021) was that most teachers made connections between the languages in the foreign language classroom which is in line with other investigations (Allgäuer-Hackl, 2014; Horvath and Jessner, 2023; Tápai Balla, 2012).

The chapter that follows (Chapter 4) moves on to consider the methodology of both the pilot and the research year.

## **4. METHODOLOGY**

This chapter provides an overview of the methodology employed in the research year. It should be noted that the first subsections of Chapter 4 deal with the description of the research year (Subchapters 4.1-4.7). Subchapter 4.8 presents the context and the preliminary findings of the pilot study. The first subchapter gives relevance to the combination of chosen research methods. The next subsection moves on to the context of the study. Following the presentation of the research questions in the third subchapter, the fourth subpart describes the sampling design. The fifth subsection shares information about the ethical considerations of the empirical study. The sixth subsection proceeds

with a detailed description of the research instruments followed by the data collection and analysis procedures in the seventh and eighth subpart. As formerly mentioned, the last subchapter shares information about the pilot process preceded by the research year.

#### **4.1 Relevance of the chosen method**

In the following, the combination of the methods and approaches are discussed which have been implemented in the study conducted during the research year. Empirical research or empiricism stands at the centre of the dissertation. In our current understanding, the word ‘empirical’ touches upon ‘the collection of data using evidence that is collected through observation or experience’ (Kothari, 2006). A quantitative approach is employed since it is well-known for its focus on numerical data. Bachmann (2004) called this ‘an objective reality’ as it observes scores and close-ended answers. In quantitative studies, the researcher uses the deductive approach to verify or test a theory rather than developing one (Bachman, 2004). It should be noted that this study is not developed based on the rules of an exploratory study which is qualitative in the majority of the cases. However, the exploratory nature of a study can be used when the aim is to examine the feasibility of conducting a study or exploring a subject area where little is known. Based on existing literature, exploratory studies are also conducted to develop, refine and/or test measurement tools and procedures. Moreover, exploratory nature of the research should be used when the researcher wants to examine the feasibility of conducting a more extensive study (Kothari, 2006; Kumar, 2011).

Time was an influential factor in carrying out this particular research. The current PhD dissertation combines cross-sectional design with an exploratory nature using a quantitative approach. In a cross-sectional study, researchers collect data at a single time, which minimizes exposure to the detrimental impact of unforeseen external events that can affect the study. This approach contrasts with longitudinal studies, which involve repeated observations of the same variables over extended periods (Dörnyei, 2007) Furthermore, the cross-sectional design offers practical and economic advantages for both researchers and subjects (Creswell & Creswell, 2018; Dörnyei, 2007; Kothari, 2006) Exploratory research is a methodological approach specifically designed to investigate research questions that have not been studied in depth before. The PhD study does not work with the design of exploratory research but certain characteristics of an exploratory nature can be found like the lack of sufficient literature in the field. The current study has

got exploratory nature as it is a method used to investigate an area or issue where little information is available. (Kothari, 2006).

## **4.2 Context**

The research was conducted in the context of Hungarian primary schools in the Transdanubian region. Pupils attend primary school between grades 1 and 8 and go to primary school until age 14. Six primary schools participated in the data collection, but the researcher could not name the institutions in her research. The chosen primary schools met the requirements of the current study: English or German as L3, age of onset, and order of language acquisition. Most investigated schools provided pupils with one type of language acquisition order: one can learn English (L2) and German (L3) or vice versa. However, one school offered both language orders for their pupils in the school context. The empirical study was conducted between March and June 2022 as 7<sup>th</sup> graders reached a sufficient level of their L3 for one year at the time of the testing.

## **4.3 Research questions**

After having reviewed the relevant literature, a considerable amount of research has been published on the influencing factors in TLA. Factors like L2 exposure, prior language knowledge, L3 proficiency, order of acquisition and motivation are recognized as variables in TLA at the international level (Cenoz et al., 2001; De Angelis, 2007; Dörnyei, 2008; Henry, 2014, 2015; Jarvis & Pavlenko, 2008). The question of acquisition order concerning English or German as a foreign language is becoming more and more popular in the Hungarian educational context however most of the studies have dealt with one type of acquisition order. (Bóocz-Barna, 2007; Horvath & Jessner, 2022, 2023; T. Balla, 2012; T. Balla, 2013). The investigation of the components of multilingual awareness - which include metalinguistic- and cross-linguistic awareness - deserves more attention in the Hungarian education from a DMM perspective as it is considered to be an under-researched area (Horvath & Jessner, 2022, 2023; Pilbauer-Horvath, 2023; Szabó & Jessner, 2024). This study seeks to obtain data that will help to address these research gaps.

Firstly, it is worth considering that the longer the participants are exposed to the first foreign language the better they will achieve on the L3 proficiency test (De Angelis &

Jessner, 2012; Hanbay, 2013; Hofer & Jessner, 2019c, 2019a; Spechtenhauser & Jessner, 2024; Tremblay, 2006). Secondly, it can thus be suggested that learners having more exposure to the L2 can perform better on the multilingual awareness test (Hofer, 2015; Hofer & Jessner, 2019a). Thirdly, it can be supposed that the order of language acquisition influences L3 proficiency and the components of multilingual awareness (T.Balla, 2008, 2012, 2013; Bóocz Barna, 2007;2010;Perge 2007;Hofer,2015). Previous studies suggested that motivation can have an impact on the acquisition order (Csizér et al., 2004; Djigunović, 2012; Dörnyei et al., 2014; Henry, 2015; Horvath & Jessner, 2022). There is a lack of research concerning comparative studies English vs. German as L3 in the Hungarian primary school context so it is worth investigating this field.

The following variables will be explored in the current study: the relationship between L2 exposure and L2 knowledge on L3 proficiency, the impact of L2 experience on multilingual awareness, the effect of language acquisition order on L3 proficiency and multilingual awareness, and the connection between motivation and order of acquisition. There are tentative assumptions of this study, however, formulating hypotheses would substantially narrow the focus of the current investigation. No sufficient amount of research has been carried out on the topic of multilingual awareness and L3 acquisition in the Hungarian primary school context.

Consequently, four research questions have been addressed in the PhD dissertation:

RQ<sub>1</sub>: What are the effects of prior language (L2 exposure and L2 knowledge) on L3 proficiency?

RQ<sub>2</sub>: To what extent does L2 exposure contribute to multilingual awareness?

RQ<sub>3</sub>: How does the order of language acquisition influence both L3 proficiency and components of multilingual awareness?

RQ<sub>4</sub>: What are the effects of the order of language acquisition on L3 motivation?

#### **4.4 Testing population**

Two types of sampling methods were employed since the availability and voluntariness of the participants played an integrative role in the study. Convenience and purposive sampling methods were used in the current investigation (Denscombe, 2010). As for

using a cross-sectional design, participants were more easily recruited as one testing period was available to collect data. The regulation imposed by the National Core Curriculum (EMMI, 2012) in Hungary mandates that students begin learning a second language (L2) in the 4<sup>th</sup> grade and a third language (L3) in the 7<sup>th</sup> grade. Therefore, 8<sup>th</sup> grader participants learn the L2 for 5 years and the L3 for 2 years. The primary objective of this research was to gather data on the development of the third language (L3) in the primary school context, which in Hungary typically begins in the 7<sup>th</sup> grade. To ensure the comparative nature of the findings, the research focused on primary school students in the 7<sup>th</sup> and 8<sup>th</sup> grades. The study specifically examined students who began learning German or English as their third language (L3) after studying English or German as their second language (L2) for four or five consecutive years. The subjects were selected based on homogeneity of age, language exposure, and order of language acquisition. Half of the participants were 13 years old, while the other part of the cohort consisted of 14-year-old pupils. The testing population comprised 152 learners. The students were divided into four groups based on age and language acquisition order.

1. The first group contained 7<sup>th</sup> graders who acquire English as (L2) and German as (L3). (38)
2. The second group included 8<sup>th</sup>-grade learners who acquire English as an L2 and German as an L3. (38)
3. The third group consisted of 7<sup>th</sup> graders learning German as L2 and English as L3. (38)
4. The fourth group comprised 8<sup>th</sup>-grade students acquiring German as an L2 and English as an L3. (38)

## **4.5 Instruments**

The primary data collected and analysed in this research involved first-hand data obtained directly from the school context. This approach ensured that the data was specific, relevant, and directly applicable to the research objectives. The research data in this thesis is drawn from four primary sources: a language history questionnaire (Subchapter 4.6.1), a C-test in L2 and L3 (Subchapter 4.6.2), a multilingual competence test (4.6.3) and a motivational questionnaire (4.6.4).

### **4.5.1 Language History Questionnaire**

The idea of a language history questionnaire (LHQ) is derived from the instrument designed by Li et al. in 2006. The LHQ-2 was developed further to assess the linguistic background of bilinguals or second language learners and for generating self-reported proficiency in multiple languages. The adapted version of LHQ 3.0 (Li et al., 2020) was used in the study. The developed language history questionnaire (LHQ-3) is an important tool for assessing the linguistic background and language proficiency of multilinguals or second language learners (Li et al., 2020). Regarding LHQ, prior to the pilot period, the original questionnaire (Li et al., 2020) was rewritten and adapted to the needs of Hungarian primary school pupils. The questionnaire needed to be thoroughly adapted to the participants, as pupils were foreign language learners in a mainly monolingual environment as opposed to the original study participants (Li et al., 2020).

Different types of questionnaires were implemented for the Hungarian context to explore the linguistic and social context of the participants but the LHQ has not been used so far. An expert in assessment and measurement helped to rewrite the items and the expertise supported the development of this tool after the pilot. The LHQ can be found in both languages in the Appendix section of the dissertation (See: Appendix 1 A and 1B). To rule out the possibility of choosing inappropriate subjects, the participants were selected with the help of the LHQ. The questionnaire has 24 questions, and it can be divided into four main sections:

1. Background information (age, gender, mother tongue, parents' language background)
2. Foreign language acquisition (place of start, age of onset, self-rating in proficiency)
  - 2.1 English language: the place of onset, age of onset, self-rating of proficiency
  - 2.2 German language: the place of onset, age of onset, self-rating of proficiency
3. Preference for a foreign language related to language proficiency skills
4. Frequency of foreign languages in daily activities outside of school (listening to music, video games, watching films)

The questionnaire is divided into four main sections. On the top of the questionnaire, pupils are asked to write their monograms not their names. The first section contains three introductory questions to collect the participants' age, sex and place of residence (Qu.1-

3). The first section also includes 4 questions which refer to the linguistic background of the participant at home. Question 4 asks information about the subject's mother tongue while Question 5 and 6 elicit the mother tongue of the father and mother. Question 21 inherently belongs to the second subsection which retrieves information about the habit of foreign languages (English, German) use at home.

The second section can be divided into two subheadings in terms of English and German languages. Questions 6-8 apply to the English language. These questions ask for information about place of onset, age of onset, years of learning. Question 9 asks the participants to rate their current ability in the different proficiency skills on a 4-points Likert scale (reading, speaking, writing and listening). Questions 10-12 concern the German language aiming to retrieve the same information like age of onset, place of onset, years of learning. Question 13 asks the participants to rate their current ability in the different proficiency skills on a 4-point Likert scale (reading, speaking, writing and listening).

The third section is specified to collect data about language preferences in the given foreign languages. Question 14 asks the participants whether they prefer learning English or German and they can choose from four options: English, German, both or neither. Questions 15-18 ask the pupils whether they prefer English or German in language comprehension, reading comprehension, writing and speaking. The fourth section of the questionnaire (Qu. 22-24) captures how frequent pupils use foreign languages besides the classroom context. Pupils are asked to mark the frequency on a 4-point Likert-scale in three respected languages, namely in Hungarian, English and German. This section is highly important as Hungarian pupils rarely use the foreign languages for daily communication. Three activities were included: listening to music, playing online games, watching movies in the target languages.

#### **4.5.2 C-test**

Klein-Braley & Raatz (1982) wanted to solve the problematic issues of the cloze tests by introducing a developed form of the cloze procedure. The test developers claimed it has several advantages over the classical cloze test. The C-Test is a gap-filling test belonging to the family of reduced redundancy tests, which is used as an overall measure of general language proficiency in a second or native language (Khoshdel-Niyat, 2017). The test should meet the following requirements: (1) much shorter texts should be used made up

of at least 100 items; (2) no problems should arise in the choice of deletion rate and starting point; (3) the deletion should be a representative sample of the elements of the texts; (4) the texts should not favour the examinees; (5) only exact scoring should be used to increase reliability; (6) native speakers are expected to achieve virtually perfect scores; and (7) the tests should have high reliability and validity (Saeedi et al., 2011).

Previous studies emphasized the multi-faceted nature of this integrative test (Babaii & Ansary, 2001; Baur et al., 2006; Katona & Dörnyei, 1992; Klein-Braley, 1985). Many investigations have studied mental processes while working on a C-test. By way of illustration, Babaii & Fatahi-Majd (2014) analysed think-aloud verbal protocols to understand the cognitive processes of C-test takers and can provide valuable insights into why they might fail to complete the blanks as expected. Dörnyei and Katona (1992) and Bors (1993) also used C-test amongst Hungarian EFL learners. The C-test aims to measure the overall foreign language proficiency of primary school pupils (Bors et al., 1999).

In my study, English and German C-tests were constructed to measure students' first (L2) or second foreign language (L3). The C-tests were created based on the relevant literature. The content of the C-tests is based on the course books of the participants. The C-tests are varied from A1 level to B1 level as the device measures 7<sup>th</sup> and 8<sup>th</sup> graders' L2 and L3 written proficiency. The level of proficiency is followed by The Common European Framework of Reference (CEFR). Every second word was deleted, and five texts were included in the English C-tests. Every test contains 20 deletions, and students can score 100 points. The German tests were adapted to the pupils' needs, and every third word was mutilated based on the pilot study. In my study, English and German languages are tested in the 7<sup>th</sup> and 8<sup>th</sup> graders. Half of the students learn English as L3 and the other group acquires German as L3. The self-constructed 8 C-tests are illustrated in the Appendix section (see: Appendix 2-5). Completed parts of the C-tests could be found in the Appendix section (Appendix 8-9).

### **4.5.3 Multilingual Competence Test**

A multilingual competence test (henceforth MCT) adapted to the Hungarian context was originally compiled by Hofer and Jessner (2019). The MCT test was assessed with South Tyrolean pupils aged between 9 and 12. Most of the students were bilingual (Italian and

German) and they learned English as an additional language (L3). The Multilingual Competence Test aims to appreciate and valorise the meta- and cross-lingual skills of multilingual learners in the classroom context. The first part of the Tyrolean test includes the already known languages by the student, German, Italian, and English. The second part of the test contains unknown languages like French, Spanish, Dutch, Ladin, Swedish, and Danish. The adapted test measures pupils' metalinguistic and cross-linguistic awareness. The test consists of two parts, and pupils have approximately 70 minutes to complete the entire test. Students could achieve a maximum of 120 points in the two parts of the tests. (see: Appendix 6A and 6B). Setting a threshold level of  $\geq 60\%$  determines whether the learner's performance can be accepted or not (see: Chapter 4.9.7.6). This threshold likely serves as a benchmark for proficiency or competence in multiple languages. Setting such a benchmark helps to establish a level for categorizing the participants based on their performance in the study (Hofer, 2023).

The first part of the adapted MCT contains three known languages by the participants, namely Hungarian, English, and German. Hungarian pupils are foreign language learners, so English and German are taught in the foreign language classroom. 13- and 14-year-old pupils stand in the focus of the current study, but the slight age difference did not cause any difficulties. Regarding the description of the testing tool, some explanations need to be given to the reader (see: Appendix 6A).

The first task of PART I needed to be modified to the Hungarian context so the Tyrolean task was changed into a new vocabulary task in three languages. Sample tasks completed by the participants could be found in the Appendix section (see: Appendix 10-16). In the first part of the test, the first task contains a vocabulary test in which 18 words are given in one language out of the three (Hungarian, English and German). It is important to mention that the German and English words are chosen to be cognates. Students need to complete the words in the other two languages so 36 points can be given to the participant in total (see: Appendix 10). To solve the second task, students must identify which two sentences convey the same meaning and which are different. For the metalinguistic reflection task, students need to explain why they chose the two sentences with the same meaning (See: Appendix 11). Task 3 involves error correction in either Hungarian, German, or English sentences. After identifying the mistake in each sentence, students must explain their metalinguistic reflections on why the correction is necessary and how they arrive at the solution. For the metalinguistic reflection task, students need

to explain why the original sentence is incorrect and how they arrive-at the correct solution (see: Appendix 12). Task 4 comprises two distinct parts: a translation from English into Hungarian and answering questions in German based on the content of the English text. For the translation part, students are asked to produce a smooth but faithful translation from English to Hungarian. They are encouraged to maintain fidelity to the original text while recognizing that rearranging sentence components may sometimes be necessary for clarity and coherence. Since translation requires complex linguistic and metacognitive skills, no explicit metalinguistic verbalization is required for this part. In the second part of the 4<sup>th</sup> task, students have to answer questions in German about the content of the English text they have read. This aspect presents an additional challenge as students must demonstrate their comprehension and writing skills in German, which is either their L2 or L3. Writing extended responses in a non-native language can be demanding, particularly at this age when writing skills are still developing (See: Appendix 13).

The second part of the test consists of unknown languages like Dutch, Danish, Swedish, and Spanish. Latin was eliminated from the adapted test as this language is mainly spoken in South Tyrol. The metacognitive and metalinguistic awareness of the students is also assessed through the subtasks where they give explanations (Hofer & Jessner, 2019a). Task 5 requires test takers to first translate short dialogues from Dutch into Hungarian (pictures found on pixabay.com) and then provide a comprehensive verbal description of their underlying metacognitive reasoning in pupils' L1 (See: Appendix 14). Task 6 includes ten items where students match Danish and Swedish words with their corresponding German equivalents. By requiring students to make these linguistic connections, the task evaluates their ability to recognize and apply vocabulary in different languages. (Appendix 15) Furthermore, the inclusion of metalinguistic reflections adds a deeper level of understanding by prompting students to articulate the reasoning behind their choices. Task 7 consists of four Danish sentences that students must match with their corresponding German translations. After having completed the matching exercise, students must verbally explain their metalinguistic reflections, specifying the underlying grammatical structures (See: Appendix 16).

Overall, this task assesses students' proficiency in translation, comprehension, and metalinguistic awareness across Danish and German, providing a holistic evaluation of their multilingual competence. Task 8 comprises three items, each contains a short Spanish sentence presented within a speech bubble. Students are asked to generate a

translation for each sentence and to indicate their process for decoding the Spanish text into the Hungarian language (See: Appendix 17). The 9<sup>th</sup> task includes five Spanish sentences that students must match with their corresponding Hungarian equivalents. After completing this matching step, students proceed to the metalinguistic verbalization task, where they justify their answers given in the matching cross-linguistic awareness task. (see: Appendix 18).

Students can collect a maximum of 36 points in the first task. In the second task, students can collect 9 points, while pupils can reach 18 points in the third. Altogether, 11 points can be given to the right solutions in the fourth task. Students can obtain 6 points in the fifth task, and pupils can get 12 points in task 6. Participants can reach a maximum of 6 points in the 7<sup>th</sup> task; meanwhile, test takers can get 5 points in the 8<sup>th</sup> task. Students could be given 7 points for the last task in the MCT. As for the explicit metalinguistic verbalization task, the following scoring has been applied. If a task has two parts (like 2., 3., 5., 6., 7., 8 and 9 tasks ), part B refers to the explicit metalinguistic reflection task where points are given for how the explanation is described meticulously. Pupils could get between 0 and 2 points for the explanation. If a participant does not fill in the reflection (MLA) part, 0 points will be given. If a subject summarizes the main issues with basic phrases, then 1 point could be given. If someone gives a detailed description and uses technical terms (like the subject and the verb are not matched), then 2 points will be given.

#### **4.5.4 Motivational questionnaire**

The fourth tool is a motivational questionnaire. The design of the questionnaire was based on Nikolov's (2003) motivational questionnaire which used Dörnyei's theory and concepts on motivation. Investigating motivation from a dynamic point of view was found in various studies (Bui, 2023; Dörnyei et al., 2014). This tool investigated pupils' attitudes and motivation in connection with their L2 and L3 languages. The original questionnaire was part of an extensive survey containing 20 items. The adapted questionnaire refers to English and German; the statements include the two different learning routes (English L2, German L3 /German L2, English L3). The target audience was primary learners aged between 13 and 14. The new questionnaire version was not piloted as only minor changes had been implemented in the adaptation process (see: Appendix 7). The questionnaire has 39 statements because one statement is a general one.

Of these, 19 statements refer to either German or English. The motivational questionnaire contains questions which focus on the language learning attitude, motivation and L2/L3 self of the learners. The questionnaire is divided into three main sections:

1. Level of the foreign languages (L2 and L3)
2. L2 and (L3) motivational selves
3. Level of the foreign language classroom (L2/L3)

The first section of the questionnaire deals with the level of foreign languages (L3). It contains three subsections: attitudes towards the language, target language and culture, and native speakers of the target language. The following questions belong to the first section: questions 1-10 and questions 20-21. The second section of the questionnaire investigates what Dörnyei (2005) defined as L2 motivational self in the foreign language classroom. The second section comprises two main components: questions elicit information on ought-to-self and ideal self in the process of learning a foreign language (L2/L3). Questions 13-19 and 22, 23 deal with the-ought-to self and ideal self with regard to German and English. The third section contains questions based on the level of the foreign language classroom which is English and German for the participants. The level of the foreign language classroom is divided into three subcategories: the lesson, the current curriculum, and the personality of the teacher. Questions 11-12 and 24-39 refer to the third section of the questionnaire.

## **4.6 Data collection**

Data was collected in the spring semester of the school year in 2022. The research had to be implemented between March and June as 7th graders had been learning their L3 for one school year at the time of the testing. The researcher adapted all of the research instruments to the age group of the primary school pupils and the Hungarian context. The study was carried out at six primary schools but the researcher could visit these schools only once.

A written request from the head of the doctoral school was distributed to the headmasters. After the headmasters of the institutions agreed to participate in the study, teachers were given a letter of consent. Teachers distributed the parental consent letter to

the chosen applicants. Only pupils receiving parental consent took part in the study. Schools participated in the study anonymously; neither the names of the schools nor the students are disclosed in the results. The researcher was allowed to carry out the study so the guidance could positively support students' achievement.

The researcher guided the testing period and she gave instructions to the participants after having distributed the two questionnaires and the four tests. Students could fill in the tests with the assistance of the researcher. Different data collection methods were used to carry out the current investigation. Two questionnaires and four tests (2 C-tests, MCT, LHQ and the motivational questionnaire) were distributed to the participants at one point in time. Altogether five lessons (testing period) were devoted in order to complete the instruments but these five lessons were distributed throughout the week. One lesson was devoted to one of the C-tests. The second lesson was dedicated to the other C-test. Pupils could complete the two questionnaires in the third lesson. The Multilingual Competence test requires focus, attention and an extended time so the last two lessons were dedicated to the test.

The researcher was allowed to enter the school for one week to carry out the investigation. It is important to highlight that the research could have access to the students' grades retrieved from the KRÉTA system. Teachers gave this document to the researcher. The LHQ and the teachers' documentation served as solid evidence for the students' end of term grades that were used in the correlation analysis. The testing procedure was influenced by the tedious attitude of the 8<sup>th</sup> graders. The lack of motivation among 8th graders might significantly affect their test performance. Since their final grades in foreign languages were not impacted by these tests, and with the school year nearing its end, they may not have felt motivated to exert their best effort. In contrast, 7th graders, still facing another year in primary school, likely saw the tests as more relevant to their future academic progress. This difference in perceived importance could explain their higher levels of engagement and effort.

#### **4.7 Data analysis**

Statistical analysis was employed to answer the research questions. Descriptive and inferential statistics were used to analyse the obtained data. The reliability of the tools (C-test, MCT and motivational questionnaire) was calculated using Cronbach alpha. Test of normality (S-W) was analysed on whether the data was normally distributed. Many of

the distributions were not normal so non-parametric statistical tests were run. The following tests were used to answer the research questions: descriptive statistics, Pearson correlation and independent samples –Ttest were used to answer the research questions. Mann-Whitney tests were used to compare the groups (EG, GE).The qualitative part of the data like in the case of the LHQ and the motivation questionnaire was coded for analysis using SPSS 22. As for the motivational questionnaire, data was not only coded to be analysed but new variables should be created based on the three subsections of the questionnaire. New sub scores were computed in order to analyse the differences between the groups. The new sub-scores were based on the three subsections which were converted into three-three subscales based on the two foreign languages. The 7<sup>th</sup> and 8<sup>th</sup> graders were compared based on their motivation and attitudes. As far as the scoring of the motivational questionnaire is concerned, some replies should be calculated conversely. For example, when a negative assumption was answered by using point 4 then it should be treated as point 1 in the coding process. Data entry and coding lasted between November 2022 and May 2023 (motivation questionnaire, LHQ, 8 C-tests and the MCT). Data analysis took place between June and August 2023.Mann-Whitney test was chosen as it is the non-parametric equivalent to an independent samples test comparing the differences of two groups. It compares whether the distribution of the dependent variable is the same (number of scores) for the two groups (7<sup>th</sup> and 8<sup>th</sup> grade) and therefore from the same population. Non-parametric form of independent samples t-Tests - Mann Whitney tests - were employed to investigate three research questions which contained variables like L2 and L3 proficiency (English and German C-tests scores) and components of the MCT (scores of the MLX and MLA tasks).

## **4.8 The pilot study**

Chapter 4.8 discusses the findings of the pilot phase conducted before the research year. The pilot phase of the current dissertation is divided into subchapters. The context of the pilot is described in subchapter 4.8.1. The subchapter 4.8.2 describes the research questions of the pilot phase. Subsection 4.8.3 presents how to analyse the pilot data and then 4.8.4 gives an overview of the results section. Based on existing literature, piloting is crucial in quantitative studies due to their reliance on the psychometric properties of the research instruments (Dörnyei, 2007).In agreement with the literature, the pilot stage was utilized for two main reasons such as to try out the instruments and to identify

problems before the large-scale project (Mackey & Gass, 2012). On one hand, the intention was to assess the reliability and validity of the research instruments. On the other hand, the time of the pilot year was devoted to exploring the relationships between chosen variables using research questions. The validity and reliability of the instruments can be used for developing the research so it is beneficial that the research year is preceded by a pilot project. Piloting the research instruments can add valuable insights to the research, as research tools can be modified based on these results (Cohen et al., 2002).

#### **4.8.1 Time and venue**

The pilot was carried out at two different primary schools in the Transdanubian region of Hungary. The pilot phase was conducted in two schools where English as L3 or German as L3 were taught to the pupils. The study was carried out between end of May and beginning of June 2021 as the time of the pilot was delayed one year due to COVID-19. The pilot study contained 11 participants for each subgroup (N=44) and the ideal number of subjects would have been the 10% of the big study's participants so a minimum of 4 participants per subgroup (N=16). In alignment with the recommendations of Dörnyei (2007), a reasonable estimate is that the sample size of the pilot study should be 10% of the large-scale study. However, smaller sample sizes or lack of normal distribution can be compensated for by using nonparametric statistical procedures (Dörnyei, 2007).

#### **4.8.2 Participants**

A total of 44 primary school pupils were recruited for the study. They were selected based on predefined criteria such as age, language exposure, and order of acquisition. In all, 22 pupils were 7th graders: half of them (N=11) learned German as a L3 and the rest of the pupils (N=11) acquired English as a L3. The same distribution applied to the 8th grader pupils. 11 students learned German (L3) and 11 students acquired English (L3). 7th-grader pupils were compared to their 8th-grader peers. The convenience sampling method was used in the pilot however purposive sampling was also used as two criteria were inevitable for sampling. Firstly, the onset of learning the second foreign language made the sample homogeneous so 7<sup>th</sup> and 8<sup>th</sup> grader participants could be investigated in the primary school context. Secondly, schools and students were chosen that agreed to take part in the study. It has to be noted that due to practical reasons, only those schools were included in the project that could be easily accessed by the researcher.

### 4.8.3 Research questions

Previous studies support the idea that the C-test, the MCT and the LHQ are valid and reliable instruments in different contexts and for different age groups. However, these tools haven't been used in the Hungarian primary school context, so only tentative assumptions could be retrieved from the literature. (Hofer, 2023; Katona & Dörnyei, 1992; Li et al., 2020). The first research question of the pilot study investigates whether the research instruments are valid and reliable tools in the Hungarian primary school context. The pilot study needs to explore the validity and reliability of the tools that provide the development of the three instruments for the test phase which were either created by the researcher (8 C-tests) or they adapted from a different context (MCT and LHQ). The second question of the pilot study examines the normal distribution of the data. Based on existing research, various factors can influence additional language learning (Cenoz, 2001; De Angelis, 2007). The other three research questions examine whether some of the factors (like L2 exposure, L2 knowledge, and order of acquisition) can have an impact on TLA. Moreover, the pilot study also examines multilingual awareness which is a core element of the DMM (Herdina&Jessner, 2002). The fourth question refers to the relationship between L2 exposure and multilingual awareness. The current PhD dissertation is a comparative study focusing on English vs. German as L3. Therefore, the fifth research question observes the impact of order of acquisition on multilingual awareness and L3 proficiency. By reducing the number of observed factors, the study was suitable for more in-depth analysis.

Five research questions have been formulated for the pilot study.

RQ1: Are the research instruments valid and reliable tools?

RQ2: Is the data normally distributed in the case of the scores of L2 proficiency, L3 proficiency and the MCT?

RQ3: Does the prior language (L2 exposure and L2 knowledge) have an impact on L3 proficiency?

RQ4: Does the L2 exposure contribute to a heightened level of multilingual awareness?

RQ5: Does the order of acquisition have an impact on the success of learning an L3 and on multilingual awareness?

#### **4.8.4 Research instruments**

In order to develop adequate instruments for the research, several preparatory steps needed to be implemented. The following two tests and a questionnaire were used in the pilot study: LHQ, C-tests in English and German, and MCT (as presented in Appendix 5-10 and described in Chapters 4.6.1, 4.6.2 and 4.6.3). Firstly, the LHQ was distributed to participants. The LHQ was piloted in 2021 but its first round was not successful enough and in the second round the pilot was left out due to lack of time. Secondly, students were asked to fill in a German and English C-test both in their L2 and in their L3. The self-made C-tests needed to be piloted to investigate the usefulness of the tool. The two tests were distributed to students during two different lessons during the academic year 2020-21. The 8 C-tests were also piloted in the summer of 2021 and major changes needed to be implemented after the trial. Thirdly, a multilingual competence test was distributed to participants. In accordance with the researchers' request, students were asked to complete the two-part test during two separate lessons.

#### **4.8.5 Ethical considerations**

Since research including human participants requires adherence to ethical guidelines, a consent written request from the head of the doctoral school was distributed to a number of primary schools in the Transdanubian region of Hungary. The time of the pilot was rescheduled after the COVID pandemic (2021 spring-summer) because the consent was given via email by the headmasters. Prior to the pilot study, consent to participate was given by the principal of the school. The permission from the headmasters meant that teachers also agreed to take part in the research. Teachers' consent signified that their pupils could be included in the research procedure. A parental letter of consent was formulated and was distributed to all of the parents through the teachers. Pupils under the age of 18 may only participate in research with parental consent. Some of the students were excluded based on the lack of parental agreement. The researcher was not allowed to carry out the research therefore foreign language teachers were asked to distribute the tasks amongst the chosen participants. The drawback of this method was that the lack of professional guidance could influence the participants' achievement in the pilot phase.

#### **4.8.6 Data analysis**

Quantitative methods were used to collect and analyse the data. Reliability and validity of the research instruments were computed using SPSS 22. The test of normality was checked to establish whether the shape of distribution was normal or not. The lack of normal distribution can be compensated by using nonparametric statistical procedures (Dörnyei, 2007). Therefore, Mann-Whitney tests were used to compare different groups, namely EG with GE and 8<sup>th</sup> graders with 7<sup>th</sup> graders. The statistical tool ‘Jamovi’ was used for the data analysis. This software predicts the effect size of the data analysis besides the description of mean, significance (p-value), and standard deviation.

#### **4.8.7 Preliminary findings**

##### **4.8.7.1 Reliability and validity of the instruments**

The first research question refers to the reliability and validity of the research instruments. Since Dörnyei (2007) contends that a pilot study generally refers to a ‘dress rehearsal’ for the collection of data on a larger scale, it often happens that a test's validity and reliability are not high due to the small sample size in pilot studies. Investigating validity and reliability was considered as essential before conducting data collection for the research year (Cronbach & Meehl, 1955; Ursachi et al., 2015).

##### **4.8.7.2 Criterion-related validity of the C-tests**

The criterion-related validity is used to predict recent performance. It measures whether the test results correlate with another criterion of interest. If the C-test correlates with other performance of the students (such as other language proficiency tests and end-of-term grades) (Dörnyei and Katona, 1993; Eckes and Grotjahn, 2006), it provides evidence of criterion-related validity. In the pilot study, test performance was correlated with students’ end-of-year grades. The Pearson correlation was used to assess the validity of the 8 self-constructed C-tests. The first group consisted of students who learned English as an L2 and German as an L3. Tables 2 and 3 summarise the correlations between end-of-term grades and C-test performance. The findings show that no significance could be detected between the grades and test performance in English ( $p=0.37$ ). Despite this, differences are significant between the test results and grades in the German language ( $p=0.019$ ) as represented by Table 2.

**Table 2. Statistical correlations for the 7EG group.**

Variable	Ctest_ENG	Ctest_GER	grade_E	grade_G
Ctest_ENG	1	0,374	0,523	-0,399
Ctest_GER	0,374	1	,098	-0,098
grade_E	0,523	0,098	1	0,100
grade_G	-0,399	-0,098	0,100	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

The second group consisted of students for whom German as the first foreign language (L2) and English (L3). Table 3 shows the relationship between the end-of-year grade and the C-test performance in the case of the 7GE group. The findings suggest that there is marginal significance between German ( $p=0.010$ ) and English ( $p=0.013$ ) grades and test scores.

**Table 3. Statistical correlations for the 7GE group**

Variable	Ctest_ENG	Ctest_GER	grade_E	grade_G
Ctest_ENG	1	0,144	0,371	0,733*
Ctest_GER	0,144	1	0,716*	0,540
grade_E	0,371	0,716*	1	0,828**
grade_G	0,733*	0,540	0,828**	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed)

The performance of 8<sup>th</sup> graders was analysed based on the test results and their end-of-year grades. The third group included students who learned English as an L2 and German as an L3. The 8EG group's test results were correlated with their grades. No significance was found between the scores and the grades in either L2 ( $p=0.099$ ) or L3 ( $p=0.774$ ) language presented in Table 4.

**Table 4. Statistical correlations for the 8EG group**

Variable	Ctest_ENG	Ctest_GER	grade_E	grade_G
Ctest_ENG	1	-0,089	0,300	-0,110
Ctest_GER	-0,089	1	-0,052	0,688*
grade_E	0,300	-0,052	1	0,149
grade_G	-0,110	0,688*	0,149	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

The last group consisted of pupils who acquired German as their L2 and English as their L3. Tables 6A and 6B introduced the Pearson correlations of the C-tests and the end of term grades of the pupils. The findings indicate that the 8GE group's test results are correlated with students' grades and their performance on the C-tests. Both English (0.001) and German (p=0.000) results were statistically significant.

**Table 5. Statistical correlations for the 8GE group.**

Variable	Ctest_ENG	Ctest_GER	grade_E	grade_G
Ctest_ENG	1	-0,089	0,300	-0,110
Ctest_GER	-0,089	1	-0,052	0,688*
grade_E	0,300	-0,052	1	0,149
grade_G	-0,110	0,688*	0,149	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

#### **4.8.7.3 Content validity of the C-test**

The first step was that the C-tests were undergone by expert judgements. Expert validity is one type of content validity that was also used to develop the quality of the C-tests (Grotjahn, 2002). The majority of the German C-tests needed to be reconstructed with the help of expert judgement. C-tests needed to be investigated by native speakers of English and German who were asked to participate in the research. 80% of the C-tests were accomplished successfully by a native speaker of English. English C-tests were modified based on the feedback of the native speaker. The German native speaker reached 95% on the German C-tests which was the limit of the performance. Native speakers'

performance validity could give invaluable feedback on the content of a language proficiency test supported by previous research (Jafarpur, 1996; Klein-Braley, 1985).

#### 4.8.7.4 Reliability of the C-tests

This section describes the reliability of the C-tests. Dörnyei (2003) also speaks about the importance of reliability especially the level of the Cronbach alpha. The ideal level of reliability coefficient is 0.7 (Linnemann & Wilbert, 2010) although recent studies assert that Cronbach alpha between 0.6 and 0.8 is acceptable (Ursachi et al., 2015). The internal consistency of the C-tests was measured using Cronbach's alpha. Table 6 summarizes the reliability values of the 8 C-tests. Firstly, the Cronbach alpha of the 7EG group was computed using SPSS. Both the English ( $\alpha = 0.81$ ) and the German tests showed an acceptable level of reliability although the sample size was quite low ( $N=11$ ). The 8 EG group showed a higher reliability than the 7EG group. The findings suggested that a high level of reliability was found in the English language ( $\alpha=0.822$ ) Furthermore, the German language resulted in a higher level of reliability than the L2 ( $\alpha = 0.902$ ) even though it was the L3 language of the pupils. Scrutinizing the GE groups (Table 7) gives feedback on reliability even though we consider them preliminary findings. English (L3) has stronger reliability ( $\alpha=0.89$ ) than German as L2 ( $\alpha=0.76$ ) in terms of the 7th graders.

**Table 6. Reliability of the C-tests**

Groups	Internal consistency
7EG,English	$\alpha = 0.82$
7EG,German	$\alpha = 0.86$
8EG,English	$\alpha = 0.82$
8EG,German	$\alpha = 0.90$
7GE,German	$\alpha = 0.76$
7GE,English	$\alpha = 0.89$
8GE, German	$\alpha = 0.45$
8GE,English	$\alpha = 0.62$

Although results are based on a small sample size, the findings suggest that neither instrument [English as L3 ( $\alpha=0.62$ ) nor German language ( $\alpha=0.45$ ) as L2] seems to be reliable. 11 students filled in every C-test so preliminary validity could be estimated. The findings could not be generalized due to reliability. The sample size was too small and an

item analysis of the C-tests needed to be done in order to shed light on the problematic issues of the 8 C-tests.

#### **4.8.7.5 Item difficulty of the C-tests**

Classical test theory (henceforth CTT) was chosen based on consultations with language assessment specialists (January 2022). Both of the experts advised the researcher to carry out the item analysis and to discover the item difficulty index (henceforth IDI) before the research year. In alignment with the literature, item analysis identifies whether certain items need to be eliminated based on their item difficulty index (Sigott, 1995). The p-value denotes the item difficulty index. Item difficulty was calculated based on item analysis using Excel and the 8 C-tests were analysed after the pilot. Item difficulty index shows whether the items are too easy or too difficult. It should be examined in the pilot phase of the research (Jafarpur, 1995). C-tests were not multiple-choice tests, the item difficulty was calculated in each item as if it were a yes/no question. C-tests were constructed in a way that only one correct answer was acceptable. Items with a p-value above 0.9 are too easy while items below the level of 0.2 are too difficult for test takers (Hughes, 2003).

A lot of items were removed from the next round of testing procedure therefore texts needed to be rewritten. 11 participants completed the 8 types of the C-tests given by their age and language acquisition order. The separate items of the C-tests were put into the Excel file then calculated based on how many participants completed this item correctly. In summary, the correct responses per item are divided by the total number of respondents. For example, if an item was filled in correctly by 6 participants, then 6 should be divided by 11 which is an item difficulty of 55%. According to the rule of the CTT, the higher the difficulty index the easier the item. In all, 40% of the test items turned out to be too difficult or too easy in the case of the 8 C-tests. Item discrimination index could not be computed due to the low sample size and since the C-test is not a multiple-choice test. Altogether, 32% of the items were problematic in the German L2 test of the 7th graders. 23% of the items were too easy or too difficult for the English as L3 test in the case of the 7th graders. 25% of the items were problematic due to the item analysis in the case of the German L2 test of 8th graders. The scores of the English L3 test showed that 40% of the items turned out to be inappropriate based on the item's difficulty. 42% of the test items were questionable of the English L2 in the 7EG group. 41% of the items

seemed to be problematic in the case of the German L3 test. The 8EG group’s item analysis suggested that 36% of the items were out of the acceptable range in the English L2 test.

#### 4.8.7.6 Reliability and benchmarking of the MCT

The reliability of the MCT was tested in order to reveal the internal convergence of the test items. Initially, 11 subtasks are involved, and the test has 2 main parts. 9 out of the 11 subtasks seemed to be reasonable. Task 4 showed redundancy as task 1 dealt with the same concept. Task 9 indicated a lack of completion as a high number of pupils received 0 points on that subtask. The overall reliability index of the MCT is 0.62 which tends to be an acceptable level of reliability (Ursachi et al., 2015). There was one negative reliability coefficient among the pilot results ( $\alpha = -0.197$ ). 7GE and 8GE subgroups have low reliability levels ( $\alpha = 0.51$ ,  $\alpha = 0.25$ ). The reliability of the 7EG group appears to be the highest internal consistency ( $\alpha = 0.63$ ) among the pilot sample.

**Table 7. Reliability of the MCT**

Groups	Internal consistency
7EG	$\alpha = 0.63$
8EG	$\alpha = -0.197$
7GE	$\alpha = 0.51$
8GE	$\alpha = 0.25$
pilot sample	$\alpha = 0.62$

It has to be noted that the MCT is not a self-made test but major changes needed to be implemented in order to adapt to the Hungarian context. Having consulted with the literature on the MCT (Hofer, 2023), the 60% benchmark level was established as it is displayed in Table 8. This threshold value aligns with general school practice, where the passing score is typically set at 60%. Performance above this 60% benchmark is graded according to conventional school standards, ranging from sufficient to excellent. This grading system reflects a common approach in educational settings, where achieving above the threshold indicates varying levels of proficiency and mastery.

**Table 8. Benchmark level of the MCT**

$\leq 60\%$	$\geq 60\%$
less multilingually competent	more multilingually competent

If most of the participants could obtain a score of 60% or higher on the test, the participants' performance is considered to be successful. The experiment showed that 23% of the participants could not achieve 60% and the detailed analysis is shown in Appendix 3. The table summarizes the proportion of students who achieved more than 60% on the test. 77% of the participants could obtain more than 60% so the adapted multicompetence test successfully worked in the pilot phase however several changes have been implemented to the new version of the test in terms of the content.

**Table 9. Benchmark results of the MCT**

Groups	MCT results
7EG	5/11 students
8EG	7/11 students
7GE	11/11 students
8GE	11/11 students
total	34/44= 77%

#### **4.8.7.7 Reliability and validity of the LHQ**

As the research instrument was adapted to the Hungarian context, the aim was to investigate the tool's reliability and validity. The reliability of the LHQ showed a low level of reliability ( $\alpha=0.38$ ). Regarding the LHQ, the results of the pilot period showed plenty of negative or lack of correlations. The pilot results revealed that the questionnaire needed to be thoroughly revised and reformulated for the research year. The modified version of the questionnaire seemed to be a valid instrument due to the correlational analysis in the research year.

#### 4.8.7.8 Test of normality

As for the second research question, Shapiro-Wilk (henceforth S-W test) and Kolmogorov- Smirnov tests (henceforth K-S test) were used to check the normal distribution of the sample (N=44). According to the literature, the S–W test is a more appropriate method for small sample sizes (<50 samples) although it can also be handled on larger sample size while K–S test is used for  $n \geq 50$ . Table 10 illustrates the lack of normality as the significance level is not higher than 0.05 in each case. ( $p=0.009$ ,  $p=0,012$ ,  $p=0,000$ ).

The main constructs have been investigated in the pilot study: the first foreign language of the students (henceforth L2), the second foreign language of the participants (L3), multilingual operations of cross-linguistic awareness (MLX) and metalinguistic awareness (MLA). L2, L3, MP and MLA were involved in testing the normal distribution since these data could be drawn from the pilot investigation and research questions are mainly based on it in the big study. Table 10 briefly summarizes the test of normality. Histograms showed that no normal distribution could be detected in the L3 proficiency, in cross linguistic awareness (MLX) and metalinguistic awareness (MLA) parts of the MCT. However data suggested that normal distribution could be found in the L2 scores on the C-test and in the self-rating values of L2 and L3.

**Table 10. Test of normality. Pilot.**

Parameter	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Ctest_L2_százalék	0,065	44	0,200*	0,980	44	0,647
Ctest_L3_százalék	0,142	44	0,027	0,928	44	0,009
MS	0,129	44	0,064	0,932	44	0,012
MV	0,162	44	0,006	0,929	44	0,009
prof_11	0,209	44	0,000	0,846	44	0,000
prof_12	0,091	44	0,200*	0,969	44	0,278
prof_13	0,093	44	0,200*	0,960	44	0,133

Note:<sup>a</sup>: lower bound of true significance (\*)

#### 4.8.7.9 Prior language knowledge, L2 exposure and L3 proficiency

The first part of the third research question draws attention to the relationship between L2 exposure and L3 proficiency as represented by Table 11. The independent samples T-test suggests that the 7EG group (M=87) outperforms 8EG (M=69) in terms of L2 proficiency. Descriptive statistics show that 8EG (M=43.2) outperforms the 7EG (M=30.5) in the case of L3 proficiency.

**Table 11.7EG and 8EG. Descriptive.**

Variable	Group	N	M	SD
Ctest_L2_percent	1	11	0.862	0.0889
	2	11	0.694	0.138
Ctest_L3_percent	1	11	0.305	0.1940
	2	11	0.432	0.154

Table 12 summarise the level of significance and the effect size in terms of the EG groups. According to Cohen's D, the L2 proficiency has a large effect size ( $d=0.7$ ) between the 2 variables (7EG and 8EG). Moreover, a significant difference could be found in L2 proficiency ( $p=0.006$ ). No statistical significance can be found between the groups of 7EG and 8EG in terms of L3 proficiency (L3:  $U=36.5$ ;  $p=0.12$ ) There is a medium effect size which implies that the finding is practical enough and could work with a larger sample, as well ( $d=0.3$ ).

**Table 12. Effect size, 7EG and 8EG**

Variable	Statistic	p	Effect s.
Ctest_L2_percent	18.0	0.006	0.702
Ctest_L3_percent	36	0.122	0.397

As the third research question refers to the L3 construct, the descriptive statistics of the GE group is displayed in Table 13. 8<sup>th</sup> graders (M=85.6) outperformed the 7<sup>th</sup> graders (M=77.6) both in terms of L2 and L3 even though they acquired languages in the opposite way as the first group (EG).

**Table 13.7GE and 8GE Descriptive**

Parameter	Group	N	M	SD
Ctest_L2_percent	1	11	0.741	0.0855
	2	11	0.759	0.0970
Ctest_L3_percent	1	11	0.776	0.1412
	2	11	0.856	0.0482

There was no statistically significant difference ( $p=0.74$ ) between 7th and 8th graders in terms of L2 proficiency as represented by Table 14. A marginally significant difference could be found in terms of L3 proficiency ( $p=0.01$ ). A medium effect size was found between the 7GE and 8GE in terms of L3 proficiency ( $d: 0.43$ ). The finding showed that L3 proficiency test can work with larger sample size.

**Table 14. Effect size. 7GE and 8GE**

Variable	Statistic	p	Effect Size
Ctest_L2_percent	55.0	0.742	0.0909
Ctest_L3_percent	34.5	0.094	0.4298

The second part of the third research question refers to the relationship between the prior language knowledge on L3 proficiency. As for the EG and the GE group, a lack of significant correlation could be found for the 7GE group ( $p=0.14$ ) meanwhile a negative correlation could be detected in terms of the 7EG group ( $p=-0.89$ ). As for the 8th graders, Pearson correlation was computed. A lack of significant correlation could be detected both in the 8EG ( $p=0.26$ ) and 8GE ( $p=0.38$ ) groups.

#### **4.8.7.10 L2 experience and multilingual awareness**

The fourth research question also refers to both groups (EG, GE) but multilingual awareness stands at the centre of this investigation. Firstly, the findings of the EG groups are presented. As far as the descriptive statistics are concerned, 8<sup>th</sup> graders outperformed 7th graders both in cross linguistic interactions (M: 63.32) and in metalinguistic awareness (M: 7.00).

**Table 15. EG groups. Descriptive. MCT**

Variable	Group	N	M	SD
MLX	1	11	60.64	11.25
	2	11	63.32	7.12
MLA	1	11	6.82	1.99
	2	11	7.00	2.61

No significant difference can be found in terms of 7EG and 8EG and vice versa. (MLA,  $p: 0.9$ , MP,  $p: 0.7$ ). This discrepancy may be attributed to the small sample size in the pilot phase. We were unable to reject the research question that a shorter period of language input may have a lower level of metalinguistic awareness but only in the EG groups. No clear evidence has been found that shorter periods of language exposure is correlated with lower metalinguistic levels.

**Table 16. 7 and 8 EG groups. MCT**

Variable	Statistic	p	MD	Effect Size
MLX	46.0	0.357	2.00	0.2397
MLA	58.5	0.920	4.56	0.0331

Table 17 summarises the descriptive statistics of the GE groups concerning the MCT. The GE groups were also tested based on the test results of the cross linguistic and metalinguistic awareness. The scores of cross-linguistic awareness revealed that 8<sup>th</sup> graders (M: 78.2) outperformed 7<sup>th</sup> graders (M: 77.6). However, 7<sup>th</sup> graders achieved better results (M: 14.9) than 8<sup>th</sup> graders (M: 14.5) in metalinguistic awareness tasks (MLA).

**Table 17. GE groups. Descriptive. MCT.**

Variable	Group	N	M	SD
MLX	1	11	77.0	6.54
	2	11	78.2	3.54
MLA	1	11	14.9	2.55
	2	11	14.5	2.34

As far as the effect size is concerned, a low effect size was measured in the case of MLX and MLA scores. Therefore the MCT could not work with a larger sample size in its current form ( $d=0.03$  and  $d=0.08$ ).

**Table 18. Effect size. GE groups.**

Variable	Statistic	p	Mean difference	Effect Size
MLX	58.5	0.921	-3.35e-5	0.0331
MLA	55.5	0.766	4.84e-6	0.0826

#### **4.8.7.11 The order of acquisition, L3 proficiency and multilingual awareness**

The fifth research question refers to the relationship between the order of acquisition (German L2/English L2) and L3 proficiency and to the correlation between the order of language acquisition and metalinguistic awareness. Three variables were the focus of our investigations: L3 proficiency, cross linguistic influence (MLX): and MLA (metalinguistic awareness) scores. The 7GE groups outperformed the 7EG groups in the case of all the 3 variables: L3 proficiency, cross-linguistic awareness, and metalinguistic awareness. Those who learn German as their L2 achieved greater results both in L3 (M: 77.6) and in the two parts of the multilingual competence test (MLX, M: 76.95 and MLA, M: 14.9).

**Table 19. 7th graders. Descriptive**

Variable	Group	N	M	SD
Ctest_L3_percent	1	11	0.305	0.194
	2	11	0.776	0.141
MLA	1	11	60.636	11.252
	2	11	76.955	6.540
MLX	1	11	6.818	1.991
	2	11	0.305	2.548

Statistical significant differences could be found based on the three variables ( $p < 0.05$ ). Furthermore, the Mann Whitney test revealed a large effect size of the 3 constructs [L3:  $d = 0.9$ , MLX:  $d = 0.8$  and MLA:  $d = 1$ ]. A big effect size may be a good indicator that the instruments infer practicality and they could work with a larger sample size.

**Table 20. 7th graders. Effect size.**

Variable	Statistic	p	Effect Size
Ctest_L3_percent	3.50	< .001	0.942
MLX	12.50	0.002	0.793
MLA	0.00	< .001	1.000

The findings of the 8th grader participants are presented. Descriptive statistics suggested that 8GE group accomplished greater results (L3,  $M = 85.6$ ; MLX,  $M = 78.2$  and MLA,  $M = 14.5$ ) than the 8EG group. The preliminary findings unveiled that the third hypothesis was fulfilled.

**Table 21. 8th graders. Descriptive**

Variables	Group	N	M	SD
Ctest_L3_percent	1	11	43.2	0.154
	2	11	85.6	0.0482
MLA	1	11	63.318	7.125
	2	11	78.182	3.5445
MLX	1	11	7.000	2.608
	2	11	14.545	2.3394

Table 22 provides a summary of the significance level and effect size of the 8<sup>th</sup> graders. Statistical significant difference could be detected in terms of L3 proficiency, MLA, MLX

( $p=0.000$ ). The effect size of the constructs (MLA, MLX, and L3) seemed to be high enough ( $d= 1$ ) so the test parts could be operated with a larger sample size successfully.

**Table 22.8th graders. Effect size.**

Variable	Statistic	p	Effect Size
Ctest_L3_percent	0.00	< .001	1.000
MLX	0.00	< .001	1.000
MLA	0.00	< .001	0.926

#### 4.8.8 Discussion of the results

Firstly, the validity and reliability of the 8 C-tests were investigated. The result of the internal consistency showed that C-test is considered to be a reliable instrument. However the majority of the C-tests have met the criteria of validity and reliability, not all of the results prove the validity and reliability of the testing tool. Whilst some research has been carried out on C-tests at the international and national levels, a unique investigation has been made with the help of self-made C-tests in the field of language assessment. Several studies have produced reliability and validity of C-tests, but there is still insufficient data for C-tests in the Hungarian primary school context. In the following, a bunch of studies will be listed to support the reliable and valid nature of the C-tests even though these C-tests are not in line with the tests of the current study. Our findings are in line with Drackert (2020) that C-tests have proved to be objective, highly reliable, and very economical means for measuring global language proficiency. However, its validity is only proven based on criterion-related validity. Saeedi et al (2011) conducted criterion-related validity research based on C-test and cloze test. Katona & Dörnyei (1991) summarized their findings about the trial research on the C-test in the Hungarian context. Moreover, Dörnyei & Katona (1992) focused on the validation of the C-test amongst Hungarian students at the University of ELTE in their second joint publication. Both the findings of Dörnyei & Katona (1992) and Katona & Dörnyei (1991) are in harmony with the pilot study. They found that the C-test highly correlates with other testing tools. Bors (1993) also used C-test to assess English language proficiency in

the Hungarian primary school context. Her findings are in agreement with our pilot as C-test applied to be a reliable and objective instrument (Bors et al., 1999).

As far as the MCT is concerned, an acceptable level of reliability has been found in the case of the 7EG group. Apart from the 7EG group, the rest of the groups (8GE, 7GE, 7EG) did not show reliability. However, the preliminary overall reliability of the MCT suggested an acceptable level of reliability. As for the benchmark level of the MCT, 77% of the participants reached the minimum 60% or above in the adapted version of the test. This finding is in agreement with Hofer (2023) findings.

The validity of the LHQ was calculated by means of Pearson correlation. A number of negative correlations have been found between proficiency in L1, L2, L3 and the language use in different free-time activities in L1, L2, and L3. After the correlation analysis, negative Cronbach alpha was calculated for the scales of the LHQ. Tests of normality proved that the data was not normally distributed. K-S test and S-W tests of normality were utilized to answer the question. Both tests of normality supported the idea that a lack of normal distribution was found in the data (N=44). But a small sample size can be compensated for using certain special nonparametric statistical procedures (Dörnyei, 2007). Returning to the first question, L2 exposure seemed to be a good predictor of L3 achievement. It is now possible to state that Mann-Whitney test showed 8<sup>th</sup> graders outperformed the 7<sup>th</sup> graders in L3 proficiency. 8<sup>th</sup> graders outperformed 7<sup>th</sup> graders in both English and German as L3 but no significant difference was observed in terms of L3 proficiency. What is more, it was hypothesised that 8<sup>th</sup> graders have a higher level of multilingual awareness than their younger peers. Only one of the 8<sup>th</sup>-grader groups obtained higher scores in the multicompetence test. The third hypothesis was whether pupils learning German as an L2 achieve better results in their L3 and whether they have a higher level of metalinguistic awareness due to the order of acquisition. The findings suggested that students learning German as an L2 outperformed students learning English as an L2.

#### **4.8.9 Conclusion**

As a conclusion of the pilot phase, it can be stated that the research instruments were adequate tools for measuring language proficiency, meta- and cross-linguistic awareness, and for acquiring information about the participants' language learning backgrounds.

However, a number of modifications were implied to the tests in order to eliminate repetitions and to adjust the linguistic level of the tests to the participants' knowledge.

Classical mutilation can be used for the English version, namely the second part of every second word has been omitted. Viewing the results of the item analysis, some items were too difficult or too easy. Those items needed to be eliminated based on the literature. The item analysis suggested that multiple items were used in the case of the English C-tests. Certain items were measured multiple times in the overall test. The content of the texts needed to change a bit as repetitions were required to eliminate as much as one could. The item analysis showed that certain mutilated items appeared twice or three times in the overall tests but not within one text. Typical examples are conjunctions like „and, or, but,” or personal pronouns like „we, they, you” or 'to be verb' like 'am, is, are'. Some texts have been changed with one another based on the student's feedback (too easy, too difficult) 7<sup>th</sup> grader texts have been changed with the 8<sup>th</sup> graders or vice versa. The German tests were adapted to the pupils' needs and every third word has been mutilated. The investigation of Baur et al. (2006) supported that the second part of every third word should be mutilated in the German as L2 test. The aim was to enhance their level of achievement on the tests. The German C-tests have been changed for the data collection in that way. The final version of the test included 5 texts with 20 gap-filling items.

Considering the MCT, most of the test parts remained the same for the empirical research. However some modifications needed to be implement in order to develop the tool. The first task of PART I was modified to the Hungarian context. It was the vocabulary exercise including cognates in German and English plus Hungarian. This task needed to be modified in terms of scoring and item numbers in the following way. Concerning scoring, one line refers to one point as one item was 0.5 point. In the empirical research, 18 words are given to the participants and each word counted as 1 point so altogether 36 points can be collected. Task 2 and 3 remained in the same way both in the pilot and in the research year. The fourth task- what the researcher did for the pilot study - was removed after the pilot study due to repetition and time. It was a vocabulary task similar to task 1 of PART 1 (see: Appendix). The new test contains the translation task and it is the fourth task as in the original test. The ninth task contains French, Italian and Ladin languages. It was reasonable to remove this task as these languages were unknown and unrelated and none of the participants (N=44) could solve the task. As for the time frame, pupils could fill in the MCT test in a shorter period of time than anticipated in the

pilot. The test was shortened so 70 mins were calculated for the whole test. The total score has been modified from 116 points to 120 points for the test for the research year.

Regarding the LHQ, the results of the pilot period showed negative correlations, the test was subject to a thorough reformulation and reconstruction process (See: Appendix 11A). Certain questions have been removed which seemed to be irrelevant and time-consuming like the place of birth or place of school. Moreover, questions referring to cross-linguistic influence or similarities between languages were also removed as students could not cope with these topics. Their replies couldn't be evaluated. Questions related to age of onset, years of learning, self-rating in language proficiency (L2, L3) were successful in the pilot phase but these items needed to be modified. Questions have been formulated with given replies from which students need to choose the best option instead of writing their own answers. Questions related to various aspects of language proficiency like speaking, listening comprehension, reading comprehension, and writing have been formulated and added to the questionnaire. Language use outside of the classroom is also part of the new questionnaire. Questions 22-24 refer to certain free time activities like listening to music, watching movies or playing online games. Overall, using Likert scale (1-4) makes the questionnaire easier to complete.

A new tool was added to the empirical research to gain insights into the driving force of students' motivation, namely the motivational questionnaire (See: Subchapter4.6.4). Further investigations need to be done concerning the DMM and motivation. A motivation questionnaire was added to the list of research instruments for the empirical study to see students' motivation, attitudes towards their foreign languages, and the self-image of the language learner. The questionnaire comprises altogether 39 questions and the answers are embedded in a 1-4 points Likert scale. The generalisability of these results is subject to certain limitations. The same hypotheses can be investigated with a greater sample size including the modified instruments in the research year. The next chapter focuses on the results of the research year.

## **5. RESULTS**

Chapter 5 is divided into four main sections. The first subchapter presents the performance of the pupils on the four testing tools used for the research project. The first subchapter is divided into six main subchapters which give information about the various

test performances of the participants. The second subchapter discusses the findings of the research questions implemented for the test phase. This subchapter is splitted into four main subsections exploring the results of the test phase. More elaborate commentary on the results is normally restricted to the discussion section which can be found in the third subsection. The limitations of the study are introduced in the fourth subchapter.

## **5.1 Test performance of the primary school pupils**

Section 5.1 gives information about the participants' performance based on the tests and questionnaires conducted in the PhD study. The testing tools are novel in the sense that the researcher created one type of the instruments (C-test) meanwhile the other tools (motivation questionnaire, LHQ, MCT) were adapted to the Hungarian context. It should be noted that exploring the reliability and validity of the tools can add valuable insights into the data. The reliability and validity of the instruments (C-test, multicompetence test, motivation questionnaire) are taken into consideration in the current study (N=152). Firstly, the reliability and validity of the C-tests were investigated as the 8 C-tests were modified on the findings of the pilot study. Two types of reliability and criterion related validity are tested to guarantee the tool's quality (Baur et al., 2006). Secondly, it is reasonable to estimate the reliability and validity of the multilingual competence test. Thirdly, the reliability of the motivation questionnaire was tested concerning the English and the German sections. Finally, results were retrieved from the quantitative analysis of the LHQ based on correlations within variables.

### **5.1.1 Students' performance on the C-tests**

Firstly, the reliability of the C-tests was checked which was represented by Table 23. As far as the reliability of the tool is concerned, internal consistency was examined. Internal consistency measures the consistency of the individual items of a test (McCowan et al., 1999). The connection between internal consistency and pupils' performance is essential if a new testing tool is introduced. The reliability can underpin the replicability of the testing process. Four subgroups participated in the research therefore C-tests were made up of 7EG, 7GE, 8EG and 8GE groups to test their L2 and their L3. Table 23 gives an overview of the C-test's reliability from the trial phase until the big study.

The first subgroup is the 7EG (N=38) in which students acquire English as their first foreign language (L2) and German as their second foreign language (L3). English as L2

( $\alpha=0.88$ ) has a high value similar to the pilot phase (English,  $\alpha=0.81$ ) however the values went even higher in the research year. The Cronbach's alpha of the German C-test ( $\alpha=0.86$ ) for students learning German as their L3 is higher than the level of reliability ( $\alpha=0.85$ ) reported in the pilot study. The second subgroup is the 8EG (N=38) where pupils learn the languages in the same acquisition order but they are in the 8<sup>th</sup> grade. The level of internal consistency is even higher ( $\alpha=0.93$ ) than it was estimated in the pilot ( $\alpha=0.82$ ) thanks to the development of the C-test. Comparing the results of the German C-tests, a lower level of reliability ( $\alpha = 0.84$ ) was observed in the test phase compared to the higher reliability ( $\alpha = 0.90$ ) computed during the pilot phase.

The findings of the 7EG and 8EG groups suggested that the values of the English C-tests were higher ( $\alpha =0.89$  and  $\alpha=0.93$ ) in the research year than the values of the 7EG and 8EG C-tests' reliability in the pilot phase ( $\alpha=0.82$ ). Turning to the reliability of the GE groups, the results of the 7GE group revealed that the German C-test had higher reliability ( $\alpha=0.93$ ) than in the pilot study ( $\alpha=0.76$ ). The English C-test for students learning it as their third language (L3) showed an increase in reliability, from a good level ( $\alpha = 0.89$ ) to an excellent level of internal consistency ( $\alpha = 0.94$ ). The reliability of the C-tests was established for the 8GE group. An increasing tendency could be found from the pilot project ( $\alpha=0.62$ ) to the research year ( $\alpha=0.89$ ).

**Table 23. Reliability of the C-tests**

Pilot study	Reliability	Research year	Reliability
7EG,English	0.82	7EG,English	0.89
7EG,German	0.86	7EG,German	0.87
8EG,English	0.82	8EG,English	0.93
8EG,German	0.90	8EG,German	0.84
7GE,German	0.76	7GE,German	0.93
7GE,English	0.89	7GE,English	0.94
8GE, German	0.45	8GE, German	0.85
8GE,English	0.62	8GE,English	0.89

To compare the results, reliability tests were computed in the pilot phase and in the test phase. The most striking result to emerge from the data is an improvement in the 8GE group. The internal consistency of the German C-test was not reliable ( $\alpha=0.45$ ) however this group produced a high reliability coefficient in the test phase. The English C-test

reached an acceptable level of reliability ( $\alpha=0.62$ ) in piloting the tests but a positive tendency ( $\alpha=0.89$ ) could be seen in the year of the data collection.

### 5.1.2 The correlation between C-tests' performance and end-of-year grades

Having investigated the reliability coefficient of the C-tests, the next step was to assess the validity of the same instrument. Criterion related validity was used to determine whether the achievement on the 8 C-tests can be correlated with other performance traits e.g., students' end-of-term grades in English and German tests. End of term grades have been retrieved both from the language history questionnaire and from the teachers' documentation. (See: Subchapter 4.7). The researcher received pupils' end of term grades from the teachers which were used for testing the correlation between the C-tests and the grades. These grades were correlated with the assigned tests. The correlations of the 7GE group show that a highly significant correlation could be seen between the English grades and the English proficiency test ( $p = 0.000$ ) presented in Table 24. Pertaining to the German performance, there was a significant correlation between the grades and the scores on the German C-test ( $p = 0.001$ ). The most surprising aspect of the results is that a correlation could be detected between the English and the German C-test ( $p=0.03$ ) but this finding will be discussed at the later stage of the results section.

**Table 24 Correlational analysis.7GE**

Parameter	Ger_Ctest	Eng_Ctest	Eng_grade	Ger_grade
Ger_Ctest	1	0,727**	0,431**	0,504**
Eng_Ctest	0,727**	1	0,678**	0,362*
Eng_grade	0,431**	0,678**	1	0,225
Ger_grade	0,504**	0,362*	0,225	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

The validity of the 7EG group is displayed in Table 25. Findings show that neither the German C-test nor the English C-test is correlated with their end-of-term grades. A lack of significance in criterion-related validity may lead to a lack of significance at a later stage of the analysis. An interesting finding to emerge from the data comparison is that

the English and German C-tests are correlated even though no correlation exists between the proficiency tests and the end-of-term grades.

**Table 25. Correlational analysis. 7EG**

Parameter	Ger_Ctest	Eng_Ctest	Eng_grade	Ger_grade
Ger_Ctest	1	0,465**	0,378*	0,251
Eng_Ctest	0,465**	1	0,156	0,409*
Eng_grade	0,378*	0,156	1	-0,152
Ger_grade	0,251	0,409*	-0,152	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix presented in Table 26 assesses the validity of the 8EG group. According to the findings, only the German C-tests have a significant correlation with other performance traits of the participants which are the grades achieved in the first academic term. ( $p=0.000$ ). What is interesting in these data is that German grades are correlated with the English grades ( $p=0.04$ ). A significant positive correlation is found between English grades and German C-test scores ( $p=0.006$ ).

**Table 26. Correlational analysis. 8EG**

Variable	Ger_Ctest	Ger_grade	Eng_Ctest	Eng_grade
Ger_Ctest	1	0,548**	0,279	0,438**
Ger_grade	0,548**	1	0,320	0,339*
Eng_Ctest	0,279	0,320	1	0,186
Eng_grade	0,438**	0,339*	0,186	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

The correlation between the proficiency scores and the grades was also tested in the 8GE group. The results of the analysis are illustrated in Table 27. The correlational analysis of the 8GE group is similar to the findings of the 7GE group. For the 8 GE group we found a significant correlation between the achievement on proficiency tests (English, German) and the grades obtained at the end of the term. As Table 27 shows, there is a significant correlation ( $p=0.013$ ) between the two variables in terms of the English language. It is

apparent from this table that a positive correlation ( $p=0.02$ ) is found between the German C-test and the German grades of the pupils.

**Table 27 Correlational analysis. 8GE**

Parameter	Ger_Ctest	Ger_grade	Eng_Ctest	Eng_grade
Ger_Ctest	1	0,365*	0,379*	0,016
Ger_grade	0,365*	1	0,208	0,526**
Eng_ctest	0,379*	0,208	1	0,400*
Eng_grade	0,016	0,526**	0,400*	1

*Note.* \* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

### 5.1.3 Pupils' performance on the MCT

The next subsection is concerned with the reliability and validity of the multilingual competence test (henceforth MCT). The reliability of the MCT is calculated similarly to the C-test so the score of the pupils is divided into the 9 subtasks. The internal consistency of the 9 items was computed using SPSS 22. Afterwards, the internal consistency of the 4 subgroups was tested. Comparing the pilot results to the findings of the test phase showed that reliability increased except for the 7EG group. Table 28 presents the summary of the reliability for the MCT. The results suggested that the test had acceptable reliability ( $\alpha=0.67$ ) based on the testing population. The internal consistency of the 4 subgroups ( $N=38$ ) is aligned with the population except for the 7EG group which could not reach the minimum level of reliability ( $\alpha=0.56$ ) in the sample of the test phase.

**Table 28 Reliability of the C-test**

Group	Value	Group	Value
pilot phase	$\alpha=0.62$	test phase	$\alpha=0.67$
7EG	$\alpha=0.63$	7EG	$\alpha=0.56$
8EG	$\alpha=,19$	8EG	$\alpha=0.67$
7GE	$\alpha=0.51$	7GE	$\alpha=.067$
8GE	$\alpha=0.25$	8GE	$\alpha=0.71$

The next step was to calculate the benchmark level of the MCT (Hofer, 2023, p.101) and to compare the results of the test phase with the pilot phase as represented in Table 29. 60% was the rate of scoring like in the pilot study. 77% of the whole sample could reach the minimum level while 94% of the total cohort could achieve the benchmark level on the MCT. An improvement could be seen in the test results due to the development of the MCT.

**Table 29. Benchmark results of the MCT.**

Groups	Pilot phase	Test phase
7EG	5/11	38/38
7GE	7/11	34/38
8EG	11/11	36/38
8GE	11/11	35/38
total	34/44	143/152

#### 5.1.4 Pupils' performance on the motivational questionnaire

The motivational questionnaire was the last tool to be added to the test phase. Therefore, it was essential to check the reliability of this instrument. Cronbach alpha was computed to detect the internal consistency of the scales. The questionnaire is divided into two main sections (3-3- scales) based on the foreign languages: English and German. Both the German ( $\alpha= 0.84$ ) and the English sections ( $\alpha=0.74$ ) have high reliability. Furthermore, testing the 3 major scales of the English and the German motivation questionnaire showed a high level of reliability ( $\alpha=0.82$ ) presented in Table 18.

**Table 30. Reliability of the motivational questionnaire**

Variable	Values
German section (20 items)	0.84
English section (20 items)	0.74
6 scales (Ger+Eng)	0.82

### 5.1.5 Students' performance on the LHQ

After the pilot study, the reliability and validity of the LHQ were investigated to draw a parallel between the pilot-, and the test phase. Internal consistency was calculated to ascertain the reliability of the LHQ. An improvement could be detected from the pilot to the test phase of this research tool. A low reliability was found in the pilot phase ( $\alpha=0.4$ ) while a moderate level of reliability ( $\alpha=0.6$ ) was calculated in the test phase. No correlation or negative correlations characterised the pilot phase in the case of the language history questionnaire (see: Appendix 11A).

To investigate the relationship between the degree of using English and German across free-time activities and the C-tests, a Pearson Correlation test was calculated and the results are presented in Table 35. Results suggested that watching movies in German had a strong positive correlation with listening to music and playing online games in German. The English C-test had a significant correlation with listening to music in German. The German C-test was correlated with the English C-test. This finding supported that cross-linguistic influence existed between L2 and L3 in the current investigation.

**Table 31. Correlation. LHQ**

Parameter	1	2	3	4	5	6	7	8
movieseries_ENG	1							
movieseries_GER	-.14	1						
MUSIC_ENG	.12	-0.93	1					
music_GER	-.95	.44**	-.44	1				
Onlinegames_ENG	.04	-.15	-.11	-.03	1			
Onlinegames_GER	-0.8	.37**	0,21*	.41**	.14	1		
Ctest_ENG	.14	.10	.07	.19*	-.14	.1	1	
Ctest_GER	.42**	-.12	.28**	.02	-.05	-.02	.51**	1

### 5.1.6 Test of normality

As a first step, tests of normality were computed to investigate whether the C-tests and the multicompetence test are normally distributed. The Shapiro-Wilk test was chosen as 38 participants were tested in each of the subgroups ( $N < 50$  samples). A lack of normal distribution was ascertained for the English C-test scores and the multicompetence test, namely in the 7EG and the 7GE groups. The German tests showed normality in the case of all of the subgroups. In summary, the scores of the 8th graders on both the English C-tests ( $p=0,000$  and  $p=0,002$ ) and the multicompetence test ( $p=0,04$  and  $p=0,000$ ) show significant deviations from normality. This could imply that the distributions of these test scores are skewed, have outliers and do not follow a typical bell-shaped curve. As most variables were not normally distributed, non-parametric tests were used to investigate the research questions.

**Table 32 Test of normality. Test phase**

Variable	Group	Statistic	Sig.
German C-test	7EG	0,989	0,971
	7GE	0,942	0,049
	8EG	0,966	0,291
	8GE	0,980	0,702
English C-test	7EG	0,947	0,068
	7GE	0,952	0,103
	8EG	0,864	0,000
	8GE	0,894	0,002
MCT	7EG	0,955	0,131
	7GE	0,971	0,423
	8EG	0,939	0,039
	8GE	0,861	0,000

## 5.2 Results of the test phase

This part of the thesis discusses the findings which emerged from the statistical analysis presented in the previous chapter. This chapter is divided into four main sections, each of which presents the results relating to one of the research questions. The first subchapter focuses on the first research questions, the second subpart concentrates on the second research question. The third subsection discusses the findings concerning the third

question while the fourth subpart looks at the quantitative findings connected to the fourth research question.

### 5.2.1 The impact of prior language (L2) on L3 proficiency

The first research question is aimed at exploring the effects of L2 exposure and L2 knowledge on L3 proficiency. To answer the first research question, the non-parametric form of t-test –Mann-Whitney test – was used. Table 33 shows the comparison between the groups of 7EG and 8EG. 7EG outperformed 8EG both in their English (L2) and in their German (L3) ( $MR=38.97$  and  $MR=40.05$ ). A possible reason could be that the 8<sup>th</sup> graders were reluctant to complete the tests as their grades had been closed before the time of the testing phase. The results showed that neither of the two tests (English and German) indicated statistically significant differences ( $p=0.85$  and  $p=0.54$ ).

**Table 33. L2 exposure on L3 proficiency. EG groups.**

Variable	Group	N	MR	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
Ger_Ctest German C-test scores	7EG	38	38,97	1481,00	704,000	0.852
	8EG	38	38,03	1445,00		
	Total	76				
Eng_Ctest English C-test scores	7EG	38	40,05	1522,00	663,000	0.540
	8EG	38	36,95	1404,00		
	Total	76				

The first question refers to the GE groups, as well. Table 34 presents an overview of the GE group. Non-parametric T-tests were used to analyse the relationship between 7GE and 8GE groups. The results showed that the 8<sup>th</sup> graders achieved better results than the 7<sup>th</sup> graders ( $MR=43.50$ ). The significance level of the German and English C-tests is displayed in Table 22. Only the English results showed a significant difference between the 7GE and the 8GE groups ( $p=0.048$ ).

**Table 34. L2 exposure on L3 proficiency. GE groups.**

Variable	Group	N	MR	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
Ger_Ctest German C-test scores	7GE	38	36,63	1392,00	651,000	0.461
	8GE	38	40,37	1534,00		
	Total	76				
	7GE	38	33,50	1273,00		

Eng_Ctest English	8GE	38	43,50	1653,00	532,000	0.048
C-test scores	Total	76				

The following section supports the second part of the first research question of whether there is a connection between prior linguistic knowledge (L2) and L3 proficiency. Tables 35 and 36 summarise the results of the English and German C-tests of the 7<sup>th</sup> graders. Pearson correlation showed that a significant positive correlation could be detected in the groups of 7GE ( $p > 0.05$ ), 7EG ( $p > 0.05$ ).

**Table 35. 7EG group, correlations**

Variable	Ctest_ENG	Ctest_GER
Ctest_ENG	1	0,465**
Ctest_GER	0,465**	1

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed).

**Table 36. 7GE group, correlations**

Variable	Ctest_ENG	Ctest_GER
Ctest_ENG	1	0,727**
Ctest_GER	0,727**	1

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed).

Tables 37 and 38 summarise the correlational analysis of the 8<sup>th</sup> graders. As far as the 8<sup>th</sup> graders are concerned, a positive correlation could be seen between German (L2) and English (L3) proficiency test results for the 8GE group ( $p < 0.05$ ). However, a lack of association was found between English (L2) and German (L3) C-tests for the 8EG group ( $p > 0.05$ ). This finding might be explained due to the lower level of motivation for the 8EG group as opposed to the 7EG group which is explained in the next subsection in details.

**Table 37 8EG. Correlations.**

Variable	Ctest_ENG	Ctest_GER
Ctest_ENG	1	0,279
Ctest_GER	0,279	1

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 38 8GE correlations.**

Variable	Ctest_ENG	Ctest_GER
Ctest_ENG	1	0,279
Ctest_GER	0,279	1

\*. Correlation is significant at the 0.05 level (2-tailed).

### 5.2.2 The influence of prior language (L2) on multilingual awareness

Independent samples T-tests were used to investigate the second research question as to what extent L2 exposure contributed to multilingual awareness. Tables 39 and 40 summarise the results. Mann-Whitney tests were employed to explore whether 8<sup>th</sup> graders outperform 7<sup>th</sup> graders or not. A similar level of achievement in metalinguistic awareness (MLA) was found to correspond with the performance in the third language (L3) as it was explored in the first research question. 7<sup>th</sup> graders outperformed the 8<sup>th</sup> graders in the case of the EG group however no significant differences were found between the 7EG and the 8EG groups ( $p=0.79$ ).

**Table 39. MLA. EG groups**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
meta_MLA	7EG	38	39,14	1487,50		
metalinguistic awareness	8EG	38	37,86	1438,50		
	Total	76			697,500	0.79

As far as the GE groups are concerned, 8<sup>th</sup> graders ( $MR=44.46$ ) outperformed the 7<sup>th</sup> graders ( $MR=32.54$ ). There was a significant difference amongst the scores of the GE groups ( $p=0.02$ ), as represented by Table 28.

**Table 40. MLA, GE groups**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
MLA	7GE	38	32,54	1236,50		
	8GE	38	44,46	1689,50		
	Total	76			495,500	0,018

The second component of multilingual awareness is cross-linguistic awareness. Tables 41 and 42 provide a summary of this aspect for the EG and GE groups. The average scores of the 7EG and 8EG groups were compared to investigate whether greater L2 experience leads to a higher level of cross-linguistic awareness. As shown in Table 41, no increase in cross-linguistic awareness was detected within the EG groups; in fact, the 7EG group (MR = 38.91) outperformed the 8EG group (MR = 38.09).

**Table 41. MLX.EG groups**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
MLX	7EG	38	38,91	1478,50	706,500	0,872
	8EG	38	38,09	1447,50		
	Total	76				

Conversely, data from Table 30 indicates that the 8GE group (MR = 43.36) achieved better results than the 7GE group (MR = 33.64). These findings confirm that more L2 experience could lead to a heightened level of cross-linguistic awareness, but only in the case of the GE groups. However, there were no significant differences for either the EG group ( $p = 0.87$ ) or for the GE groups ( $p = 0.055$ ). The order of language acquisition played a role in the case of the second research question. Therefore, those students performed better who started with German (L2) and subsequently learn English (L3).

**Table 42. MLX.GE groups.**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
MLX	7GE	38	33,64	1278,50	537,500	0,055
	8GE	38	43,36	1647,50		
	Total	76				

The EG groups' achievement showed surprising results in the first two RQ-s so descriptive statistics was used to explore students' motivation, especially for the EG groups. The findings of the motivational questionnaire showed that motivation of the 7EG group was higher towards the ought- to and ideal self in the L3 classroom. Moreover, 7<sup>th</sup> graders showed a higher level of motivation towards the German lesson (LOL-GER) as represented by Table 43.

**Table 43. Motivation. EG groups**

Variable	Groups	Mean rank
LAL_ENG	7EG	34,86
	8EG	42,14
LAL_GER	7EG	40,18
	8EG	36,82
L2SELF_ENG	7EG	38,29
	8EG	38,71
LSELF_GER	7EG	41,39
	8EG	35,61
LOL_ENG	7EG	42,46
	8EG	34,54
LOL_GER	7EG	42,67
	8EG	34,33

### 5.2.3 The impact of the order of acquisition on L3 proficiency and multilingual awareness

Returning to the third research question posed at the beginning of this study investigates to what extent influences the order of acquisition of both L3 proficiency and components of multilingual awareness. The research question asks how the sequence in which students learn their second (L2) and third languages (L3) affects their proficiency in the L3 and their multilingual awareness. Tables 44 and 45 present the first part of the research question of whether German as L2 is more beneficial than English as L2 for 7<sup>th</sup> graders. The Mann-Whitney test suggests that learning German as L2 followed by English can contribute to a higher level of L3 (MR=40.13) for the 7GE group.

**Table 44. L3 proficiency. 7th graders.**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
L3_Ctest	7EG	38	36,87	1401,00	660,000	0,519
L3_Ctest	7GE	38	40,13	1525,00		
	Total	76				

The Mann-Whitney test was used to estimate the mean ranks (MR) between the 8GE and the 8EG groups. The 8GE group indicated a higher performance in the L3 proficiency

(MR=47.59) compared to the 8EG group (MR=29.41). A significant difference was found ( $p=0.000$ ) for the 8GE group. The higher mean rank for L3 proficiency suggests that students who learn German as their L2 may be better equipped or more proficient in acquiring a third language. This could be due to factors such as the structural similarities between German and the L3, or the cognitive benefits of learning a language like German, which might involve more complex grammar rules compared to English.

**Table 45. L3 proficiency. 8th graders.**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
L3Ctest_8	8EG	38	29,41	1117,50	376,500	0,000
	8GE	38	47,59	1808,50		
	Total	76				

Tables 46 and 47 present the summary statistics for the MLA scores for the 7<sup>th</sup> and 8<sup>th</sup> graders. The 7GE group achieved a higher level of metalinguistic awareness (MR=41.66). The 8GE group also achieved a higher mean rank (MR=47.5) in the metalinguistic part of the multicompetence test, which indicated superior multilingual awareness over the 8EG group (MR=29.5) The Mann-Whitney test revealed that the differences between the two groups are statistically significant for MLA scores ( $p= 0.000$ ). This means there is a very strong likelihood that the observed differences are not due to chance. The higher mean rank in metalinguistic awareness indicates that students in the GE group have a better understanding of how languages function, which could be due to the cognitive demands of learning German. German's inflectional nature and different syntactic structures might enhance students' ability to think about language more analytically, thereby improving their metalinguistic awareness.

**Table 46. MLA.7th graders.**

Parameter	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
meta_MLA	7EG	38	35,34	1343,00	602,000	0,207
metalinguistic awareness	7GE	38	41,66	1583,00		
	Total	76				

**Table 47. MLA.8th graders.**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
meta_MLA	8EG	38	29,50	1121,00		
metalinguistic awareness	8GE	38	47,50	1805,00	380,000	0,000
	Total	76				

Tables 48 and 49 provide a summary of the multilingual operations in the cross linguistic awareness (MLX) for the 7<sup>th</sup> and 8<sup>th</sup> graders. As for the results of MLX suggested that 7EG (MR=41.22) group outperformed the 7GE (MR=35.78). The findings of the 8<sup>th</sup> graders showed that the 8GE group (MR=42.21) outperformed the 8EG group (MR=34.79). No significant difference was found either for the 7<sup>th</sup> grader ( $p < 0.05$ ) or for the 8<sup>th</sup> grader pupils ( $p < 0.05$ ).

**Table 48. MLX.7th graders.**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
MLX	7EG	38	41,22	1566,50		
	7GE	38	35,78	1359,50	618,500	0,282
	Total	76				

**Table 49. MLX. 8th graders.**

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
MLX	8EG	38	34,79	1322,00		
	8GE	38	42,21	1604,00	581,000	0,143
	Total	76				

Last but not least, a Pearson correlation was used to explore whether the MLA and MLX components are correlated or not. The results showed that a strong positive correlation was found in terms of MLA and MLX ( $p = 0.000$ ).

#### 5.2.4 The influence of motivation on order of language acquisition

The fourth research question investigates how the order of language acquisition influences both L3 proficiency and components of multilingual awareness. The motivational questionnaire was divided into three main sections: level of the acquired language, level of the lesson and L2 self. Tables 50 and 51 summarise the attitude and motivation towards the foreign language, the lesson and the L3 selves of the 7<sup>th</sup> and the 8<sup>th</sup> graders. Descriptive statistics showed that a higher level of motivation and attitude could be found for the 7GE group [mot\_1, M=3.38; mot\_2, M=3.08; mot\_5, M=3.17] than for the 7EG group [mot1\_M:2.56; mot\_2, M= 2.99 and mot5\_ M=3.14]. The results were only significant in the first part of the questionnaire (mot\_1, p: 0,000) where a relatively bigger difference could be found between the EG and GE groups. The next two subsections referred to pupils' motivation and attitude towards the lesson (mot\_2) and the attitude to their L3 self (ought and ideal selves) (mot\_5). The GE group outperformed the EG group even though there was only a slight difference between the achievements of the two groups. Therefore, no significant differences were found in 2 out of the 3 sections (p= 0.46 and 0.73).

**Table 50. Motivation.7th graders.**

Variable	Group	N	Mean	Std. Deviation	Asymp. Sig. (2-tailed)
mot_1	7EG	38	2,5658	0,43589	0.00
	7GE	38	3,3816	0,54236	
mot_2	7EG	38	2,9974	0,48574	0.46
	7GE	38	3,0868	0,55272	
mot_5	7EG	38	3,1447	0,38393	0.73
	7GE	38	3,1711	0,25406	

Table 51 provides an overview of the summary statistics of the motivation results. Independent sample T-tests were used to analyse the relationship between the 8GE and 8EG in terms of their attitude and motivation towards the L3. Three sections of the motivational questionnaire, i.e. the motivation towards the level of the acquired language (mot\_3), the motivation towards the level of the lesson (mot\_4) and pupils' attitude towards their L2 self (mot\_6). A comparison of the two results reveals that students learning English as L3 are more motivated to learn (M: 3.55, M: 3.23 and M: 3.15) than

those who acquire German as L3. Significant differences were found concerning their motivation towards the acquired language (L3), the lesson and the L2 self for the 8<sup>th</sup> grader participants [mot2\_ (p=0.002), mot\_4 (p=0.022) and mot\_6 (p=0.001)]. Overall, these results suggest that there is an association between motivation and the order of language acquisition. However, significant differences could be found for the level of the acquired language in the case of the 7<sup>th</sup> graders and differences were statistically significant for the 8GE group in each of the three factors.

**Table 51. Motivation.8th graders.**

Variable	Group	N	Mean	Std. Deviation	Asymp. Sig. (2-tailed)
mot_3	8EG	38	2,3684	0,63217	0.002
	8GE	38	3,5570	0,40507	
mot_4	8EG	38	2,7789	0,61387	0.022
	8GE	38	3,2342	0,42189	
mot_6	8EG	38	2,9539	0,64424	0.001
	8GE	38	3,1513	0,32642	

### 5.3 Discussion

This dissertation aimed to unravel several components of the TLA studies: the role of L2 exposure and prior linguistic knowledge on L3; the role of L2 experience in multilingual awareness; the connection between the order of language acquisition, L3 and multilingual awareness; and the relationship between the order of acquisition and motivation. The current research was embedded in a comparative study that included English and German as L3 in the Hungarian primary school context. The results of this study will now be compared to the findings of previous work in the field of TLA.

The reliability and validity of the research instruments were also investigated in the pilot and in the test phase. In the first subpart of the results section (Subchapter 5.1), a comparison was drawn between the two results due to the novelty of instruments in the Hungarian primary school context. It should be noted that the C-test is self-created, so the researcher cannot draw parallels between the C-tests conducted in this study and the C-tests used for other studies in the existing literature. Despite this, one of the positive characteristics of the C-test is its high level of reliability and validity which was

highlighted based on previous studies. (Dörnyei&Katona, 1992; Grotjahn, Sigott, 1995; Baur et al., 2006).

The reliability of the C-tests showed a positive shift from the pilot study to the research year. In the pilot phase, the 8GE group produced low reliability based on the internal consistency in German (L2) and English (L3). In the research year, all 8 C-tests had a high level of reliability. The dissertation of Nshwi (2021) also investigated university students' proficiency level using C-test in English and German languages although the order of language acquisition was not consistent with this dissertation. Nshwi (2021) found that the reliability (internal consistency) and expert validity of the C-test were appropriate for her study. The results of the current dissertation cannot be compared to the results of Nshwi (2021) but a parallel can be drawn based on the instruments' high level of reliability and validity. The criterion-related validity of the C-tests showed that significant correlations were detected between students' end-of-term grades and the achievement of the C-tests for 3 groups (7GE, 8EG, 8GE). However, no significant correlation was found for the 7EG group.

The reliability of the MCT was calculated in the pilot and the test phase. One of the most surprising aspects of the data is the reliability index of the test components. In the pilot phase, the MCT had an acceptable level of reliability in the case of one subgroup (7EG), and the overall reliability of the test reached a moderate level of reliability. Referring to the test phase, all four subgroups (7GE, 8GE, 8EG) had a minimum of moderate level of reliability. The overall reliability of the MCT showed an acceptable level of reliability. The current study demonstrated that 94% of the pupils reached or exceeded the 60% threshold on the MCT. It should be noted that 152 participants volunteered to take part in the research. In the testing phase, Hofer recruited 199 participants altogether. Hofer's study (2023) showed that 78% of the pupils could reach the level of 60% on the multilingual competence test.

A new research tool was introduced during the research year, prompting an investigation into the reliability of the motivation questionnaire, adapted from Nikolov (2003), using Cronbach's alpha. The German section demonstrated a high level of reliability, while the English section showed an acceptable level. When considering the combined major scales for both languages, the questionnaire is deemed reliable, with the test demonstrating a high level of overall reliability.

Investigating the reliability of the LHQ showed an improvement from the pilot to the research phase. The reliability of the LHQ indicated that the internal consistency was higher in the test phase compared to the pilot phase. The questionnaire's items showed a more consistent combination of the scales as they showed also a high reliability coefficient. As for the test of normality, the K-S test showed the lack of normal distribution of the test results (C-test, MCT). Moreover, the boxplot pointed out that the 7GE group was the most homogenous based on the English, German, and MCT scores.

The second subpart of Chapter 5 presents the findings based on the research questions. The research questions were designed to determine the effect of L2 exposure and prior linguistic knowledge on L3; the role of L2 experience in multilingual awareness; the connection between the order of language acquisition, L3 and multilingual awareness; and the relationship between the order of acquisition and motivation.

This study aimed to address four research questions based on relevant literature. The first research question examined the effects of L2 exposure and prior linguistic knowledge on L3 proficiency were examined. Referring to the EG groups, the 7EG outperformed 8EG in the English (L2) proficiency and the German (L3) proficiency tests. Consequently, students with the least L2 exposure (English) achieved better L2 and L3 (German) results for the EG group.

However, no significant difference was found both for L2 and L3 between the EG groups. This finding is in agreement with Tremblay's (2006) study focused on the effect of L2 proficiency and L2 exposure concerning L1 English, L2 French and L3 German in Canada. The participants were native English speakers between the age of 19 and 25. The study discusses the significant influence of second language (L2) exposure on the ability of third language (L3) learners to utilize their knowledge of the L2. Students were required to complete a language history questionnaire and a French proficiency test in order to classify the participants into different groups based on their L2 exposure and proficiency. There was a marginal influence of L2 on the L3 when students had got a lower level of L2 proficiency. Furthermore, Tremblay's (2006) study suggested that exposure to the L2 might amplify L2 activation during L3 production to a greater degree than mere proficiency in the L2. This implies that the frequency and amount of exposure to the L2 could be crucial in shaping how L3 learners access and utilize their L2 knowledge during L3 language tasks.

As for the GE groups in terms of the first part of the RQ1, the 8GE group performed better than the 7GE group in German as L2. Moreover, the 8<sup>th</sup> graders achieved better results than the 7<sup>th</sup> graders in their English as L3. A significant difference could be found in English as L3. The current study's findings are consistent with those of Cenoz and Valencia (1994), who examined the influence of bilingualism on learning English as an L3. The results of the regression tests showed that language exposure is a good predictor of third-language achievement. Age was not examined as a variable in this study although/but 7<sup>th</sup> graders were compared to the 8<sup>th</sup> graders concerning most of the research questions. Some research has been conducted on the age factor in L3 acquisition (Cenoz, 2001; Hien&Spring, 2018; Lipinska, 2017; Munoz, 2006). Muñoz (2006) emphasized the role of age factor in learning English as L3. The results showed that older learners had an advantage over younger learners, which could provide evidence for this PhD study because the 8<sup>th</sup> grader pupils' performance was better when they learnt English as L3. De Angelis (2012) found that exposure to a second language environment (German) was considered a potentially strong predictor of L2 proficiency development in German and, consequently, of L3 proficiency development in English. This is due to the additional exposure to German, a language typologically close to the target language, English. Hofer and Jessner's (2019) study examines the impact of early multilingual education on linguistic knowledge and metalinguistic awareness in primary-level students. Two groups of elementary school students from South Tyrol, were recruited, each representing multilingual and traditional instructional streams. Participants underwent assessments measuring metalinguistic awareness (in Italian), as well as proficiency tests in German and English. The study also highlighted that early and extensive contact with a German L2 positively affects English as L3. The study of Cenoz et al. (2001) examined age as an influencing factor in English as an L3. They found that older learners achieved better results than youngsters. Singleton & Ryan (2004) also observed the age factor in foreign language learning in elementary school. Their results showed that early starters outperformed later starters because of longer instruction and exposure which is in agreement with our findings.

The second part of RQ1 focused on the relationship between L2 knowledge and L3 proficiency. Language proficiency was measured using C-tests in L2 and L3. The results of the correlational analysis presented that L2 knowledge had a significant positive correlation with L3 proficiency in 3 out of 4 groups, namely, the 7EG, 7GE, and 8GE

groups. For the researcher, it was not surprising that strong correlations were found for the GE groups. It was interesting to note that a significant correlation was found for the 7EG group while the Pearson correlation did not show significance for the 8<sup>th</sup> grader participants. In accordance with the present results, previous studies (Bóocz-Barna, 2007; Boócz Barna, 2010; Pilbauer-Horvath, 2023; T.Balla, 2013) have demonstrated that the prior language knowledge decisively influences the acquisition of an L3. The correlation in the 7EG group is in agreement with T. Balla's (2013) findings which showed that the English L2 influenced the learning of German as L3. The study of T.Balla (2013) focused on learning English L2 and German L3 in the secondary school context. Her study supports the viewpoint that students relied on their L2 in the acquisition process of their L3 as opposed to their L1.

The findings of the 7EG and 7GE groups are further supported by some authors ((De Angelis, 2005; Falk et al., 2015) in TLA. De Angelis (2005) and Bardel&Lindqvist (2007) indicate that even when a person is learning a third language (L3) at a lower proficiency level, their previous knowledge of a second language (L2) can influence their L3 learning process. The 7EG groups' performance agreed with the study of Hanbay (2013), who collected data from 134 Turkish high school learners to investigate the influence of prior language (English) on learning an L3 (German). General achievement tests were implemented to measure English (L2) and German (L3) proficiency. A significant correlation was found between English (L2) and German (L3) achievement test scores similar to the 7EG group. The dissertation of Nshivi (2021) concentrated on university students with special attention to MLA and learning German as an L4 in her study. She made a correlational analysis using Pearson correlation to make connections between the participants' language proficiency. In the dissertation of Nshivi (2021), a significant correlation was found between English (L2) and French (L3) C-tests.

One unanticipated finding was that no significant correlation was found between L2 and L3 proficiency in the case of the 8EG group. A possible explanation for this might be that the starting language (English) was less syntactically complex than their L3 (German). Another possible explanation for this is that the lack of correlation is closely related to the lack of motivation of the 8<sup>th</sup> graders.

The findings of the 7GE and 8GE groups will now be compared to the findings of previous work. In their study, De Angelis and Jessner (2012) highlighted significant correlations between students' written proficiency in their L1 and their L2/L3. The

authors observed similarly positive associations between proficiency levels in L2 and L3. Specifically, the pupils' written productions in L2 (German) and L3 (English) appeared to be positively correlated, and these correlations even seemed to positively influence their overall academic achievement. Jessner et al (2016) deals with the language order of German as L2 and English as L3. Their study aims to provide insights into how early exposure to multiple languages affects both the linguistic and metalinguistic abilities of the pupils in the primary school context in South Tyrol. Hofer's test results refer to all three languages, namely Italian (L1), German (L2) and English (L3) tests and a strong correlation was found between German and English. The statistical measure used to determine this relationship was the Pearson correlation coefficient, like in the current dissertation. The significant positive correlations found indicate that high scores in one language test are associated with high scores in the other two language tests in the study of Hofer and Jessner (2016). Moreover, the study of Spechtenhauser (2024) is in line with the current findings as her investigations also concluded that languages are interconnected. Her study focused on Italian, German and English similarly to Hofer's studies. The Pearson correlation indicated that a strong correlation could be found between L2 and L3 languages. Furthermore, results of the first research question corroborate the assumptions discussed in a number of models. The FLAM, the Factor Model and the DMM support the view of the role of L2 status in acquiring an L3. Todeva & Cenoz (2009) add weight to the idea that prior linguistic knowledge, particularly from bilingualism, can significantly benefit individuals when acquiring a third language (L3). Their research supports the notion that bilinguals, compared to monolinguals, often demonstrate advantages in learning additional languages.

As for the second research question, the study aimed to assess the influence of prior language (L2) on multilingual awareness. The first part of the RQ2 dealt with the L2 experience and multilingual awareness. It should be noted that L2 experience is strongly related to age group of the participants. Age of onset is connected to the amount of L2 experience as 7<sup>th</sup> graders acquired the L2 for 4 years while 8<sup>th</sup> graders learnt the L2 for 5 years. Therefore those studies are also included which deals with the age variable. Descriptive statistics showed that 7EG outperformed the 8EG in metalinguistic awareness; however, no significant difference was found between the 7EG and the 8EG groups. The lack of motivation among 8<sup>th</sup> graders could have significantly impacted their performance on the tests. The results of the EG groups align with the research of Nagy

and Anderson (1995) and Yelland et al. (1993). Nagy and Anderson's (1995) argument is in agreement with the broader body of research that suggests exposure to second languages can enhance certain aspects of metalinguistic awareness, even with limited contact or proficiency. Yelland et al. (1993) support this idea by demonstrating that learners with limited exposure to second languages still exhibit improvements in metalinguistic awareness. This finding underscores the notion that even brief interactions with a second language can significantly contribute to the development of metalinguistic skills, reinforcing the argument that exposure to multiple languages has a positive impact on cognitive and linguistic abilities, regardless of the depth of proficiency. Therefore, the 7EG group could outperform the 8EG group in terms of metalinguistic awareness.

As for cross-linguistic awareness, results showed that 7EG outperformed the 8EG group. The superior performance of the 7th graders (7EG) in cross-linguistic awareness compared to the 8<sup>th</sup> graders (8EG) further supports these findings, suggesting that motivation and engagement may significantly influence linguistic and metalinguistic outcomes. The level of proficiency did not always correlate with a high level of meta- and cross-linguistic awareness as beginners also made connections between languages, not only advanced learners. This result may be explained by de Angelis (2007) that learners' knowledge of the target language is still weak at the beginners' level so they need to fill in the gaps with the source language.

Thus, 8GE graders overtook the 7GE graders in terms of meta-, and cross-linguistic awareness. A significant difference was found for the GE groups in terms of MLA. The GE group suggested that students learning German L2 outperformed English L2 in the cross-linguistic awareness tasks. German as an L2 was a strong predictor for MLA and XLA in the Hungarian primary school context. No significant difference was found between the GE groups regarding cross-linguistic awareness tasks. The findings of the GE group are in harmony with Hofer's (2015) study in South Tyrol. This is supported by the findings of Hofer's study, which suggest that the amount of exposure to a second language (L2) is correlated not only with second but also with third language attainment, as well as with metalinguistic ability. She reported on heightened levels of metalinguistic abilities and awareness in groups that were exposed to extensive L2 (German) and L3 (English) input. Oberhofer (2008) also pointed out that early and/or high-level exposure to a second language (L2) can enhance subjects' metalinguistic awareness (Oberhofer, 2008, p. 104). The objective of Hofer and Jessner's study (2019) is to determine whether

children enrolled in multilingual education programs demonstrate higher levels of metalinguistic awareness in their L1 Italian, L2 German, and L3 English compared to those receiving traditional second and foreign language instruction. Their results suggested that an early and extensive exposure to L2 could positively enhance not only L3's proficiency but also metalinguistic awareness.

The third question in this research was whether the order of language acquisition influences L3 proficiency and multilingual awareness. The first part of the RQ3 deals with the effect of the order of acquisition on L3 proficiency. In the research year, descriptive statistics and independent samples T-test showed that the 7GE group outperformed the 7EG group in the L3 test. The 8 GE group achieved better results than the 8EG group in the C-tests in L3. The findings showed that learning a linguistically complex language like German as L2 might provide cognitive benefits that enhance the learning of subsequent languages (L3). German's grammatical complexity and vocabulary could encourage stronger cognitive engagement with language learning, which then resulted in better performance on L3. The sequence in which languages are learned might also affect how language skills and knowledge are transferred. For example, learning German first might establish a strong linguistic foundation that makes it easier to learn another language.

Our findings are in line with three studies that concentrated on the order of acquisition and the L3 acquisition. Both Tápai Balla's (2008) study and Cedden's (2007) found that learners of German as L2 could learn L3 more quickly than the control group, which consisted of respondents who had English as L2. Cedden (2007) conducted a study involving Turkish learners who were acquiring English and German as their second (L2) and third (L3) languages. The participants consisted of two groups: one group of 15 learners who were learning German as L2 and English as L3, and another group of 14 learners who were learning English as L2 and German as L3. Learners who studied German as their L2 before learning English as their L3 reported few difficulties with German and achieved a high level of proficiency in English relatively quickly. In contrast, learners who studied English as their L2 and then German as their L3 found German more challenging. The specific difficulties these learners faced included issues with articles, the case system, passive constructions, and the conjunctive mood.

Tápai Balla (2008) conducted her comparative study among two groups of L1 Hungarian learners learning L2 English and L2 German prior to starting to learn L3

German and L3 English, respectively, supporting Cedden's (2007) conclusion about the ideal acquisition order of German and English for learners with a typologically distant L1. With the help of a task where learners had to translate the English and German versions of the same text from the language not yet known by them, the L2 German group was more successful at translating from English than the L2 English group was at translating from German. This suggests that the German language has a greater facilitative effect on learning English than English on German, thus, this result can be put forward when considering that German should be introduced at school prior to English (Tápainé Balla, 2008).

Tápai-Balla's (2012) dissertation further elaborated on the issue of order of acquisition that factors like typological relatedness and proficiency in L2 and L3 also play an integrative role in German, such as L3 learning. Moreover, the L2 status also played an integrative role in TLA because pupils could rely on the typologically related L2 rather than the non-related L1 (Hungarian).

Penner's (2007) qualitative study shed light on the prior linguistic knowledge in the learning process of an L3 in the Hungarian context. She compared a group of participants who learnt either English as L3 or German (L3). The lesson observations and the interviews demonstrated that pupils had more problems in the German as L3 lesson and they admitted that a negative transfer occurred from German as L3 to English as L2. Despite of this, pupils learning German as L2 and English as L3 reported a positive effect of German on the English learning. The studies are in agreement with Berkes and Flynn's (2012) Hungarian evidence which showed that the German language has got a stricter syntactical structure, especially with regard to relative clauses. They stated that „the feature setup of the Hungarian and the English Complementizer Phrase (CP) show some structural similarities which might be beneficial for subsequent language acquisition” (Berkes & Flynn, 2012, p.2).

The second subpart of the RQ3 refers to the connection between multilingual awareness and order of acquisition. The metalinguistic part of the test showed that the GE groups outperformed the EG groups in 7<sup>th</sup> and 8<sup>th</sup> graders. As for the MLX part of the MCT, the 7EG group outperformed the 7GE group. This finding is in line with Pilbauer-Horváth (2023) although her investigations were not based on comparative study. Her research concentrated on English as L2 and German as L3 in the Hungarian secondary school context. Pilbauer-Horvath's (2024) dissertation showed a positive research

outcome for the acquisition order of English as L2 and German as L3 due to multilingual awareness training. The findings of the research support her hypothesis that raising multilingual awareness and utilizing students' existing knowledge of their second language (L2) significantly enhances their proficiency in a third language (L3).

The cross-linguistic awareness tasks revealed that 8GE performed better than the 8EG group in the multilingual competence test's meta- and cross-linguistic awareness tasks. Significance was found for both L3 and MLA in the 8GE group as the influence is most probably mutual in the sense that MLA benefits from proficiency in additional languages and the languages benefit from MLA. Consequently, the findings suggested that a strong relationship was found only between students acquiring English L3 and metalinguistic awareness among 7<sup>th</sup> graders. What is more, the 8GE group outperformed in meta- and cross-linguistic awareness the 8EG participants. The study of Jessner (2006) involved seventeen bilingual participants who had been exposed to both German and Italian from an early age. Moreover, they were enrolled in English courses at Innsbruck University. The continuous exposure to three languages, coupled with high proficiency in German and Italian. Despite their high proficiency in Italian and German, the participants exhibited a lower level of proficiency in English, their third language. A potentially elevated level of metalinguistic awareness among the participants was found. As a result, these individuals possessed advanced metalinguistic skills, enabling them to analyse and reflect upon the intricacies of language use and form across multiple linguistic systems. Our results are in line with Troha et al (2020) and with Hofer&Jessner's study (2019). The findings conducted in the current dissertation showed a correlation between MLA and MLX. Moreover, the GE group had got higher level of cross and metalinguistic awareness in the case of the 8<sup>th</sup> graders. The results corroborate with the findings of Hofer and Jessner (2019) because our results showed a significant correlation between MLA and MLX even in the current dissertation. Their subjects learnt German as L2 and English L3 in the primary school context. They also found that students could meaningfully formulate their cross- and metalinguistic reflections. Their findings also demonstrated that MLA and XLA were correlated. However, Jessner (2006) did not conduct a comparative study, her study supported the heightened level of meta- and cross linguistic awareness in the English as L3 learning process.

The results are in accordance with Troha et al (2020). This study also investigated multilingual awareness in the Croatian classroom, paying particular attention to both

English (L3) and German (L3) in the classroom context. The study concluded that students at a young age (11) had a heightened level of meta- and cross-linguistic awareness. The correlational analysis showed a significant correlation between metalinguistic and cross-linguistic awareness both in the groups of English (L3) and German (L3) could be detected.

The findings of the GE groups are in line with the investigation of Wrembel (2015). The study of Wrembel (2015) focused on phonological awareness which also provided further evidence of the importance of linguistic distance. A higher level of awareness could be observed between German (L2) and English (L3) as opposed to between English (L2) and French (L3) like in the case of the current dissertation.

The fourth research question refers to the relationship between motivation and the order of language acquisition. The 7GE group showed a higher level of motivation, and their attitudes towards L3 were more positive than the 7EG group. A significant difference was found for the 7GE group in terms of pupils' motivation towards the acquired L3. Contrary to expectations, no significant differences were found in 2 out of the three sections namely their motivation towards the lesson (mot\_2) and their attitude to their L3 self. It should be noted that the current thesis could not investigate the longitudinal effects of L3 selves in the classroom so limited number of research support this hypothesis. The participants of the current dissertation live near the Austrian border so they have an intensive contact with the German language. A possible explanation for the positive attitude of the GE group could be that the students have the possibility to establish a closer contact with Austria. A lot of families often visit the country due to the geographical proximity. This idea is in line with the study of Csizér & Kormos (2009). Csizér & Kormos (2009) suggest that learners' interactions with the L2/n community can significantly shape their attitudes toward the target language, its speakers, and the associated culture. Such intercultural contact is also likely to influence L2 learners' motivated behaviour, meaning the energy and effort they are willing to invest in learning the language (p. 63).

A comparison of the 8<sup>th</sup>-grader groups reveals that students learning English as L3 are more motivated to learn than those who acquire German as L3 in the classroom context. The most striking result from the data is that significant differences were found in the motivational level of the two groups of 8<sup>th</sup>-grader participants in favour of the 8GE. Those students learning English as L3 had a higher motivation concerning the L3

language, the L3 lesson, and the L3 self than pupils acquiring German as L3. The overall findings connected to the fourth hypothesis suggested that learning English as an L3 motivated the pupils in both age groups (7<sup>th</sup> and 8<sup>th</sup> graders). There is no empirical evidence for a comparative study investigating the role of motivation and L3 self in the case of consecutive learning of English (L2) and German (L3) or vice versa. The results suggested that positive attitudes were attached to English as L3—concerning pupils’ motivation towards the foreign language lesson and their attitude towards their ideal and ought to selves in the L3. Large-scale studies conducted in Hungary (Nikolov, 2007; Nikolov & Csapó, 2002; Nikolov & Józsa, 2003, 2006) demonstrated that learners of English generally exhibited more positive attitudes compared to learners of German. In the same vein, English as an L2 received a more positive response amongst students based on earlier studies conducted in the Hungarian educational context by Nikolov (2003). They investigated the role of motivation in connection with German or English as L2 amongst 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> graders in the school context. Dörnyei, Csizér&Németh (2006) claimed that the learning of languages other than English is impeded by processes of “Englishisation” (Dörnyei, Csizér& Németh, 2006, p. 143). Previous studies confirmed that L2 English might negatively affect L3 motivation, which is not in line with our results (Henry, 2010, 2011, 2014; Mercer, 2011).

Our findings are not in line with the investigations of Csizér & Lukács (2010) because the overall findings of RQ4 clearly showed positive attitudes in favour of German as L2 and English as L3 amongst 7<sup>th</sup> and 8<sup>th</sup> grader participants. The findings of Csizér & Lukács (2010) align closely with the dynamic approach to foreign language learning, particularly concerning the impact of multilingualism on motivational and attitudinal dispositions among language learners. In their study, Csizér & Lukács (2010) investigated the motivational and attitudinal differences among students learning English and German simultaneously. They discovered that the ideal selves of students learning English as a second language (L2) were seemingly unaffected by negative influences from the other language (presumably German), in contrast to those learning English as a third language (L3) or learning German as a second or third language (L2 and L3 German). Given that students' L2 and L3 motivational systems are interconnected as components of an overarching multilingual system (Jessner, 2008), and considering that cross-referencing between these systems is likely to occur (Henry, 2010, 2011, 2014), it is reasonable to expect changes in both motivational systems.

The most striking observation from the data comparison was that the order of acquisition considerably influences the prior linguistic knowledge, L3 proficiency, metalinguistic awareness and motivation of the 7<sup>th</sup> and 8<sup>th</sup> grader participants. German as L2 was a decisive factor as opposed to English as L2 in our investigation. The present findings seem consistent with other research that found the positive effect of learning English as a third language after different L2-s. These data must be interpreted cautiously because not so many comparative studies exist in the field of TLA in the Hungarian context, where German as L3 was set against English as L3.

#### **5.4 Limitations of the study**

Although the study has successfully demonstrated that German as L2 should be learnt before English as L3, the generalisability of these results is subject to certain limitations. Firstly, the reader should bear in mind that the study is based on a cross-sectional design and the study has an exploratory nature. The general exploratory nature of quantitative design is somewhat limited as it does not allow in-depth investigation of the individual variables which is also one of the limitations of the current dissertation (Dörnyei, 2007). Further research is needed to confirm the generalizability of these findings and to examine how individual differences influence L3 development. The current investigation was limited by using quantitative data analysis and the majority of the results did not show statistical significance. A strong positive correlation could be found between L2 and L3 in the case of 3 out of 4 subgroups but no significance was found in the case of the 8EG group. Contrary to the expectations, this study did not find a significant difference between 7<sup>th</sup> and 8<sup>th</sup> graders in the L3 results of the C-tests. Possible explanations may be the lack of normality in the distribution and the one-year-difference between the age groups.

Secondly, the sample size used in this study was not as big as expected formerly. 152 participants volunteered to take part in the study, but only 38 participants took part in each of the subgroups. Unfortunately, the study did not include more subjects in the different subgroups. However, a lot of time and effort was put into recruiting more participants for the research, a plenty of schools rejected the request of the experimenter. It would have been beneficial to recruit more participants for this cross sectional study to enhance generalisability of the data.

The sample size was strongly related to one of the most important limitations of the study. Both the pilot-, and the test phase needed to be delayed one year due to the COVID-19 pandemic. Prior to the time of pilot testing, the researcher was informed not to be able to carry out the pilot testing due to the closure of the schools. Online teaching was imposed at every level of the primary and secondary schools in Hungary from March 2020. Since the researcher did not teach at the chosen schools, the special permission for testing at the online teaching period was rejected. The researcher was not allowed to enter the schools until March 2021. As the pilot and the test phase needed to be done in separate years in the spring-summer period, the research had a huge delay in terms of timing.

The national context influenced the choice of age groups in relation to age of onset in L3 learning. In the Hungarian educational system, primary schools with standard curricula support their pupils to learn an L3 from the 7<sup>th</sup> grade. Only those participants were eligible to participate in the study who acquired a second foreign language (L3) and attended primary school. Therefore, a further limitation of the study is that 7<sup>th</sup> graders differ from 8<sup>th</sup> grader participants in only one year because the starting age of the L3 was the 7<sup>th</sup> grade in Hungarian primary schools while 8<sup>th</sup> graders learnt the L3 for 2 years at the time of testing. Creating homogenous groups (7EG, 7GE, 8EG and 8GE) helped to employ the same instruments for the same subgroups. Despite of the one-year difference amongst the subgroups, results showed considerable differences from the pilot phase to the research year. The GE group outperformed the EG groups in most of the research questions and significant differences (if there are any) were found also in the GE groups. The next chapter discusses the concluding remarks of the dissertation.

## **6. CONCLUSION**

The final chapter is divided into three main subsections. The first part draws upon the entire thesis, tying up the various theoretical and empirical strands in order to give a brief summary of the results. The second and third part include a discussion of the theoretical and pedagogical implication of the findings to future research into this area.

## 6.1 Summary of the results

The present doctoral thesis was designed to investigate the effect of certain factors in learning English vs. German as an L3. In this investigation, the aim was to assess pupils' L3 proficiency and multilingual awareness in relation to their order of acquisition, motivation, prior linguistic knowledge. This study was based on the data obtained from 152 participants of Hungarian primary schools: half of the pupils (N=76) learnt German as L3 meanwhile half of the students acquired English as L3 (N=76). The relevance of order of acquisition, prior linguistic knowledge and motivation in TLA is clearly supported by the current findings.

This chapter presents major findings in reference to the variables that influence multiple language acquisition. Statistical analyses proved that all of the research instruments (C-tests, MCT, LHQ and motivational questionnaire) turned out to be reliable and valid tools in the test phase.

The findings of the first research question indicated that length of exposure to L2 had a positive influence on L3 proficiency in the case of students learning German (L2) and afterwards English (L3). A strong correlation was found between L2 knowledge and L3 proficiency except of 8EG group. Therefore, the proficiency of the German and the English L2 tests were good predictors for L3 proficiency.

As for the second research question, L2 exposure had a positive impact on multilingual awareness for the GE group. Lower L2 exposure did not contribute to lower level of multilingual awareness for the EG participants. In the EG group, 7<sup>th</sup> graders outperformed 8<sup>th</sup> graders both in MLX and in MLA. However, the results obtained for the GE group suggest that more L2 experience could decisively lead to a heightened level of multilingual awareness as 8GE group outperformed the 7GE group.

The third research question examined the role of order of acquisition in L3 acquisition and multilingual awareness. The compared groups started to learn the language at the same time (7<sup>th</sup> graders and 8<sup>th</sup> graders) and both the 7<sup>th</sup> and 8<sup>th</sup> graders were compared based on the acquisition order (7EG with 7GE and 8EG with 8GE). 7GE and 8GE groups had better results than students starting with English L2 both in their multilingual awareness and in L3 proficiency than the 7EG and 8EG groups. One exception was that 7EG learners performed better in the MLX tasks than the students learning English as

L2. Hence, it is confirmed that German L2 learners outperformed English L2 learners both in L3 proficiency and multilingual awareness.

The last research question dealt with the impact of the order of acquisition and motivation. The results suggested that both the 7GE and 8GE groups showed a higher level of motivation than the 7EG and 8EG groups. Students starting with German (L2) are more motivated to learn English L3. The order of language acquisition played a distinctive role in each of the research questions.

## **6.2 Theoretical and pedagogical implications**

This subchapter presents the major theoretical and pedagogical implications of the results. The increase in reliability of the C-tests from the pilot phase to the research phase indicates that these tests can be effectively used in classroom settings to assess language proficiency with greater accuracy. Educators can confidently use these tools to evaluate students' progress in both L2 and L3, knowing that the results are reliable and valid. The lack of significant correlation between the 7EG group's C-test results and their end-of-term grades suggests that a one-size-fits-all approach may not be effective for all students. Teachers should consider using differentiated instruction strategies to address the diverse needs of learners, especially when using standardized tests. The introduction of a reliable motivation questionnaire highlights the importance of understanding students' attitudes and motivation towards language learning. Teachers can use this tool to identify motivational issues and tailor their instructional strategies to enhance student engagement and achievement in L2 and L3 learning. The high success rate on the MCT suggests that students are capable of achieving significant multilingual competence with appropriate instruction. This supports the integration of multilingual education in curricula, encouraging the development of proficiency in multiple languages. The study contributes to the body of research on the reliability and validity of language assessment tools like the C-test and MCT. The significant correlations between C-test results and end-of-term grades for most groups validate the use of C-tests as reliable indicators of academic performance in language learning. This supports the theoretical concept that language proficiency, as measured by C-tests, can be predictive of overall academic success. The high reliability of the motivation questionnaire suggests that motivation is a fluid construct that can be reliably measured across different language learning contexts.

Theoretically, this supports the idea that motivation plays a critical role in language acquisition and should be considered a key factor in language learning theories. The improved reliability of the LHQ from the pilot to the research phase underscores the importance of considering students' language backgrounds in research and practice. Theoretically, this aligns with models that emphasize the role of prior language knowledge and experience in acquiring additional languages.

The study highlights the benefits of early and extended exposure to a second language (L2), particularly German, before introducing a third language (L3). This suggests that language curricula should prioritize early and intensive L2 instruction, especially for languages like German, which has been shown to positively influence subsequent L3 learning (such as English). The strong correlation between L2 proficiency and L3 acquisition supports theories of language transfer and cross-linguistic influence, suggesting that a solid foundation in L2 facilitates the learning of additional languages.

The differential impact of L2 exposure on multilingual awareness suggests that language educators should not only focus on language proficiency but also on cultivating students' awareness of their multilingual capabilities. This could be achieved through metalinguistic activities and reflection tasks that emphasize the interconnectedness of languages. The findings align with theories of metalinguistic awareness, which posit that awareness of one's linguistic abilities can enhance overall language learning. This supports the integration of metalinguistic training into language curricula to strengthen students' multilingual competencies.

The results indicate that the order of language acquisition plays a crucial role in both multilingual proficiency and awareness. Language programs might consider the sequence in which languages are introduced to students, possibly starting with languages that provide a more robust base for subsequent language learning. For example, starting with German before English appears to yield better outcomes. These findings contribute to the ongoing debate in language acquisition theory regarding the impact of sequential versus simultaneous multilingualism. The study supports the notion that the order of acquisition can significantly impact language learning outcomes, thus influencing the design of multilingual education programs.

The observation that students starting with German (L2) are more motivated to learn English (L3) suggests that motivational factors should be considered when designing language learning sequences. Educators might focus on leveraging the motivational

benefits of certain languages to enhance engagement and proficiency in subsequent languages. This finding contributes to motivational theories in language learning, particularly those related to integrative and instrumental motivation. The study suggests that initial language choices can influence students' motivation and success in learning additional languages, offering insights for motivational strategies in multilingual education.

The findings of this research could have important implications for language education strategies. Schools might consider encouraging students to learn more complex languages like German early in their education to maximize the cognitive benefits for subsequent language learning and overall multilingual awareness. While this study shows a significant influence of acquisition order, it would be beneficial to conduct further research across different language pairs and educational contexts to see if these findings hold true more broadly.

This perspective is supported by a solid body of academic research, which underlines the need for such innovations in language teaching to meet the demands of a multilingual world (Allgäuer-Hackl, Jessner & Oberhofer 2013; Jessner, Allgäuer-Hackl & Hofer, 2016) This conclusion ties back to the original research question, confirming that the sequence of language learning is a critical factor influencing students' language proficiency and awareness in a multilingual context.

### **6.3 Possible future research directions**

This thesis had a number of important findings which could be implemented for future work. According to the results, the order of language acquisition turned out to be one of the most influential factors in learning a third language. This comparative study showed the significance of German as L2 and English as L3 in the Hungarian primary school context. This research shed new light on the different factors influencing TLA. The research findings support the European Union's goal that individuals should learn at least two languages apart from their L1 (Eurobarometer, 2012, p.2) which also was supported by the former version of the National Core Curriculum (2012) (EMMI, 2012). Learning one foreign language is compulsory based on the National Core Curriculum (2020) at primary schools. The current state of learning foreign languages shows that further

research should be done to promote the importance of learning more languages from a younger age even in the Hungarian primary school context.

However the multilingual methodologies have been spread in the European context thanks to the scholars in the field of TLA (Cenoz et al., 2003; Cenoz, 2009; Cenoz & Gorter, 2014; Hofer, 2017, 2023; Hofer & Jessner, 2017, 2019a), the holistic way of teaching and learning foreign languages is still in rudimentary condition in the Hungarian schools (Gutiérrez, 2017; Horvath & Jessner, 2022; Szabó & Failasofah, 2022; T.Balla, 2009, 2010). The other important variable was meta- and cross-linguistic awareness in learning an L3 which is still an under-researched area both at the international and at national levels although some works have been published (Ghanmi & Navracscics, 2021; Jessner & Horvath, 2020; Navracscics, 2022a). Limited interest has been shown in using multilingual awareness training in the foreign language classroom however the studies demonstrated a major success both in the Hungarian and in the international context (Horvath & Jessner, 2023; Jessner et al., 2016; Jessner & Allgäuer-Hackl, 2020; Pilbauer-Horvath, 2023)

According to the students' feedback, applying multilingual competence tests would be beneficial for future generations in the Hungarian educational context. It was also true for the C-tests based on the students' evaluation which is in line with their achievement on the C-tests.

The findings of this study have a number of recommendations for future practice:

1. The relationship between L2 proficiency and multilingual awareness would be explored.
2. A further study could assess the long-term effects of learning German as L2 on other variables like motivation, L3 proficiency, and multilingual awareness.
3. More information on the participants would help us to establish a greater degree of accuracy on this matter. Qualitative data should be collected using lesson observations, and students' interview.
4. Further research regarding the role of teachers would be worthwhile as it was not allowed to do teachers' interview in this current study.
5. A standardized language proficiency test could be used to do a correlation test with the C-test and the standardized test.

6. Both C-test in English and German and MCT would be employed in the Hungarian foreign language classrooms to enhance holistic way of language teaching as these testing tools turned out to be reliable and valid instruments.
7. According to the New National Core Curriculum (2020), learning one foreign language is the norm at primary schools in Hungary. Unless the Hungarian government adopt the former foreign language learning regulations, better achievement in English and German will not be attained.

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# Appendices

## APPENDIX 1. Language history questionnaire

### Appendix 1A: Language History Questionnaire in Hungarian

Nyelvi háttér kérdőív általános iskolásoknak

Kedves Tanuló! Köszönöm, hogy vállaltad a kérdőívben való részvételt. A kérdőív anonim, a vonalra írd a megadott kódot majd. A kérdőívben adott válaszaidat kizárólag a kutatás céljából fogom hasznosítani.

Válaszodat jelöld így:

1)Nemed?  fiú  lány

2)Hány éves vagy?  13 éves  14 éves

3) Lakhely: \_\_\_\_\_

4)Melyik nyelv az anyanyelved?

magyar

magyar és: .....

más éspedig: .....

5) Melyik nyelv az anyanyelve a szüleidnek?

a) Anyáé:  magyar

magyar és: .....

más éspedig: .....

b) Apáé:  magyar

magyar és: .....

más éspedig: .....

6) Hol kezdted tanulni az angol nyelvet?

otthon, a családban

az óvodában

az iskolában, az alsó tagozaton

az iskolában, a felső tagozaton

máshol,

éspedig:

.....

7)Pontosan hány éves korodtól tanulsz az angol nyelvet? Írd a keretbe:

8)Pontosan hány éve tanulsz az angol nyelvet? Írd a keretbe:

9)Értékelj magad 1-4-ig valamelyik szám megjelölésével így ⊗ (a 4 a legjobb)

- olvasás      ①-②-③-④
- hallgatás      ①-②-③-④
- írás      ①-②-③-④
- beszéd      ①-②-③-④

10) Hol kezdted tanulni a német nyelvet?

- otthon, a családban
  - az óvodában       az iskolában, az alsó tagozaton
  - az iskolában, a felső tagozaton
  - máshol,éspedig:
- .....

11)Pontosan hány éves korodtól tanulsz a német nyelvet? Írd a keretbe:

12)Pontosan hány éve tanulsz a német nyelvet? Írd a keretbe:

13)Értékelj magad 1-4-ig valamelyik szám megjelölésével így ⊗ (4 a legjobb) németből

- olvasás      ①-②-③-④
- hallgatás      ①-②-③-④
- írás      ①-②-③-④
- beszéd      ①-②-③-④

14) Melyik nyelvet kedveled jobban?

- az angolt       a németet       mindkettőt egyformán       egyiket sem

15) Melyik nyelven értesz jobban a beszédet?

- csak az angolt       csak a németet

- az angolt jobban, mint a németet       a németet jobban, mint az angolt  
 mindkettőn egyformán       mindkettőn egyformán jól  
 mindkettőn egyformán, de nem jól

16) Melyik nyelven beszélsz jobban?

- csak angolul beszélek       csak németül beszélek  
 angolul jobban, mint németül       németül jobban, mint angolul  
 mindkettőn egyformán       mindkettőn egyformán jól  
 mindkettőn egyformán, de nem jól

17) Melyik nyelven érted jobban, amit olvasol?

- csak angolul       csak németül  
 angolul jobban, mint németül       németül jobban, mint angolul  
 mindkettőn egyformán       mindkettőn egyformán jól  
 mindkettőn egyformán, de nem jól

18) Melyik nyelven tudsz írni jobban?

- csak angolul       csak németül  
 angolul jobban, mint németül       németül jobban, mint angolul  
 mindkettőn egyformán       mindkettőn egyformán jól  
 mindkettőn egyformán, de nem jól

19) Milyen volt az utolsó félév végi jegyed angolból?

- elégtelen (1)     elégséges (2)     közepes (3)       jó (4)       jeles (5)

20) Milyen volt az utolsó félév végi jegyed németből?

- elégtelen (1)     elégséges (2)     közepes (3)       jó (4)       jeles (5)

21) A szüleiddel szoktatok idegen nyelven beszélni, beszélgetni?

- nem, soha       angolul igen       németül igen  
 igen, angolul is, németül is     igen, mégpedig ..... nyelven

22) Milyen gyakran nézel filmet az adott nyelveken:

4: naponta 3: hetente 2: havonta 1: soha

magyar: ①-②-③-④, angol: ①-②-③-④, német: ①-②-③-④

23) Milyen gyakran hallgatsz zenét az adott nyelveken:

4: naponta 3: hetente 2: havonta 1:soha

magyar ①-②-③-④, angol ①-②-③-④, német ①-②-③-④

24) Milyen gyakran játszol videójátékon az adott nyelveken:

4: naponta 3: hetente 2: havonta 1:soha

magyar ①-②-③-④, angol ①-②-③-④ ,német ①-②-③-④

### APPENDIX 1B: Language History Questionnaire in English

Message for the pupil:

Dear Pupil!

Please fill in the questionnaire! The questions are easy to follow and you should only tick the good answer. I won't use your name and I only need the data for my research.

Your answer should look like this: ☒

1. What is your sex?      Boy  Girl
2. How old are you?      13    14
3. Place of residence: \_\_\_\_\_
4. What is your mother tongue?  
 Hungarian  
 Hungarian and:.....  
 other: .....
5. What is the mother tongue of your parents?
  - a) Mother:      Hungarian  
                   Hungarian and : .....
  - other: .....
  - b) Father:              Hungarian  
                   Hungarian and: .....
  - other: .....

6. Where did you start to acquire English?

at home,family

kindergarten

primary school, lower level

primary school, upper level

elsewhere,

namely:

.....

7. Since what age have you been learning the English language? Use the frame:

8. Since when have you been learning English?

Use the frame:

9. Evaluate yourself from 1 to 4 (1 is the worst, 4 is the best) in English:

reading

1-2-3-4

listening

1-2-3-4

writing

1-2-3-4

speaking

1-2-3-4

10. Where did you start to acquire German?

at home,family

kindergarten

primary school, lower level

primary school, upper level

namely,elsewhere:.....

11. From what age do you learn the German language? Use the frame:

12. Since when have you been learning German?

Use the frame:

13. Evaluate yourself from 1 to 4 (1 is the worst, 4 is the best) in German:

reading

1-2-3-4

listening

1-2-3-4

writing

1-2-3-4

speaking

1-2-3-4

14. Which language do you prefer?

I prefer English

I prefer German

I like both

neither

15. Which language do you understand better?

only English

only German

I can understand English better than German  I can understand German better.

I understand equally.  I understand equally well both languages.

I understand both languages, but not well.

16. In which language do you speak better?

I speak only English  I speak only German

I speak English better than German  I speak German better than English

I speak equally English and German  I speak equally good English and German

I can speak both, but not well

17. In which language do you read better?

only English  only German

I can understand English better than German  I can understand German better.

I understand both equally.  I understand equally well both languages.

I understand both languages but not well.

18. In which language do you write better?

only English  only German

I can understand English better than German  I can understand German better.

I understand equally.  I understand equally well both languages.

I understand both languages, but not well

19. Please tick your end-of-year grade in English  insufficient (1)  sufficient (2)  average (3)  good (4)  excellent(5)

20. Please tick your end-of-year grade in German:

insufficient (1)  sufficient (2)  average (3)  good (4)  excellent(5)

21. Do you talk to your parents in a foreign language?

no, never  in English  in German

yes, in English and in German

yes, especially in.....language

22. How often do you watch movies in the given languages?

(4: daily, 3: weekly, 2: monthly, 1: never )

Hungarian: ①-②-③-④      English: ①-②-③-④      German: ①-②-③-④

23. How often do you listen to music in the given languages?  
(4: daily, 3: weekly, 2: monthly, 1: never)

Hungarian: ①-②-③-④      English: ①-②-③-④      German: ①-②-③-④

24. How often do you play online game in the given languages?  
(4: daily, 3: weekly, 2: monthly, 1: never)

Hungarian: ①-②-③-④      English: ①-②-③-④      German: ①-②-③-④

Thank you for the cooperation!

APPENDIX 2.C-tests. German (L2),English (L3).7<sup>th</sup> graders

APPENDIX 2A. GERMAN Ctest

C-test: Deutsch als L2. 7.Klasse

**UTASÍTÁS: 5 szöveget láttok. A szövegek második mondatától kezdve **minden harmadik szó második fele(!)** hiányzik. Kérlek, hogy **egészítsétek** ki a szavakat. A vonalak egyenlő hosszúságúak ( \_\_\_\_\_ ) minden kihagyott szórész esetében. 20 db szót kell kiegészíteni.**

Példamondat: Ich esse **gern** Schokolade. → Ich esse ge \_\_\_\_\_ Schokolade.

Instuction: You will see 5 texts in this test. The second part of every third word is missing. Please complete the words. You need to fill in 20 gaps in each of the texts. You have 25 minutes.

**Text 1) Familie Fischer**

Ich möchte Ihnen meine Familie vorstellen. Mein Vater hei \_\_\_\_\_ Bert Fischer, meine Mutter Helene Fischer. Mu \_\_\_\_\_ arbeitet als Lehr \_\_\_\_\_, Vati ist Ar \_\_\_\_\_. Ich habe zw \_\_\_\_\_ Geschwister. Meine Großelt \_\_\_\_\_ wohnen auch b \_\_\_\_\_ uns. Oma ka \_\_\_\_\_ sehr gut koc \_\_\_\_\_. Wir backen su \_\_\_\_\_ Torten. Opa repa \_\_\_\_\_ oft in d \_\_\_\_\_ Garage. Meine and \_\_\_\_\_ Oma wohnt ni \_\_\_\_\_ weit von u \_\_\_\_\_. Ich besuche s \_\_\_\_\_ oft. Am Wochenen \_\_\_\_\_ ist die ga \_\_\_\_\_ Familie zusammen. W \_\_\_\_\_ machen Ausflüge od \_\_\_\_\_ wir gehen oft ins Restaurant. Ich liebe unsere Familie!

**/20 Punkte**

### Text 2) Fabian hat keine Freizeit

Fabian hat viele Aufgabe an einem Tag, aber manchmal hat er keine Lust dazu. Fabian will immer la\_\_\_\_\_ schlafen, aber e\_\_\_\_\_ geht nicht. E\_\_\_\_\_ muss früh aufs\_\_\_\_\_, der Unterricht beg\_\_\_\_\_ um 8 Uhr. Fabian möc\_\_\_\_\_ auch lange frühst\_\_\_\_\_, aber er h\_\_\_\_\_ keine Zeit. Fabian m\_\_\_\_\_ Fussball spielen ab\_\_\_\_\_ er soll ler\_\_\_\_\_. Er hat im\_\_\_\_\_ viele Hausaufgaben. Abe\_\_\_\_\_ will er Fre\_\_\_\_\_ treffen oder i\_\_\_\_\_ Kino gehen. Se\_\_\_\_\_ Eltern sagen, da\_\_\_\_\_ er lieber Hausauf\_\_\_\_\_ machen soll. Fabian h\_\_\_\_\_wenig Freizeit. I\_\_\_\_\_ September wird er nach Ausland fahren. Sein Lieblingsland ist Italien.

/20 Punkte

### Text 3) Probleme in der neuen Stadt

Ich bin Gisela und ich bin sehr traurig. Ich lebte i\_\_\_\_\_ Innsbruck, aber wir woh\_\_\_\_\_ jetzt in München. I\_\_\_\_\_ habe keine Fre\_\_\_\_\_ und bin o\_\_\_\_\_ allein. Alles i\_\_\_\_\_ neu hier: d\_\_\_\_\_ Stadt, die Sch\_\_\_\_\_, die Wohnung . Me\_\_\_\_\_ Mutter arbeitet b\_\_\_\_\_ Abend. Mein Va\_\_\_\_\_ kommt um 5 U\_\_\_\_\_ nach Hause. D\_\_\_\_\_ ist ziemlich langw\_\_\_\_\_. Ich möchte ge\_\_\_\_\_ meine Freunde tref\_\_\_\_\_. Ich sehe ei\_\_\_\_\_ Film an od\_\_\_\_\_ ich mache Hausaufg\_\_\_\_\_. Ich sitze je\_\_\_\_\_ Tag zu Hause. Ich möchte wieder nach Hause gehen.

/20 Punkte

### Text 4) Internet-Schule

Ein Klassenzimmer, 30 Schüler, vorne steht der Lehrer. So sieht Unterricht aus, oder? Nein, es ist nicht immer so. Manchmal sollen Kin\_\_\_\_\_ oder Jugendliche ei\_\_\_\_\_ Zeit lang i\_\_\_\_\_ Ausland leben u\_\_\_\_\_ sie lernen onl\_\_\_\_\_. Der Unterricht fin\_\_\_\_\_ am Computer z\_\_\_\_\_ Hause statt. D\_\_\_\_\_ Internetschüler lernen all\_\_\_\_\_, aber sie ha\_\_\_\_\_ einen Lehrer. E\_\_\_\_\_ gibt 6 Lehrer f\_\_\_\_\_ 35 Schüler. Der Leh\_\_\_\_\_ sucht die Aufg\_\_\_\_\_ aus, kontrolliert d\_\_\_\_\_ Übungen. Die Jugend\_\_\_\_\_ können am Ab\_\_\_\_\_ oder am Wochenen\_\_\_\_\_ lernen. Sie beko\_\_\_\_\_ auch Noten, ab\_\_\_\_\_ sie haben keinen Studienplan. Die Kinder haben viel Spaß beim Online-Lernen.

/20 Punkte

### Text 5) Die Freundin von Naomi

Das ist Naomi und sie kommt aus Köln. Sie hat ei\_\_\_\_\_ Freundin in Ungarn. S\_\_\_\_\_ heißt Anna und le\_\_\_\_\_ in Szombathely. Anna lädt Naomi na\_\_\_\_\_ Ungarn ein. Anna möchte Naomi d\_\_\_\_\_ Stadt zeigen. S\_\_\_\_\_ können den Hauptpl\_\_\_\_\_ oder das Savaria Mus\_\_\_\_\_ besichtigen. Es gi\_\_\_\_\_ ein Theater u\_\_\_\_\_ zwei Kinos i\_\_\_\_\_ Szombathely. Anna und Naomi besuchen d\_\_\_\_\_ Savaria Karneval im Aug\_\_\_\_\_. Die Mädchen ge\_\_\_\_\_ in das Rúzsa Magdi Kon\_\_\_\_\_. Sie essen Lang\_\_\_\_\_ und sie tri\_\_\_\_\_ Limonade. Sie besu\_\_\_\_\_ auch die Karn\_\_\_\_\_ -Messe. Anna möchte etwas Schönes dort kaufen.

/20 Punkte

## KEYS

### Text 1) Familie Fischer

Ich möchte Ihnen meine Familie vorstellen. Mein Vater **heißt** Bert Fischer, meine Mutter ,Helene Fischer. **Mutti** arbeitet als **Lehrerin**, Vati ist **Arzt**. Ich habe **zwei** Geschwister. Meine **Großeltern** wohnen auch **bei** uns. Oma **kann** sehr gut **kochen**. Wir backen **super** Torten.

Opa **repariert** oft in **der** Garage. Meine **andere** Oma wohnt **nicht** weit von **uns**. Ich besuche **sie** oft. Am **Wochenende** ist die **ganze** Familie zusammen. **Wir** machen Ausflüge **oder** wir gehen oft ins Restaurant. Ich liebe unsere Familie!

#### Text 2) Fabian hat keine Freizeit

Fabian hat viele Aufgabe an einem Tag, aber manchmal hat er keine Lust dazu. Fabian will immer **lange** schlafen, aber **es** geht nicht. **Er** muss früh **aufstehen**, der Unterricht **beginnt** um 8 Uhr. Fabian **möchte** auch lange **frühstücken**, aber er **hat** keine Zeit. Fabian **mag** Fussball spielen, **aber** er soll **lernen**. Er hat **immer** viele Hausaufgaben. **Abends** will er **Freunde** treffen oder **ins** Kino gehen. **Seine** Eltern sagen, **dass** er lieber **Hausaufgabe** machen soll. Fabian **hat** wenig Freizeit. **Im** September wird er nach Ausland fahren. Sein Lieblingsland ist Italien.

#### Text 3) Probleme in der neuen Stadt

Ich bin Gisela und ich bin sehr traurig. Ich lebte **in** Innsbruck, aber wir **wohnen** jetzt in München. **Ich** habe keine **Freunde** und bin **oft** allein. Alles **ist** neu hier: **die** Stadt, die **Schule**, die Wohnung. **Meine** Mutter arbeitet **bis** Abend. Mein **Vater** kommt um 5 **Uhr** nach Hause. **Das** ist ziemlich **langweilig**. Ich möchte **gern** meine Freunde **treffen**. Ich sehe **einen** Film an **oder** ich mache **Hausaufgabe**. Ich sitze **jeden** Tag zu Hause. Ich möchte wieder nach Hause gehen.

#### Text 4) Internet-Schule

Ein Klassenzimmer, 30 Schüler, vorne steht der Lehrer. So sieht Unterricht aus, oder? Nein, es ist nicht immer so. Manchmal sollen **Kinder** oder Jugendliche **eine** Zeit lang **im** Ausland leben **und** sie lernen **online**. Der Unterricht **findet** am Computer **zu** Hause statt. **Die** Internetschüler lernen **allein**, aber sie **haben** einen Lehrer. **Es** gibt 6 Lehrer **für** 35 Schüler. Der **Lehrer** sucht die **Aufgaben** aus, kontrolliert **die** Übungen. Die **Jugendlichen** können am Abend oder am **Wochenende** lernen. Sie **bekommen** auch Noten, **aber** sie haben keinen Studienplan. Die Kinder haben viel Spaß beim Online-Lernen.

#### Text 5) Die Freundin von Naomi

Das ist Naomi und sie kommt aus Köln. Sie hat **eine** Freundin in Ungarn. **Sie** heißt Anna und **lebt** in Szombathely. Anna lädt Naomi **nach** Ungarn ein. Anna möchte Naomi **die** Stadt zeigen. **Sie** können den **Hauptplatz** oder das Savaria **Museum** besichtigen. Es **gibt** ein Theater **und** zwei Kinos **in** Szombathely. Anna und Naomi besuchen **den** Savaria Karneval im **August**. Die Mädchen **gehen** in das Rúzsa Magdi **Konzert**. Sie essen **Langallo** und sie **trinken** Limonade. Sie **besuchen** auch die **Karneval-Messe**. Anna möchte etwas Schönes dort kaufen.

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#### Appendix 2B. English C-test.

### C-Test, English as L3

#### 7th grade

**UTASÍTÁS: 5 szöveget láttok. A szövegek második mondatától kezdve minden második szó második fele(!) hiányzik. Kérlek, hogy **egészítsétek** ki a szavakat. A vonalak egyenlő hosszúságúak (\_\_\_\_\_) minden kihagyott szórész esetében. **20 db üres** helyet pótoljatok, a **példa segít. 25 perced van kitölteni a tesztet.****

**PÉLDA:** I am fr\_\_\_\_\_ Hungary and I c\_\_\_\_\_ speak Eng\_\_\_\_\_. → I am **from** Hungary and I **can** speak **English**.

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Instruction: You will see five texts. The second part of every second word is missing in the texts. Please complete the words. You need to fill in 20 gaps in each of the texts. You have 25 minutes.

---

### Text 1) Friends

Hi! My name is Louisa. I am 12 ye\_\_\_\_\_ old. I li\_\_\_\_\_ in Pécs. I li\_\_\_\_\_ the ba\_\_\_\_\_ „Follow the Flow”. My fri\_\_\_\_\_ are Naomi a\_\_\_\_\_ Amanda. We g\_\_\_\_\_ to t\_\_\_\_\_ same sch\_\_\_\_\_. We of\_\_\_\_\_ have lu\_\_\_\_\_ together. Naomi lea\_\_\_\_\_ with Amanda o\_\_\_\_\_ they pl\_\_\_\_\_ volleyball i\_\_\_\_\_ the afte\_\_\_\_\_. We a\_\_\_\_\_ going t\_\_\_\_\_ the “Follow the Flow” con\_\_\_\_\_ this wee\_\_\_\_\_. We are going to have fun and I cannot wait.

/20 points

### Text 2) Sports in Hungary

There are many popular sports. Children norm\_\_\_\_\_ have 5 PE\* les\_\_\_\_\_ in Hung\_\_\_\_\_ schools. Bo\_\_\_\_\_ play foot\_\_\_\_\_ or baske\_\_\_\_\_ in wi\_\_\_\_\_ time. Th\_\_\_\_\_ play wate\_\_\_\_\_ and d\_\_\_\_\_ athletics i\_\_\_\_\_ the sum\_\_\_\_\_. Girls pl\_\_\_\_\_ tennis, hand\_\_\_\_\_ or volle\_\_\_\_\_. They alw\_\_\_\_\_ go swim\_\_\_\_\_ in t\_\_\_\_\_ spring. Mo\_\_\_\_\_ schools ha\_\_\_\_\_ a sports day. Children win prizes in the competitions.

\*PE-Physical Education

/20 points

### Text 3) My day

I get up at 6.30 and I have a shower. I have brea\_\_\_\_\_ at 6.50 i\_\_\_\_\_ the mor\_\_\_\_\_ and I lis\_\_\_\_\_ to mu\_\_\_\_\_. I brush m\_\_\_\_\_ teeth a\_\_\_\_\_. I put o\_\_\_\_\_ my clo\_\_\_\_\_. Then, I g\_\_\_\_\_ to sch\_\_\_\_\_ with D\_\_\_\_\_. We ta\_\_\_\_\_ the b\_\_\_\_\_. The fi\_\_\_\_\_ lesson usu\_\_\_\_\_ starts a\_\_\_\_\_ 7.45. I often e\_\_\_\_\_ a salad f\_\_\_\_\_ lunch. I fi\_\_\_\_\_ school in the afternoon and I go home. I do my homework and go on the Internet before dinner.

/20 points

### Text4) Clara 's family

I am Clara and I would like to introduce my family. We co\_\_\_\_\_ from Canada b\_\_\_\_\_ we li\_\_\_\_\_ in Kőszeg. M\_\_\_\_\_ father i\_\_\_\_\_ a doctor. H\_\_\_\_\_ works a\_\_\_\_\_ Markusovszky hospital. M\_\_\_\_\_ works a\_\_\_\_\_ a History teac\_\_\_\_\_. I have g\_\_\_\_\_ two brot\_\_\_\_\_. Joseph and Mark a\_\_\_\_\_ twins. W\_\_\_\_\_ often vi\_\_\_\_\_ our grandp\_\_\_\_\_ in Budapest. I ha\_\_\_\_\_ an au\_\_\_\_\_ and a\_\_\_\_\_ uncle. Th\_\_\_\_\_ are very nice. I often get some presents from them.

/20 points

### Text 5) Tommy's school

The first lesson starts at 7.45 in the morning. Pupils g\_\_\_\_\_ to sch\_\_\_\_\_ from Mon\_\_\_\_\_ until Fri\_\_\_\_\_. Tommy's teachers a\_\_\_\_\_ great. H\_\_\_\_\_ likes Mrs. Horváth's Eng\_\_\_\_\_ lessons. Tommy h\_\_\_\_\_ got Ma\_\_\_\_\_ and A\_\_\_\_\_ classes o\_\_\_\_\_ Tuesday. Tommy vis\_\_\_\_\_ History, Fre\_\_\_\_\_ and Mu\_\_\_\_\_ on Thur\_\_\_\_\_. He h\_\_\_\_\_ got Ger\_\_\_\_\_

and Bio \_\_\_\_\_ lessons o \_\_\_\_\_ Wednesday. Tommy's favo \_\_\_\_\_ day is Saturday as he doesn't have any classes. He usually has free time at weekends.

/20 points

## KEYS

### Text 1) Friends

Hi! My name is Louisa. I am 12 **years** old. I **live** in Pécs. I **like** the **band** „Follow the Flow”. My **friends** are Naomi **and** Amanda. We **go** to **the** same **school**. We **often** have **lunch** together. Naomi **learns** with Amanda **or** they **play** volleyball **in** the **afternoon**. We **are** going to the “Follow the Flow” **concert** this **weekend**. We are going to have fun and I cannot wait.

### Text 2) Sports in Hungary

There are many popular sports. Children **normally** have 5 PE\* **lessons** in **Hungarian** schools. **Boys** play **football** or **basketball** in **winter** time. **They** play **waterpolo** and **do** athletics **in** the **summer**. Girls **play** tennis, **handball** or **volleyball**. They **always** go **swimming** in **the** spring. **Most** schools **have** a sports day. Children win prizes in the competitions.

\*PE-Physical Education

### Text 3) My day

I get up at 6.30 and I have a shower. I have **breakfast** at 6.50 **in** the **morning** and I **listen** to **music**. I brush **my** teeth **and** I put **on** my **clothes**. Then, I **go** to **school** with **Dad**. We **take** the **bus**. The **first** lesson **usually** starts **at** 7.45. I often **eat** a salad **for** lunch. I **finish** school in the afternoon and I go home. I do my homework and go on the Internet before dinner.

### Text4) Clara 's family

I am Clara and I would like to introduce my family. We **come** from Canada **but** we **live** in Kőszeg. **My** father **is** a doctor. **He** works **at** Markusovszky hospital. **Mom** works **as** a History **teacher**. I have **got** two **brothers**. Joseph and Mark **are** twins. **We** often **visit** our **grandparents** in Budapest. I **have** an **aunt** and an **uncle**. **They** are very nice. I often get some presents from them.

### Text 5) Tommy's school

The first lesson starts at 7.45 in the morning. Pupils **go** to **school** from **Monday** until **Friday**. Tommy's teachers **are** great. **He** likes Mrs. Horváth's **English** lessons. Tommy **has** got **Maths** and **Art** classes **on** Tuesday. Tommy **visits** History, **French** and **Music** on **Thursday**. He **has** got **German** and **Biology** lessons **on** Wednesday. Tommy's **favourite** day is Saturday as he doesn't have any classes. He usually has free time at weekends.

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## APPENDIX 3. English (L2) and German (L3), 7<sup>th</sup> graders

### Appendix 3A.English C-test.

#### C-Test

#### English as L2, 7<sup>th</sup> grade

**UTASÍTÁS: 5 szöveget** láttok. A szövegek második mondatától kezdve **minden második szó második fele(!)** hiányzik. Kérlek, hogy **egészítsétek** ki a szavakat. A vonalak egyenlő hosszúságúak ( \_\_\_\_\_ ) minden kihagyott szórész esetében. Összesen **25 percetek** van kitölteni a tesztet. Nyugodtan térjete vissza egy-egy szöveghez a feladat megoldása közben.

**PÉLDA:** I am fr\_\_\_\_\_ Hungary and I c\_\_\_\_\_ speak Eng\_\_\_\_\_. → I am **from** Hungary and I **can** speak **English**.

---

### Text 1) Birthday in Hungary

Celebrating a birthday is important in Hungary. We ha\_\_\_\_\_ got par\_\_\_\_\_ for o\_\_\_\_\_ relatives. There i\_\_\_\_\_ a birthday ca\_\_\_\_\_ and w\_\_\_\_\_ sing „Happy Birthday”. Y\_\_\_\_\_ can g\_\_\_\_\_ cards o\_\_\_\_\_ gifts fr\_\_\_\_\_ your fam\_\_\_\_\_. Parents b\_\_\_\_\_ presents li\_\_\_\_\_ a mobile ph\_\_\_\_\_, a smart wa\_\_\_\_\_ or a\_\_\_\_\_ MP4 player. Fri\_\_\_\_\_ give to\_\_\_\_\_, sweets, bo\_\_\_\_\_, clothes. Peo\_\_\_\_\_ often have a grill party or they go for a coffee. Our family often goes to a restaurant.

/20 points

### Text 2) School trip

It is Monday morning at the Radnóti School. The d\_\_\_\_\_ usually st\_\_\_\_\_ at 7.45 b\_\_\_\_\_ we a\_\_\_\_\_ not sit\_\_\_\_\_ in o\_\_\_\_\_ classroom to\_\_\_\_\_. We a\_\_\_\_\_ sitting o\_\_\_\_\_ a coach. W\_\_\_\_\_ usually g\_\_\_\_\_ on a sch\_\_\_\_\_ trip ev\_\_\_\_\_ year .Our cl\_\_\_\_\_ is visi\_\_\_\_\_ Xantus János Zoo (Győr) this ye\_\_\_\_\_. It i\_\_\_\_\_ two o' clock n\_\_\_\_\_ and I a\_\_\_\_\_ having lu\_\_\_\_\_. We are eating our sandwiches on the grass.

/20 points

### Text 3) Macbook for one day

Hello, I am John. I have g\_\_\_\_\_ an o\_\_\_\_\_ computer a\_\_\_\_\_ it do\_\_\_\_\_ not wo\_\_\_\_\_ anymore. M\_\_\_\_\_ dad wi\_\_\_\_\_ give m\_\_\_\_\_ his lap\_\_\_\_\_ today. H\_\_\_\_\_ has a n\_\_\_\_\_ Macbook. It i\_\_\_\_\_ small -20X30 cm-. I c\_\_\_\_\_ download ga\_\_\_\_\_ like *Flappy Bird*, *Minecraft* o\_\_\_\_\_ *Candy Crush Saga*. I enjoy sur\_\_\_\_\_ the inte\_\_\_\_\_ and I lo\_\_\_\_\_ using th\_\_\_\_\_ Macbook. I have a good day. Thanks Dad!

/20 points

### Text 4) My old home

My name is Károly and I live in Debrecen. I was bo\_\_\_\_\_ in Australia. Th\_\_\_\_\_ we mo\_\_\_\_\_ to Hungary 2 ye\_\_\_\_\_ ago. M\_\_\_\_\_ dad g\_\_\_\_\_ a new j\_\_\_\_\_ here. I d\_\_\_\_\_ not wa\_\_\_\_\_ to le\_\_\_\_\_ Australia as I h\_\_\_\_\_ a lot o\_\_\_\_\_ friends th\_\_\_\_\_. The wea\_\_\_\_\_ was gr\_\_\_\_\_ and o\_\_\_\_\_ house w\_\_\_\_\_ near t\_\_\_\_\_ sea. I\_\_\_\_\_ summer, I we\_\_\_\_\_ to the beach two or three times a week. I surfed and swam a lot, as well.

/20 points

### Text 5) Kate's favourite place

It is a hot summer day and I am sitting at my favourite place with my friends. It is \_\_\_\_\_ called Deck Bistro. You \_\_\_\_\_ can enjoy your meal when you eat outside. They have \_\_\_\_\_ got special dishes on the menu like strawberry cakes. I drink \_\_\_\_\_ a cold lemonade with ice and I eat \_\_\_\_\_ a salad for lunch. I order \_\_\_\_\_ some desserts like chocolate brownie. The \_\_\_\_\_ café is famous for its terrace. You can enjoy nature outside even in winter time.

/20 points

## KEYS

### Text 1) Birthday in Hungary

Celebrating a birthday is important in Hungary. We have got parties for our relatives. There is a birthday cake and we sing „Happy Birthday”. You can get cards or gifts from your family. Parents buy presents like a mobile phone, a smart watch or an MP4 player. Friends give toys, sweets, books, clothes. People often have a grill party or they go for a coffee. Our family often goes to a restaurant.

### Text 2) School trip

It is Monday morning at the Radnóti School. The day usually starts at 7:45 but we are not sitting in our classroom today. We are sitting on a coach. We usually go on a school trip every year. Class 8A is visiting Xantus János Zoo (Győr) this year. It is two o'clock now and I am having lunch. We are eating our sandwiches on the grass.

### Text 3) Macbook for one day

Hello, I am John. I have got an old computer and it does not work anymore. My dad will give me his laptop today. He has a new Macbook. It is small -20X30 cm-. I can download games like *Flappy Bird*, *Minecraft* or *Candy Crush Saga*. I enjoy surfing the internet and I love using this Macbook. I have a pretty good day. Thanks Dad!

### Text 4) My old home

My name is Károly and I live in Debrecen. I was born in Australia. Then we moved to Hungary 2 years ago. My dad got a new job here. I did not want to leave Australia as I had a lot of friends there. The weather was great and our house was near the sea. In summer, I went to the beach two or three times a week. I surfed and swam a lot, as well.

### Text 5) Kate's favourite place

It is a hot summer day and I am sitting at my favourite place with my friends. It is called Deck Bistro. You can enjoy your meal when you eat outside. They have got special dishes on the menu like strawberry cakes. I drink a cold lemonade with ice and I eat a salad for lunch. I order some desserts like chocolate brownie. The café is famous for its terrace. You can enjoy nature outside even in winter time.

## APPENDIX 3B. German C-test.

### C-Test: Deutsch als L3, 7.Klasse

UTASÍTÁS: 5 szöveget láttok. A szövegek **második mondatától kezdve minden harmadik szó** második fele(!) hiányzik. Kérlek, hogy egészítsétek ki a szavakat. A vonalak egyenlő hosszúságúak ( ) minden kihagyott szórész esetében. 20 db helyet kell minden szövegben kiegészíteni. Nyugodtan térj vissza az előző feladatokhoz a teszt kitöltése közben.

Példamondat: Ich esse **ge**\_\_\_\_\_ Schokolade → Ich esse **gern** Schokolade.

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### Text 1) Marias Familie

Ich bin Maria Stein. Wir wohnen i\_\_\_\_\_ Szombathely. Meine Mutter hei\_\_\_\_\_ Martina. Sie ist Lehr\_\_\_\_\_ in der Vaci Grundsch\_\_\_\_\_. Mein Vater arbe\_\_\_\_\_ bei Erste Bank. Ich b\_\_\_\_\_ oft allein a\_\_\_\_\_ Nachmittag. Ich ma\_\_\_\_\_ meine Hausaufgaben na\_\_\_\_\_ der Schule. I\_\_\_\_\_ lese ein Bu\_\_\_\_\_ oder male e\_\_\_\_\_ Bild am Ab\_\_\_\_\_. Ich besuche me\_\_\_\_\_ Großmutter am Sam\_\_\_\_\_. Oma bäckt sch\_\_\_\_\_ Kuchen oder Tor\_\_\_\_\_. Am Wochenende i\_\_\_\_\_ die ganze Fam\_\_\_\_\_ zusammen. Wir fah\_\_\_\_\_ oft nach Kőszeg. Dort gehen wir zu Irottkő.

/20 Punkte

### Text 2) Simon in der Schule

Hallo, ich bin Simon. Ich gehe i\_\_\_\_\_ die Goethe Grundschule. I\_\_\_\_\_ habe Sport, Infor\_\_\_\_\_, Physik und Ma\_\_\_\_\_ heute. Ich fi\_\_\_\_\_ Sport cool, ab\_\_\_\_\_ Physik ist se\_\_\_\_\_ schlecht. Deutsch u\_\_\_\_\_ Englisch sind me\_\_\_\_\_ Lieblingsfächer. Ich b\_\_\_\_\_ nicht gut i\_\_\_\_\_ Biologie. Ich ha\_\_\_\_\_ 2 Stunden Sport a\_\_\_\_\_ Mittwoch. Ich le\_\_\_\_\_ viel am Wochenen\_\_\_\_\_. Mein Lieblingstag i\_\_\_\_\_ Sonntag. Wir ge\_\_\_\_\_ ins Kino. W\_\_\_\_\_ sehen einen Fi\_\_\_\_\_ und wir tr\_\_\_\_\_ eine Cola. Das ist ein super Programm!

/20 Punkte

### Text 3) Nickis Wochenplan

Was macht Nicki? Nicki geht in d\_\_\_\_\_ Schule jeden T\_\_\_\_\_. Nicki schwimmt am Mon\_\_\_\_\_. Er malt e\_\_\_\_\_ Bild am Dien\_\_\_\_\_. Nicki spielt Tennis a\_\_\_\_\_ Mittwoch. Nicki macht Kar\_\_\_\_\_ am Donnerstag u\_\_\_\_\_ er geht au\_\_\_\_\_ ins Theater. Nicki spi\_\_\_\_\_ Handball mit Freu\_\_\_\_\_ am Freitag .E\_\_\_\_\_ hat Mittagessen m\_\_\_\_\_ seinen Eltern a\_\_\_\_\_ Samstag. Der Lieblingst\_\_\_\_\_ von Nicki ist Son\_\_\_\_\_. Er steht u\_\_\_\_\_ 10 Uhr auf. Nicki is\_\_\_\_\_ Palatschinken zum Frühs\_\_\_\_\_. Er sieht no\_\_\_\_\_ fern. So sieht eine Woche von Nicki aus!

/20 Punkte

### Text 4 ) Nina und Leonie

Das ist Nina. Sie ist 14 Ja\_\_\_\_\_ alt. Nina wohnt i\_\_\_\_\_ Budapest. Nina hört Musik u\_\_\_\_\_ sie singt au\_\_\_\_\_ schön. Nina tanzt ge\_\_\_\_\_, aber sie spi\_\_\_\_\_ Volleyball nicht s\_\_\_\_\_ gern. Nina hat ei\_\_\_\_\_ Freundin und s\_\_\_\_\_ heißt Leonie. Leonie ko\_\_\_\_\_ aus Österreich. Sie ge\_\_\_\_\_ auch in d\_\_\_\_\_ Tanzschule zusammen. S\_\_\_\_\_ trinken eine Co\_\_\_\_\_ oder essen ei\_\_\_\_\_ Hamburger. Die Mäd\_\_\_\_\_ lernen und ge\_\_\_\_\_ in die Sch\_\_\_\_\_ zusammen. Sie si\_\_\_\_\_ beste Freundinnen. Naomi u\_\_\_\_\_ Leonie fahren nach Wien im September. Sie freuen sehr auf den Urlaub.

/20Punkte

### Text 5) Daniel und Benedek

Das sind Daniel und Benedek. Sie sind Fre\_\_\_\_\_. Benedek wohnt i\_\_\_\_\_ Wien. Er ist 16 Ja\_\_\_\_\_ alt. Benedek spielt Fußba\_\_\_\_\_ und er schw\_\_\_\_\_ gern. Er fä\_\_\_\_\_ auch Rad. Daniel i\_\_\_\_\_ jetzt in Ungarn, ab\_\_\_\_\_ er kommt a\_\_\_\_\_ Australien. Daniel ist 18 Jahre a\_\_\_\_\_. Daniel hat einen Comp\_\_\_\_\_ und er su\_\_\_\_\_ gern im Inte\_\_\_\_\_. Sie hören Rapmu\_\_\_\_\_ zusammen und s\_\_\_\_\_ gehen auf Par\_\_\_\_\_ . Die Jungen

mac\_\_\_\_\_ einen Sommerurlaub. S\_\_\_\_\_ fahren zusammen na\_\_\_\_\_ Spanien im Som\_\_\_\_\_. Sie möchten Barcelona besuchen. 20

/20Punkte

## KEYS

### Text 1) Marias Familie

Ich bin Maria Stein. Wir wohnen **in** Szombathely. Meine Mutter **heißt** Martina. Sie ist **Lehrerin** in der Vaci **Grundschule**. Mein Vater **arbeitet** bei Erste Bank. Ich **bin** oft allein **am** Nachmittag. Ich **mache** meine Hausaufgaben **nach** der Schule. **Ich** lese ein **Buch** oder male **ein** Bild **am Abend**. Ich besuche **meine** Großmutter **am Samstag**. Oma bäckt **schöne** Kuchen oder **Torten**. **Am** Wochenende **ist** die ganze **Familie** zusammen. Wir **fahren** oft nach Kőszeg. Dort gehen wir zur Irottkő.

### Text 2) Simon in der Schule

Hallo, ich bin Simon. Ich gehe **in** die Goethe Grundschule. **Ich** habe Sport, **Informatik**, Physik und **Mathe** heute. Ich **finde** Sport cool, **aber** Physik ist **sehr** schlecht. Deutsch **und** Englisch sind **meine** Lieblingsfächer. Ich **bin** nicht gut **in** Biologie. Ich **habe** 2 Stunden Sport **am** Mittwoch. Ich **lerne** viel **am Wochenende**. Mein Lieblingstag **ist** Sonntag. Wir **gehen** ins Kino. **Wir** sehen einen **Film** und wir **trinken** eine Limonade. Das ist ein super Programm!

### Text 3) Nickis Wochenplan

Was macht Nicki? Nicki geht in **die** Schule jeden **Tag**. Nicki schwimmt **am Montag**. Er malt **ein** Bild **am Dienstag**. Nicki spielt Tennis **am** Mittwoch. Nicki macht **Karate** **am** Donnerstag **und** er geht **auch** ins Theater. Nicki **spielt** Handball mit **Freunden** **am** Freitag. **Er** hat Mittagessen **mit** seinen Eltern **am** Samstag. Der **Lieblingstag** von Nicki ist **Sonntag**. Er steht **um** 10 Uhr auf. Nicki **isst** Palatschinken zum **Frühstück**. Er sieht **noch** fern. So sieht eine Woche von Nicki aus!

### Text 4 ) Nina und Leonie

Das ist Nina. Sie ist 14 **Jahre** alt. Nina wohnt **in** Budapest. Nina hört Musik **und** sie singt **auch** schön. Nina tanzt **gern**, aber sie **spielt** Volleyball nicht **so** gern. Nina hat **eine** Freundin und **sie** heißt Leonie. Sie **kommt** aus Österreich. Sie **geht** auch in **die** Tanzschule zusammen. **Sie** trinken eine **Cola** oder essen **einen** Hamburger. Die **Mädchen** lernen und **gehen** in **die** **Schule** zusammen. Sie **sind** beste Freundinnen. Naomi **und** Leonie fahren nach Wien im September. Sie freuen sehr auf den Urlaub.

### Text 5) Daniel und Benedek

Das sind Daniel und Benedek. Sie sind **Freunde**. Benedek wohnt **in** Wien. Er ist 16 **Jahre** alt. Benedek spielt **Fußball** und er **schwimmt** gern. Er **fährt** auch Rad. Daniel **ist** jetzt in Ungarn, **aber** er kommt **aus** Australien. Daniel ist 18 Jahre **alt**. Daniel hat einen **Computer** und er **surft** gern im **Internet**. Sie hören **Rapmusik** zusammen und **sie** gehen auf **Partys**. Die Jungen **machen** einen Sommerurlaub. **Sie** fahren zusammen **nach** Spanien im **Sommer**. Sie möchten Barcelona besuchen.

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## APPENDIX 4. ENGLISH (L2) and German (L3). 8<sup>th</sup> graders.

### Appendix 4A. English C-test with keys.

## C-Test English as L2

### 8<sup>th</sup> grade

**UTASÍTÁS: 5 szöveget** láttok. A szövegek második mondatától kezdve **minden második szó második fele(!)** hiányzik. Kérlek, hogy **egészítsétek** ki a szavakat. A vonalak egyenlő hosszúságúak ( ) minden kihagyott szórész esetében. Összesen **25 percetek** van a szövegek kitöltésére. Nyugodtan vissza lehet térni a szövegekre, nem egymás utáni sorrendben kell kitölteni.

**PÉLDA:** I am fr \_\_\_\_\_ Hungary and I c \_\_\_\_\_ speak Eng \_\_\_\_\_. → I am **from** Hungary and I **can** speak **English**.

#### Text 1) Books

Hungarian teenagers like reading even today. Girls a \_\_\_\_\_ boys lo \_\_\_\_\_ various bo \_\_\_\_\_. Girls en \_\_\_\_\_ reading lo \_\_\_\_\_ stories o \_\_\_\_\_ fiction. Th \_\_\_\_\_ usually re \_\_\_\_\_ “*Sense and Sensibility*” (Értelem és érzelem) “*The Princess Diaries*” (Neveletlen hercegnő) or Vampire Diaries (Vámpírnaplók). Bo \_\_\_\_\_ like rea \_\_\_\_\_ about diff \_\_\_\_\_ topics. Th \_\_\_\_\_ favourites a \_\_\_\_\_ fiction, rea \_\_\_\_\_ or cr \_\_\_\_\_ stories. Teen \_\_\_\_\_ like t \_\_\_\_\_ adventures o \_\_\_\_\_ *Harry Potter, the Lord of the Rings, Egri Csillagok*. They ha \_\_\_\_\_ to kn \_\_\_\_\_ novels by Hungarian writers, like Imre Madách, Mór Jókai or Kálmán Mikszáth at school. Pupils can also use e-book readers in our 21<sup>st</sup> century.

/20points

#### Text 2) Ambitions

My name is Tommy. I would li \_\_\_\_\_ to b \_\_\_\_\_ a famous ac \_\_\_\_\_. One o \_\_\_\_\_ my favo \_\_\_\_\_ stars i \_\_\_\_\_ Johnny Depp. He h \_\_\_\_\_ appeared i \_\_\_\_\_ various fi \_\_\_\_\_ like *Chocolate, Charlie and the Chocolate Factory*, o \_\_\_\_\_ *Alice in Wonderland*. His wi \_\_\_\_\_ is cal \_\_\_\_\_ Vanessa Paradis and th \_\_\_\_\_ have g \_\_\_\_\_ 2 children. Johnny Depp, Keira Knightley a \_\_\_\_\_ Orlando Bloom have pla \_\_\_\_\_ roles i \_\_\_\_\_ the Pirates of the Carribean movie ser \_\_\_\_\_. I want t \_\_\_\_\_ be a \_\_\_\_\_ actor later on. It is really inspiring for me!

/20points

#### Text 3) Nadim's ski holiday

We went on a skiing holiday with the school this year, but I didn't have a good time, because I had an accident. I skied o \_\_\_\_\_ the fi \_\_\_\_\_ day, b \_\_\_\_\_ I fell ov \_\_\_\_\_ and hu \_\_\_\_\_ my kn \_\_\_\_\_. Luckily, I d \_\_\_\_\_ not br \_\_\_\_\_ my l \_\_\_\_\_, but i \_\_\_\_\_ was ve \_\_\_\_\_ painful. Af \_\_\_\_\_ that, I co \_\_\_\_\_ not s \_\_\_\_\_ anymore. I d \_\_\_\_\_ not g \_\_\_\_\_ out f \_\_\_\_\_ the ne \_\_\_\_\_ 5 days. A \_\_\_\_\_ my fri \_\_\_\_\_ went skiing every day, but I just stayed in the hotel. I watched TV, played computer games, and read magazines.

/20 points

#### Text 4) Danny's afternoon

One wet afternoon in September, Danny Spencer was sitting in his room. He w \_\_\_\_\_ studying f \_\_\_\_\_ a test. H \_\_\_\_\_ parents we \_\_\_\_\_ at wo \_\_\_\_\_. Danny was hun \_\_\_\_\_, but

i\_\_\_\_\_ was rai\_\_\_\_\_ heavily. Danny d\_\_\_\_\_ not wa\_\_\_\_\_ to g\_\_\_\_\_ to t\_\_\_\_\_ shops. Danny dec\_\_\_\_\_ to co\_\_\_\_\_ some ch\_\_\_\_\_. He p\_\_\_\_\_ some o\_\_\_\_\_ in a sauc\_\_\_\_\_ on t\_\_\_\_\_ cooker a\_\_\_\_\_ lit the gas. Then the telephone rang suddenly.

/20 points

### Text 5) Csilla's online life

Csilla (14) has got a laptop and a smartphone so she can surf on the web anytime and anywhere. She i\_\_\_\_\_ not a\_\_\_\_\_ internet add\_\_\_\_\_ as s\_\_\_\_\_ has ne\_\_\_\_\_ spent mo\_\_\_\_\_ than 1 ho\_\_\_\_\_ online. Csilla's par\_\_\_\_\_ help h\_\_\_\_\_ to ma\_\_\_\_\_ plans ab\_\_\_\_\_ her wee\_\_\_\_\_ online activ\_\_\_\_\_. Csilla can d\_\_\_\_\_ her home\_\_\_\_\_ with t\_\_\_\_\_ help o\_\_\_\_\_ the Inte\_\_\_\_\_. She c\_\_\_\_\_ chat wi\_\_\_\_\_ her friends using Viber, Messenger or Whatsapp. However, some of her friends are strongly obsessed by the internet.

/20points

## KEYS

### Text 1) Books

Hungarian teenagers love reading even today. Girls **and** boys **like** various **books**. Girls **enjoy** reading **love** stories **or** fiction. **They** usually **read** “*Sense and Sensibility*” (Értelem és érzelem) “*The Princess Diaries*” (Neveletlen hercegnő) or Vampire Diaries (Vámpírnaplók). **Boys** like **reading** about **different** topics. **Their** favourites **are** fiction, **reality** or **crime** stories. **Teenagers** like **the** adventures **of** Harry Potter, the Lord of the Rings, Egri Csillagok. They **have** to **know** novels by Hungarian writers, like Imre Madách, Mór Jókai or Kálmán Mikszáth at school. Pupils can also use e-book readers in our 21<sup>st</sup> century.

### Text 2) Ambitions

My name is Tommy. I would **like** to **be** a famous **actor**. One **of** my **favourite** stars **is** Johnny Depp. He **has** appeared **in** various **films** like *Chocolate*, *Charlie and the Chocolate Factory*, **or** *Alice in Wonderland*. His **wife** is **called** Vanessa Paradis and **they** have **got** 2 children. Johnny Depp, Keira Knightley **and** Orlando Bloom have **played** roles **in** the Pirates of the Caribbean movie **series**. I want **to** be **an** actor later on. It is really inspiring for me!

### Text 3) Nadim's ski holiday

We went on a skiing holiday with the school this year, but I didn't have a good time, because I had an accident. I skied **on** the **first** day, **but** I fell **over** and **hurt** my **knee**. Luckily, I **did** not **break** my **leg**, but **it** was **very** painful. **After** that, I **could** not **ski** anymore. I **did** not **go** out **for** the **next** 5 days. **All** my **friends** went skiing every day, but I just stayed in the hotel. I watched TV, played computer games, and read magazines.

### Text 4) Danny's afternoon

One wet afternoon in September, Danny Spencer was sitting in his room. He **was** studying **for** a test. **His** parents **were** at **work**. Danny was **hungry**, but **it** was **raining** heavily. Danny **did** not **want** to **go** to **the** shops. Danny **decided** to **cook** some **chips**. He **put** some **oil** in a **saucepan** on **the** cooker **and** lit the gas. Then the telephone rang suddenly.

### Text 5) Csilla's online life

Csilla has got a laptop and a smartphone so she can surf on the web anytime and anywhere. She **is** not **an** internet **addict** as **she** has **never** spent **more** than 1 **hour** online. Csilla's **parents** help **her** to **make** plans **about** her **weekly** online **activities**. Csilla can **do** her **homework** with **the** help

of the **internet**. She **can** chat **with** her friends using Viber, Messenger or Whatsapp. However, some of her friends are strongly obsessed by the internet.

#### APPENDIX 4B: German C-test with keys.

### C-Test: Deutsch als L3, 8.Klasse

**UTASÍTÁS: 5 szöveget** láttok. A szövegek második mondatától kezdve **minden második szó második fele(!)** hiányzik. Kérlek, hogy **egészítsétek** ki a szavakat. A vonalak egyenlő hosszúságúak (\_\_\_\_\_) minden kihagyott szórész esetében. **20 db üres hely van. A példa segít. A páratlan betűszámnál kevesebb fele van megadva a szónak. (he\_\_\_-->heute)**

Példamondat: Ich es \_\_\_\_\_ gern Schok \_\_\_\_\_ → Ich esse gern Schokolade.

\_\_\_\_\_

#### Text1) Das Leben von Sophie

Ich heiße Sophie. Ich komme a \_\_\_\_\_ München und ich ge \_\_\_\_\_ in die Johann Sebastian Bach Grundsch \_\_\_\_\_. Ich bin ni \_\_\_\_\_ gut in Ma \_\_\_\_\_ und in Engl \_\_\_\_\_. Sport und Mu \_\_\_\_\_ sind super. I \_\_\_\_\_ habe 6 oder 7 Stu \_\_\_\_\_ jeden Tag. I \_\_\_\_\_ meiner Freizeit spi \_\_\_\_\_ ich Gitarre u \_\_\_\_\_ ich schwimme ge \_\_\_\_\_. Ich koche u \_\_\_\_\_ backe gern. I \_\_\_\_\_ gehe ins Ki \_\_\_\_\_ oder ich fa \_\_\_\_\_ Rad. Ich he \_\_\_\_\_ meinen Eltern i \_\_\_\_\_ Garten im Som \_\_\_\_\_. Wir haben viele Blumen und Bäume.

/20 Punkte

#### Text2) Familie von Philip

Ich bin Philip und das ist meine Familie. Wir wohnen i \_\_\_\_\_ Ungarn aber wir kom \_\_\_\_\_ aus Österreich. Meine Mut \_\_\_\_\_ ist Ärztin. S \_\_\_\_\_ arbeitet im Markusovszky Krankenha \_\_\_\_\_. Mein Vater i \_\_\_\_\_ Lehrer. Albert lehrt i \_\_\_\_\_ der MOZART Grundschule. Me \_\_\_\_\_ Schwester, Annabelle schwimmt ge \_\_\_\_\_ und sie spi \_\_\_\_\_ Gitarre. Lars, mein Bru \_\_\_\_\_ ist 8 Jahre a \_\_\_\_\_. Er spielt Ten \_\_\_\_\_ und er h \_\_\_\_\_ einen Computer. W \_\_\_\_\_ sind zusammen m \_\_\_\_\_ meiner Familie a \_\_\_\_\_ Sonntag. Wir fah \_\_\_\_\_ oft in d \_\_\_\_\_ Bergen im Sept \_\_\_\_\_. Dort können wir Urlaub machen.

/20 Punkte

#### Text 3) Ein Tag von Monika

Monika steht um 6.30 Uhr am Morgen auf. Sie putzt si \_\_\_\_\_ die Zähne u \_\_\_\_\_ wäscht sich ih \_\_\_\_\_ Gesicht. Monika isst Bröt \_\_\_\_\_ mit Marmelade z \_\_\_\_\_ Frühstück. Sie tri \_\_\_\_\_ Kaffee mit Mi \_\_\_\_\_. Sie geht z \_\_\_\_\_ der Schule. D \_\_\_\_\_ Unterricht beginnt u \_\_\_\_\_ 8 Uhr. Sie h \_\_\_\_\_ 6 Stunden jeden T \_\_\_\_\_. Monika isst zum Mittag \_\_\_\_\_ etwas Warmes. S \_\_\_\_\_ bekommt Pizza u \_\_\_\_\_ sie trinkt Orangensa \_\_\_\_\_ heute. Sie is \_\_\_\_\_ etwas Kaltes z.B. e \_\_\_\_\_ Käsebröt am Ab \_\_\_\_\_. Monika sieht noch fe \_\_\_\_\_. Sie geht ins Bett um 22 Uhr.

/20 Punkte

#### Text 4) Neue Stadt

Ich bin Gisela und ich bin sehr traurig. Ich lebte i\_\_\_\_\_ Innsbruck aber wir woh\_\_\_\_\_ jetzt in München. I\_\_\_\_\_ gehe in d\_\_\_\_\_ neue Schule he\_\_\_\_\_. Ich habe ke\_\_\_\_\_ Freunde. Mein Va\_\_\_\_\_ arbeitet bis Ab\_\_\_\_\_. Meine Mutter ko\_\_\_\_\_ um 5 Uhr a\_\_\_\_\_ Nachmittag. Ich se\_\_\_\_\_ fern oder ler\_\_\_\_\_. Ich sitze je\_\_\_\_\_ Tag zu Ha\_\_\_\_\_. Das ist langw\_\_\_\_\_. Ich möchte ge\_\_\_\_\_ meine Freunde tre\_\_\_\_\_. Im Sommer fah\_\_\_\_\_ wir nach Innsbruck. I\_\_\_\_\_ warte auf d\_\_\_\_\_ Sommer! Es wird sehr gut.

/20 Punkte

#### Text 5) Der Hund von Fabian

Ich heiße Fabian. Ich bin 14 Ja\_\_\_\_\_ alt. Ich wo\_\_\_\_\_ in Deutschland. Mein Vater arbe\_\_\_\_\_ bei Ford. Meine Mut\_\_\_\_\_ lehrt im Arany János Gymn\_\_\_\_\_. Ich habe ei\_\_\_\_\_ Hund und e\_\_\_\_\_ heißt Max. Max gehört au\_\_\_\_\_ zu unserer Fam\_\_\_\_\_. Ich liebe mei\_\_\_\_\_ Hund. Wir spi\_\_\_\_\_ oft zusammen. W\_\_\_\_\_ gehen in d\_\_\_\_\_ Wald heute u\_\_\_\_\_ Max kommt auch m\_\_\_\_\_. Ich gehe i\_\_\_\_\_ Restaurant „Rosa“ zum Abendes\_\_\_\_\_ mit meinen Elt\_\_\_\_\_. Im Winter mac\_\_\_\_\_ wir ei\_\_\_\_\_ Ski-Urlaub. Ich mag Ski fahren.

/20 Punkte

### KEYS

#### Text1) Das Leben von Sophie

Ich heiße Sophie. Ich komme **aus** München und ich **gehe** in die Johann Sebastian Bach **Grundschule**. Ich bin **nicht** gut in **Mathe** und in **Englisch**. Sport und **Musik** sind super. **Ich** habe 6 oder 7 **Stunden** jeden Tag. **In** meiner Freizeit **spiele** ich Gitarre **und** ich schwimme **gern**. Ich koche **und** backe gern. **Ich** gehe ins **Kino** oder ich **fahre** Rad. Ich **helfe** meinen Eltern **im** Garten **im Sommer**. Wir haben viele Blumen und Bäume.

#### Text2) Familie von Philip

Ich bin Philip und das ist meine Familie. Wir wohnen **in** Ungarn aber wir **kommen** aus Österreich. Meine **Mutter** ist Ärztin. **Sie** arbeitet im Markusovszky **Krankenhaus**. Mein Vater **ist** Lehrer. Albert lehrt **in** der MOZART Grundschule. **Meine** Schwester, Annabelle schwimmt **gern** und sie **spielt** Gitarre. Lars, mein **Bruder** ist 8 Jahre **alt**. Er spielt **Tennis** und er **hat** einen Computer. **Wir** sind zusammen **mit** meiner Familie **am** Sonntag. Wir **fahren** oft in **den** Bergen **im September**. Dort können wir Urlaub machen.

#### Text3) Ein Tag von Monika

Monika steht um 6.30 Uhr am Morgen auf. Sie putzt **sich** die Zähne **und** wäscht sich **ihr** Gesicht. Monika isst **Brötchen** mit Marmelade **zum** Frühstück. Sie **trinkt** Kaffee mit **Milch**. Sie geht **zu** der Schule. **Der** Unterricht beginnt **um** 8 Uhr. Sie **hat** 6 Stunden jeden **Tag**. Monika isst zum **Mittagessen** etwas Warmes. **Sie** bekommt Pizza **und** sie trinkt **Orangensaft** heute. Sie **isst** etwas Kaltes z.B. **ein** Käsebrötchen am **Abend**. Monika sieht noch **fern**. Sie geht ins Bett um 22 Uhr.

#### Text 4) Neue Stadt

Ich bin Gisela und ich bin sehr traurig. Ich lebte **in** Innsbruck aber wir **wohnen** jetzt in München. **Ich** gehe in **die** neue Schule **heute**. Ich habe **keine** Freunde. Mein **Vater** arbeitet bis **Abend**.

Meine Mutter **kommt** um 5 Uhr **am** Nachmittag. Ich **sehe** fern oder **lerne**. Ich sitze **jeden** Tag zu **Hause**. Das ist **langweilig**. Ich möchte **gern** meine Freunde **treffen**. Im Sommer **fahren** wir nach Innsbruck. **Ich** warte auf **den** Sommer! Es wird sehr gut.

#### Text 5) Der Hund von Fabian

Ich heiße Fabian. Ich bin 14 **Jahre** alt. Ich **wohne** in Deutschland. Er **arbeitet** bei Ford. Meine **Mutter** lehrt im Arany János **Gymnasium**. Ich habe **einen** Hund und **er** heißt Max. Max gehört **auch** zu unserer **Familie**. Ich liebe **meinen** Hund. Wir **spielen** oft zusammen. **Wir** gehen in **den** Wald heute **und** Max kommt auch **mit**. Ich gehe **ins** Restaurant „Rosa“ zum **Abendessen** mit meinen **Eltern**. Im Winter **machen** wir **einen** Ski-Urlaub. Ich mag Ski fahren.

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### APPENDIX 5. GERMAN (L2) AND ENGLISH (L3) C-tests. 8<sup>th</sup> graders.

#### APPENDIX 5A: German C-test with keys.

#### C-test: Deutsch als L2, 8.Klasse

UTASÍTÁS:5 szöveget láttok. A szövegek **második** mondatától kezdve minden harmadik szó **második fele(!) hiányzik**. Kérlek, hogy egészítsétek ki a szavakat. A vonalak egyenlő hosszúságúak (\_\_\_\_\_) minden kihagyott szórész esetében. **20 db üres hely** van. A tesztre **25 perced** van.

**Példa:** Ich esse **ge**\_\_\_\_\_ Schokolade. → Ich esse **gern** Schokolade.

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#### Text1) Jugendliche sollen länger schlafen!

Früh aufstehen um 6:45 Uhr -- es ist sehr schwer. Die Schule fä\_\_\_\_\_ um 8 Uhr a\_\_\_\_\_. Milena muss duschen, si\_\_\_\_\_ die Zähne put\_\_\_\_\_, frühstücken, sich anzi\_\_\_\_\_, die Tasche pac\_\_\_\_\_. Sie fährt m\_\_\_\_\_ dem Fahrrad z\_\_\_\_\_ Váci Grundschule. Milena ist se\_\_\_\_\_ müde am Mor\_\_\_\_\_. Sie kann i\_\_\_\_\_ den ersten Stu\_\_\_\_\_ schlecht mitarbeiten. Jungen\_\_\_\_\_ brauchen mehr Ze\_\_\_\_\_ zum Frühstück. Da\_\_\_\_\_ können sie bes\_\_\_\_\_ lernen. Experten a\_\_\_\_\_ Österreich haben 2700 Kinder gef\_\_\_\_\_. Die Schüler ha\_\_\_\_\_ gesagt, dass s\_\_\_\_\_ mehr Schlafen brauchen. Schüler möchten an der ganzen Welt länger schlafen.

/20 Punkte

#### Text2) Das Zimmer von Tomi

Endlich habe ich ein eigenes Zimmer. Ich kann al\_\_\_\_\_ in meinem Kleidersch\_\_\_\_\_ schnell finden.

Me \_\_\_\_\_ Hosen liegen li\_\_\_\_\_, aber die Jac\_\_\_\_\_ hängen rechts. A\_\_\_\_\_ meinem Schreibtisch st\_\_\_\_\_ mein Computer. Ne\_\_\_\_\_ dem Computer si\_\_\_\_\_ meine Schulsachen: He\_\_\_\_\_,Stifte, Radiergummis, Büc\_\_\_\_\_. Fotos und Pos\_\_\_\_\_ hängen an d\_\_\_\_\_ Wand. Über d\_\_\_\_\_ Bett ist ei\_\_\_\_\_ Regal. Dort ka\_\_\_\_\_ ich lesen od\_\_\_\_\_ Musik hören. I\_\_\_\_\_ der Ecke li\_\_\_\_\_ meine Sporttasche m\_\_\_\_\_ meinen Turnschuhen. Manchmal spiele ich am Computer oder löse ich Kreuzworträtsel in meinem Zimmer.

/20 Punkte

### Text 3) Weihnachten

Meine Familie feiert zusammen: meine Eltern, meine Schwester Julia, Oma Maria, und Opa Hubert, Tante Eva und Onkel Max. Wir backen Kuc\_\_\_\_\_ mit meiner Mut\_\_\_\_\_. Vor dem Weichnac\_\_\_\_\_ kaufe ich no\_\_\_\_\_ Geschenke mit mei\_\_\_\_\_ Schwester. Ich pa\_\_\_\_\_ sie schön e\_\_\_\_\_. Ich lege d\_\_\_\_\_ Geschenke unter d\_\_\_\_\_ Weihnachtsbaum. Am 24. Dez\_\_\_\_\_ sind wir z\_\_\_\_\_ Hause. Wir es\_\_\_\_\_ das Weihnachtsmenu: Fischsu\_\_\_\_\_ und Schokotorte. Na\_\_\_\_\_ dem Essen kom\_\_\_\_\_ die Geschenke. W\_\_\_\_\_ singen auch e\_\_\_\_\_ Weihnachtslied. In d\_\_\_\_\_ Nacht geht d\_\_\_\_\_ ganze Familie i\_\_\_\_\_ die Kirche. Weihnachtszeit ist meine Lieblingszeit!

/20 Punkte

### Text4) Julias Urlaub

In den Ferien war Julia letztes Jahr in Italien. Sie ist je\_\_\_\_\_ Tag an d\_\_\_\_\_ Strand gegangen u\_\_\_\_\_ Julia ist im Me\_\_\_\_\_ geschwommen. Sie h\_\_\_\_\_ oft Pizza geg\_\_\_\_\_ und hat Co\_\_\_\_\_ getrunken. Julia hat Postkar\_\_\_\_\_ für ihre Fre\_\_\_\_\_ in Italien geschrieben. S\_\_\_\_\_ hat viele Büc\_\_\_\_\_ gelesen. Julia ist manc\_\_\_\_\_ in den Ber\_\_\_\_\_ gewandert. Julia hat italien\_\_\_\_\_ Süßigkeiten, z.B. Tiramisu od\_\_\_\_\_ Eis ausprobiert. Julia i\_\_\_\_\_ auch nach Milano gefa\_\_\_\_\_ und sie h\_\_\_\_\_ den Dom ges\_\_\_\_\_. Julia hat viele Fo\_\_\_\_\_ gemacht. Endlich sollte sie nach Hause fahren.

/20 Punkte

### Text 5) Beste Freunde

Hallo, wir sind Anja, Tobias und Katrin. Wir gehen i\_\_\_\_\_ die Jókai Grundschule. D\_\_\_\_\_ drei Freunde ha\_\_\_\_\_ viele Hob\_\_\_\_\_. Anja mag Kunststunden. S\_\_\_\_\_ zeichnet und ma\_\_\_\_\_ Bilder. Tobias spielt Git\_\_\_\_\_. Er hat v\_\_\_\_\_ 8 Jahren angefangen. Tobias h\_\_\_\_\_ eine Gruppe organ\_\_\_\_\_. Katrin singt schön u\_\_\_\_\_ sie mag Mu\_\_\_\_\_ z.B. Mozart, Beethoven. Katrin singt in d\_\_\_\_\_ Gruppe von Tobias. Katrin m\_\_\_\_\_ Mode. Sie arbe\_\_\_\_\_ im Sommer de\_\_\_\_\_ sie bekommt ke\_\_\_\_\_ Taschengeld. Katrin kauft ge\_\_\_\_\_ modische Blusen od\_\_\_\_\_ Hosen. Sie mö\_\_\_\_\_ einmal Model werden. Wir sind oft zusammen aber wir haben verschiedene Hobbys.

/20 Punkte

## KEYS

### Text1) Jugendliche sollen länger schlafen!

Früh aufstehen um 6:45 Uhr -- es ist sehr schwer. Die Schule **fängt** um 8 Uhr **an**. Milena muss duschen, **sich** die Zähne **putzen**, frühstücken, sich **anziehen**, die Tasche **packen**. Sie fährt **mit** dem Fahrrad **zu** Váci Grundschule. Milena ist **sehr** müde am **Morgen**. Sie kann **in** den ersten **Stunden** schlecht mitarbeiten. **Jugendlichen** braucht mehr Zeit zum Frühstücken. **Dann** können sie **besser** lernen. Experten **aus** Österreich haben 2700 Kinder **gefragt**. Die Schüler **haben** gesagt, dass **sie** mehr Schlafen brauchen. Schüler möchten an der ganzen Welt länger schlafen.

### Text2) Das Zimmer von Tomi

Endlich habe ich ein eigenes Zimmer. Ich kann **alles** in meinem **Kleiderschrank** schnell finden.

**Meine** Hosen liegen **links**, aber die **Jacken** hängen rechts. **Auf** meinem Schreibtisch **steht** mein Computer. **Neben** dem Computer **sind** meine Schulsachen: **Hefte**, Stifte, Radiergummis, **Bücher**. Fotos und **Posters** hängen an **der** Wand. Über **dem** Bett ist **ein** Regal. Dort **kann** ich lesen

**oder** Musik hören. **In** der Ecke **liegt** meine Sporttasche **mit** meinen Turnschuhen. Manchmal spiele ich am Computer oder löse ich Kreuzworträtsel in meinem Zimmer.

### Text 3) Weihnachten

Meine Familie feiert zusammen: meine Eltern, meine Schwester Julia, Oma Maria, und Opa Hubert, Tante Eva und Onkel Max. Wir backen **Kuchen** mit meiner **Mutter**. Vor dem **Weihnachten** kaufe ich **noch** Geschenke mit **meiner** Schwester. Ich **packe** sie schön **ein**. Ich lege **die** Geschenke unter **den** Weihnachtsbaum. Am 24. **Dezember** sind wir **zu** Hause. Wir **essen** das Weihnachtsmenu: **Fischsuppe** und Schokotorte. **Nach** dem Essen **kommen** die Geschenke. **Wir** singen auch **ein** Weihnachtslied. In **der** Nacht geht **die** ganze Familie **in** die Kirche. Weihnachtszeit ist meine Lieblingszeit!

### Text4) Julias Urlaub

In den Ferien war Julia letztes Jahr in Italien. Sie ist **jeden** Tag an **den** Strand gegangen **und** Julia ist im **Meer** geschwommen. Sie **hat** oft Pizza **gegessen** und hat **Cola** getrunken. Julia hat **Postkarten** für ihre **Freunde** in Italien geschrieben. **Sie** hat viele **Bücher** gelesen. Julia ist **manchmal** in den **Bergen** gewandert. Julia hat **italienische** Süßigkeiten, z.B. Tiramisu **oder** Eis ausprobiert. Julia **ist** auch nach Milano **gefahren** und sie **hat** den Dom **gesehen**. Julia hat viele **Fotos** gemacht. Endlich sollte sie nach Hause fahren.

### Text 5) Beste Freunde

Hallo, wir sind Anja, Tobias und Katrin. Wir gehen **in** die Jókai Grundschule. **Die** drei Freunde **haben** viele **Hobbys**. Anja mag Kunststunden. **Sie** zeichnet und **malt** Bilder. Tobias spielt **Gitarre**. Er hat **vor** 8 Jahren angefangen. Tobias **hat** eine Gruppe **organisiert**. Katrin singt schön **und** sie mag **Musik** z.B. Mozart, Beethoven. Katrin singt in **der** Gruppe von Tobias. Katrin **mag** Mode. Sie **arbeitet** im Sommer **denn** sie bekommt **kein** Taschengeld. Katrin kauft **gern** modische Blusen **oder** Hosen. Sie **möchte** einmal Model werden. Wir sind oft zusammen aber wir haben verschiedene Hobbys.

## APPENDIX 5B. English C-test with keys.

### C test, English as L3

#### 8<sup>th</sup> grade

**UTASÍTÁS: 5 szöveget láttok. A szövegek második mondatától kezdve minden második szó második fele(!) hiányzik. Kérlek, hogy **egészítsétek** ki a szavakat. A vonalak egyenlő hosszúságúak (\_\_\_\_\_) minden kihagyott szórész esetében. **20 db üres** hely van szövegenként, azt pótoljátok. **A példa segít. 25 perc áll rendelkezésre. Ha később szeretnél, vissza lehet térni az előző szövegekhez.****

**PÉLDA:** I am fr\_\_\_\_\_ Hungary and I c\_\_\_\_\_ speak Eng\_\_\_\_\_. → I am **from** Hungary and I **can** speak **English**.

---

### Text 1) David's family

Let me introduce my family. My d\_\_\_\_\_ is ta\_\_\_\_\_ and sl\_\_\_\_\_. He h\_\_\_\_\_ big gr\_\_\_\_\_ eyes a\_\_\_\_\_ brown ha\_\_\_\_\_. Mum i\_\_\_\_\_ very s\_\_\_\_\_ and frie\_\_\_\_\_. She we\_\_\_\_\_ glasses. S\_\_\_\_\_ has g\_\_\_\_\_ blue ey\_\_\_\_\_ and blo\_\_\_\_\_ hair. O\_\_\_\_\_ parents ha\_\_\_\_\_ 3 children. T\_\_\_\_\_ smallest ch\_\_\_\_\_ is Daisy Miller. M\_\_\_\_\_ older sister, Anna, has got grey eyes. My brother Charlie is short but he is pretty kind.

**/20 points**

**Text2) Have you got animals?**

Our Hungarian family have got 8 animals. My par\_\_\_\_\_ bought 2 sm\_\_\_\_\_ dogs 2 ye\_\_\_\_ ago. Th\_\_\_\_\_ names a\_\_\_\_\_ Bolhás and Dundi. Emma fo\_\_\_\_\_ a black-wh\_\_\_\_\_ cat o\_\_\_\_\_ the str\_\_\_\_\_. It i\_\_\_\_\_ very sle\_\_\_\_\_. Kata has g\_\_\_\_\_ a blue- yel\_\_\_\_\_ budgie. Alfonz bou\_\_\_\_\_ a black rab\_\_\_\_\_ and a gr\_\_\_\_\_ parrot. O\_\_\_\_\_ grandmother h\_\_\_\_\_ a brown ho\_\_\_\_\_ - Lujzi. Sarah adopted a gr\_\_\_\_\_ pig. They love their animals!

**/20 points**

**Text 3) Hobbies, free-time**

Molly and Kirk are siblings. Molly likes sp\_\_\_\_\_ and s\_\_\_\_\_ plays ten\_\_\_\_\_ with h\_\_\_\_\_ friends. Molly lo\_\_\_\_\_ music a\_\_\_\_\_ she c\_\_\_\_\_ play t\_\_\_\_\_ piano. Molly usu\_\_\_\_\_ goes t\_\_\_\_\_ a dance sch\_\_\_\_\_. Molly has g\_\_\_\_\_ classes o\_\_\_\_\_ Thursdays. Kirk li\_\_\_\_\_ computer ga\_\_\_\_\_. He of\_\_\_\_\_ plays foot\_\_\_\_\_. Kirk has trai\_\_\_\_\_ every Tue\_\_\_\_\_. He norm\_\_\_\_\_ goes swimming with friends on Saturday. He doesn't play a musical instrument but he collects football cards.

**/20 points**

**Text 4) Maria's home**

My name is Maria and I would like to show you my home. There i\_\_\_\_\_ a hall , a li\_\_\_\_\_ room a\_\_\_\_\_ a toilette. I\_\_\_\_\_ has 3 bedr\_\_\_\_\_, a bathroom, a din\_\_\_\_\_ room . W\_\_\_\_\_ are a\_\_\_\_\_ home to\_\_\_\_\_. My sis\_\_\_\_\_ is i\_\_\_\_\_ the kit\_\_\_\_\_. She i\_\_\_\_\_ making lu\_\_\_\_\_ now. M\_\_\_\_\_ parents a\_\_\_\_\_ sitting o\_\_\_\_\_ the bal\_\_\_\_\_ and th\_\_\_\_\_ are rea\_\_\_\_\_ a book. I am in my own room. I have got a new laptop and I am buying some games.

**/20 points**

**Text5) Kinga's school**

Hello! My name is Kinga. I am i\_\_\_\_\_ class 8A a\_\_\_\_\_ Priory School. The teac\_\_\_\_\_ are ni\_\_\_\_\_. My favo\_\_\_\_\_ subjects a\_\_\_\_\_ Geography a\_\_\_\_\_ Physics. I a\_\_\_\_\_ good a\_\_\_\_\_ English b\_\_\_\_\_ I am b\_\_\_\_\_ at Chem\_\_\_\_\_. Biology i\_\_\_\_\_ great o\_\_\_\_\_ Thursday wi\_\_\_\_\_ Mrs. Jenkins. We ha\_\_\_\_\_ got foot\_\_\_\_\_ matches ev\_\_\_\_\_ Monday wi\_\_\_\_\_ Mr. Perkins. I like h\_\_\_\_\_ trainings. My favourite day is Friday. I have only 5 classes.

**/20 points**

**KEYS**

**Text 1) David's family**

Let me introduce my family. My **dad** is **tall** and **slim**. He **has** big **green** eyes **and** brown **hair**. Mum **is** very **shy** and **friendly**. She **wears** glasses. **She** has **got** blue **eyes** and **blonde** hair. **Our** parents **have** 3 children. **The** smallest **child** is Daisy Miller. **My** older sister, Anna, has got grey eyes. My brother Charlie is short but he is pretty kind.

### Text2) Have you got animals?

Our Hungarian family have got 8 animals. My **parents** bought 2 **small** dogs 2 **years** ago. **Their** names **are** Bolhás and Dundi. Emma **found** a black-**white** cat **on** the **street**. It **is** very **sleepy**. Kata has **got** a blue- **yellow** budgie. Alfonz **bought** a black **rabbit** and a **green** parrot. **Our** grandmother **has** a brown **horse**- Lujzi. Sarah adopted a **grey** pig. They love their animals!

### Text 3) Hobbies, free-time

Molly and Kirk are siblings. Molly likes **sport** and **she** plays **tennis** with **her** friends. Molly **loves** music **and** she **can** play **the** piano. Molly **usually** goes **to** a dance **school**. Molly has **got** classes **on** Thursdays. Kirk **likes** computer **games**. He **often** plays **football**. Kirk has **trainings** every **Tuesday**. He **normally** goes swimming with friends on Saturday. He doesn't play a musical instrument but he collects football cards.

### Text 4) Maria's home

My name is Maria and I would like to show you my home. There **is** a hall, a **living** room **and** a toilette. **It** has 3 **bedrooms**, a bathroom, a **dining** room. **We** are **at** home **today**. My **sister** is **in** the **kitchen**. She **is** making **lunch** now. **My** parents **are** sitting **on** the **balcony** and **they** are **reading** a book. I am in my own room. I have got a new laptop and I am buying some games.

### Text5) Kinga's school

Hello! My name is Kinga. I am **in** class 8A **at** Priory School. The **teachers** are **nice**. My **favourite** subjects **are** Geography **and** Physics. I **am** good **at** English **but** I am **bad** **at** **Chemistry**. Biology **is** great **on** Thursday **with** Mrs. Jenkins. We **have** got **football** matches **every** Monday **with** Mr. Perkins. I like **his** trainings. My favourite day is Friday. I have only 5 classes.

## APPENDIX 6. Multilingual Competence Test.

### Appendix 6/A. MCT, PART 1.

#### Többsnyelvűséget mérő teszt. 1.rész

1.feladat: Töltsd ki a táblázatot a hiányzó szavakkal. Gondolj minden esetben arra, hogy a német és az angol szavak mennyire hasonlítanak.

ANGOL /ENGLISH	NÉMET /DEUTSCH	MAGYAR
1.	MUTTER	
2. COFFEE		
3.		HAJ
4.	TRINKEN	
5. MILK		
6.		HOTEL
7.	SCHULE	
8. FRIEND		

9.		ALMA
10.	BLAU	
11. GRANDFATHER		
12		FIA
13	NEUN	
14 LEARN		
15		BANÁN
16	KÜCHE	
17 WATER		
18		MACSKA

/36 pont

2. feladat: 2 mondat a 3-ból ugyanazt jelenti. A feladat 3 részből áll (a,b,c). Minden résznél 2 feladatod van.

1.Húzd alá a három mondat közül azt a kettőt, ami ugyanazt jelenti.

2.Ird le az okot, amiért a 2 mondat ugyanazt jelenti.

a)

- 1.A fiú éppen egy könyvet olvas.
- 2.The boy is reading a book.
- 3.Der Junge hat ein Buch gelesen.

Azért jelenti a kettő mondat ugyanazt, mert

---

b)

- 1.A kislány nem szívesen eszik gyümölcsöt.
2. The girl likes eating fruit.
- 3.Das Mädchen isst gerne Obst.

Azért jelenti a kettő mondat ugyanazt, mert

---

c)

- 1.Bocsánat, hol találom a kórházat?
- 2.Excuse me, where is the hospital?
- 3.Entschuldigung, wo ist das Hospital?

Azért jelenti a kettő mondat ugyanazt, mert

---

/9points

3.feladat: Minden mondatban van egy hiba. Minden nyelven 2 mondatot olvashatsz. Ki tudod javítani a 6 mondatban a hibákat?

**1) I have a dog big.**

a) Írd le helyesen a mondatot:

---

b) Miért volt rossz az eredeti mondat?

---

**2) Testvéreim van.**

a) Írd le helyesen a mondatot.

---

b) Miért volt rossz az eredeti mondat?

---

**3) Meine Oma leste gerne.**

a) Írd le helyesen a mondatot.

---

b) Miért volt rossz az eredeti mondat?

---

**4) He don't understand me.**

a) Írd le helyesen a mondatot.

---

b) Miért volt rossz az eredeti mondat?

---

**5) Veszem egy kenyeret.**

a) Írd le helyesen a mondatot.

.....

b) Miért volt rossz az eredeti mondat?

---

**6) Ich habe ein Geschenk bekam.**

a) Írd le helyesen a mondatot.

.....

b) Miért volt rossz az eredeti mondat?

---

/18 pont

4.feladat

a) Fordítsd le az angol szöveget magyarra.

**This is Peter. He is seven years old. He has a sister who is younger than him. She is only five years old and her name is Anne. Peter and his sister live in England with their mother and father. Peter's parents are teachers. They live in a big house with a beautiful garden. In the garden there is an old tree and there are many flowers. In his free time Peter likes playing football with his friends. Anne likes reading.**

**MAGYAR FORDÍTÁS:**

.....  
.....  
.....  
.....  
.....

/6 pont

b) Válaszold meg a német kérdéseket, amelyek az angol szöveghez kapcsolódnak.

**Wie alt ist Peter?** .....

**Hat Peter eine Schwester oder einen Bruder?**

.....

**Wo lebt Peter mit seiner Familie?** .....

**Was sind Peters Eltern von Beruf?** .....

**Was macht Peter gern in der Freizeit?** .....

/5pont

**Part I.,key**

**Multicompetence test for Hungarian learners**

**1.task: Fill in the chart with the missing words. Think about the similarities between the words in English and in German.**

ANGOL /ENGLISH	NÉMET /DEUTSCH	MAGYAR
1.mother	MUTTER	anya
2.SHOE	Schuhe	cipő
3.hair	Haare	HAJ
4.drink	TRINKEN	inni
5. MILK	Milch	tej
6.hotel	Hotel	HOTEL
7.school	SCHULE	iskola
8. FRIEND	Freund	barát
9.kangaroo	Kenguru	KENGURU
10.apple	APFEL	alma
11. GRANDFATHER	Großvater	nagypapa
12 son	Sohn	FIA
13 blue	BLAU	kék
14 NINE	neun	kilenc
15 garden	Garten	KERT
16 ice	EIS	jég
17 GUEST	Gast	vendég
18 seven	sieben	HÉT (SZÁM)
19 foot	FUß	lábfej
20 WATER	Wasser	víz
21 rose	Rose	RÓZSA
22 bed	BETT	ágy
23 BREAD	Brot	kenyér
24 swim	schwimmen	ÚSZNI

**2.task :2 out of 3 sentences are similar. Underline the right sentences from a to c. Please give a reason why the chosen sentences have the same meaning.**

a)

- 1.A fiú éppen egy könyvet olvas.
- 2.The boy is reading a book.
- 3.Der Junge gerade ein Buch gelesen.

The chosen sentences are similar because

Both sentences have the meaning of the reading activity and they have a grammatically correct and similar structure in English and Hungarian.

b)

- 1.A kislány nem szívesen eszik gyümölcsöt.

- 2. *The girl likes eating fruits.*
- 3. *Das Mädchen isst gerne Obst.*

The chosen sentences have the same meaning because

they refer to affirmative sentence with the meaning of eating fruits meanwhile the Hungarian sentence is a negative sentence 'doesn't like eating fruits'

c)

- 1. *Bocsánat, hol találom a kórházat?*
- 2. Excuse me, who is the hospital?
- 3. *Entschuldigung, wo ist das Hospital?*

The chosen sentences have the same meaning because the meaning of the Hungarian and the German sentences is similar and means that „where is the hospital”.

**3.task: The sentences are in Hungarian, German and English. Each sentence has got 1 mistake. Can you find out the error? Can you name the mistake?**

1) I have a dog big.

a) Write down the right sentence.

***I have a big dog***

b) Why was the sentence wrong? Give a reason.

**The order of the sentence structure is not correct.**

2) Vannak testvérem.

a) Write down the right sentence.

***Vannak testvéreim.***

b) Why was the sentence wrong?

**The inflection of testvérem is not correct in the Hungarian sentence because one needs to coordinate the possessive with the appropriate form of the inflected verb.**

3) Meine Oma leste gerne.

a) Write down the right sentence.

***Meine Oma las gerne/liest gerne.***

b) Why was the sentence wrong? Give a reason.

**Leste is not the appropriate past form of the verb lesen.**

4) He dont understand me.

a) Write down the right sentence.

***He doesn't understand me.***

b) Why was the sentence wrong? Give a reason.

**the negative form of does is does not and one needs to correlate the personal noun with the correct form of do or does.**

5) Pénzeim sok van.

a) Write down the right sentence.

***Sok pénzem van.***

b) Why was the sentence wrong? Give a reason.

**The word order is not good and the inflection of pénzeim is not right.**

6) Ich habe ein Geschenk bekam.

a) Write down the right sentence.

***Ich bekam ein Geschenk***

b) Why was the sentence wrong? Give a reason.

**The past form of bekommen is bekam or ich habe bekommen**

#### **4. task:**

**a) Translate the text into Hungarian.**

This is Peter. He is seven years old. He has a sister who is younger than him. She is only five years old and her name is Anne. Peter and his sister live in England with their mother and father. Peter's parents are teachers. They live in a big house with a beautiful garden. In the garden there is an old tree and there are many flowers. In his free time Peter likes playing football with his friends. Anne likes reading.

**HUNGARIAN TRANSLATION:**

**Ő itt Péter. 7 éves. Van egy lánytestvére, aki fiatalabb nála. Ő csak 5 éves és Anna a neve. Péter és a testvére Angliában élnek a szüleikkel. Péter szülei tanárok. Egy nagy házban élnek egy csodás kerttel. A kertben van egy öreg fa és sok virág. A szabadidejében Péter szeret focizni a barátaival. Anna szeret olvasni.**

**b) Answer the questions in German. The English text may help you.**

Wie alt ist Peter? **Peter ist 7 Jahre alt.**

Hat Peter Geschwister? **Ja. Peter hat eine Schwester.**

Wo lebt Peter mit der Familie? **Sie leben in England.**

Was sind Peter Eltern von Beruf? **Sie sind Lehrer von Beruf.**

Was macht Peter gern in der Freizeit? **Er spielt gern Fußball.**

**APPENDIX 6/B. MCT/2.part with keys.**

**Töbnyelvűséget mérő teszt, 2.RÉSZ**

5) Nézd meg a következő mondatokat. Megérted, miről szólnak? Le tudod fordítani a buborékban lévő kérdést és választ MAGYAR-ra? A képek segítenek.



---

---

A: Ik ben Anna. Ik kom uit Amsterdam. B: Ik kom ook uit Amsterdam.

---

/4pont

c) Meg tudom érteni, hogy mi van a párbeszédben, mert:

---

---

---

/2pont

6a) Össze tudod kötni a holland és svéd szavakat némettel? Mi segít neked?

Kösd össze!

en koffie

en boek

en hus

met

syster

en cykel

läser

køkken

kan

kat

spejl

spisekortet



/10pont




b)Össze tudom kötni a szavakat,mert:

---

---

/2pont

7.feladat: Kösd össze a dán mondatokat a megfelelő német mondatokkal.

Fisken lugter darligt.	Das Ei schmeckt verdorben. 
Kaffen lugter godt.	Die Suppe schmeckt versalzen. 
Suppen smager for saltet.	Der Fisch riecht schlecht. 

<p>A Egget smager raddent.</p>	<p>Der Kaffee riecht gut.</p> 
--------------------------------	---

/4 pont

b): Össze tudom kötni a mondatokat, és értek néhány szót, mert:

---



---

/2 pont

8. feladat: A következő mondatok spanyolul vannak. Mit jelenthetnek magyarul a mondatok? Mi segít a megértésben?



¿Cuál es tu número de teléfono?

---



Esta nevando

---



Soy de Bozen, de Italia.

---

/3 pont

Ami segített a megértésben, az, hogy:

---



---

/2 pont

9. Össze tudod kötni a bal oldali spanyol mondatokat a jobb oldali magyar mondatokkal?

No entiendo.

Olaszok vagyunk.

Es muy fácil.

Antonio a konyhában van.

Antonio está en la cocina.

Nem értem.

Antonio es el padre de mi amiga

Ez nagyon könnyű.

Somos italianos.

Antonio a barátnőm apukája.

ami segített az összekötésben, az, hogy:

---

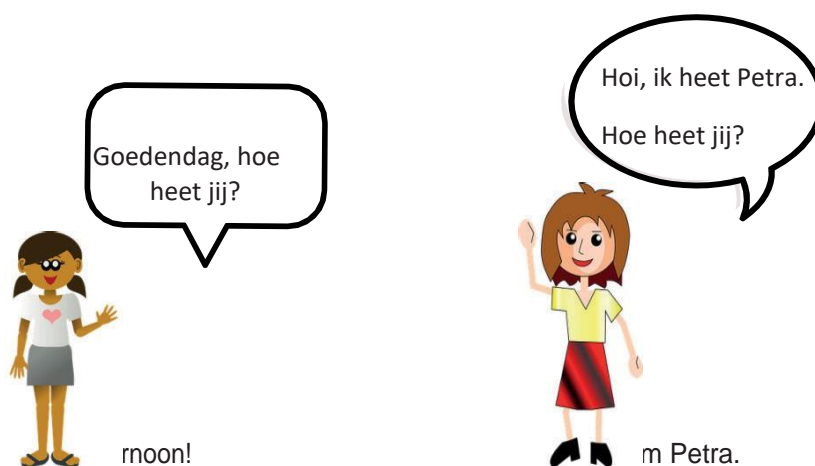
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/2pont

### Multicompetence test, 2.part

### KEYS

5) The dialogue is in Dutch. Can you translate?



What is your name?

What is your name?

**A: Ik ben Anna. Ik kom uit Amsterdam.** -I am Anna. I come from AMSTERDAM.

**B: Ik kom ook uit Amsterdam.**-I come from Amsterdam, too.

*I can understand the sentences and the dialog because: There are certain words which are similar to the German in the Dutch dialogue like Godendag, hoi, heet. Moreover, there are some parts of the dialogue 2 in which I recognize known words from German like Ik ben, ik kom.*

**Task 6) Can you match the Dutch and Swedish words with the German? Not every word has a pair.**

en koffie en boek en hus met syster en cykel läser kØkken kankat spejl  
spisekortet

MS Aufgabe: Maximale Punktezahl: 10



en koffie = ein Kaffee, en boek = ein Buch, en hus = ein Haus ,met = mit  
syster = Schwester ,en cykel = ein Fahrrad, kØkken = Küche,kat = Katze  
spejl = Spiegel,spisekortet = Speisekarte

**I can match the words because:**

*Students can gain 0-1-2 points. Students need to be aware of the en/ein which helps them with matching. Then the similarities between the outer forms of words. Dutch words may resemble the English language that supports the matching exercise.*

**Task 7) Match the Dutch sentences with the German equivalents.**

Fisken lugter darligt.(Der Fisch...)	Das Ei schmeckt verdorben.
--------------------------------------	----------------------------

	
Kaffen lugter godt. (Der Kaffee...)	Die Suppe schmeckt versalzen. 
Suppen smager for saltet. (Die Suppe.... )	Der Fisch riecht schlecht. 
AEgget smager raddent (Das Ei...)	Der Kaffee riecht gut. 

**MV: I can match the Dutch and German sentences because:**

*Students can gain 0-1-2 points. The similarities between Dutch and German can help students to match the sentences. They can highlight the power of pictures but they should highlight the words what they recognize.*

**Task 8) The following sentences are in Spanish. What is the meaning of the sentences? (Watch the pictures.)**



¿Cuál es tu número de telefono?

What is your phone number?



Está nevando!

It is snowing!



Soy de Roma,  
de Italia.

I come from Rome, in Italy.

**I can translate the sentences because:**

Students can gain 0-1-2 points. The form of the words may help students to translate the sentences. They should recognize the pictograms/pictures that can support the understanding of the task. Pupils see the similarities between words of Spanish and English (telefonó, Italian,,,) but they have never learnt Spanish

**9.Can you match the Spanish sentences with the Hungarian ones?**

Match the sentences!

No entiendo.	Olaszok vagyunk.
Es muy fácil.	Antonio a konyhában van.
Antonio está en la cocina.	Nem értem.
Antonio es el padre de mi amiga.	Ez nagyon könnyű.
Somos italianos.	Antonio a barátnőm apukája.

**No entiendo- nem értem**

**es muy facil- nagyon könnyű**

**ANTONIO es el padre- ANTONIO a barátnőm apukája**

**Antonio esta en la cocina.Antonio a konyhában van.**

**Somos italianos- Olaszok vagyunk**

**I can match and I can understand a few words because:**

students can gain 0-1-2. As Hungarian pupils learn German and English, they should rely on their L2 and L3 to solve this task. They need to search for similar words like italianos (italian) padre (father),no(eng no,hungarian nem) They focus on form and meaning.

Literature: Hofer and Jessner (2019): Mehr-Sprachig-Kompetent, MSK 9-12, Mehrsprachige Kompetenzen fördern und evaluieren. Studia Verlag, Innsbruck.

**APPENDIX 7.Motivational questionnaire**

**Motivational questionnaire /Motivációs kérdőív**

The following questions aim to investigate your motivation in your two foreign languages. Please mark whether you agree or not with the following affirmative sentences.

Codes: 1=certainly not agree, 2=not agree, 3=agree, 4=totally agree

**IMPORTANT: put an X in the circle of what is right for you.**

Thanks for your cooperation!

---

1. Nekem nagyon tetszik az angol nyelv. ①-②-③-④  
I think that I really like English.
2. Nekem nagyon tetszik a német nyelv. ①-②-③-④  
I think that I really like German.
3. Az angol nyelvet tudni számomra haszontalan dolog. ①-②-③-④  
I feel that knowing English is useless for me.
4. A német nyelvet tudni számomra haszontalan dolog. ①-②-③-④  
I feel that knowing German is useless for me.
5. Szüleim fontosnak tartják, hogy tudjak angolul. ①-②-③-④  
My parents consider it important to know English.
6. Szüleim fontosnak tartják, hogy tudjak németül. ①-②-③-④  
My parents consider it important to know German.
7. Érdekelnek azok az emberek, akik angolul beszélnek. ①-②-③-④  
I am interested in people who can speak English.
8. Érdekelnek azok az emberek, akik németül beszélnek. ①-②-③-④  
I am interested in people who can speak German.
9. Érdekelnek az angol nyelvű filmek és a popzene. ①-②-③-④  
I am interested in films and music in English.
10. Érdekelnek a német nyelvű filmek és a popzene. ①-②-③-④  
I am interested in films and music in German.
11. Az angol nyelv órái szörnyen unalmasak. ①-②-③-④  
I think that English classes are quite boring.
12. A német nyelv órái szörnyen unalmasak. ①-②-③-④  
I think that German classes are quite boring.
13. Nekem nincs jó nyelvérzékem, reménytelen nyelvtanuló vagyok. ①-②-③-④  
I am not good at learning languages, I am a hopeless language learner.
14. Könnyen tanulom az angolt. ①-②-③-④  
I think that I can learn English easily.
15. Könnyen tanulom a németet. ①-②-③-④  
I think that I can learn German easily.
16. Több szorgalom és akarat kellene, hogy sikeresebb legyek angolból. ①-②-③-④  
I would need to work much harder in order to be more successful in English.
17. Több szorgalom és akarat kellene, hogy sikeresebb legyek németből. ①-②-③-④

I would need to work much harder in order to be more successful in German.

18. Akárhogy tanulok, nem tudok jobban teljesíteni angol nyelvből. ①-②-③-④  
I cannot achieve better results in English even though I make a lot of effort.
19. Akárhogy tanulok, nem tudok jobban teljesíteni német nyelvből. ①-②-③-④  
I cannot achieve better results in German even though I make a lot of effort.
20. Szabadidőmben szívesen foglalkozom angollal. ①-②-③-④  
I use English in my free time.
21. Szabadidőmben szívesen foglalkozom némettel. ①-②-③-④  
I use German in my free time.
22. Az angol nyelv tanulásában gyakran érnek kudarcok. ①-②-③-④  
I have problems with learning English.
23. A német nyelv tanulásában gyakran érnek kudarcok. ①-②-③-④  
I have problems with learning German.
24. Az angol nyelvórákon félek a szóbeli feleléstől. ①-②-③-④  
I am afraid of the oral test during the English lessons.
25. A német órákon félek a szóbeli feleléstől. ①-②-③-④  
I am afraid of the oral test during the German lessons.
26. Rossz tankönyvből tanuljuk az angol nyelvet. ①-②-③-④  
I think we learn English from the wrong course book.
27. Rossz tankönyvből tanuljuk a német nyelvet. ①-②-③-④  
I think we learn German from the wrong course book.
28. Angoltanárunk jól felkészült és lelkes. ①-②-③-④  
I find our English teacher is well-prepared and enthusiastic.
29. Némettanárunk jól felkészült és lelkes. ①-②-③-④  
I find our German teacher is well-prepared and enthusiastic.
30. Angoltanárunk szigorú velünk. ①-②-③-④  
I think that our English teacher is really strict.
31. Némettanárunk szigorú velünk. ①-②-③-④  
I think that our German teacher is really strict.
32. Angoltanárunk igazságos. ①-②-③-④  
I think that our English teacher is fair(-minded).
33. Némettanárunk igazságos. ①-②-③-④  
I think that our German teacher is fair(-minded).
34. Angoltanárunk, úgy gondolom, nem kedvel engem. ①-②-③-④  
I think that our English teacher does not like me.

35. Némettanárunk, úgy gondolom, nem kedvel engem. ①-②-③-④  
I think that our German teacher does not like me.
36. Angoltanárunk magyarázatát sose értem. ①-②-③-④  
I never understand the explanations of our English teacher.
37. Némettanárunk magyarázatát sose értem. ①-②-③-④  
I never understand the explanations of our German teacher.
38. Angoltanárunk csak a hibát keresi. ①-②-③-④  
I think that our English teacher is always looking for errors.
39. Némettanárunk csak a hibát keresi. ①-②-③-④  
I think that our German teacher is always looking for errors.

**VÉGE./THE END.**

**Köszönöm szépen, hogy segítetted a kutatásomat a kitöltéssel!**

**Thanks for your help!**

Appendix 8. C-test German as L3, 8<sup>th</sup> graders. (Student's sample task.)

Kode: 29  
Klasse: 8 b  
Datum: \_\_\_\_\_

C-Test: Deutsch als L3, 8.Klasse

**UTASÍTÁS: 5 szöveget láttok. A szövegek második mondatától kezdve minden második szó második fele(!) hiányzik. Kérlek, hogy egészítsétek ki a szavakat. A vonalak egyenlő hosszúságúak (\_\_\_\_\_) minden kihagyott szóész esetében. 20 db üres hely van. A példa segít. A páratlan betűszámnál kevesebb fele van megadva a szónak. (he \_\_\_-->heute)**

Példamondat: Ich es \_\_\_\_\_ gern Schok \_\_\_\_\_ → Ich esse gern Schokolade.

---

**Text1) Das Leben von Sophie**

Ich heiße Sophie. Ich komme a us München und ich ge ht in die Johann Sebastian Bach Grundsch ule. Ich bin ni cht gut in Matematik und in Engl isch. Sport und Mu sik sind super. I ch habe 6 oder 7 Stu nden jeden Tag. I m meiner Freizeit spi ele ich Gitarre u nd ich schwimme ge ru. Ich koche u nd backe gern. I ch gehe ins Ki chen oder ich fa hr Rad. Ich he be meinen Eltern i dem Garten im Som mer. Wir haben viele Blumen und Bäume. 13/20

**Text2) Familie von Philip**

Ich bin Philip und das ist meine Familie. Wir wohnen i n Ungarn aber wir kom men aus Österreich. Meine Mut ter ist Ärztin. S ie arbeitet im Markusovszky Krankenha us. Mein Vater i st Lehrer. Er lehrt i n der MOZART Grundschule. Me ine Schwester, Annabelle schwimmt ge ht und sie spi ele Gitarre. Lars, mein Bru der ist 8 Jahre a lt. Er spielt Ten nis und er h at einen Computer. W ir sind zusammen m it meiner Familie a us Sonntag. Wir fah ren oft in d ie Bergen im Sept ember. Dort können wir Urlaub machen. 13/20

Appendix 9. English L2, 8TH GRADERS. Student's sample task.

15 ANG 1

Code: 16  
Class: 8b  
Date: \_\_\_\_\_

**C-Test English as L2**  
8<sup>th</sup> grade

**UTASÍTÁS:** 5 szöveget láttok. A szövegek második mondatától kezdve minden második szó második fele(!) hiányzik. Kérlek, hogy egészítsétek ki a szavakat. A vonalak egyenlő hosszúságúak (\_\_\_\_\_) minden kihagyott szórész esetében. Összesen **25 percet**ek van a szövegek kiegészítésére. Nyugodtan vissza lehet térni a szövegekre, nem egymás utáni sorrendben kell kiegészíteni.

**PÉLDA:** I am from Hungary and I can speak English. → I am **from** Hungary and I **can** speak **English**.

---

**Text 1) Books**

Hungarian teenagers like reading even today. Girls and boys love various books. Girls enjoy reading love stories on fiction. They usually read "Sense and Sensibility" (Értelem és érzelem) "The Princess Diaries" (Neveletlen hercegnő) or Vampire Diaries (Vámpírnaplók). Boys like really about different topics. Their favourites are fiction, reality or crime stories. Teen agers like the adventures of Harry Potter, the Lord of the Rings, Egri Csillagok. They have to know novels by Hungarian writers, like Imre Madách, Mór Jókai or Kálmán Mikszáth at school. Pupils can also use e-book readers in our 21<sup>st</sup> century.

15 /20points

**Text 2) Ambitions**

My name is Tommy. I would like to be a famous actor. One of my favorite stars is Johnny Depp. He has appeared in various films like Chocolate, Charlie and the Chocolate Factory, or Alice in Wonderland. His wife is called Vanessa Paradis and they have got 2 children. Johnny Depp, Keira Knightley and Orlando Bloom have played roles in the Pirates of the Caribbean movie series. I want to be a actor later on. It is really inspiring for me!

18 /20points

Appendix 10. MCT test. Part 1. Task 1.

53,5  
MS: 47,5  
MV 6

47,5  
24  
71,5

Name: 12

Class: 8

Date: 2022.04.20

**Töbnyelvűséget mérő teszt. 1.rész**

**1.feladat:** Töltsd ki a táblázatot a hiányzó szavakkal. Gondolj minden esetben arra, hogy a német és az angol szavak mennyire hasonlítanak.

ANGOL /ENGLISH	NÉMET /DEUTSCH	MAGYAR
1. Mother ✓	MUTTER	anya ✓
2. COFFEE ✓	<del>Coffe</del> -	kávé ✓
3. Kérem ✓	Kaese ✓	HAJ ✓
4. Drink ✓	TRINKEN ✓	inni ✓
5. MILK ✓	Milch ✓	tej ✓
6. Hotel ✓	Hotel ✓	HÓTEL ✓
7. School ✓	SCHULE ✓	iskola ✓
8. FRIEND ✓	Freunden ✓	barátok ✓
9. Apple ✓	Apfel ✓	ALMA ✓
10. blue ✓	BLAU ✓	kék ✓
11. GRANDFATHER ✓	Grasfather ✓	nagypapa ✓
12. son ✓	-	FIA ✓
13. New ✓	NEUN ✓	új ✓
14 LEARN ✓	o	tanulni ✓
15. ✓	Banane ✓	BANÁN ✓
16. Kitchen ✓	KÜCHE ✓	konyha ✓
17 WATER ✓	Wasser ✓	víz ✓
18 Cat ✓	Katze ✓	MACSKA ✓

30/36 pont

**Appendix 11. MCT. Part 1, task 2. Student's sample task.**

2. feladat: 2 mondat a 3-ból ugyanazt jelenti. A feladat 3 részből áll (a,b,c). Minden résznél 2 feladatod van.

1. Húzd alá a három mondat közül azt a kettőt, ami ugyanazt jelenti.

2. Ird le az okot, amiért szerinted a mondat hibás.

a)

1. A fiú éppen egy könyvet olvas.
2. The boy is reading a book.
3. Der Junge hat ein Buch gelesen.

Azért jelenti a kettő mondat ugyanazt, mert

b)

1. A kislány nem szívesen eszik gyümölcsöt.
2. The girl likes eating fruit.
3. Das Mädchen isst gerne Obst.

Azért jelenti a kettő mondat ugyanazt, mert az 1. mondatla van tagadás a többi pedig nincs

c)

1. Bocsánat, hol találom a kórházat?
2. Excuse me, where is the hospital?
3. Entschuldigung, wo ist das Hospital?

Azért jelenti a kettő mondat ugyanazt, mert

Appendix 12.MCT.Part I. task 3.Student's sample task.

points

3) **Meine Oma leste gerne.**

a) Ird le helyesen a mondatot.

Meine Oma liest gern ✓ 1

b) Miért volt rossz az eredeti mondat?

Mert rossz volt az ígéragósi ✓ 1

4) **He don't understand me.**

a) Ird le helyesen a mondatot.

He doesn't understand me ✓ 1

b) Miért volt rossz az eredeti mondat?

Ø

5) **Veszem egy kenyeret.**

a) Ird le helyesen a mondatot.

Vérek egy kenyeret ✓ 1

b) Miért volt rossz az eredeti mondat?

Rossz volt az ígéragósi ✓ 1

Appendix 13. MCT. Part I. Task 4. Students's sample task.

6) Ich habe ein Geschenk bekam.

a) Ird le helyesen a mondatot.  
Ich habe ein Geschenk bekommen ✓ 1

b) Miért volt rossz az eredeti mondat?  
Az ige nem volt az igenyelvű. ✓ 1

#4 /18 pont

**4.feladat**

a) Fordítsd le az angol szöveget magyarra.

This is Peter. He is seven years old. He has a sister who is younger than him. She is only five years old and her name is Anne. Peter and his sister live in England with their mother and father. Peter's parents are teachers. They live in a big house with a beautiful garden. In the garden there is an old tree and there are many flowers. In his free time Peter likes playing football with his friends. Anne likes reading.


**MAGYAR FORDÍTÁS:**

Ö Peter. Ö hét éves. Nekik van egy lánytestvére fiatalabb.  
 Ö csak öt éves és az ő neve Anna. Peter is testvére Angliába  
 élnek anyukájukkal és apukájukkal. Peter szereti tanítani.  
 Ők egy nagy házba élnek egy csodaszép kerttel. A kert  
 3 éves és vannak benne virágok. Peter szabadidejében

Appendix 14. MCT. Part II. Task 1. Student's sample task.

MS:  $25 + 40 = 65$   
 MV:  $2 + 0 = 02$   
 27

Monogram: 10  
 Class: 71B  
 Date: 04.27


c) Me  
 mert:  
  
 6) A  
 a m

**Többsnyelvűséget mérő teszt, 2.rész**


Ez a tesztfeladat második része. 45 percig írhatjátok a tesztet.

5) A következő párbeszéd holland nyelven van, ami a németre is és az angolra is nagyon hasonlít.

a) Írd le a vonalakra, mit jelentenek a buborékban lévő mondatok.



Goedendag, hoe heet jij?



Hoi, ik heet Petra.  
Hoe heet jij?

jó napot(!), hogy hívják?

Petrának hívnak Est) téged?

b) Mit jelentenek a mondatok?

A: Ik ben Anna. Ik kom uit Amsterdam. / B: Ik kom ook uit Amsterdam

Anna vagyok.  
Amsterdammból jöttem

Amsterdammból jöttem

4 /4 pont

Appendix 15. MCT.Part II. Task 6. Students's sample task.

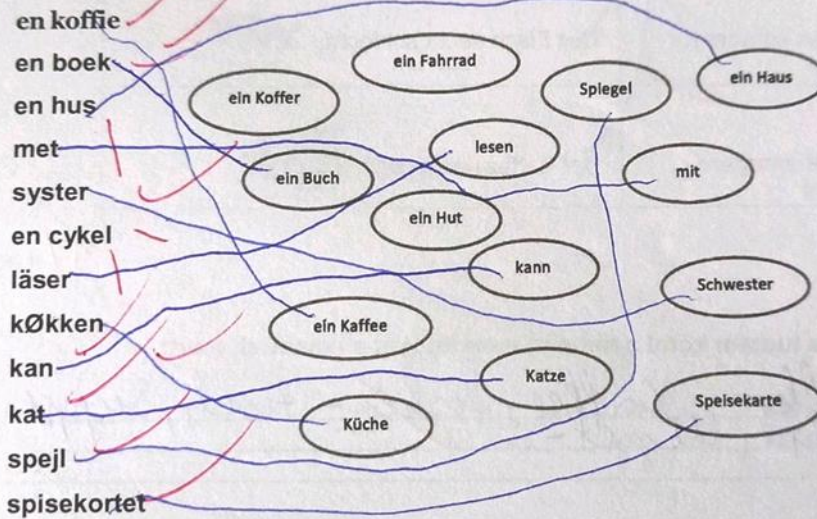
c) Meg tudom érteni a párbeszédet a buborékokban és alatta a mondatokat, mert:

It good to understand, it is similar to the German language  
(it is not hard)

1/2 pont

6) A baloldalon holland és svéd szavakat látsz. Össze tudod kötni ezeket a megfelelő német szavakkal?

a) Kösd össze a szavakat! Nincs mindegyiknek párja.



9/10 pont

b) Össze tudtam kötni a szavakat, mert:





hasonlítottak egymásra

0/2pont

Appendix 16. MCT.Part II. Task 7. Student's sample task.

7) A baloldalon hollandul, míg a jobb oldalon németül látsz mondatokat.

a) Kösd össze!

Fisken lugter darligt.	Das Ei schmeckt verdorben. 
Kaffen lugter godt.	Die Suppe schmeckt versalzen. 
Suppen smager for saltet.	Der Fisch riecht schlecht. 
AEgget smager raddent.	Der Kaffee riecht gut. 

4/ 4 pont

b) Össze tudtam kötni a holland mondatokat a némettel, mert:

Kaffen - Kaffee, fisken - Fisch, Suppen-  
-Suppe, AEgget - Ei

1/ 2pont

Appendix 17. MCT.Part II. Task 8. Student's sample task.

8) A következő mondatok spanyol nyelven vannak. Mi a jelentése a mondatokat?

a) Írd le a vonalakra a mondatok jelentését magyarul.



¿Cuál es tu número de teléfono?

Mi a telefon számad?



Está nevando!

(Karácsony) Eszik a hó!



Soy de Rome de Italia.

Rómából származom  
ami Olaszországban található

3 3 pont

b) Le tudtam fordítani a mondatokat, mert:

A képek segítettek.

0/ 2pont

Appendix 18. MCT. Part II. Task 9. Students's sample task.

9) A baloldalon spanyol mondatokat látsz, míg a jobb oldalon magyar mondatok vannak.

a) Kösd össze a mondatokat! Mindegyiknek van párja.

No entiendo.	Olaszok vagyunk.
Es muy fácil.	Antonio a konyhában van.
Antonio es el padre de mi amiga.	Nem értem.
Antonio está en la cocina.	Ez nagyon könnyű.
Somos italianos.	Antonio a barátnőm apukája.

5/ 5pont

b) Össze tudtam kötni és értek is pár szót, mert:  
Nagyon könnyűnek a szavak egymáshoz

0/ 2 pont

A teszt második része is véget ért.  
KÖSZÖNÖM A MUNKÁT

27/36