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Empirical and Theoretical Perspectives on Language Learning in CLIL:
Delineating Opportunities & Limitations

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Content

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Last but not least, I would like to thank my parents for their support and encouragement.

Introduction

> Language competencies are part of the core of skills that every citizen needs for training, employment, cultural exchange and personal fulfilment. (European Commission 2003: 7)

As the citation above shows, language knowledge is undoubtedly important in our globalised world. Increased mobility, internationalisation and information society make it necessary that people can also communicate in languages other than their mother tongue (Dalton-Puffer & Smit 2007: 7). Of course, understanding this brings with it the question of how languages can best be taught and learned. Several methods have been proposed throughout history. One method which is on the rise is content and language integrated learning, i.e. CLIL. In CLIL classes, subject content such as biology, history or geography is taught through the medium of a second or foreign language. The aim is to improve both content and target language skills (Maljers, Marsh & Wolff 2007: 7f).

In Europe this setting of language teaching has spread since the 1990s, being promoted by the European Commission in the expectation that it can create multilingualism at a high level (Eurydice 2006: 8). As Dalton-Puffer has pointed out

> "in the discourse of policy makers and educationalists the benefits of CLIL are most frequently conceptualized in terms of generally enhanced learning outcomes, in other words as "more of everything". (Dalton-Puffer 2007a: 275)

Because of this very positive reception of CLIL and because of my general interest in language teaching methodology as I plan to be a language teacher, I decided to investigate CLIL more closely. My analysis of CLIL has been guided by the conviction that no teacher should implement a method and expect "more of everything". Rather, the principles underlying a teaching method as well as the learning opportunities these engender should be explored in detail.[1] Only an analysis of this nature can make teachers aware of a method's particular strengths and enable them to exploit these to the fullest in class. Moreover, only this kind of analysis allows teachers to remedy possible weaknesses and to have realistic expectations of

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[1] As Widdowson (2003: 2f) points out only a teacher who is reflective and knows about the theories underlying his or her teaching practice can react to changing conditions for teaching adequately and can claim professional authority.

the learning which is possible. Considering the great success in language development observed in CLIL programmes, such an in depth investigation of CLIL seems especially worthwhile.

My thesis on language learning in CLIL is divided into three parts. The first part is concerned with presenting key concepts of CLIL. In addition, it traces the development of this teaching method and its place in different educational systems. Thus, chapter 1 of my thesis "Characterising CLIL" provides the foundational knowledge necessary to follow the discussions of the ensuing chapters.

The second part of the paper explores CLIL from the perspectives of different learning theories. Knowledge of theories is important since it is on the level of theory that research outcomes can be comprehended and generalised (Cummins & Swain 1996: 34). Thus, theories allow a deeper understanding of the language learning possible in CLIL to be gained. They have been drawn on to answer the following questions in particular:

- What language learning can be expected to happen in CLIL?
- What explanations do different learning theories provide with respect to those benefits and challenges for learning identified in CLIL?
- Based on these theories, which modifications of CLIL practice could be recommended to improve language learning?

Each chapter in the second part presents the main tenets of a theory and then goes on to discuss the implications for CLIL. All the theories which are discussed have already featured in rationales for CLIL and some of them have even evolved out of research on language learning in CLIL settings. They have been taken from the field of second language acquisition (SLA) research, i.e. are focused on the learning of languages in particular, as well as from developmental psychology. The latter are concerned with learning at a more general level. Considering the integrated nature of language and subject learning aimed for in CLIL, it seems reasonable to look at theories which go beyond language acquisition as well (Dalton- Puffer 2007a: 263f). Each of the theories presented provides new insights and elucidates a different aspect of learning in CLIL.

Chapter 2 on "The monitor model" by Stephen D. Krashen, presents one of the first theories which has been used in rationales of CLIL. This model which has also

influenced the field of SLA considerably emphasises the role of input in a natural learning situation for language development. Chapter 3 "The interaction and the output hypothesis" presents theories which have built on and complemented Krashen. These discuss the role of interaction and output in language learning. Thus, these two chapters look at the CLIL classroom from the perspective of SLA theory, investigating the opportunities for language acquisition CLIL classes afford.

Chapter 4, "Sociocultural theory", then turns towards a theory of developmental psychology, which has recently gained influence in the field of second language acquisition research. As its name already suggests, this theory thinks of learning as a sociocultural act of participation. Therefore, the social and institutional dimensions of the CLIL classroom are focused on in this chapter. This not only allows a different aspect of learning to be explored than in the chapters before. It also reveals how the CLIL classroom creates the learning opportunities and limitations identified by input, interaction and output oriented theories. Chapter 5 "Constructivism" presents another psychological theory. Constructivism considers learning to be a construction of knowledge. This notion of learning and the implications for teaching which have been based on it have shaped ideas of what constitutes "best practice" in education. This best practice is also often promoted in handbooks on CLIL. Consequently, this chapter investigates the CLIL classroom with respect to constructivist ideas of beneficial education. The last chapter in this part concerned with learning theories is devoted to "Cummin's hypotheses on bilingualism". These hypotheses explore the relation between bilingualism and cognition as well as between the different languages in the bilingual's brain. Thus, chapter 6, among other things, makes aware of the effects CLIL can have on the development of cognition.

Finally, based on this information, the last chapter in this part of the thesis, "On the relation between CLIL and regular foreign language teaching", explores the possible functions of CLIL and of regular foreign language teaching in language education.

Ideally, theories guide practice. To know what actually happens in practice, such as in a CLIL classroom, theories have to rely on empirical studies (Dalton- Puffer 2007a: 257). The third part of the thesis is thus devoted to presenting an evaluation study which has been conducted on a new CLIL programme in Vienna called The Dual Language Programme (DLP). The study was carried out collaboratively by my colleague Barbara Unterberger and me in the year 2006/07 when the programme

officially started. It was commissioned by the Vienna Board of Education and conducted at two schools of the lower secondary level in Vienna. The aim of this formative evaluation was to capture the programme organisation as well as the attitudes, impressions and experiences of the different stakeholders involved in the programme. Therefore, factors which seem to influence learning and teaching positively or negatively should be identified.

The following questions guided this study in particular:

- How is this CLIL programme organised?
- Which advantages and problems can be identified in connection with this organisational structure?
- How is the native speaker teacher integrated?
- What expectations and aims are connected to CLIL by the different stakeholders?
- What are the experiences with respect to teaching and learning in the DLP so far?

The results of the study were then presented to the Vienna Board of Education as well as to the schools involved in the study together with concrete recommendations as to how the programme could be improved.

The report on the DLP study which constitutes chapters 8.3 to 14 (pages 69 to 111) of this thesis was written together with my colleague Barbara Unterberger. Therefore, it can also be found in her thesis "CLIL programmes in theory & practice: benefits, objectives and challenges of CLIL & an evaluation of 'The Dual Language Programme'" (2008: 41 - 92).

In chapter 8 "Introducing the evaluation study" the framework of this study is discussed in more detail. Chapter 9 "Organisation of the Dual Language Programme" provides insights into CLIL teacher training, the current organisation of the DLP and organisational problems encountered. Chapter 10 "Teaching in the DLP" is devoted to the teacher's perspective. Lesson objectives, preparation and organisation as well as pleasures and challenges experienced while teaching in the DLP are expounded. Chapter 11"Team teaching" is focused on exploring aspects of this method such as the role allocation between the teachers. Chapter 12"Students in the DLP" presents the teachers' and students' views on language learning in the DLP. In addition the students' satisfaction with the DLP and problems they experience are discussed.

Chapter 13 "The parents' perspective" investigates the parents' motives for registering their child in a CLIL programme. Furthermore it shows the parents' view on their children's learning progress and their satisfaction with the programme. Chapter 14 finally presents the study's core findings and suggestions for improvement which were made.

In conclusion, the paper approaches the question of learning in CLIL from two perspectives. Part two of this thesis investigates learning in CLIL at the level of theory. Part three provides data from CLIL practice. Together these parts hopefully provide a comprehensive picture of CLIL, delineating the conditions which predominate in CLIL as well as the opportunities and challenges for language learning these engender.

PART I - CHARACTERISING CLIL

1. CLIL: a new method of language teaching

This chapter is concerned with defining content and language integrated learning, i.e. CLIL. In the first part, the main characteristics of CLIL are explained. In the second, the place of CLIL in the development of language teaching and in different educational contexts is sketched out. Thus, this chapter aims at clarifying those features of CLIL which are particularly relevant for the understanding of the following chapters.

1.1. Defining CLIL

Dissatisfied with the outcomes of grammar-focused language teaching and inspired by theories about natural language learning, an alternative method for language teaching was created in the 1960s (Brinton, Snow & Wesche [2008]: 7f). This new method of language teaching has tried to further language development by "eliminating the artificial separation between language instruction and subject matter classes" (ibid.: 2). In other words,

> a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language (Mehisto, Marsh & Frigols 2008: 9)

was developed. To refer to this kind of teaching the acronym CLIL (content and language integrated learning) has been coined. In Europe this acronym functions as an umbrella term for the numerous expressions used in different countries and educational settings (Dalton-Puffer & Smit 2007: 7f).[2]

The great number of terms reflects the wide range of CLIL programmes which exist (ibid.). While all these programmes share the feature that subject content is taught in a second or foreign language, CLIL can differ greatly in several aspects. Firstly, the target language can be used for instruction from several minutes a day in short 'language-showers' to 100% of the time as is the case in the Canadian Early French

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[2] Language and content integrated learning is, for example, referred to by the labels: CBI (Content Based Instruction), Immersion Education, Bilingual Teaching, English (French etc.) as a Medium of Instruction and others. The webpage www.english.org mentions over 50 terms in use in different educational settings (Dalton-Puffer & Smit 2007: 7).

Immersion programmes (Mehisto, Marsh & Frigols 2008: 13).[3] Secondly, the programmes can be language or content-driven. In content-driven programmes the subject matter is in the foreground with language acquisition being allowed to happen incidentally as content is learned. In these programmes the content curriculum is not changed to support any language learning goals. Language-driven programmes, on the other hand, emphasise the language aspect (Dalton-Puffer & Smit 2007: 12). Regular foreign language classes which incorporate content from other subject areas but focus on conveying certain language structures could be called language-driven. Thirdly, the intentions underlying the implementation of CLIL can vary considerably. For instance, CLIL might be introduced in order to maintain one or several minority languages. In Wales, for example, CLIL is used to teach Welsh, while the U.S. provides Spanish immersion programmes for children with an immigrant background as well as for English native speakers. Apart from these maintenance and heritage programmes, CLIL can be implemented in order to further the development of mainstream bilingualism. This is called enrichment and means that children who speak a majority language are encouraged to learn another majority language (Baker [2006]: 213 - 215). Fourth, the methodology used in CLIL programmes can vary considerably. For instance, in our study on the Dual Language Programme, Barbara Unterberger and I found that CLIL teachers use very different methods. Some apparently prefer traditional teaching while others like to experiment and to mix methods which usually predominate either in content subject or in language classes.[4] In books introducing CLIL to teachers such as Mehisto, Marsh, Frigols' *Uncovering CLIL* (2008: 27) the use of "best practice in education" combined with personal favourite teaching strategies is encouraged. Principles taken from communicative, constructivist or sociocultural approaches towards teaching seem to underlie the methods recommended for CLIL classes (ibid.: 29f).[5] Finally, it should be mentioned that CLIL is used in a range of different subjects with learners

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[3]Language showers are aimed at children between the age of 4 and 10. They expose children to the target language for 30 to 60 minutes a day and include many playful activities such as games or songs (Mehisto, Marsh & Frigols 2008: 13). For a more detailed explanation of immersion education cf. chapter 1.2..

[4] Cf. chapter 10.4. on "Teaching methods & principles" in the DLP.

[5] For example, Mehisto, Marsh and Frigols (2008: 107) suggest that pupils should be encouraged to work co-operatively in groups, to use the language in tasks aimed at solving problems as well as to self- evaluate their learning. Please, cf. chapters 4 and 5 to find out more about constructivist and sociocultural approaches towards teaching.

from kindergarten to higher education (Dalton- Puffer 2007a: 2). Thus, CLIL is very flexible and can be integrated in many different educational settings.

Despite these differences the rationales underlying CLIL are always very similar. These relate to empirical studies which show very beneficial outcomes for learning in CLIL as well as to theories on learning taken, for example, from the field of second language acquisition theory and developmental psychology (Grabe & Stoller 1998: 5). A very common notion found in CLIL rationales, for instance, is that language learning best happens naturally. While learning in regular language classes is referred to as both painful and ineffective, the design of CLIL classes is associated with effortless, natural and incidental language acquisition. The integration of language and content learning, the focus on meaning rather than language form and the avoidance of grammar related error correction, are the characteristics of CLIL considered most beneficial for natural language development. They are thought to allow for authentic and genuine communication, thereby increasing motivation and the success in language learning. Rationales not only emphasise the benefits of CLIL for language learning, but they also point to a pragmatic advantage of CLIL. By integrating language and subject teaching, "concurrent learning in two curricular areas" is possible (Dalton-Puffer & Smit 2007: 8f). Therefore, CLIL allows for the development of very high levels of language competence without "claiming an excessive share of the school timetable" (Maljers, Marsh & Wolff 2007: 9).

As has been mentioned CLIL rationales also refer to many empirical studies which suggest that CLIL is successful in promoting content and language learning in parallel. Receptive target language skills seem to become native-like and the communicative proficiency is high. Content knowledge does not fall by the wayside but reaches high levels too. The cognitive development of CLIL pupils in some areas even seems to surpass that of regular students (Cummins 1998: 1- 3).[6]

It is therefore no surprise that the expectations for CLIL are high and a considerable number of aims have been specified. The CLIL compendium, for instance, identifies goals for five different dimensions. These range from improvements in the pupils' language competence, content knowledge, learning strategies and development of intercultural understanding to enhanced opportunities in an international Europe (CLIL Compendium).

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[6] For a more detailed discussion on the advantages of CLIL cf. the chapters 2, 5 and 6.

With this range of expectations and goals come several challenges. One of the issues prominent in discussions on CLIL, for example, is the difficulty to find the right balance between content and language. Especially the question of how much attention should be given to language and how this focus on language should be realised has been debated (Davison & Williams 2001: 53 - 55).[7] Moreover, Dalton-Puffer (2007a: 295) points out that concrete language aims still need to be specified and discussed in the debate on CLIL. On the organisational level difficulties can be identified as well. For instance, the number of CLIL programmes is still small because qualified staff is rare and CLIL programmes can be money-intensive (Eurydice 2006: 11).

Despite these challenges, the success of this teaching method has led to a growing number of CLIL programmes (Maljers, Marsh & Wolff 2007: 7). The academic debate on CLIL as well has expanded and influenced research in the field of (language) teaching and second language acquisition. Therefore knowledge about CLIL, its characteristics, opportunities and challenges, will probably become increasingly important in both language teaching theory and practice.

1.2. The development of CLIL in different educational contexts: an overview

Teaching content through a foreign language is an old concept. In the Middle Ages, for instance, Latin was the language of education (Dalton- Puffer 2007a: 2). Furthermore, it has been customary throughout history that upper class families send their children abroad to study. However, it was only in the 1960s that based on theories about natural language learning content and language were integrated.[8] The

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[7] Lyster (2007: 27), for example, points out that many CLIL teachers, following Krashen's theory of language acquisition, do not focus on grammar explicitly assuming that language should be learned incidentally and communicatively. Other learning and teaching approaches argue that form-focus is important for language development. Among those the questions which language areas should be focused on and how explicit grammar teaching should be are still matters of debate (Lyster 2007: 43). Cf. chapters 2 and 3 for a more detailed discussion of the role of grammar teaching in CLIL.

[8] In the 60s and 70s several developments in the field of language learning and teaching seemed to support the implementation of a new approach towards second or foreign language teaching such as CLIL. These were the movement towards more natural and communicative language learning, as has been mentioned, but also the development of LAC (Language Across the Curriculum) as well as of LSP (Language for Specific Purposes).

LAC refers to the teaching of the mother tongue through all subjects. LAC developed as educationists became increasingly aware that the first language needed support too and that reading and writing tasks in subjects other than the language arts could further mother tongue development.

assumption was that increased exposure to the target language and meaningful use of it at school would be conducive to language development and result in a higher communicative competence (Brinton, Snow & Wesche [2008]: 4 - 8). Thus, CLIL was adopted in order to overcome traditional language teaching which treated language learning as a mental discipline and was not very successful (Dalton- Puffer 2007a: 2). The reason why some Canadian schools felt that second language teaching needed to be improved was that the importance of French in Canada was increasing. The implementation of French as a language of instruction should therefore prevent economic disadvantages for children from English speaking homes (Cummins & Swain 1996: 57).

Several programmes were introduced. In these 'immersion programmes' the regular curriculum is taught in the foreign language by native speakers of that foreign language (Cummins 1998: 2). The pupils who enter the programme usually have the same mother tongue as well as a similar level of limited target language knowledge. Students are allowed to use either language and can be understood by the teachers who are bilingual although they only speak in the target language (Cummins & Swain 1996: 34). The target language is used as a language of instruction at least half the time in the early stages of the programme.[9] Immersion can start at the level of kindergarten, at grade 4 or 5 or as late as grade 7 (Cummins 1998: 1).

Because parents were initially concerned immersion could hamper the development of the mother tongue or content knowledge, extensive evaluations were conducted. These evaluations could alleviate the parents' fears and show the success of immersion (Swain 1996: 102). Moreover, they have influenced second language acquisition research as well as theorising on CLIL considerably as the following chapters will show.

Inspired by the success of Canadian immersion and by research on cross-curricular language teaching, CLIL has also found its way into the mainstream education of many European countries. As Maljers, Marsh and Wolff (2007: 7) point out

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LSP courses emerged at universities as well as in occupational contexts and should help people to develop language skills quickly in areas relevant to their immediate language needs. Courses which specifically teach business English to managers of firms, for example, would be termed LSP or more specifically ESP (Brinton, Snow & Wesche [2008]: 5- 7).
[9] In Early French Immersion, French is used 100% of the time in kindergarten and grade 1. One period of English language arts is introduced in grade 2, 3 or 4. In grades 5 and 6 instructional time is divided equally, later French instruction is usually reduced to 40% of the time (Cummins 1998: 1).

the speed at which Content and Language Integrated Learning (CLIL) has spread across Europe since 1994 has surprised even the most ardent of advocates.

Indeed, the European Commission itself is one of the strongest supporters of CLIL. In the White Paper (Teaching and Learning – Towards the Learning Society) published in 1995, for example, the Commission explicitly recommends CLIL as a method for creating multilingual citizens (Eurydice 2006: 8). Similar to Canada, economic motives underlie the wish to promote foreign language knowledge. Thus, CLIL should help to increase "European cohesion and competitiveness" in a world which is characterised by a high mobility of information, firms and people (Mehisto, Marsh & Frigols 2008: 10).

At present most countries in the European Union have implemented CLIL either for enrichment or maintenance purposes (Eurydice 2006: 13). One of these countries is Austria. Already in 1991 the Zentrum für Schulentwicklung Graz (now called Austrian Centre for Language Competence) was founded by the Ministry for Education, Science and Culture. This project group should develop concepts for bilingual teaching in Austria and was created in response to the bilingual programmes which had already been developed at several schools. Since then the number of CLIL programmes in Austria has increased, encompassing many small projects organised by enthusiastic teachers as well as fully bilingual schools such as Vienna Bilingual Schooling (VBS)[10]. A study carried out in 1997 has shown that around 15% of all schools in Austria provide some sort of CLIL with History, Biology and Geography constituting the most popular CLIL subjects (Abuja 2007: 16 - 18).

Usually the language used in Austrian CLIL is English. Consequently, CLIL teaching is often referred to by the acronyms EAC (English Across the Curriculum), EMI (English as a Medium of Instruction) or the German translation of EMI namely EAA (Englisch Als Arbeitssprache) (Eurydice 2004/05: 3). The predominance of

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[10] Vienna Bilingual Schooling (VBS) has existed since 1992/93 and is probably the most famous bilingual programme in Austria. VBS provides bilingual kindergartens as well as primary and secondary schools. In these state schools both English and German are used as languages of instruction for an equal amount of time. Teaching is conducted in a team with a native speaker of German and of English. Classes are mixed, i.e. around 50% of the pupils are from an English speaking background and the others from a German speaking family. The curriculum corresponds to that of regular state schools. Apart from Vienna, Graz (GIBS- Graz International Bilingual School) and Linz (LISA- Linz International School Auhof) have bilingual schooling programmes (Eurydice 2004/05: 6 - 10).

English in Austrian CLIL is not surprising, considering that English is the most important lingua franca in Europe. However, some schools also provide instruction through minority languages such as Slovak, Czech, Hungarian and Turkish. Indeed, the legal framework for CLIL in Austria, paragraph 16/3 of the Schulunterrichtsgesetz (School Education Act), was originally passed to support pupils with a minority language background (Abuja 2007: 14 - 17).

CLIL in Austria can be implemented by all teachers; no additional training is needed. Depending on the school and the programme, CLIL teachers may have qualifications in both the language and the content subject, work in tandem with native speakers of the target language or have work experience in the foreign language. However, these are no preconditions for teaching in a foreign language (ibid.: 17 - 19).

As for the aims of CLIL, Gunter Abuja, one of the most important researchers in the field of bilingual teaching in Austria, names the following:

> Increasing linguistic ability (including in the subject matter), increasing reflection on the usefulness of the FL [Foreign Language] through use in the subject matter (increasing motivation), better preparation for the future, for professional careers and for social changes, improving the learners' knowledge of and communicative competence in the FL, and equipping the learners with skills necessary to cope successfully with a variety of workplace-related settings in a FL. (Abuja 2007: 17).

Considering these high expectations towards CLIL, the development of CLIL in Austria over the past years as well as the fact that schools which implement CLIL can increase their prestige, it is to be expected that this type of language teaching will continue to spread in Austrian education.

PART II – LEARNING THEORIES AND CLIL

2. The monitor model

One of the most influential theories on second language acquisition, which has also featured prominently in rationales for CLIL, is Stephen D. Krashen's monitor model (Grabe & Stoller 1998: 6). Developed in the late 70s as the first "comprehensive theory" of SLA, it has influenced teaching considerably and promoted a natural approach towards language learning (Mitchell & Myles 1998: 39). Proposing that language acquisition requires an extensive diet of comprehensible input in a setting which focuses on language meaning rather than form, the monitor hypothesis seems to have designated CLIL as the ideal method for language learning. It is therefore not surprising that Krashen's ideas have been of "major significance as a conceptual reference point for CLIL" (Dalton-Puffer & Smit 2007: 10). Indeed, Krashen's model constituted the first theory on second language acquisition which has been drawn on extensively in rationales for CLIL (Grabe & Stoller 1998: 6). Thus, this chapter is devoted to a discussion of Krashen's monitor model and the implications it has for CLIL.

2.1.Teaching practices and language learning theories: the origins of Krashen's monitor model

In order to elucidate Krashen's hypotheses it seems useful to consider briefly the theoretical concepts on language learning and teaching which have influenced Krashen as well as more generally the early development of CLIL. Several important changes both in language learning theory and practice can be observed for the period leading up to the monitor model.

The first is the change away from purely grammar-based teaching. It was during and after the Second World War when soldiers had to learn languages quickly to be able to communicate with both allies and enemies, that it became obvious that traditional language teaching could not offer the language proficiency needed. Language teaching, which had been heavily grammar-based, did not result in communicative competence in the target language. Consequently, new teaching practices developed.

These abandoned the explicit teaching of grammar structures often in favour of methods such as pattern-drills and practice of semi-free dialogues, which were inspired by behaviourist views on learning (Krashen & Terrell 1983: 9 - 14).

Not only teaching practices changed but so did theories on language learning. In the late 50s the school of behaviourism, which had argued that all learning is the formation of habits through imitation and reinforcement, drew strong criticism. In psychology the view that humans should rather be understood as information processors who construct knowledge through conscious and subconscious learning processes became prominent (Block 2003: 15-20). In the field of linguistics it was Noam Chomsky who was the strongest critic of behaviourism. He stated that it was impossible that children learn their first language as proposed by behaviourism, among several reasons because of the infinite number of possibilities how a language could be structured (Mitchell & Myles 1998: 7f). Instead he conceived of humans as being equipped with an innate language acquisition device, the LAD, today rather referred to as the 'Universal Grammar' (UG). The UG defines basic structural properties that languages may have but leaves open certain parameters which have to be set by the language learner. This setting of parameters happens as language input is processed by the learner (ibid.: 43). Developmental patterns which were discovered in the language of learners seemed to strengthen the view that everyone has an innate language faculty which is used as the basis for input processing and language construction (ibid.: 61). Although not developed to describe second language acquisition, Chomsky's ideas were soon also applied to the learning of additional languages (Lightbown & Spada [2000]: 36 -38).

Finally, it should be pointed out that sociolinguistic concepts gained importance in the 60s. These strengthened the doubts towards purely grammar-based language teaching by pointing out that communicative competence involves more than knowledge of grammar rules (Block 2003: 5). As Dell Hymes (1972: 278) emphasised "[t]here are rules of use without which the rules of grammar would be useless".[11]

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[11] Dell Hymes (1972: 277) points out that a person who spoke perfectly grammatically correct at all times would probably be sent to a mental institution. Apart from knowledge about appropriate language use communicative competence involves the knowledge of what is grammatically correct, of what is feasible and of what language is actually used in a certain culture (Hymes 1972: 281). In the field of SLA, Canale and Swain have built on Hymes' concepts and have established that sociolinguistic, discourse, grammatical and strategic competence constitute communicative competence (Cummins & Swain 1996: 168f).

The obvious failure of purely grammar-based language instruction, the emphasis on communicative competence and the concept of the language learner as using input to construct language, are all aspects reflected in Krashen's model on language learning and in the method of CLIL.

2.2. The five hypotheses of the monitor model

The monitor model consists of five hypotheses. These hypotheses not only present an explanation of second language acquisition but also constitute a call for language teaching which follows a natural approach. The basic premise of Krashen is that foreign and second languages can be learned like the mother tongue and that teaching should consequently mimic first language acquisition. Before the implications these concepts hold for CLIL are considered, his five hypotheses as well as the strong criticism which has been levelled against them are now discussed in some detail.

1) The acquisition – learning hypothesis:

According to Krashen, it is necessary to distinguish between two types of language learning which differ considerably in their nature, quality and function. These are 'acquisition' and 'learning'.

Acquisition as defined by Krashen refers to the incidental and subconscious "picking up" of language knowledge in natural communicative situations. Acquisition happens if language knowledge is developed although the learner is focused on the meaning conveyed, rather than the language form itself. Therefore children can be said to acquire their first language (Krashen & Terrell 1983: 18f). The language knowledge acquired constitutes the foundation of communicative competence. It is acquisition which allows people to speak fluently and to have a "feel" for the language (ibid.: 26).

Learning on the other hand refers to the conscious process of focussing on language form and developing formal knowledge about the rules of the target language. It results in explicit knowledge. While knowledge acquired is available for fluent conversation, knowledge learned can solely be used as an editor. This grammatical editor can only polish language output once the acquired system has produced an utterance (ibid.: 18). To prove this point Krashen reminds of those people who can speak fluently but do not know the rules on the one hand, and those who can explain

the rules but have a very low communicative competence on the other (Krashen 1982: 84 - 86).

Considering the high importance of acquisition for developing language knowledge and especially communicative competence as well as the limited usefulness of learned knowledge, the implications for language teaching are clear: language teaching needs to support acquisition. Therefore, formal grammar teaching must be reduced. It hinders acquisition and only works with those who are good learners. Communicative situations, on the other hand, need to be emphasised in teaching since only they allow for acquisition, acquisition being possible for everyone (Krashen & Terrell 1983: 16 - 26).

2) The monitor hypothesis:

As has been mentioned, Krashen claims that consciously learned knowledge can only be used as an editor or a monitor. This monitor can improve performance by supplementing knowledge that has not yet been acquired provided there is enough time and the rules are known. Although the monitor can be very useful if formal correctness is sought such as in grammar tests, Krashen is highly critical of this language editor. He emphasises the limited function of the monitor and argues that it is never possible to know all the rules (ibid.: 30f). Moreover, many people tend to overuse the monitor at the expense of communicative fluency, while others underuse it. Only some are optimal users. The critique of form-focused instruction is evident. Grammar-based instruction which only allows for the development of the monitor is of limited usefulness. Krashen argues that it is even counterproductive in that it often leads to overuse of the monitor and thus inhibits communication (ibid.: 44f).

3) The natural order hypothesis:

In the early 70s several studies suggested that first language development proceeds through predictable stages. A study by Dulay and Burt in 1974 seemed to show that in second language acquisition as well morphemes are acquired in a specific sequence (Mitchell & Myles 1998: 31 - 33). Based on this and similar morpheme studies, Krashen has argued that both children and adults acquire language in a predictable and fixed order. According to Krashen (1985: 13), this universal natural order proves that language is acquired through an innate language acquisition advice and consequently that second language acquisition in children and adults follows the same principles as first language acquisition.

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Moreover, Krashen contends that this order only occurs in monitor-free communicative contexts. Since it is a natural order it does not correspond to the sequence in which rules are taught in language courses and does not follow the rules of simplicity on which teaching is based (Krashen & Terrell 1983: 28 -31).

4) The input hypothesis:

It has already been pointed out that Krashen distinguishes between acquisition and learning, acquisition allegedly being the superior way of developing language knowledge. For acquisition to happen extensive comprehensible input in the target language slightly above the learner's language competence is needed. Krashen refers to this as i+1, i symbolising the input, +1 to the fact that the input should be challenging. As children develop language knowledge by being exposed to comprehensible input which they process automatically and naturally with their language acquisition device, so do adults. Consequently, the amount of exposure to comprehensible target language input and the level of language proficiency are positively correlated. From the great emphasis on the importance of input it follows that the production of language is not needed for language knowledge to develop. Rather, speaking is the natural result of language knowledge which has already been acquired. To support this assumption, Krashen refers, for example, to immigrant children who first seem to experience a prolonged silent period before they start speaking (Krashen 1985: 2 - 14).

Based on this concept of acquisition, Krashen draws the conclusion that language teaching needs to provide extensive amounts of comprehensible input, especially if the target language is not spoken outside school. Considering that it is impossible to provide input of the nature i+1 for every learner individually, the input should only be roughly tuned. This ensures that enough structures of the i+1 level occur in the input and can thus be processed by the learners' language acquisition device (Krashen & Terrell 1983: 35). For input to become comprehensible teachers should use contextual clues such as visuals and talk about topics which are both interesting and familiar to the learners. Moreover, learners should not be pressured into language production.

In conclusion, if enough challenging but comprehensible input is provided in meaning-focused situations, native speaker proficiency can be acquired in the target

language by children as well as by adults. However, there is one more condition which needs to be met, a low affective filter (Krashen 1985: 2 - 15).

5) The affective filter hypothesis:

> We can summarize the five hypotheses with a single claim: people acquire second languages only if they obtain comprehensible input and if their affective filters are low enough to allow the input 'in'. (Krashen 1985: 4)

According to Krashen, affective variables can play a decisive role in the process of acquisition. If there is a lack of motivation or of confidence and if negative emotional states such as anxiety predominate, this causes a mental barrier. This mental affective filter can inhibit acquisition by preventing that comprehensible input can be processed by the language acquisition device (LAD). However, only if input can reach the LAD, language knowledge can develop. According to Krashen, this explains why older learners often have problems in achieving native speaker levels of proficiency in a second language. In older learners the affective filter is higher. For instance, they are often more self-conscious (Krashen 1985: 3 - 13).

Consequently, teaching not only has to provide an extensive diet of comprehensible input but it also has to ensure a positive learning atmosphere which keeps the affective barrier low. Hence, teaching which focuses very much on grammar and formal correctness or which forces pupils to speak early on, thereby causing anxiety and inhibition, should be avoided (Krashen & Terrell 1983: 21- 27).

In conclusion, Krashen emphasises that second language acquisition, like the acquisition of the mother tongue, relies on the availability of challenging comprehensible input which can be processed by the learner's LAD. Consequently, language teaching should focus on providing input in meaning-focused communication while avoiding grammar-based language instruction to ensure a low affective filter.

2.3. Criticism of Krashen's hypotheses

Despite the great importance that Krashen's monitor model has gained in second language acquisition theory and also among teachers, it has been severely criticised. The theory has been called unscientific on several grounds. First, Krashen's

terminology lacks precision. For example, McLaughlin (1987: 22) points out that Krashen's definitions do not allow a person to identify whether an utterance was produced on the basis of acquired knowledge only, or if learned knowledge also came into play. He also criticises Krashen's non-interface position according to which learning cannot turn into acquisition, i.e. learned rules cannot become available for fluent speech production. Indeed, because the distinction between acquisition and learning has attracted such strong criticism, it has been abandoned in its strong form (Mitchell & Myles 1998: 2).[12] The concept of comprehensible input and i+1 has also been criticised as being too vague and therefore impossible to test. For instance, Krashen defines comprehensible input as being input which is both meaningful and understood by the learner. This is clearly a tautology (McLaughlin 1987: 39). McLaughlin makes clear that it is only due to the vagueness of his definitions that Krashen can draw on research results to support his theories while at the same time disregarding research data that might run counter to his claims (ibid.: 40 - 48).[13]

The concept of the affective filter has also been criticised. Although affective variables clearly play a role in language acquisition, Krashen's concept of the affective filter does not hold. For example, contrary to Krashen's predictions, according to which adolescents should have a high affective filter and thus have problems with language acquisition, teenagers seem to be the most efficient language learners (ibid.: 29). Furthermore, it is not said whether a low affective filter leads to success in language acquisition or whether it is rather successful language acquisition which leads to a low affective filter (Lightbown & Spada [2000]: 40). Thus, many aspects are still unclear about the affective filter.

Krashen's call for natural language teaching which mimics first language acquisition has attracted critique as well. For example, it has been argued that Krashen ignores the social and cognitive differences between children and adults who develop language knowledge. These differences need to be taken into consideration when evaluating the function formal language instruction may have for language development among different learners. In addition to that, the role of

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[12] Because of that Mitchell and Myles (1998: 2), for example, use the terms acquisition and learning interchangeably.

[13] For example, if language learning is successful in learning environments which do not follow his principles, Krashen tends to argue that those environments also provide some sort of comprehensible input, albeit indirectly (McLaughlin 1987: 48).

incomprehensible input as well as of output must not be neglected (McLaughlin 1987: 40 - 50).[14]

In conclusion, Krashen's concepts have been severely attacked. For example, they have been criticised as being imprecise and therefore both of little explanatory power as well as impossible to test. Teachers should thus not follow Krashen's advice uncritically (ibid.: 55 - 58). Nevertheless, the monitor hypothesis has its merits. For instance, it has emphasised the importance of meaningful communication and warned of the limitations of grammar- based instruction at a time in which the latter was still very dominant (ibid.: 48). Moreover, it has inspired research into input and laid the foundation for further theories of second language acquisition (Block 2003: 94). Consequently, it is no surprise that Krashen's hypotheses still feature prominently in theories on language teaching as well as in accounts on second language learning/acquisition.

2.4. The monitor model and CLIL

As has already been mentioned, Krashen's theory has been drawn on heavily by rationales for CLIL. This is not surprising considering that Krashen's ideas on good language teaching correspond closely to the principles of CLIL. For example, according to Krashen, effective language teaching has to support the process of acquisition. For acquisition to happen two conditions need to be fulfilled. The first is that extensive meaningful comprehensible input of the nature i +1 must be provided. This happens naturally if the target language is used as a medium of instruction not only in language lessons but also in content subjects. As Krashen points out

> comprehensible subject- matter teaching *is* language teaching – the subject-matter class is a language class if it is made comprehensible. In fact, the subject-matter class may even be better than the language class for language acquisition. In language classes operating according to the principle of comprehensible input, teachers always face the problem of what to talk about. In immersion, the topic is automatically provided - it is the subject matter. (Krashen 1985: 16)

Moreover, since all pupils in a CLIL setting probably have a similar level of proficiency in the target language and are not mixed with native speakers, instruction

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[14] Cf. chapter 3 for a discussion of the function output fulfils in second or foreign language development.

can be geared more easily to the language needs of the pupils, i.e. to the pupils' i+1 (ibid.). Thus, CLIL ensures not only a high amount of exposure to the target language but also that the input will be comprehensible. Consequently, the first condition for successful acquisition is met by CLIL.

The second precondition for acquisition is a low affective filter. According to Krashen, it is important to concentrate on meaning and to avoid overt correction of language errors to reduce anxiety levels. This is the case in CLIL classes. In CLIL lessons "language is a means to an end" for the students (Mehisto, Marsh & Frigols 2008: 32). Often content is at the centre and it is only content knowledge which is assessed (Krashen 1985: 17). Consequently, usually no correction of grammar errors takes place in CLIL and pupils are allowed to switch to their mother tongue (Mehisto, Marsh & Frigols 2008: 105). Thus, the second condition which allows for successful acquisition seems to be satisfied by CLIL as well.

Therefore, when adopting Krashen's theory on language acquisition good results for foreign language development can be expected from CLIL. Indeed studies on CLIL pupils' motivation, language anxiety and language proficiency, show impressive data. For instance, as predicted by Krashen, CLIL students seem to be less inhibited when it comes to using the foreign language. For example, in her study on discourse in Austrian CLIL classrooms Dalton-Puffer (2007a: 281) could observe that pupils do not seem embarrassed if they lack vocabulary knowledge. Rather, they acknowledge their lexical gaps and initiate repair. This is very different from behaviour which can be observed in regular language lessons. Furthermore, studies on students in Canadian French immersion programmes suggest that they are highly motivated and also have a very positive attitude towards French. Pupils who only have regular instruction in French often complain about having too many French lessons. Most of the immersion pupils, on the other hand, say that they like being taught through French and that they want to continue to learn French after school (Cummins & Swain 1996: 53).[15] Thus,

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[15] However, not only the focus on meaning but other factors as well probably play a role in reducing or increasing language anxiety. In the evaluation study conducted on the Austrian DLP, my colleague Barbara Unterberger and I found that pupils actually preferred to speak in their regular foreign language lessons. In this case, the pupils' highly positive attitude towards their popular English teachers seemed to have played the decisive role. Thus, the exclusion of focus on language form might not be the most important factor in reducing language anxiety. Cf. chapter 12.2. on the DLP students' attitude towards the English language.

> CLIL students often display greater fluency, quantity and creativity and show the kind of higher risk-taking inclination often associated with good language learners [...] This presumably stands in direct association with the frequently observed positive affective effects of CLIL: after a certain amount of time spent in CLIL lessons the learners seem to lose their inhibitions to use the foreign language spontaneously for face-to-face interaction. (Dalton- Puffer 2007b: 143f)

Not only the pupils' motivation and attitude towards language learning is affected positively by CLIL. The combination of extensive challenging comprehensible input together with a focus on meaning also seems to allow for a development of language proficiency unparalleled by that in regular language classes. The first evaluation studies on Canadian French immersion, for instance, soon stopped comparing immersion pupils to those in regular French classes since the former outstripped their core FSL (French as a Second Language) peers considerably. Instead, immersion pupils are now compared to native speakers of the target language (Cummins & Swain 1996: 58). Moreover, as Krashen's theory would predict, not only a small number of pupils who are "good learners" (Krashen & Terrell 1983: 39) but the student population as a whole seems to achieve high levels of communicative competence in immersion programmes (Dalton-Puffer 2007b: 142f). Cummins, for example, points out that immersion seems to open up the world of foreign language learning to those with a below average IQ or learning disabilities who fare very badly in regular language instruction (Cummins & Swain 1996: 51).

Although these outcomes are encouraging and support the implementation of CLIL as a method for language teaching, proficiency in the foreign language does not develop as fully as could be expected by Krashen's theory. While receptive skills of pupils in extensive CLIL programmes match native speaker levels, productive skills do not (Mitchell & Myles 1998: 127). The meaning-focused natural "language bath" in comprehensible input which CLIL provides thus does not seem to provide ideal conditions for language acquisition.[16] This discovery has led to further theorising in the field of SLA as well as to modified recommendations for language teaching and CLIL. Both these aspects are considered in the following chapters of this thesis.

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[16] As Dalton- Puffer and Smit (2007: 8) point out CLIL is often described as a "language bath" (cf. also the term 'immersion') in which naturalistic and thus painless learning of languages seems to be possible.

3. The interaction and the output hypothesis

After Krashen had proposed his monitor model and the first evaluations of immersion programmes had been conducted, it soon became clear that additional theorising was needed to account for the development of foreign/second language knowledge. Two hypotheses developed which should complement Krashen's focus on input and make new recommendations for language teaching practice and thus also for CLIL. These two hypotheses are now presented, as are their explanations for the limitations which could be observed in immersion programmes. Finally, the last subchapter of this section is concerned with the conclusions for successful teaching in CLIL which can be drawn from these hypotheses.

3.1. The interaction hypothesis

In Krashen's model of SLA the availability of comprehensible input is of prime importance. Interaction is only valuable in that it can increase the amount of comprehensible input available to the learner. However, in itself it has no contribution to make for second language development to happen (Krashen & Terrell 1983: 43 -46).

In the early 80s several researchers in the field of SLA, among them Michael Long, proposed that the role of interaction in second language development should be investigated more closely (Mitchell & Myles 1998: 122). Since then an increasing body of research has shed some light on the facilitative qualities that interaction seems to have for second language acquisition. First and foremost, interaction has been given credit as changing input qualitatively, thereby making it more comprehensible and consequently more beneficial for language development (Long 2003: 449). This assumption has been strengthened by sets of research results. For example, studies in which pairs of native speakers and non-native speakers have had to complete certain tasks together show that those dyads who are allowed to interact are more successful than those who have to stick to a given simplified instructional text. Moreover, learners allowed to interact seem to acquire certain strategies, such as descriptive devices, which they can employ in subsequent interactions; i.e. they are

able to improve their communicative efficiency through interaction. While both simplification of texts as well as interaction can improve comprehensibility of input, the latter is thus more beneficial to the learner (Gass & Varonis 1994: 292 - 296).

The reason why input becomes more comprehensible for learners in interaction seems to be the conversational adjustments that are made when people negotiate for meaning. For instance, several moves which try to ensure mutual comprehensibility such as comprehension checks, clarification requests and confirmation checks can be observed in interaction.[17] These moves lead to a high rate of redundancy in conversations, while grammatical complexity is often maintained. Therefore, conversational adjustments can fine-tune input to the linguistic competence of the learner without sacrificing linguistic complexity and thus opportunities for acquisition of linguistic structures. It should be pointed out however, that these types of adjustments do not occur in all conversations. Rather they seem to be employed in interactions which aim for negotiation of meaning, i.e. in interactions where the interlocutors have a common goal which has to be achieved through communication (Long 2003: 418- 423).

Thus, the early interaction hypothesis, which was still heavily based on the input hypothesis, argued that interaction is beneficial since it results in greater comprehensibility of input. Influenced by new developments in the field of SLA theory the role of interaction for second language acquisition was once more reconsidered (Mitchell & Myles 1998: 134). This time those functions which interaction might have beyond making input more comprehensible moved into the centre of attention. The new interaction hypothesis developed and proposed that

> *negotiation for meaning*, and especially negotiation work that triggers *interactional* adjustments by the NS [native speaker] or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways. (Long 2003: 451f)

Thus, for acquisition to happen not only the availability of comprehensible input but also a certain attention towards language form came to be considered necessary.

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[17] Comprehension checks can be defined as moves by which an interlocutor checks whether the other one has understood. Confirmation checks are moves by which one conversational partner checks if he/she himself has understood correctly. Clarification requests are requests for clarification if the message has not been understood (Gass 2005: 233). An example for a comprehension check would be "Do you understand?". A confirmation check could be realised by the phrase "You mean that ...". The question "What do you mean?" could function as a clarification request.

Interaction allows attention to be directed to certain aspects of language, through conversational adjustments such as redundancy or stress (ibid.: 452). Furthermore, communication breakdowns and feedback, for example in the form of recasts or explicit error correction, can cause noticing, i.e. learners can recognise gaps in their linguistic knowledge and can take in correct language forms (Long 2003: 429).

In conclusion, the interaction hypothesis suggests that apart from input, interaction has an important facilitative function for second language acquisition. From this it follows that language teaching should not only provide input but should also give space for interaction and more specifically for negotiation for meaning.

3.2. The output hypothesis

It has already been mentioned that the first evaluation studies on immersion pupils showed that some areas of the students' second language development were inhibited. In order to find out why this could be so, in depth studies were conducted on both the pupils' language competence as well as on the discourse in immersion classrooms. Based on the research results of these studies the output hypothesis developed. This hypothesis should complement Krashen's input hypothesis and the interaction hypothesis by suggesting that a third component- namely output- is needed for second language development to proceed optimally (Mitchell & Myles 1998: 127). Before the output hypothesis is discussed in greater detail the aforementioned research results which identify several problems for language learning in CLIL, more specifically in immersion, are presented below.

Chapter 2 on Krashen's monitor model has already pointed out that the first evaluations on immersion programmes have proven extensive CLIL to be very successful. Academic knowledge and the first language develop similarly well, sometimes even slightly better in immersion programmes than in regular schooling. At the same time second language development in immersion pupils surpasses that of students in regular language classes by far. Communicative competence and vocabulary knowledge are vastly improved. Receptive skills such as reading and listening skills are native-like in immersion pupils (Cummins 1998: 1- 3).

Nevertheless, second language development is not ideal. In a study which has analysed the communicative competence of immersion pupils by investigating their

grammatical, discourse and sociolinguistic competence[18], Merrill Swain (1985: 236) could show that the productive skills of immersion pupils are limited. In her study she compared early French immersion pupils to native speakers of French. The early French immersion pupils had been taught through the medium of French all of the time in kindergarten and in first grade. In 2nd through 4th grade 80% of teaching had been in French, in 5th grade 60% and in 6th grade 50%. Thus, these children had been exposed to input in French extensively. Moreover, as their good results on subject matter tests showed, the input had been comprehensible. Still, the immersion pupils' competence in the grammar of the target language was considerably below that of their Francophone peers. Immersion pupils made significantly more morphosyntactic errors than French native speakers. For instance, they had difficulties in choosing the right tense when retelling the plot of a movie they had been shown. This caused problems in establishing temporal relations between the events of the story. The ability to produce coherent and cohesive text which constitutes discourse competence was hence affected negatively by these grammatical problems. Sociolinguistic competence as well suffered due to grammar difficulties. In the study pupils had to request, make suggestions and complain in different registers. Pictures functioned as impulse and the pupils were made aware that they should use language appropriate to the level of formality of the situation involved. An analysis of their production showed that the immersion students were able to use fixed phrases to indicate formality but had problems to use grammatical markers of politeness. The conditional or the pronoun "vous" for example were underused. Thus, although those immersion pupils were fluent, could communicate well and had no problems to work on academic content in the target language, their grammatical competence in French had not developed to native speaker levels. Rather, their lack in grammatical proficiency caused problems in discourse and sociolinguistic competence (ibid.: 236 - 246).

In order to find out why immersion pupils had problems in the area of grammatical development, Swain analysed their learning environment, i.e. their CLIL lessons. Since immersion students are hardly exposed to French outside school it was fairly safe to assume that the conditions of learning in the classroom were responsible for

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[18] Grammatical competence refers to knowledge of vocabulary, morphological rules, rules of syntax and spelling as well as of pronunciation. Sociolinguistic competence means knowing which language is socially and stylistically appropriate in a certain context. Discourse competence refers to the mastery of cohesion and coherence (Cummins & Swain 1996: 168).

the outcomes in their language development (Swain 1985: 235f). Swain identified several reasons for the limited success of immersion pupils. Firstly, she found that the input they received was restricted and therefore acquisition opportunities were limited. Grammatical features such as the conditional were simply missing from classroom talk. Past tenses as well hardly occurred at all in the CLIL lessons. Swain observed that teachers used the present tense or imperative structures for over three-quarters of the verbs when talking to their pupils. Thus, classroom discourse lacked certain grammatical structures. Furthermore, if grammar instruction occurred in immersion classrooms, it was usually detached from subject content and consisted only of exercises devoid of any communicative context in which language forms had to be classified and manipulated. Therefore, certain grammatical structures could not be experienced in a communicative context by the immersion pupils (Swain 1996: 95f).

Another problem which could be identified by Swain is that of limited output. Swain found that immersion pupils produce little output. In her study only 14% of all utterances among French immersion students were beyond clause length. Indeed, hardly any interaction could be observed in the classroom (ibid.: 97). This is probably due to the fact that Canadian immersion teachers primarily see their role as being those who impart knowledge (Swain 1985: 247). In addition to that, Swain observed that only about 19% of the grammatical errors which occurred in the students' output were corrected (Swain 1996: 97). Thus, pupils were not pushed to more accurate language use, rather the teachers focused solely on meaning.[19]

Based on these studies on learning conditions and learning outcomes in immersion classrooms Swain drew the conclusion that

> comprehensible input will contribute differentially to second language acquisition depending on the nature of that input and the aspects of second language acquisition one is concerned with. (Swain 1985: 247)

In other words, the nature of the input influences learning opportunities. Language structures which do not occur in the input can of course not be acquired. Moreover, the availability of extensive input seems to ensure the development of high receptive skills but not of native-like productive grammar skills. From the latter Swain

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[19] The 1987 handbook for teachers in immersion programmes recommended that teachers only model the correct response but do not correct errors explicitly (Lyster 2007: 92). Cf. also chapter 2 for an explanation of the doubts concerning grammar instruction.

concluded that it might be necessary to encourage learners to produce output to push the development of target language grammar to a high level. Corresponding to Krashen's principle that input should be comprehensible but go a bit beyond the current competence level of the learner, Swain proposed that learners should be required to produce 'comprehensible output', i.e. output which is slightly beyond their competence. According to Swain, this production of

> [o]utput may stimulate learners to move from the semantic, open-ended, non-deterministic, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production. (Swain 1996: 99)

Thus, if pupils struggle to form utterances which are not only comprehensible but also accurate, they will start to process language syntactically, become aware of their gaps in grammatical knowledge and consequently pay more attention to grammar structures (Swain 1985: 248f).

Research seems to prove that some strategies which might be beneficial to language acquisition are mainly used when comprehensible output needs to be produced. For instance, in a study Swain and Lapkin (1995: 377 - 382) encouraged immersion pupils who were working in pairs to verbalise their thoughts while completing a writing and editing task. An analysis of the pupils' talk showed that they were engaged in several reasoning processes such as judging the grammaticality of their production, trying to apply rules, searching for alternatives and assessing these.

Based on this and similar studies Swain concluded that comprehensible output has three important cognitive functions to fulfil, which apparently could not be realised in the input- focused immersion classrooms. These functions are

- noticing
- hypothesis testing
- and conscious reflection on language structure (Swain 1995: 129 - 132).

In conclusion, comprehension-based immersion classrooms do not pose ideal environments for language learning, despite providing much comprehensible input and conditions which allow for a low affective filter. The reasons for this are that both input and output opportunities are restricted. Due to these restrictions certain cognitive processes are not possible which seem to be necessary in order to develop native-like grammar levels in the target language. The production of comprehensible

output, for instance, seems to further grammar knowledge by encouraging noticing, hypothesis testing and reflection on language use. The implications for language teaching in CLIL classrooms which follow from these conclusions are dealt with in more detail in the following subchapter.

3.3. Language learning in CLIL: limitations and remedies

As has been mentioned, the development of grammar competence in the target language is incomplete in immersion pupils. This is due to the fact that input and especially output, two essential ingredients for effective language development, are restricted in immersion classrooms. Studies on CLIL programmes other than immersion have shown similar restrictions, which suggests that this is a challenge which many CLIL programmes have to face.[20] Several suggestions have been made which should help to compensate for the aforementioned limitations.

Firstly, since content teaching through a second or foreign language does not provide all the grammar structures which might be important to know for the learner, it seems vital that language goals are specified for CLIL courses (Dalton- Puffer 2007a: 295). If these goals have been specified, tasks can be designed which provide enough focused input (Swain 1996: 97). These tasks should concentrate on form-meaning mappings which make clear how certain grammar structures could be used to talk about subject content or other topics of concern even more efficiently and precisely (Lyster 2007: 63). Thus, language and content must really be integrated. Moreover, phases with enriched input must occur repeatedly to ensure the acquisition of structures which are otherwise underused in classroom talk (Lightbown & Spada [2000]: 149).

Secondly, opportunities for interaction and output need to be provided to support those beneficial cognitive processes in the learner which are associated with

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[20] Dalton-Puffer (2007a: 54) who has studied Austrian CLIL classrooms could, for example, show that the IRF(initiation- response- feedback) pattern of discourse which has been identified as typical for classroom talk in regular content and foreign language lessons also predominates in CLIL classes. IRF means that the teacher usually asks questions on the content (initiation), which are answered by the pupils (response), with the answers being evaluated by the teacher (feedback) (Sinclair & Coulthard 1975: 45- 48). This discourse pattern seems to limit both input and output opportunities (Dalton- Puffer 2007a: 36). Input does not provide much syntactic variation, consisting mainly of questions or directives (ibid.: 282f). Students' space for producing output is limited to the R slot of the IRF pattern and usually restricted to addressing concepts which are elaborated by the teacher (ibid.: 261). Thus, students' only rarely produce more than a noun phrase let alone longer stretches of speech (ibid.: 112).

language production. This means that tasks should be implemented which involve the negotiation for meaning, such as information gap activities, or which encourage metalinguistic reflection.[21] According to Swain, those communicative activities which require students to negotiate language form collaboratively whilst trying to express a certain meaning are probably especially conducive to the learning of target language grammar (Swain 1995: 141).

Another element which needs to be considered in order to push pupils to produce not just output but 'comprehensible output' and consequently to further their grammar competence is feedback (Swain 1996: 100). The type of feedback used should be well-chosen. The correction must not be too obtrusive to ensure a focus on meaning and thus a low affective filter. On the other hand, the feedback has to be explicit enough to be noticed by the learner. Hence Lyster has recommended using prompts for CLIL lessons. Prompts seem to initiate self-correction, while at the same time maintaining the communicative flow (Lyster 2007: 111 - 115). However, the question of which type of feedback is beneficial for language learning will probably still cause some debate.

Finally, it should be mentioned that treating language not only as a medium of instruction but also as an object worthy of closer analysis indeed leads to better development in the area of grammar. As Baetens Beardsmore points out, pupils in European schools attain a high level of accuracy in their target languages. In these schools, language is used as a medium of instruction but is also taught as a subject before and alongside CLIL instruction (Baetens Beardsmore 1993: 149). The first comparative studies between regular immersion pupils and those who also receive form-focused instruction are promising as well.[22] Consequently, communicative classrooms which focus on meaning as well as on grammar within meaningful contexts lead to the best results in language achievement (Lightbown & Spada [2000]: 134).

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[21] In information gap activities several people hold different information, which they have to exchange in order to be able to achieve a certain goal (Mitchell & Myles 1998: 129).
[22] The value of form-focused language teaching could also be shown by comparative studies which have revealed that foreign language teaching at school can lead to higher levels of language proficiency than extended exposure to this language in a naturalistic setting, e.g. when working abroad (Long 2003: 424).

In conclusion,

> there is considerable consensus among researchers familiar with immersion and content-based classrooms that a more systematic and less incidental approach to language pedagogy needs to be integrated into the curriculum. (Lyster 2007: 99)

Thus, language form should not be ignored in CLIL but should receive some explicit attention. This does not mean that grammar-focused activities devoid of any meaningful communicative context should be reintroduced. Rather, it means providing enriched input, numerous occasions for language production and reflection on form in communicative activities as well as feedback on language use.

If the language goals of CLIL are clear, and the aforementioned recommendations are implemented, higher productive skills in the target language can be expected from CLIL.

4. Sociocultural theory

Since the 1970s and 80s the input-interaction-output model has predominated the field of second language acquisition research. However, new and more general theories on learning have entered the domain. One of these is sociocultural theory based on the works of Russian developmental psychologist Lev Vygotsky. (Block 2003: 3 -5) As a theory which investigates how mental processes and hence learning relate to the sociocultural environment, sociocultural theory has thrown a new light on second language acquisition. It has also offered some valuable insights which help to understand the limitations for language learning in CLIL classrooms which were detailed in the last chapter. Consequently, this theory and its conclusions for learning in CLIL are now considered in greater detail.

4.1. Tenets of sociocultural theory

Sociocultural theory (SCT), which goes back to the ideas of Russian psychologist Lev Vygotsky (1896 - 1934), is one of several psychological theories concerned with mental development. Like other schools which belong to constructivism, sociocultural theory holds that mental development happens as a person interacts with the environment and actively engages in processes of reality construction (Wadsworth [1996]: 2- 4).[23] As its name already suggests sociocultural theory is especially interested in

> [creating] an account of human mental processes that recognizes the essential relationship between these processes and their cultural, historical, and institutional settings. (Wertsch 1991: 6)

According to sociocultural theory, human consciousness is constructed in social interaction which is shaped by the cultural context (Lantolf & Thorne 2006:

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[23] Constructivism is a meta-theory relevant to several fields such as sociology, history, philosophy, linguistics and psychology (Dalton- Puffer 2007a: 7). According to constructivist thought, reality cannot be perceived objectively, rather concepts of reality are constructed by people and always subjective. In psychology it can be distinguished between several schools of constructivism. One of these is social constructivism, which is described in this chapter. Another school, epistemic constructivism, which is founded on the ideas of Jean Piaget, is considered in chapter 5 (Wolff 2007: 9f). Cf. chapter 5 on constructivism.

211).[24]That human cognition is influenced by the sociocultural environment becomes clear when comparing the thought processes of individuals who have been schooled to those who have not. While those who have not received school education rely on non-linguistic practical experience in their reasoning, people who have been schooled are better at dealing with linguistic and abstract realities (Lantolf & Thorne 2006: 35 - 40). This goes to show that the environment defines how people think and that "mental functioning is suited to the primary activities constructed and promoted by a community" (ibid.: 40).

However, according to Vygotsky not all mental functioning relies on the sociocultural environment. Rather he distinguishes between lower and higher mental processes. Lower mental processes are biologically determined such as involuntary attention, natural memory, reflexes and perception. Those are the processes humans share with animals. Rooted in these are higher mental processes such as voluntary attention, logical memory and conceptual thought which are culturally constructed (Lantolf & Appel 1994: 5). These higher mental processes rely on cultural tools for mediation and can be regulated consciously by the individual. For instance, if somebody throws something at us, our attention is caught and we react instinctively. It is the biological mental processes which are responsible for this reaction (Lantolf & Thorne 2006: 27f). If however, we repeat a word in our head in order to concentrate and remember (De Guerrero 1994: 90), we use a cultural mediatory tool, namely language, to regulate our attention and memory consciously.

Thus, in the course of phylogenesis humans have developed the unique ability to use symbolic psychological tools in order to organize their biological mental processes (Block 2003: 100). It should be mentioned that apart from psychological tools there are also physical tools. While psychological tools such as language help to mediate mental processes, physical tools like a screwdriver help to mediate in the world of objects (Lantolf & Appel 1994: 8).[25]

Learning, i.e. the development of higher mental processes therefore involves acquiring knowledge about tools of mediation. These tools depend on the

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[24] It should be mentioned that this process is not considered uni-directional. As the individual engages actively in this construction it changes the sociocultural environment, which shapes its consciousness (Lantolf & Thorne 2006: 158).
[25] Physical tools thus have the function to manipulate, control and change objects, while psychological tools such as language or mnemonic techniques, are aimed at regulating mental and physical behaviour. Psychological tools can be directed both at the self, when thinking, as well as at other, when communicating (Lantolf & Appel 1994: 8).

sociocultural environment. For example, while Europeans usually use the physical tools of knife and fork to 'mediate' the eating process, Asian people would probably rather use chopsticks. When humans learn, they internalise the use of these cultural mediatory tools through participating in social interaction. As children become more proficient in employing mediatory tools they become increasingly self-regulated. For instance, a baby has to rely on its caretakers to ensure it is dressed and warm, hence it is other-regulated and cannot yet do much. As the baby becomes older caretaker and child will probably dress the child together in a collaborative effort. While participating in this action the child will learn and turn from a novice into an expert. Once the child can finally dress itself, it is self-regulated (Lantolf & Appel 1994: 7 - 12).

Ideally children are supported in their learning by experts, for instance, the parents or teachers, who provide scaffolding. Experts who scaffold usually use language to support learners in achieving their goals. They do this, for example, by drawing the learners' attention to certain features of the problem, controlling frustration, simplifying tasks as necessary, showing how a problem could be solved and creating interest in the task. All this helps the learner in co-constructing knowledge i.e. in internalising the tools of mediation. It should be pointed out however, that development is only possible within the zone of proximal development often referred to as the ZPD (Mitchell & Myles 1998: 145 -147). The ZPD can be defined as

> the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky 1978: 86)

Thus, only if a certain developmental level has already been achieved and assistance by an expert is available other specific developmental processes are within the child's reach. The concepts of internalisation and of scaffolding within the ZPD described above should make clear that mental development as conceived by sociocultural theory is a process which is first inter-psychological and only later intra-psychological. Hence the sociocultural environment and interaction are vital for the transformation of biological mental processes into higher cognition (Mitchell & Myles 1998: 146f).

As for language, considering that language is crucial for participating in a community, its importance for learning can hardly be overestimated. Firstly,

language due to its interpersonal function helps learners to internalise sociocultural tools in interaction (ibid.: 148). Secondly, language is in itself a powerful psychological mediatory tool which helps people, for example, to direct their attention. Consequently, it is not surprising that people when thinking do this in words, i.e. they use inner speech to regulate their mental processes (Mitchell & Myles 1998: 148).[26]

In conclusion, "SCT is a theory of mediated mental development" (Lantolf & Thorne 2006: 4), which suggests that mediatory tools are internalised through social interaction and that language is one of the most powerful sociocultural tools of mediation available to humans.

4.2. Activity theory

One branch of sociocultural theory is activity theory, which was introduced into the West in the 1970s under A. N. Leont'ev. As has been mentioned, the sociocultural environment is considered crucial for mental development. Activity theory is especially interested in this environment and wants to show how the internal (mental plane) and the external (sociocultural plane) come together. It investigates among other things how the roles, rules and power relations in activity systems shape and are shaped by human action (Lantolf & Thorne 2006: 211 -214).

According to activity theory, it makes sense to investigate different levels of an activity in order to understand it. First, there is the level of activity[27], i.e. a biologically or socially created desire, which explains why something is done. Second, there is the level of action, which refers to what is done once the desire has been directed towards a particular object. Third, there is the level of operations, which defines how something is done based on the specific conditions of the setting

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[26] According to sociocultural theory all speech is social at first. When children are still very small, parents regulate their lives and use speech while doing this. As children grow older they interact with their parents in these processes of regulation with the parents using language to scaffold their children's efforts of self-regulation. In a next step children use private speech, i.e. speech which is not directed at others. By using this private speech they mediate their attention, i.e. they start regulating themselves using language. This private speech reminds very much of the speech used by parents to scaffold their children. This and the fact that private speech is usually only produced when other people are present, bespeaks the social origin of private speech. In a next step this private speech is fully internalised, i.e. it becomes inner speech. This inner speech is a tool of mediation at the psychological plane. If people have to solve cognitively challenging tasks it can happen that this inner speech is externalised again, i.e. people speak silently to themselves or mutter phrases to achieve better self-regulation (Lantolf & Thorne 2006: 72- 74).

[27] Unfortunately, the term activity is used both to refer to the activity as a whole, as well as to one of the levels of an activity, namely the motive (Lantolf &Thorne 2006: 216).

in which the action is carried out (ibid.: 216). For instance, if a pupil studies vocabulary, he or she has an underlying motive such as to pass an exam or to integrate into the community of the target language. This is the activity. The action is to study vocabulary and the operation is how it is done, for instance, by writing index cards or memorising a list of translations. Each of these levels is influenced by the sociocultural context and each has to be considered in order to understand an activity. For example, the learning outcomes of the aforementioned activity may differ considerably depending on the underlying motive. In other words, the pupil who studies words to pass an exam may choose or remember different words than the student who studies in order to integrate into the target community (Lantolf & Thorne 2006: 218). Thus, activity theory underlines that the different levels of an activity as well as at the sociocultural setting need to be considered in order to understand human actions and mental development.

4.3. Sociocultural theory, SLA theory and teaching

Since sociocultural theory considers learning to be essentially social, it is no surprise that it has criticised the predominant input-interaction-output model (IIO model) of language acquisition as being reduced and too mechanistic. In the IIO model, language development is described as the acquisition of a stable linguistic system which is mainly used to transmit information. Consequently, SLA can be described by using categories such as input, output and interaction without considering the manifold functions which might underlie language. However, sociocultural theory points out that language has to be understood as a social means of mediation used, for instance, to negotiate identity, social relations and distributions of power in a specific activity system (Block 2003: 61 - 64). Therefore, the transmission model of language and the acquisition metaphor related to it cannot explain language development adequately. Rather, the concept of acquisition has to be complemented by the concept of participation in a certain community to understand what happens when language is learned (ibid.: 104).

Based on the above tenet that (language) learning happens as people participate in a specific community, SCT emphasises the importance of group work for language teaching. Firstly, in groups pupils can try out various roles (Mitchell & Myles 1998: 154). Consequently, group work can be one way of allowing students to explore

different language functions. Secondly, in group work pupils can scaffold each other while co-constructing knowledge together. Thus, they can use language as a collaborative cognitive tool in order to achieve learning goals, for example, language learning goals, which they would not have been able to reach on their own (Donato 1994: 52). However, it should be mentioned that group work even if carefully planned cannot be expected to lead to similar learning outcomes in all pupils. Learners are active and have their own agenda when it comes to internalising; they cannot be controlled (Lantolf & Thorne 2006: 197) .

Group work, as has been suggested, is a place in which language can be used as a cognitive tool. According to sociocultural theory, this function of language generally needs to receive more attention in teaching. After all, studies have shown, for example, that learners who use the foreign language in their inner speech or in their private speech, e.g. when repeating words quietly to themselves, are more successful (ibid.: 182).

Therefore, pupils should be encouraged to use language for mental regulation and consequently internalisation. For instance, they could be asked to verbalise their thoughts when solving problems, such as when applying language rules (ibid.: 312). Moreover, the use of the mother tongue should not be banned from the foreign language classroom since the foreign language often cannot fulfil advanced regulatory functions yet (ibid.: 295).[28]

Finally, it should be mentioned that sociocultural theory supports the teaching of grammar. Vygotsky believed that grammar teaching allows learners to gain more conscious control over language, i.e. that it can help learners to improve the handling of this symbolic tool (ibid.: 293).

In conclusion, language fulfils a number of social and mental functions. Therefore, SLA theory and teaching need to consider these in order to be able to understand and further language development.

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[28] Cummins (1998: 5) suggests that pupils do not overuse their mother tongue if they are required to present learning outcomes in the foreign language.

4.4. CLIL classes as a language learning environment: taking a sociocultural perspective

In order to elucidate the sociocultural perspective on CLIL, it is necessary to recount and elaborate some of the expectations and challenges connected to CLIL in the acquisition model of language development. As the previous chapters have shown, CLIL was thought to be perfect for language acquisition because it allowed for extensive natural and authentic comprehensible input (Dalton-Puffer & Smit 2007: 8). However, studies have revealed that opportunities for language acquisition are limited because of reduced input and output. Further research has related these problems to the discourse structures predominant in the CLIL classrooms which resemble very much those in traditional foreign language and content subject classes. For instance, Canadian French immersion teachers tend to lecture a lot (Swain 1985: 247), while Austrian teachers of CLIL classes rely on the IRF structure of discourse (Dalton- Puffer 2007a: 54). Both in Canada as well as in Austria, CLIL programmes thus reflect the discourse patterns and role distributions of the local educational culture. Furthermore, in both cases adhering to these traditional structures has lead to limitations in input and output.

It should be pointed out that not only the patterns of discourse but the functions of discourse as well are more traditional in CLIL classes than could be expected at first. Of course, CLIL allows pupils to experience the target language as a medium to convey content information more so than the traditional foreign language classroom. However, like regular subject lessons, CLIL classes hardly ever provide opportunities to realise the varied social functions which language use fulfils (ibid.: 286). Pupils do not learn how the target language could be used among peers in order to criticise, to joke, to tease and to argue. They are not given the chance to use the target language to negotiate their social position in the classroom or their own identity. It is therefore no surprise that Tarone and Swain (1995: 166 - 172) could observe a situation of diglossia even in immersion classrooms. That is, pupils use the target language to talk about academic issues such as the content subject, but switch to their first language to talk about private matters and to negotiate social relations in class.

From a sociocultural viewpoint the phenomena described above are not surprising. To learn at school means to learn within a particular activity system, the structure of

which opens up and constrains learning opportunities (Dalton- Puffer 2007a: 293). Since CLIL classes also take place in the institution school, the conditions in CLIL classrooms can be expected to be similar to those in traditional classrooms. Changing the language of education does not fundamentally alter the educational context. After all, the rooms, teachers, students, and structures of classroom discourse remain largely the same (ibid.: 279). Consequently, criticism which can be levelled at discourse patterns and role distributions found in foreign language and subject lessons is also often true for CLIL.

The point of criticism which sociocultural theory would probably lay most emphasis on is that CLIL classes focus too much on the learner as an intellectual being rather than as a full person (ibid.: 274). That is, in CLIL as much as in traditional teaching the social dimension is neglected and the learner is put into a well-circumscribed and rather passive position. Taking a sociocultural view, these aspects must necessarily limit language learning which is first and foremost a social activity. Consequently,

> it makes sense to examine whether teaching arrangements in CLIL lessons could perhaps be designed in such a way that they provide for a wider array of (assumed or played) roles. (Dalton- Puffer 2007a: 286)

Only if this happens the varied social functions of language can be realised and therefore acquired.

Moreover, considering the conditions for learning described above, the notion that CLIL in contrast to traditional language teaching provides authentic, natural and meaningful communicative situations needs to be qualified (ibid.: 278).[29] While CLIL classes do provide authentic and natural communication, this communication is only natural and authentic in the situated event of the classroom. This is evidenced best by the lack of social language functions realised in lessons.

Thus, from a sociocultural perspective CLIL as well as traditional foreign language classes share several characteristics which mark them as classrooms and distinguish them from other communicative events (ibid.: 279). These characteristics need to be considered in order to be able to assess the learning opportunities they afford and to alter teaching practices accordingly.

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[29] Cf. chapter 1 on rationales of CLIL and chapter 2 on Krashen's theory applied to CLIL.

Although CLIL and traditional foreign language classrooms show similar conditions for language learning, this does of course not mean that nothing changes if the foreign language is used in content subjects.[30] Indeed, a recent study by Tarja Nikula has revealed that CLIL, although not doing away with the IRF pattern, does seem to change it positively.[31] Nikula contends that more conversational symmetry in the IRF cycles can be observed in CLIL classes than in traditional language classrooms. In the EFL (English as a Foreign Language) classes she studied, students provided only short answers even if the topic of conversation was open and the lesson was not focused on form. A possible explanation could be that students saw these conversations mainly as language practice rather than as situations in which meanings could be created and exchanged. In the CLIL classrooms, on the other hand, students were more ready to explain their understanding of certain issues considered. Furthermore, Nikula observed that teachers in CLIL classes provided more elaborate feedback moves, instead of just moving on to the next initiation. These elaborations were used by the pupils to provide additional subject-related comments. Therefore, despite reflecting traditional educational discourse patterns, CLIL classes seem to afford more opportunities for output and interaction than foreign language classes (Dalton- Puffer 2007b: 146f).

CLIL programmes also create a new learning environment if they involve native speaker teachers or the method of team teaching (Dalton- Puffer 2007a: 288). In Barbara Unterberger's and my evaluation study of the DLP, we found, for example, that the roles attributed to teachers and pupils can change considerably. One biology teacher we interviewed pointed out that everyone has assumed the role of a learner. The pupils as well as the subject teacher are learners of English (although at a different level), while the native speaker teacher learns content alongside teaching. Thus, the teachers are no longer in the sole role of experts, rather everyone in class is "in the same boat". According to the biology teacher, this has caused the atmosphere

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[30] As the previous chapters have already shown experiencing the target language as a means to transmit knowledge does allow language development which is not possible in traditional language classrooms. Cf. chapter 2.4. and also chapter 5 and 6 for a discussion of the positive effects CLIL has on learning.

[31] It should be reminded that IRF stands for initiation-response-feedback and refers to a particular pattern of discourse which is very common in classrooms. It means that a question by a teacher (initiation) is usually followed by a student answer (response) which is evaluated by the teacher (feedback) (Sinclair & Coulthard 1975: 45- 48).

in class to be "considerate" and "friendly".[32] How such a change in roles can affect the learning in class would be an interesting issue to investigate.

In conclusion, to understand learning in the CLIL classroom it is necessary to abandon the position

> widespread in CLIL-related discourses, namely that input per se functions as a trigger for acquisition processes which unfold independently of context. (Dalton-Puffer 2007b: 145)

Rather a sociocultural view needs to be adopted which analyses the characteristics of the CLIL classroom and the learning opportunities these engender with reference to the activity system 'school' of which CLIL is a part (Dalton- Puffer 2007a: 11). So far studies with a sociocultural perspective have shown that the CLIL classroom as much as the traditional classroom shows limitations for learning characteristic of school (ibid.: 293). From a sociocultural perspective the sole focus on language as a medium for transmitting content knowledge as well as the lack of opportunities for collaborative construction of knowledge are problematic. Nevertheless, CLIL classrooms are also places for educational innovation which influence learning positively. Using the foreign language to discuss subject matter can weaken traditional patterns of discourse (Dalton- Puffer 2007b: 146). Integration of native speakers of the target language can lead to new role allocations. Finally, it should be mentioned that the implementation of CLIL and the debate about this new method has already drawn attention to the limitations certain traditional teaching practices entail.[33] In conclusion, this new method of CLIL, although not a panacea for language learning, might continue to improve conditions at school- not only for language but also for subject matter learning.

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[32] In the DLP lessons are taught by a native speaker of English and a subject teacher who speaks German, i.e. lessons are bilingual. Cf. chapter 11.3. on the role allocation in the team teaching situation.

[33] Cf. the studies on CLIL which show limitations of traditional discourse patterns mentioned in the chapters 3 and 4. Cf. also handbooks on CLIL such as Mehisto, Marsh and Frigols' *Uncovering CLIL* (2008: 107) and their promotion of "best practice" in education, i.e. of methods which remind of sociocultural and constructivist views on teaching. Cf. also chapter 10.4. on the teachers accounts on teaching in the DLP. The teachers emphasise that they encourage student activity, task-based learning, project work and the increased use of visuals.

5. Constructivism

As has been mentioned before, the input-interaction-output model of language acquisition, although still predominant, has been complemented by new learning theories. Those concerned with the theoretical underpinnings of CLIL especially have turned towards more general learning theories (Dalton- Puffer 2007a: 263f). Among these new theories which feature prominently in CLIL rationales are constructivist theories from the field of psychology (Dalton-Puffer & Smit 2007: 10). The view of social constructivism on the CLIL classroom has been presented in the last chapter. This chapter discusses the school which is most readily associated with the term 'constructivism', namely epistemic constructivism as based on Jean Piaget. Like Lev Vygotsky, Jean Piaget (1896 - 1980) was a developmental psychologist interested in the cognitive development of children (Wolff 2007: 9). The basic tenets of Piaget's theory, the role he attributed to language and social interaction for learning, the implications for teaching which follow from his theory and finally the constructivist view on CLIL are detailed in the following.

5.1. Tenets of epistemic constructivism

Piaget thought of learning as "primarily a process of adaptation to the environment and an extension of biological development" (Wadsworth [1996]: 5). Like other constructivists Piaget believed knowledge is not acquired but constructed. That is, as a child receives stimuli and interacts with the environment, it constructs a model of reality. This model, although subjective, is not arbitrary in that it is checked against the environment to assess its adaptive quality (Wendt 1996: 16). When children become older the model which is rather crude at first is differentiated and elaborated until it resembles adult constructions of reality. The processes of modifying and expanding the personal construct of reality continue throughout a person's life (Wadsworth [1996]: 14).

As people construct knowledge, they do not store this knowledge randomly but rather create mental structures, i.e. schemata. These schemata are concepts (ibid.). A schema of a tree, for instance, would probably include information about how a tree looks, smells, feels and which uses it has. This schema would be based on and

connected to personal experiences with trees. As has been mentioned constructions of reality and thus schemata are not stable but they change. Two processes which are involved in the construction and reconstruction of schemata have been identified by Piaget, one of which is assimilation. Assimilation means "placing (classifying) new stimulus events into existing schemata" (Wadsworth [1996]: 17). In assimilation a new detail is added to a schema without changing it fundamentally. If, however, a stimulus does not fit into an existing schema either a new schema has to be established or an existing schema has to be altered considerably. This process is called accommodation. Thus, schemata are internally constructed, based on experience and restructured over time (ibid.: 17f).

For restructuring, i.e. learning to happen, it is vital that a child acts on the environment (ibid.: 29). Only if it can be physically or mentally active new stimuli will come in which can cause disequilibrium. The term disequilibrium refers to a

> state of cognitive conflict resulting when expectations or predictions are not confirmed by experience. (Wadsworth [1996]: 19)

This means that a cognitive imbalance is caused if new stimuli do not fit into a person's construct of reality. This disequilibrium will motivate the person to restructure his or her mental reality, i.e. to learn (ibid.). After all, since people construct knowledge about the world in order to be able to adapt and to survive in their environment, they are highly motivated to keep their model of reality up-to-date.

Whether a stimulus causes disequilibrium depends on the person's previous experiences and hence on his or her specific construct of the world, i.e. what may be puzzling for one person need not be puzzling for another (ibid.: 29). Moreover, affective aspects play a role. They influence, for instance, which aspects of reality are attended to and consequently if a stimulus which might cause disequilibrium is noticed at all (ibid.: 150). Opportunities for disequilibrium also depend on biological developmental aspects. These set broad limits as to what intellectual development is possible for a child at a certain age. For instance, children become able to use language, i.e. symbols, only around the age of 2 in the stage of preoperational thought (ibid.: 26 - 28).[34]

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[34] Four broad stages of cognitive development can be identified. The sensorimotor stage (0-2y) in which behaviour is primarily sensory and motor. Children have to act on physical objects to be able to

To sum up, learning involves the construction of schemata and is caused if disequilibrium occurs. Disequilibrium depends on a person's individual construction of reality, his or her emotional state and stage of maturation as well as on the opportunities for active experience that the person's environment affords. From this follows that learning is an active process of construction which can be aided but certainly not controlled from outside the learner (Overmann 2002: 39).

5.2. The influence of social interaction and of language on learning

As the above account has shown learning is conceived of as an individual and autonomous process of construction. Because Piaget concentrated very much on these individual internal processes, he has been criticised as neglecting the social dimension of learning. However, Piaget does consider the role of social interaction. Firstly, humans are social beings. Hence, they are motivated to construct social knowledge to improve the adaptive quality of their model for reality. For the construction it is necessary to interact socially.[35] Secondly, when humans interact socially they receive stimuli which can potentially cause disequilibrium and thus construction, not only of social but also of other types of knowledge (Wadsworth [1996]: 9 - 24).

As for language, Piaget believed that language is neither sufficient nor necessary for learning. Language for Piaget was just "one manifestation of the symbolic function (ability to use symbols to represent)" which is developed in the preoperational stage (ibid.: 11). Consequently, language only reflects intellectual development and internal thought but does not shape it (ibid.: 63). However, language can be facilitative of learning. The construction of social concepts especially is furthered through the use of language (ibid.: 139).

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develop a schema. The stage of preoperational though (2- 7y) in which children develop an understanding of symbols and first reasoning abilities. However, they are still very much influenced by perception and thus semilogical. The stage of concrete operations (7-11y) in which children can apply logical thought to solve problems but usually still need concrete material aids to do so. Finally, the stage of formal operations which develops from age 11 onwards and in which the solving of more complex abstract problems becomes possible (Wadsworth [1996]: 26).

[35] According to Piaget, different types of knowledge can be distinguished. Physical knowledge, i.e. the knowledge about physical objects, can only be developed if a learner can interact with objects, e.g. touch them. Logical-mathematical knowledge is developed when people think about their experiences with objects and discover relations between them. This knowledge can be abstracted from concrete objects. Finally, there is also social knowledge, which encompasses knowledge about social conventions, laws, morals and language (Wadsworth [1996]: 23f).

5.3. Constructivist views on teaching

According to constructivism, learning means constructing and not acquiring knowledge. This process of construction is governed by the structures of the learner's mental model of reality and is both autonomous as well as active. Consequently, teaching should not be understood as instruction, i.e. knowledge transmission. Rather it should be reconceptualised as a process which can encourage the learner's activities of reality construction (Wadsworth [1996]: 147 - 151).

Since the learner knows best which reconstructions are necessary and possible in his or her personal model of reality, teaching should allow learners to follow their own path of disequilibrium (ibid.: 141). After all, if knowledge is imposed from outside, it is very likely that the learner will only learn the information by heart but will neither be motivated nor able to integrate it into his or her individual construct of reality. If however, learners have the opportunity to construct knowledge autonomously on the basis of their individual schemata, this knowledge can be retained and used. Thus, teaching which embraces constructivist thought gives learners the freedom to be active and autonomous in their learning (Overmann 2002: 43).

Allowing students to manage their own learning does not only make learning more effective but it has an additional advantage – pupils learn how to learn (Wadsworth [1996]: 154). As Rüschoff (1999: 80 - 84) points out, becoming a competent learner i.e. becoming able to use and structure information as well as to organise and to self-evaluate ones learning progress is a vital skill in our information society. As the amount of information available rises, it is increasingly important for the individual to be able to manage this information and turn it into knowledge. Only the learner who has been supported in constructing knowledge autonomously rather than just memorising it can develop these skills and apply them successfully once he or she has left school.

Although constructivism emphasises the importance to give learners freedom in their learning, this does not mean that constructivist teaching contends they should be left to their own devices. Rather teachers by, for example, asking guiding questions should support learners in their exploration and cause disequilibrium if they come to wrong conclusions. Teachers should also find out about their pupils' interests and by drawing on their curiosity initiate research and show them why certain information could be relevant to them (Wadsworth [1996]: 150 - 152). Above all, teachers should

help learners to develop those learning strategies which allow active and autonomous learning (Wendt 1996: 75).

Apart from a teacher who aids students in their construction of knowledge, the learning environment is essential for successful learning to be possible. Only in a rich learning environment which provides many different stimuli can pupils experience disequilibrium and engage in those construction processes which are appropriate for them. Therefore, the learning environment has to provide different opportunities for construction, such as a range of different materials and tasks (Rüschoff 1999: 84). In this learning environment pupils should be allowed to choose their activities, to present the outcomes of their research and to self-evaluate their work (Wendt 1996: 75). Both individual and group work has to be possible (Wolff 2007: 4f).

This environment should not only afford rich opportunities to be mentally and physically active but it should also be authentic. Only in an authentic learning environment can pupils develop constructs of reality which have adaptive value outside the classroom. Consequently, pupils should be asked to solve real-world problems in an environment which allows them to find solutions appropriate for the 'real-world' (Mardziah Hayati 1998).

Since constructivism considers language learning to be like all other learning, it is clear that successful language teaching needs to provide manifold opportunities to use language, to experience its adaptive value, and to solve real-life problems in the target language. The material provided should be authentic. However, grammar-focused material is also valuable in that it can help to prove or invalidate hypotheses about the foreign language and thus aid construction (Wendt 1996: 77f).

In conclusion, constructivist teaching encourages learner to be active and autonomous, to develop learning strategies and real-life problem solving skills in a rich and authentic environment.

5.4. Constructivism and CLIL

As has been mentioned, constructivism contends that people only learn if they experience disequilibrium and hence a personal need to modify their schemata. Learners have to feel that new information is relevant to them and that changing their

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model of reality accordingly will have adaptive value. CLIL increases the adaptive value of learning the target language considerably. The target language is no longer just one of the subjects at school. Rather, it gains relevance as a means which allows to understand and to communicate content knowledge in several areas (Wolff 1996). In the foreign language classroom, according to Wolff (2007: 28), learning often just means acquiring new labels for 'old concepts'. For example, pupils may learn how to order food in the foreign language and practice these restaurant dialogues in the classroom. Thus, learning the target language does not have much immediate or authentic relevance, rather it seems to be a goal in itself. In CLIL classrooms, on the other hand, the new language comes with new concepts. Students can immediately experience the value of the language, which is used to convey novel information and to communicate about it (Wolff 1996). As a result, not only those pupils who are interested in the target language as such but also those who are interested in one or several of the CLIL subjects, will consider the target language to be relevant and will be motivated to learn it (Snow, Met & Genesee 1989: 202).[36]

In order to learn, not only motivation on the part of the learner but also a rich learning environment which offers ample opportunities for construction is required. CLIL certainly constitutes such an environment by providing extensive subject specific target language input as well as tasks to be accomplished in the foreign language (Wolff 2007: 28). Moreover, because content subjects are thematically organised, with topics building on each other, the language learned will be well-remembered (Grabe & Stoller 1998: 11). After all, constructivism points out that new knowledge needs to be integrated into the mental structure of concepts already constructed in order to be retained.

However, as the studies cited in previous chapters have shown, CLIL only constitutes a rich as well as authentic language environment with regard to the construction of communicative competence in the academic domain. Opportunities for construction of social knowledge are rare (Dalton- Puffer 2007a: 286). Furthermore, the CLIL classroom does not cause disequilibrium in the area of target language grammar; rather, the exclusive focus on language meaning in the CLIL

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[36] Cf. also chapter 7 on the relation between CLIL and foreign language teaching.

classroom does not seem to create a need in the pupils to construct target language grammar once comprehensibility has been ensured (Swain & Lapkin 1995: 372).[37]

As for the development of learning and communication strategies, the CLIL classroom seems to further the construction of language strategies which are aimed at gleaning meaning out of texts such as skimming and scanning (Wolff 1996). For instance, the DLP teachers interviewed by Barbara Unterberger and me reported that pupils in CLIL classes get very adept at deriving meaning from texts even if they do not know every word. Pupils in regular English classes, on the other hand, tend to get hung up at every word which they do not understand.[38]

In conclusion, the CLIL classroom is ideal for the development of receptive academic language skills and meaning- focused language learning strategies. This is due to the fact that CLIL classrooms are authentic academic environments which cause disequilibrium because of the increased target language use and the immediacy and relevance which results from the foreign language being the language of instruction and communication in content subject. Thus, CLIL can motivate the majority of pupils to construct foreign language knowledge in academic matters. If learners should also develop grammatical accuracy and the ability to use language for social purposes, the CLIL classroom has to provide both disequilibrium and opportunities for construction in these areas as well.

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[37] Lyster (2007: 97f) points out that the sole focus on meaning has the effect that pupils in CLIL classes frequently do not even notice corrections of their language output. Instead, they often mistake corrective feedback for a confirmation of their message which has the effect that no diseqeulibirum can be caused. Of course, this hampers the construction of grammar knowledge.
[38] Cf. chapter 12.1.on the teachers' impressions on learning in the DLP.

6. Cummins' hypotheses on bilingualism

The previous chapters have already looked at the method of CLIL from various perspectives to enlighten the possible strengths and weaknesses of this approach. This chapter is now concerned with Cummins' hypotheses on the relation between bilingualism, cognition and academic success. His hypotheses which have been developed on the basis of studies conducted on bilinguals and on various CLIL programmes help to understand why CLIL can be so successful. They explain how CLIL can promote both the development of the mother tongue as well as of the target language at the same time. Furthermore, they show that bilingualism can lead to improved cognition in some areas. However, his hypotheses also make one aware that being taught through a foreign or second language is not always beneficial. Immigrants often face major difficulties because they do not find themselves in supportive CLIL programmes but rather in a situation of submersion (Baker [2006]: 168- 171).[39]

Thus, the hypotheses presented in this chapter should deepen the understanding of bilingualism and draw attention to some basic principles which should be followed in CLIL programmes – be they for children from majority or minority backgrounds.

6.1. Bilingualism and cognition

When Cummins started to analyse studies on bilingualism he found apparently contradictory evidence as to the effects of bilingualism. These contradictions could partly be explained by the fact that definitions of bilingualism have varied considerably and studies were consequently difficult to compare (Cummins & Swain 1996: 3f).[40] Still the differences among studies evaluating bilingualism were striking.

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[39] The term 'submersion' refers to situations in which a child has to cope with instruction through a second language while the majority of his or her classmates are already competent in the language of instruction. Thus, immigrants often experience submersion (Cummins & Swain 1996:8).
[40] Some researchers, for example, define everyone as bilingual who has "minimal abilities in at least one of the four skills" (Cummins & Swain 1996: 7). For others being bilingual means to have native-like skills in two languages. Not only the level of proficiency can differ among 'bilinguals' but so can the age, at which the languages were acquired (simultaneous or sequential bilingualism), the context in which bilingualism developed (artificial or natural acquisition) or the domains in which the languages are being used (ibid.).

On the one hand, as has been mentioned in previous chapters, research on CLIL has revealed that a high degree of bilingualism can be achieved with no detrimental effects to either first language or content knowledge development. Moreover, already in the 60s and 70s several studies suggested that the linguistic and cognitive achievement of bilinguals even surpasses that of monolinguals slightly. Since then additional research has confirmed this idea and furthered it. Research could show, for instance, that bilinguals are better in divergent and creative thinking. The knowledge that different words may denote the same thing thus seems to contribute positively to cognitive flexibility and concept development. Furthermore, bilingual children have a better metalinguistic knowledge and are aware of the symbolic nature of language at an earlier age than their monolingual peers. In addition to that, they seem to be able to use syntactically more complex structures sooner than monolingual classmates. This positive relation between bilingualism and cognition could be observed in immersion pupils but also in pupils from a minority background whose mother tongue was reinforced. In conclusion, those bilinguals who found themselves in a situation which promotes additive bilingualism experienced positive effects on cognition (Cummins & Swain 1996: 10 – 18).

On the other hand, several studies seemed to suggest a negative relation between cognition and bilingualism. For instance, a study by Skutnabb-Kangas and Toukomaa (1976) revealed that Finnish immigrant children in Sweden, although apparently fluent in Finnish and Swedish, showed a very poor academic performance. A closer analysis revealed that the verbal academic performance of these children was considerably below that of their peers. Indeed, their knowledge of Swedish as well as of Finnish seemed very limited, which had negative effects on their emotional, cognitive and academic development (ibid.: 9f). Therefore, these immigrant children seemed to experience a subtractive form of bilingualism, where both languages were only poorly developed (ibid.: 18).

By looking at these studies Cummins concluded that bilingualism and cognition are correlated (ibid.: 4). While first language, second language and cognitive development are hampered in cases of subtractive bilingualism, the level attained in both languages and in cognition even surpasses that of monolinguals in cases of additive bilingualism. Cummins proposed two hypotheses to account for this phenomenon, the interdependence hypothesis and the threshold hypothesis. The

former explains how the languages are related in a bilinguals' mind, while the latter describes how language proficiency and cognitive development could be connected.

According to the interdependence hypothesis, also called the iceberg model, all languages which a person knows build on one common underlying proficiency (CUP). This underlying proficiency refers to cross-lingual knowledge such as knowledge of academic concepts or more generally of the world. It also includes metalinguistic knowledge which a person has acquired. This common underlying proficiency forms the basis of all language use. In addition to the CUP, surface features of a language have to be acquired, i.e. grammar and vocabulary, in order to be able to communicate. These surface features are, of course, language specific and consequently do not form part of the common underlying proficiency. A person's knowledge of these surface structures can be compared to the tip of an iceberg; it can be clearly seen but it builds upon a large underlying iceberg, i.e. the common underlying proficiency. Hence a bilingual person's cognition could be described as one iceberg with several tips (Cummins & Swain 1996: 81f).

The common underlying proficiency mentioned above develops if people use a language and interact, thereby acquiring not only the surface structure of a language but ideally also metalinguistic, cognitive and academic skills which form the CUP. Thus, languages function as channels which allow the common underlying proficiency to be developed. In case of bilingualism two channels can be used rather than just one (ibid.).

Since all languages can feed the common underlying proficiency and are supported by this CUP, it is clear that knowledge acquired through one language can be transferred to other languages. For example, a child who has learned to read in his or her mother tongue can draw on these literacy skills when learning an additional language. In other words, the child does not have to learn the concept of reading anew but rather just has to acquire the words in the target language (ibid.: 103).

Consequently, children can use either their first or their second language to learn and to build the common underlying proficiency. If the CUP is strengthened through the mother tongue this knowledge can be transferred to the second language. Conversely, learning in and through a second language can improve first language competence since it expands the common underlying proficiency (Shoebottom 2007).

However, languages can only feed the common underlying proficiency if they are sufficiently developed. Here the second of Cummins' hypotheses mentioned above comes in – the threshold hypothesis. According to Cummins, a child needs to reach a certain threshold in his or her language competence in order to be able to use it as a channel for the CUP. It follows therefore that a certain language proficiency has to be achieved to prevent negative cognitive consequences. For instance, those Finnish immigrant children described in the study by Skutnabb-Kangas and Toukomaa (1976) apparently had not yet achieved a level in Swedish which allowed them to follow teaching through this language. At the same time they did not receive any instruction through their mother tongue, Finnish. On the contrary, they had only limited opportunities to use Finnish in their new environment. The consequence was that these children could not fuel their common underlying proficiency adequately through either language. Therefore, they had problems to develop cognitive and academic skills which were needed to succeed in education. Moreover, since the conditions were such that the foundation of language development, i.e. the CUP was not strengthened, skills in both Finnish and Swedish remained restricted. The situation was different for Finnish children who arrived in Sweden after the age of 10. Those older children had apparently already achieved a more advanced level in Finnish and thus had a more highly developed CUP. Consequently, they could make use of transfer considerably and were able to attain a high proficiency in Swedish quickly. These children were able to pass the threshold in their mother tongue as well as in their second language in order to avoid negative consequences for cognition and academic success (Cummins & Swain 1996: 6 - 9).

According to Cummins, there is not only a low threshold which defines whether or not detrimental effects on cognition and further language development can be expected but also a high threshold, which if achieved in both languages can lead to cognitive benefits such as those experienced by immersion pupils described above (ibid.). That is, if people attain a high competence in two languages, this seems to have positive consequences for the development of the CUP. Cummins points out that it is not clear, however, if it is the knowledge of two languages itself or the opportunity to partake in different cultures and hence to make new experiences and

take new perspectives, which leads to those cognitive advantages observed in bilinguals (Cummins 2001: 23).[41]

Cummins also emphasises that these thresholds are not stable and absolute but have to be considered in relation to the person's needs. For example, a pupil who has to learn through a second language has a higher threshold to achieve in this language than a pupil who only uses this language in the foreign language class (Cummins 2001a: 42).[42] Furthermore, Cummins points out that being fluent in a foreign or second language in everyday situations does not mean that teaching through this language can be followed. Indeed many immigrant children seem to experience this problem. The reason for this phenomenon is that classroom language, as has already been hinted at in previous chapters, is different from the language used outside school lessons. Thus, competence in classroom discourse, i.e. cognitive academic language proficiency, CALP, has to be distinguished from basic interpersonal communication skills, BICS. While the latter can be developed in about 2 years of intensive exposure to the target language, studies show that 5 to 7 years are needed to develop CALP. This is due to the fact that everyday communication is often strongly context embedded and not very cognitively challenging. Tasks at school on the other hand are usually cognitively demanding and context reduced, which makes communication more difficult. Because of that, it is necessary to consider those two dimensions, i.e. that of cognitive demand as well as that of context, when designing tasks for pupils with a limited knowledge of the language of instruction (Cummins & Swain 1996: 151- 157).[43]

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[41] These examples point to the importance of mother tongue development in immigrant children. While immigrant children with a good competence in their first language can succeed in the second language easily due to transfer and being exposed to the second language extensively, those whose first language development has been cut short early suffer from negative emotional as well as cognitive consequences. Consequently, immigrant children need to receive educational support in mother tongue development to prevent negative and encourage positive effects on cognition and emotional well-being (Cummins & Swain 1996: 97).

[42] Pupils who enter late immersion, for example, usually experience a lag in content achievement at the beginning of the programme even if they have been taught the foreign language beforehand. This is due to the fact that they need to acquire CALP before they can follow teaching adequately. However, the lag in content achievement is temporary, i.e. late immersion pupils can catch up with their peers (Cummins & Swain 1996: 39).

[43] While this usually happens in immersion classrooms, i.e. tasks are geared to the pupils' language level, immigrants in mainstream education are often neither given the time nor the support needed to develop CALP in the target language (Cummins 1996: 157- 159). Because of that, Cummins has concluded that a home-school language switch is only problematic for a child if the majority of his or her classmates already functions in the language of instruction and teachers consequently do not take limited language abilities into account when designing tasks (Cummins & Swain 1996: 8).

In conclusion, the languages of a bilingual are interdependent since they build on the same common underlying proficiency. Moreover, certain thresholds have to be achieved in either language to avoid negative cognitive consequences. If language knowledge continues to grow and a second pair of thresholds has been reached, benefits for cognitive development ensue. Furthermore, where a different language than the pupils' mother tongue is used for instruction, task design has to consider cognitive demand as well as contextual aspects to support the development of CALP.

6.2. Cummins' hypotheses and CLIL

Taking into consideration Cummins' hypotheses when analysing CLIL, it becomes clear that CLIL classrooms are more likely to support the development of CALP than of BICS. All aspects needed to develop CALP, i.e. cognitive academic language proficiency, can be trained in CLIL classes (Grabe & Stoller 1998: 7). Bearing in mind that one of the main goals of CLIL is to prepare pupils for information society, the fact that CALP can be developed in CLIL classes is very encouraging.

In addition to that, Cummins' hypotheses provide guidelines as to how languages should be distributed in CLIL programmes. As has been mentioned, pupils have to reach certain thresholds in order to prevent negative effects on cognition and have to pass even higher thresholds to experience above-average cognitive growth. From this it follows, that the language which is used less in the child's surrounding should be emphasised in the classroom. This ensures that both channels for cognitive development available to the bilingual child remain open. Consequently, immigrant children should receive support in their mother tongue (Cummins & Swain 1996: 104). Pupils from a majority language background on the other hand should be exposed to the foreign language as much as possible. This is possible through the implementation of CLIL (Cummins & Swain 1996: 48).[44] Transfer at the level of the common underlying proficiency will then guarantee the development of both languages and consequently of cognition to a very high level as evidence from immersion classrooms has already proven.

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[44] It should be pointed out that it is the number of CLIL lessons every day rather than the duration of CLIL over the years which defines the success in language learning (Baker [2006]: 276). That is, 6 hours of CLIL every week for 2 years, for example, are more beneficial for language learning than 3 hours of CLIL per week for four years.

In conclusion, according to Cummins' interdependence and threshold hypothesis, the implementation of CLIL can be expected to be beneficial not only for target language development but also for first language and cognitive growth. Especially, the development of cognitive academic language proficiency can be expected. Thus, his hypotheses constitute a strong rationale for using content and language integrated learning.

7. On the relation between CLIL and regular foreign language teaching

When reading academic literature on CLIL, it is noticeable that CLIL and its advantages are often praised by contrasting it with regular foreign language instruction. CLIL classrooms are usually presented as authentic, natural, meaning-focused and communicative learning environments while foreign language classes are related to grammar-based, ineffective, unauthentic and painful language learning (Dalton-Puffer & Smit 2007: 8f). Considering the history of CLIL which has developed as an alternative to unsuccessful grammar-driven language teaching, a certain scepticism towards regular foreign language instruction in academic literature on CLIL is comprehensible. Nevertheless, the intensity of this critique and the opposition between CLIL and regular foreign language teaching it creates are sometimes striking. In a rationale for CLIL Dieter Wolff,[45] for example, writes:

> Geography or History provide rich learning content for the classroom – content which is real and not fictional and is more motivating than the one usually dealt with in language classrooms even if learners are free to choose what they want to work on. The learning contents of most content subjects are, what could be called "realia", i.e. facts and processes of the real world and appear thus much more relevant than the often pseudo-real contents of the language classroom. [...]
> In traditional language classrooms all learning content is pre-defined, simplified and graded. Linguistic content is structured according to rather enigmatic principles of learning ease which have not changed for the last 100 years or so. And non-language content is reduced to fairly stereotypical sequences of everyday life (*my family, my pets, in school, in a disco* etc.). (Wolff 2007: 41f)

Thus, CLIL provides "real" content which is "not fictional" and consequently "more motivating" and "much more relevant" (ibid.). The foreign language classroom, on the other hand, offers unauthentic material which is "pseudo-real" and "stereotypical" and does not encourage involvement (ibid.). This view on CLIL and regular foreign language teaching invites the question of whether foreign language teaching still has something to offer for language development and if so what functions it could have in foreign language education.

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[45] Dieter Wolff is a renowned figure in the field of CLIL. He has published several articles on traditional language teaching and CLIL and is also one of the authors of the CLIL-Compendium (www.clilcompendium.org), a webpage on CLIL supported by the Directorate-General for Education and Culture of the European Commission.

This question is the subject of this chapter. In the first part, I would like to propose that the dichotomy between CLIL and regular foreign language teaching (FLT) with all its implications needs to be qualified. Because of this, the similarities between CLIL and FLT, which have already been hinted at in previous chapters, will be highlighted first. In the second part of this chapter, I will argue that foreign language teaching still has a contribution to make in foreign language education and will consequently explore the relation between CLIL and FLT.

As has been discussed earlier in this thesis, sociocultural theory contends that an activity such as learning is influenced by the activity system within which it is carried out (Dalton- Puffer 2007a: 293). Since CLIL as well as regular foreign language classes take place in the same institution – namely school- learning in each is shaped by similar conditions (ibid.: 279). Therefore it is not surprising that language learning in CLIL is affected by limitations attributed to the IRF (initiation-response feedback) pattern of discourse, which is typical to teaching in all school subjects (ibid.: 36).[46] Thus, in this respect at least, no dichotomy between the CLIL and the foreign language classroom can be drawn. Rather, both have to be understood as environments for institutional learning which show features 'natural' for school.

When looking at the aspects content and language it becomes clear as well that foreign language teaching does not constitute the opposite of CLIL but that both approaches show considerable similarities. For example, foreign language teaching includes content. This content ranges from information on the language structure, to facts on the target language culture to 'content' such as pupils' hobbies, interests and family. The Austrian curriculum for the first foreign language taught at the lower secondary level even suggests that content from other school subjects should be integrated (bm:ukk 2000: 1 - 3).

Moreover, like CLIL modern foreign language teaching is aimed at creating communicative proficiency and can thus hardly be equated with the grammar-focused language instruction which predominated at the time CLIL developed.[47] The Austrian curriculum for foreign languages, for example, states:

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[46] Cf. chapter 4.4. on sociocultural views on CLIL which point to parallels between CLIL and traditional foreign language teaching.
[47] In the 1970s communicative language teaching developed both in Europe as well as in North America. This teaching has as its primary aim to promote communicative competence, a concept

> Als übergeordnetes Lernziel […] ist stets die Fähigkeit zur erfolgreichen Kommunikation – die nicht mit fehlerfreier Kommunikation zu verwechseln ist – anzustreben. Somit sind die jeweiligen kommunikativen Anliegen beim Üben von Teilfertigkeiten in den Vordergrund zu stellen. […]
> Der funktionale Aspekt der Grammatik hat Vorrang gegenüber dem formalen Aspekt. Generell sind die situative Einführung und ein induktives Erschließen grammatischer Sachverhalte aus kommunikativen Zusammenhängen und Textbeispielen anzustreben. Grammatische Teilsysteme dürfen sich keineswegs verselbstständigen und wegen ihrer leichteren Überprüfbarkeit indirekt zum eigentlichen Lernziel des Fremdsprachenunterrichts werden. Wo es sinnvoll ist, sind grammatische Strukturen besser ohne Regelformulierung als lexikalische Einheiten zu vermitteln. (bm:ukk 2000: 2)[48]

Thus it can be seen that foreign language teaching draws on content, emphasises communication and gives priority to functional rather than formal aspects of grammar.

CLIL practitioners, on the other hand, are being encouraged to reintroduce a focus on grammar into their teaching (Lyster 2007: 98f). As previous chapters have shown, explicit attention to language form is no longer considered a negative characteristic of the language classroom but is seen as an important aspect for the development of grammar knowledge in CLIL classrooms as well. Therefore, it can be expected that explicit language instruction will gain importance in CLIL and complement the language work which has been a part of it so far.[49]

Considering all those aspects mentioned above, the notion that CLIL and FLT constitute opposites with the former denoting natural, meaning-focused and effortless

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which has been introduced by Dell Hymes. In communicative teaching functional –notional concepts of language define the syllabus. The learners' needs should be identified and catered for by presenting highly contextualised language (Savignon : 124f). Moreover, teaching should involve rich communication and "[e]xercises were designed to exploit the variety of social meanings contained within particular grammatical structures" (Savignon: 125). Consequently, role plays, games and communicative exercises feature prominently in the communicative classroom (Savignon: 125f).

[48] The primary objective which should be achieved in the foreign language is the ability to communicate successfully in all skills; successful communication should not be mistaken for error free communication. Consequently, communicative aims have to be given priority when practicing language skills. [...]
Functional aspects of grammar have to be given more weight than formal aspects. Generally grammar should be introduced in meaningful situations; the communicative context and the use of examples from texts should allow for inductive learning of grammar features. Specific grammatical features must not be overemphasised and indirectly become the main goal of foreign language teaching because they can be more easily assessed. If applicable, grammar structures should not be taught by means of rules but should be embedded in lexical items. (Translation by Christina Gefäll)

[49] As the name already suggests CLIL has of course always considered the dimension of language. For instance, in contrast to submersion classrooms, the tasks in CLIL classes are designed to provide comprehensible input (Swain 1985: 246). Moreover, language problems are addressed in class if the need arises (Lyster 2007: 126). Cf. chapter 3 for a discussion on the role of grammar instruction in CLIL classes.

acquistion and the latter unnatural grammar-based and painful learning should be questioned. Instead CLIL and FLT should be reconceptualised as content or language-driven CLIL respectively.[50]

Despite those similarities, there are of course differences between CLIL and regular foreign language teaching as far as both methodology and also learning outcomes are concerned. Because of this, the question of which functions CLIL and regular foreign language teaching could and should have in language education needs to be raised. Before this issue is addressed in greater detail below, it is necessary to summarise briefly the main characteristics of CLIL.

As the previous chapters have revealed, CLIL is still primarily concerned with teaching content through a foreign language rather than focussing explicitly on language (Lyster 2007: 126). This has the effect that language use is immediately relevant, heavily meaning-based and involves communication about subject matter content. As a consequence, learners are highly motivated to use the target language, develop CALP (Cognitive Academic Language Proficiency) and are particularly strong in receptive language skills as well as fluency.[51]

On the other hand, the development of grammar competence and of BICS (Basic Interpersonal Communication Skills) seems to be hampered in CLIL.[52] Therefore the relation between CLIL and FLT is probably linked to the question of how these two issues will be resolved.

For example, although the position that attention to language form is important for grammar development predominates in the field of SLA theory, it is still unclear how much focus on form should be integrated into CLIL directly and how this focus should be realised. Some fear that more explicit grammar teaching could counteract the positive results for learning attributed to the strong focus on meaning in CLIL. Thus, people like Long suggest that language teaching in CLIL should be primarily unobtrusive and happen as pupils work on subject matter (Lyster 2007: 98).[53] From

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[50] The question whether CLIL and FLT should move closer on the continuum from language to content-driven CLIL or should remain clearly distinctive cannot be fully answered yet. However, as suggested above in CLIL as well as in FLT there seems to be a trend towards combining content teaching with a focus on meaning and on grammar.

[51] Cf. chapters 2, 5 and 6 on the positive effects of CLIL teaching on language learning.

[52] Cf. chapters 3 and 4 for a more detailed discussion on the limitations for learning in CLIL.

[53] For example, Long proposes that recasts, i.e. the repetition of a learners' comment with the error corrected, should be preferred to other types of feedback which draw more explicit attention to form (Lyster 2007: 98).

this it could be concluded that more explicit teaching of language structure, i.e. the emphasis of language as an object, could be the domain of the regular foreign language class.

However, other researchers call the assumption into question that it is mainly the strong meaning focus together with the avoidance of explicit attention to form which leads to the positive attitudes towards language use observed in CLIL. Baker ([2006]: 275), for example, suggests that the high opinion of the foreign language among parents of immersion pupils could be responsible for their children's above-average motivation to learn the target language. In our study on the Dual Language Programme, Barabara Unterberger and I found that pupils actually preferred to talk in English in their regular foreign language classes. This was striking but could be easily explained by the great popularity of the English teachers who were repeatedly mentioned positively in both the students' and the parents' questionnaires.[54] Thus, a good rapport between students and teachers can lower language inhibitions.

From this follows that the presence or absence of form-focus in teaching may not be the most decisive factor in promoting positive attitudes towards speaking in the target language. Moreover, researchers like Lyster (2007: 126 - 129) argue that it is the cognitive switching to and fro between attention to form and attention to meaning which could be especially conducive to language learning. Because of these aspects and because transfer of grammar knowledge from the foreign language class to CLIL lessons could be difficult if CLIL does not create a need for grammatical accuracy, grammar teaching must not be left solely to the regular foreign language class. However, according to Lyster (2007: 30) this does not mean that all grammar features should be focused on in CLIL or even need to receive explicit attention in this teaching method. Rather, those aspects of grammar should be emphasised in CLIL which are not salient in input, which differ from the learners' mother tongue unexpectedly or which do not have a high communicative value.

Thus, the question how grammar can and should be integrated into CLIL needs to be answered before the role of regular foreign language teaching in creating awareness for language form can be specified in more detail.

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[54] Cf. chapter 12.2. on the DLP students' attitude towards the English language.

Until this issue has been resolved, foreign language teaching should provide grammar knowledge to push learners' grammar development and to cater for those learners who like to approach language more analytically. Moreover, foreign language teachers should offer their expertise on how elements of language teaching could be incorporated into CLIL lessons.

Another issue of learning in CLIL needs to be considered when exploring the possible functions CLIL and FLT could have in language education. As has been mentioned, CLIL allows for the development of CALP but has neglected basic interpersonal communication skills so far. Because of this, immersion pupils do not use the foreign language for non-academic matters, for example (Tarone & Swain 1995: 168). In regular foreign language teaching, on the other hand, BICS features strongly. With reference to the Common European Framework of Reference for Languages (CEF), the Austrian curriculum prescribes the following topics for foreign language teaching at lower secondary schools[55]:

> Die Schülerinnen und Schüler sind durch die Einbindung der sprachlichen Mittel in vielfältige situative Kontexte mit verschiedenen Themenbereichen vertraut zu machen (wie Familie und Freunde, Wohnen und Umgebung, Essen und Trinken, Kleidung, Körper und Gesundheit, Jahres- und Tagesablauf, Feste und Feiern, Kindheit und Erwachsenwerden, Schule und Arbeitswelt, Hobbys und Interessen, Umgang mit Geld, Erlebnisse und Fantasiewelt, Gedanken, Empfindungen, Gefühle, Einstellungen und Werte, Umwelt und Gesellschaft, Kultur, Medien, Literatur). Dies entspricht den „vertrauten Themenbereichen" in den Kompetenzbeschreibungen des GER [Gemeinsamen Europäischen Referenzrahmens]. (bm:ukk 2000: 3)[56]

Thus, the foreign language class could make an important contribution to the development of BICS, i.e. support those language skills which have to do with the social functions of language and allow for the negotiation of identity and of power relations as well as for expressing personal rather than purely intellectual thoughts.

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[55] The Common European Framework of Reference for Languages: learning, teaching, assessment, developed by the Council of Europe, describes core competences which a learner has to develop while progressing in a foreign language. These competences define the level of proficiency which a learner has attained. In Europe the CEF functions as a guide for syllabus design in foreign language subjects (Council of Europe).

[56] By creating different situations in the foreign language pupils should become familiar with various topics (such as family and friends, accommodation and surroundings, food and drink, clothes, the body and health, yearly and daily routines, holidays and celebrations, childhood and growing up, school and the world of work, hobbies and interests, the handling with money, experiences and the world of fantasy, thoughts, sensations, emotions, attitudes and values, environment and society, culture, the media, literature). These correspond to the 'familiar topics' specified in the CFR [Common European Framework of Reference for Languages]. (Translation by Christina Gefäll)

Therefore, regular foreign language teaching could support progress in BICS at school, while the development of CALP is clearly a strength of CLIL.

As becomes clear several questions still need to be answered before the relation between CLIL and FLT can be specified in more detail. The question of how much focus on not only grammar but also on BICS can and should be integrated into CLIL to support optimal learning is one of them. This problem is connected to a more general one, namely the issue whether teaching at school should become increasingly cross-curricular and how the disequilibrium in different areas of learner's world construction can be ensured.

In conclusion, when investigating the relation between CLIL and regular foreign language teaching it becomes clear that both approaches are more similar than most books on CLIL would make us think. Both CLIL and regular foreign language learning are instances of institutional learning and consequently show features characteristic for learning at school. Moreover, in CLIL as well as in FLT meaning-focus and communication are given priority. Furthermore, foreign language teaching which has always included content teaching too is increasingly encouraged to incorporate subject-specific content matter. CLIL, on the other hand, which has mainly given explicit focus to content, assuming that this would ensure optimal conditions for incidental language acquisition, is starting to include teaching on language form. Thus, CLIL and FLT seem to move closer on the language teaching continuum which ranges from language to content-driven.

Apart from those aforementioned similarities there are of course differences between CLIL and FLT. CLIL is especially well suited for increasing the pupils' motivation to learn a language and for supporting the development of receptive language skills as well as of CALP in students. Grammar development and the acquisition of BICS seem to be hampered, however, since both aspects have not featured prominently in CLIL teaching so far. In foreign language classes, on the other hand, these aspects have been given considerable attention. Until the question 'to what extent and how teaching of grammar and of BICS should be included into CLIL' has been answered, regular foreign language teaching should provide room for the development of these important language areas.

The question whether CLIL can fully integrate the language and content aims of the foreign language class or whether CLIL as well as FLT should exist as distinct subjects with differing focuses will certainly inspire further research.

PART III – STUDYING CLIL EMPIRICALLY

8. An evaluation of the Dual Language Programme

The empirical part of this thesis is concerned with the presentation, analysis and interpretation of the results of an evaluation study on the Dual Language Programme (DLP). This study on the DLP, a new CLIL programme in Vienna, was conducted by my colleague Barbara Unterberger and me in the first year of the programme in 2006/07. Two lower secondary schools took part in the study which was commissioned by the Vienna Board of Education. While the method of CLIL has been approached from a theoretical angle in the last chapters, the formative evaluation study presented in this part of my thesis provides insights into the practice of CLIL from an empirical perspective.

8.1. The Dual Language Programme

In the academic year 2006/07 a new CLIL programme was added to those already existing in Vienna. This new programme, the Dual Language Programme (DLP), was introduced by the Vienna Board of Education (Eurydice 2004/05: 22). The DLP is offered both at KMS (Kooperative Mittelschule) [57] as well as at AHS (Allgemeinbildende Höhere Schule)[58] and can be classified as a programme aimed at mainstream bilingualism.

In the DLP several subjects are taught through the medium of English throughout lower secondary education. Teaching happens in a team consisting of the subject

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[57] The *Kooperative Mittelschule* (KMS, Cooperative Middle School) is a school for the lower secondary level. It is aimed at preparing pupils for working life by introducing them to several occupational areas. Moreover, team teaching as well as internal and external differentiation of learner groups is common to this type of school. After 4 years at the KMS pupils can either start an apprenticeship or choose to enter a school for the upper secondary level. (Stadtschulrat für Wien, Hauptschule / Kooperative Mittelschule (KMS))

[58] The *Allgemeinbildende Höhere Schule* (AHS, Secondary Academic School) is similar to British grammar school. After primary education, students with high marks can choose to enter the AHS, which has an academic focus. By providing an extensive educational background, this type of school prepares students for university. After four years at the lower secondary level, students can either continue to attend upper secondary AHS or enter a vocational school. In each case school career ends with a final examination (i.e. *Matura*) which qualifies for university. (Stadtschulrat für Wien, Schultypen der allgemeinbildenden höheren Schulen (AHS))

teacher and a teacher who is a native speaker of English. Consequently, the DLP subjects are always taught in both languages (Eurydice 2004/05: 22f).

Ideally the subject teachers taking part should have passed an in-service programme on CLIL offered by the PH (Pädagogische Hochschule) (ibid.).[59] In the school year 2005/06 38 of 120 lower secondary compulsory schools at Vienna had teachers qualified for CLIL (ibid.: 14f). As for the pupils, these sometimes have to take part in an introductory talk in English, which checks if certain basic standards in English have been reached, before they are admitted.[60]

According to the Eurydice report on CLIL programmes in Europe, the DLP can be seen as an alternative to Vienna Bilingual Schooling[61] being open to a broader group of pupils. Moreover,

> in the coming years, it may be expected that the majority of lower secondary schools in Vienna will become CLIL–DLP schools. (Eurydice 2004/05: 23)

8.2. Research questions and methods of the study

The evaluation study of the Dual Language Programme was conducted with the aim to capture the perspectives of the different stakeholders involved in the programme; in particular, the attitudes, impressions and experiences of pupils, parents, teachers and head teachers were analysed. This analysis should help to determine which aspects of the DLP are conducive to learning and teaching and which might be hampering them. Thus, the insights provided by this formative evaluation of the DLP's first year should allow for informed decision-making and if necessary, improvement of the programme.

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[59] Formerly called PI (Pädagogisches Institut), the PH (Pädagogische Hochschule) offers in-service training for teachers. (Pädagogische Hochschule Wien)
Although teachers in the Dual Language Programme are expected to have completed the DLP training, our evaluation study could show that this was not always the case. Cf. chapter 9.2. on pre-DLP teacher training.
[60] Cf. chapter 9.3. on the student registrations at the schools involved in the evaluation study.
[61] Cf. chapter1.2. for more detailed information on the Vienna Bilingual Programme.

To get a comprehensive view of the DLP the following topics were considered:[62]

1) the organisational structure

- o   advantages of this structure
- o   problems encountered
- o   wishes for the future structure of the programme

2) teaching

- o   teaching aims
- o   lesson preparation
- o   lesson structure
- o   advantages of teaching in a CLIL class
- o   problems encountered when teaching in a CLIL class
- o   ideas on how teaching could be supported

3) integration of the native speaker teacher

- o   preparation of team teaching
- o   advantages of team teaching
- o   disadvantages of team teaching
- o   role allocation in the team
- o   the students' attitude towards the native speaker teacher

4) learning

- o   expectations on learning in the DLP
- o   the pupils' satisfaction with the programme
- o   the pupils' attitude towards English

5) motivation

- o   reasons for participating in the DLP

To explore those aspects by gaining insight into the stakeholders' views two methods much used in education research were chosen - namely the guided interview and the survey by means of a questionnaire. The guided interview was conducted with the head teachers of the two schools involved in the study. Moreover, the geography and biology teachers as well as the native speaker teacher of each school were interviewed. In a guided interview, a schedule of questions is developed beforehand

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[62] Cf. Brinton, Snow and Wesche ([2008]: 76) on aspects which should be considered when conducting an evaluation of a CLIL programme.

which ensures that data on all the issues to be analysed can be obtained.[63] At the same time the conversational nature of the interview allows to be sufficiently flexible and to give the interviewees space in expressing their views. This means that the method of the guided interview has the great advantage that it allows interviewees

> to discuss their interpretations of the world in which they live and to express how they regard situations from their own point of view. (Cohen, Manion & Morrison [2001]: 267)

When formulating the interview questions and also during the interviews, we deliberately wanted to create a situation in which the teachers could reflect upon their experiences and their roles within the DLP. Although the questions were meant to be answered spontaneously, two of the teachers had carefully prepared their answers beforehand as they had managed to obtain an earlier version of the interview guideline.

After the 8 interviews had been conducted, the interview transcripts were sent to the interviewees in order to be authorised before analysis. In our analysis of the interviews we adhered to Mayring's method of qualitative content analysis.[64] Thus, we coded the passages of the interview according to different categories such as 'team teaching', 'organisational matters' or 'students' and summarised the interviewee's views on these aspects afterwards. As a result, a general overview of teachers' opinions on the various aspects of the programme emerged which provided the basis for further analyses.

The qualitative method of the interview was complemented by the quantitative method of the questionnaire which has many advantages.

> The main attraction of questionnaires is their unprecedented efficiency in terms of (a) researcher time, (b) researcher effort, and (c) financial resources. By administering a questionnaire to a group of people, one can collect a huge amount of information in less than an hour, and the personal investment required will be a fraction of what would have been needed for […] interviewing the same number of people. Furthermore, if the questionnaire is well constructed, processing the data can be fast and relatively straightforward. (Dörnyei 2003: 9)

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[63] The choice of interview questions was influenced by impressions of CLIL teaching in DLP classes which we had gained by observing lessons. In addition to one DLP lesson with each of the four teachers interviewed, we observed a CLIL biology lesson of a 3rd form in the KMS and a regular English lesson of the DLP class in the AHS.
The interview schedules can be found in the appendix of this thesis.
[64] Cf. Mayring (2005: 279- 283) "Qualitative Inhaltsanalyse".

Thus, the questionnaires allowed us to capture the views of all pupils and parents involved in the DLP.[65] All in all, 44 student questionnaires and 41 questionnaires designed for parents were analysed with the software SPSS (Statistical Package for the Social Sciences). At this point it is important to stress that due to the relatively small sample size, the majority of quantitative results derived from questionnaire data were not statistically significant. Hence chapters based on quantitative findings can only present and interpret frequencies. Additionally, it is important to point out that no independent control group was surveyed, thus no comparisons between DLP students and regular classes can be drawn. It also needs to be noted that in rare cases, figures expressed in percentages do not add up to 100%, due to the fact that missing questionnaire answers are not explicitly mentioned.

Nevertheless, the data gathered and analysed provide a comprehensive picture of the Dual Language Programme.

8.3. The sample [66]

8.3.1. The two DLP schools investigated

Two schools of the lower secondary level participated in the evaluation study. These are the KMS Renngasse, situated in Vienna's 1st district, and the AHS Feldgasse in the 8th district. Although these schools differ in school type, both of them are taking part in the DLP.

In both schools teachers had already been experimenting with English as a Medium of Instruction (EMI) before they joined the Dual Language Programme. Both head teachers emphasise that those previous experiences with EMI were crucial for their decision to participate in the DLP. Both schools had experienced that bilingual programmes can influence parents' choice in selecting a school for their child since foreign language skills are regarded as a key factor when it comes to future education

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[65] The questionnaires designed for pupils and parents involved in the DLP can be found in the appendix of this thesis.
[66] The text which presents the results of the DLP study in more detail and which constitutes the chapters 8.3 to 14 (pages 69 to 111) of this thesis was written in collaboration by Barbara Unterberger and me. Consequently, it can also be found in her thesis "CLIL programmes in theory & practice: benefits, objectives and challenges of CLIL & an evaluation of 'The Dual Language Programme'" (2008: 41 - 92).

and job opportunities.[67] Therefore, the DLP is expected to rise in importance– not only in the eyes of parents, but also among the teaching staff.

There was a major difference between the two schools at the beginning of the DLP: The AHS Feldgasse had organised an application procedure for the DLP. However, due to administrational difficulties the KMS Renngasse waited until the registration for the school was completed before designating one class for a DLP branch. Amongst others, the subjects biology and geography were taught bilingually at both schools. Therefore, teachers from those subjects were interviewed to ensure comparability.

8.3.2. The students

In total, 44 students completed our questionnaire, 23 in the KMS Renngasse and 21 in the AHS Feldgasse. Regarding the distribution between the sexes there is an imbalance between the two schools. In the KMS Renngasse, with 14 girls and 9 boys, the proportion of females is slightly larger than that of the males. In the AHS Feldgasse on the other hand, the situation is rather balanced with a ratio of 10 girls to 11 boys. In one of the KMS we were confronted with the problematic situation that 3 students were not allowed to complete their questionnaires, because their parents' declaration of consent forms were missing.

Concerning the language background of the students, 79% state that their mother tongue is German and 17% consider themselves as bilingual. 21% of the respondents report that German is not their mother tongue. The percentage of students with German as their first language is slightly higher in the AHS (85%) than in the KMS (72%). Two students of the AHS Feldgasse specify that they use German as well as English in their home environment.

When we asked the students if they knew at the beginning of the school year that being a member of the DLP class meant that certain subjects would be partly taught in English, 90.5% confirmed that they had been informed beforehand. Despite the rather spontaneous decision of the KMS Renngasse to take part in the Dual Language Programme, nearly a third of the students (30.4%) knew about the forthcoming CLIL lessons.

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[67] Cf. chapter 13.1. in which the parents' reasons to register their child for the DLP are discussed.

8.3.3. The parents

18 parents of the AHS and 23 of the KMS returned the questionnaire. The majority of respondents were the DLP students' mothers, merely two fathers completed the questionnaires and in two incidents the legal guardian remained unidentified. When analysing the parents' educational background, especially regarding their foreign language skills, the following conclusions can be drawn: The mother tongue of nearly two-thirds of the parents (63.4%) is German. One-quarter of the parents states that German is not their first language. In only one case English is the mother tongue, but 3 parents come from an English-speaking country. However, only 37 out of 41 parents answered the question regarding their mother tongue, in sum, it can be said that concerning the parents' first language no considerable differences between the two schools can be observed.

In total 53.6% have a 'Matura'[68] and a quarter of the parents (24.3%) graduated from university. The parents' educational background differs significantly between the two schools: 72.2% of the parents in the AHS have a 'Matura' as opposed to 39.1% of the KMS students' parents. This pattern can also be observed at the level of tertiary education. Those who have a child attending the AHS are clearly ahead of the KMS students' parents: While 7 out of 17 AHS parents have a university degree, only 3 out of 23 graduated from university in the KMS.

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[68] The final examination in Austrian schools is called 'Matura', it is comparable to the British A-Levels and functions as a general qualification for university entrance.

9. Organisation of the Dual Language Programme

This chapter provides a detailed overview of the Dual Language Programme's implementation year. The following organisational aspects are documented: Problems encountered during the recruitment process of DLP teachers, experiences gained in preparatory training courses, reasons for the two schools' different approaches to the DLP and finally, a summary of organisational difficulties regarding the native speaker teachers.

9.1. Selecting & recruiting DLP teachers

Both head teachers stress that they consider their staff highly competent in English language teaching as well as widely experienced in using English as a medium of instruction in subject lessons. Moreover, numerous teachers have spent considerably long periods in English-speaking countries and some of them are married to English native speakers. The head teachers devoted a great deal of effort to persuade those competent teachers to join the DLP teams. One of the schools, namely the AHS, encountered a problem during the selection and recruitment stage: Two teachers, who had been assigned to the DLP class, felt insecure about their English skills, since they had not used the foreign language for a long time. However, their doubts have been dispelled because of their colleagues' solid support and an intensive preparatory phase. The second school also experienced difficulties. The head of the school reports that one of the problems was to motivate enough teachers to join the DLP. Although two very committed teachers were already experienced in CLIL teaching, it was a rather slow process to convince the rest of the staff of the programme's benefits. It was of major importance that numerous teachers could be motivated to participate in CLIL training courses; otherwise a shortage of qualified teachers for future DLP classes would inevitably occur.

Ultimately, both schools managed to overcome these problems and thus secured the continuity of the Dual Langue Programme.

Those convinced of the programme's benefits right from the beginning, were the English teachers, who welcomed the opportunity to increase the use of English as a

medium of instruction. Moreover, all of these teachers were already experienced in CLIL teaching.

When we asked the teaching staff about the required level of foreign language competence to teach in the DLP, the answers differed dramatically between the two schools: The AHS teachers point out that the English proficiency of the subject teacher does not influence the students' learning progress. The subject teacher's English skills do not need to be 'perfect', since the native speaker teacher is primarily responsible for the foreign language and is prepared to assist when difficulties arise. The KMS teachers on the other hand, stress that it is absolutely necessary for the subject teachers to be trained as English teachers as well: They argue that it is essential for them to understand the native speakers at all times in order to provide the students with explanations when necessary.

These mixed opinions regarding the subject teacher's English proficiency are probably due to the fact that the KMS teachers also use English as a medium of instruction when the native speaker teacher is not present. Therefore, they feel that it is absolutely necessary for the subject teachers to be highly proficient in the foreign language.[69]

9.2. Pre-DLP teacher training

It is especially important to note in this context that the teachers received no standardised training in preparation for the Dual Language Programme. There are two different ways in which the teachers were prepared: On the one hand, each school arranged internal meetings in which classroom materials were collected and already experienced teachers counselled less experienced colleagues. On the other, numerous DLP teachers attended external training courses which introduced them to didactic and methodological concepts of CLIL.

The team of the AHS did not only share experiences with teachers of the *Vienna Bilingual Schooling* programme, but also had in-house training provided by the Pädagogisches Institut, now called Pädagogische Hochschule (Academy for Pedagogy). However, a number of these preparatory sessions were not received as

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[69] Cf. Chapter 11.3. for a detailed discussion of the role allocation between subject teachers and native speaker teachers.

enthusiastically as others. During the interviews, some of the teachers expressed their disappointment about incompetent trainers, whereas others claimed that the materials presented were not applicable for their own teaching situation. However, there were also positive reactions to the courses. A biology teacher, for example, found it very helpful that her trainer was experienced in using English as a medium of instruction in biology lessons. She appreciated the trainer's useful hints and teaching materials. Another AHS teacher, however, did not receive any official DLP preparation and thus decided to collect teaching materials and order books on her own.

In the KMS, the two DLP teachers of the first year attended a training course which comprised seminars, lesson observations, assignments and finally, a lesson in which the two teachers demonstrated their newly acquired skills. This training course was offered by the *'Europa Büro'* of The Vienna Board of Education. The two teachers who attended this course found it very useful that they received materials and had the possibility to observe CLIL lessons. However, the head teacher stresses that this training course has been modified and is now overly theoretical, according to the new DLP teachers. Furthermore, she indicates that the current "theory-loaded" training might be suitable for AHS teachers, but not for KMS teachers who strive for an on-the job training rather than a theoretical approach. The following suggestions have been made to improve pre-DLP teacher training:

• **Regular in-house training sessions** to provide the schools' teachers with the opportunity to gain further qualifications together as a team

• **External compulsory training workshops** for all DLP teachers, including the native speaker teachers. These meetings should ideally be organised by The Vienna Board of Education and could be used as a platform to exchange materials, talk about experiences and build up a DLP network.

9.3. Student registration

Before the beginning of the school year 2006/07 the AHS Feldgasse carried out 'orientation talks' with students who wanted to attend the DLP class. These talks follow certain guidelines which were co-developed by the school's DLP coordinator. Two English teachers evaluate the English level of two students who have to introduce themselves and subsequently, are encouraged to talk with each other. As

the head of the AHS Feldgasse reports, numerous children already had some knowledge of English. For instance, some of them had attended additional English courses at their elementary school or even had taken external courses. Moreover, several students have an English-speaking parent. The head of the school underlines that although these students may have advanced communication skills, the majority of them have not yet learned to write in English.

Furthermore, she observes that education is of major importance to most of the parents who want their child to be in a DLP class.[70] Another observation has been made during the orientation talks: Several children stood out for their rather lively behaviour which can now be observed in the DLP classroom. The composition of the DLP class, resulting from this registration process, is generally regarded as a success. For instance, a geography teacher reports that the students are very receptive and deal with foreign language input in a very relaxed way. Nevertheless, one child appeared to be overtaxed by the DLP lessons in the course of the first year. When the interview with the head teacher was conducted, no decision had been made yet how the situation would be handled. This example seems to suggest that it may be useful to evaluate the children's potential regarding their foreign language skills in the orientation talks.

Due to organisational problems, the KMS Renngasse was not able to carry out an official DLP registration for the school year 06/07. However, the head of the school emphasises that students of future DLP classes will be carefully chosen in advance. Furthermore, she points out that in this context it is important to accept the reality of KMS schools: Numerous children have a migration background, thus improving their German should be given priority over learning an additional foreign language. The school's teachers also support the introduction of an official DLP registration, because they think that some children might be intimidated by bilingual teaching. This could actually be observed in the first year as three children appeared to be overstrained by the extra demands imposed by the DLP lessons.

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[70] Cf. chapter 8.3.3. for a detailed account of the parents' educational background and chapter 13.1. for more information on the parents' reasons to register their child for the DLP.

9.4. Current organisation of the DLP

Regarding the realisation of the DLP in the first school year there have been enormous differences between the two schools. The most obvious dissimilarity can be found in the quantity of lessons with the native speaker teacher. As it will be discussed in the subsequent chapter, it was rather difficult for the KMS Renngasse to incorporate the native speaker teacher into the schedule of the DLP class. One of the consequences of this organisational dilemma was that DLP lessons with the native speaker teacher had to be reduced to one class per week. However, in this context it is very important to stress that the subject teachers of this school wanted to compensate for the missing lessons with the native speaker by teaching CLIL lessons on their own. In the AHS Feldgasse, on the other hand, it was possible to incorporate the native speaker teacher for at least three times a week.

Another school-specific difference concerns the actual start of the Dual Language Programme: The AHS students (officially registered for the DLP) started with CLIL lessons right from the beginning of the school year. Due to the fact that no official registration had been carried out in the KMS, the school decided to wait two months until the students got used to their new environment before starting with bilingual lessons. Another reason for the postponed start was that the school had difficulties to find a native speaker teacher.

The teachers of both schools agree that only subjects with at least two semester hours are suitable for the DLP in order to ensure that the most important content of the curriculum can be taught in German as well as in English.

In the AHS the subjects geography, biology, mathematics and musical education are taught bilingually. In the KMS biology, geography and art are partly taught in English with the native speaker supporting the biology teacher in the first and the geography teacher in the second semester.

For the school year 2007/08 the following facts can be presented:

- In both schools the subject history was added to the DLP
- In the AHS the native speaker teacher is not attending each DLP subject once a week, but supporting the teachers alternately.
- Both native speaker teachers remained at their schools and got more
- lessons in the DLP.

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- Another DLP class was launched in autumn 2007.

By analysing all the interviewees' experiences at the end of the first DLP school year, two core findings can be drawn: Firstly, the teachers and head teachers appreciated the leeway that they were given at the programme's start; all of them point out that the organisational flexibility in the introductory phase proved to be useful for testing out various details on different levels. Secondly, the students' benefits could even be increased by splitting them into smaller groups during their CLIL lessons.

9.5. Organisational problems concerning the native speaker

Unfortunately, numerous problems occurred in connection with the native speaker teacher. The search for a competent native speaker proved an obstacle to the schools. The head of the AHS reports that she had numerous talks with potential native speaker teachers, who eventually were not suitable for the job. However, there were also trained teachers among the candidates who rejected the job offer because they considered it as underpaid. The low salary is certainly a major problem concerning the native speaker teachers. If the payment for those essential members of the DLP staff was better, it would probably be easier to find competent native speaker teachers. Both schools consider the fact that their native speaker is qualified and skilled as a fortunate coincidence. However, considering the low salary it is questionable whether it will be possible to find such committed and competent native speaker teachers in future.

The fact that most DLP native speaker teachers work in more than one school at the same time can be identified as another problem area. Consequently, both schools had problems with incorporating the native speaker teacher in their schedules resulting in the need to alter the originally planned DLP organisation. The AHS dismissed the idea of intensive phases where the native speaker would support one subject teacher for a certain period of time before changing to another subject. Instead the school decided to have one native speaker lesson per subject each week.

In the KMS the incorporation was even more complicated, since their native speaker teacher was also employed in two other schools. As a consequence, it was only possible for the native speaker to be at the KMS once a week – on a day which was

already rather busy for the DLP class. Since the students had a regular English lesson and both DLP subjects on that day of the week, the teachers feared that the class would be overstrained. Therefore, they decided against having two DLP lessons with the native speaker in one day.

Both head teachers conclude that ideally the native speaker teacher would be employed at one school exclusively and would also be incorporated in English projects outside the DLP class. This would not only help to solve the scheduling problem, but also ensure that the native speaker teachers work with the DLP students three times a week.

10. Teaching in the DLP

This chapter focuses on the different aspects of teaching in the Dual Language Programme such as lesson preparation, teaching methodology and teaching objectives. Moreover, some of the teachers' experiences, both positive and negative, are investigated. While this section concentrates on the Austrian staff, the perspective of the native speaker teacher is elaborated in chapter 9 which focuses on team teaching.

10.1. Teaching objectives

The interviews with DLP teachers have revealed two main teaching objectives of the programme. Firstly, the DLP is aimed at decreasing the students' foreign language anxiety. Secondly, the programme should help schoolchildren to improve their competence in English, especially as far as subject specific vocabulary is concerned. All of the teachers think that it is possible to reach these aims, because the DLP students are exposed to the foreign language intensively. In addition, the focus lies on meaning rather than on form. Since the schoolchildren are exposed to English in several subjects, they acquire subject related vocabulary without considerable conscious effort. Furthermore, code switching between English and German is allowed and content rather than language knowledge is graded; therefore students should feel more confident when using English in DLP lessons.

10.2. Preparing for lessons in the DLP

In the interviews the teachers emphasise that each DLP lesson requires a precise and extensive preparation. First, the teacher has to decide in great detail which content is going to be taught and also has to define the English parts of the lessons.

Especially for the latter decision, the teachers have to take a variety of aspects into consideration:

- complexity and abstractness of the subject matter
- availability of teaching material
- possibility to link up the subject matter to the country of origin of the native speaker teacher
- attractiveness of the topic for students.

Second, the method of team teaching requires a more detailed planning to ensure that both teachers know which content will be covered in the course of the lesson and which methods are used. Moreover, they have to assign their individual responsibilities within the lesson beforehand. Third, due to a lack of material for bilingual teaching at this level of English competence, the process of searching for material and producing teaching aids is rather time consuming. Finally, the teachers have to learn subject specific vocabulary before each lesson. This is important since they have to make sure to use appropriate terminology and understand their native speaker colleagues. One teacher who felt insecure about her English skills reports that she studies English phrases before DLP lessons. For instance, phrases to introduce topics and to hand over to the native speaker teacher. This teacher also points out that she reads scientific English books and articles to improve her knowledge of subject specific terminology.

Considering the points discussed above, lesson planning in the DLP can be regarded as a complex and demanding task in which many aspects have to be considered. Consequently, teachers consider lesson preparation as both an interesting challenge as well as a time consuming burden.

10.3. Teaching aids

In the DLP teachers use many teaching aids such as visuals and worksheets. The teachers point out that finding materials suitable for younger students - both in content as well as in the level of English - is very difficult. Thus, to gather, adapt and produce teaching aids in order to compile a collection is one of the main tasks that DLP teachers are facing.

The internet has become one of the main sources of materials. The website *www.enchantedlearning.com* is regarded as helpful by several teachers. Furthermore, apart from using the school library, teachers also purchase books during stays in English speaking countries to remedy the lack of appropriate material. In their search for teaching aids the subject teachers are supported by the native speaker teachers. One teacher also reports that she encourages students to find material in English relating to the topics covered in the lessons. Students, who bring English materials to class, get bonus credits.

Although the teachers are very original in their attempts to compile a suitable collection of teaching materials, they appear to be frustrated with this additional burden.

10.4. Teaching methods & principles

Teachers emphasise that the programme allows them to take a new approach to teaching. However, they also point out that their preferred personal teaching style has been preserved. Indeed, in one visit to the DLP class the traditional methodology predominant in content subjects could be observed. Those lessons taught by teachers with English as their second subject, however, were obviously inspired by language teaching methods. Consequently, a great variety of teaching methods is employed in the DLP, for example, topic-related songs and drill exercises are incorporated into the lessons. The use of the blackboard is maintained but slightly altered, for example by dividing the blackboard into a German and an English section.

Despite the variation in teaching methodology, certain principles of teaching are recurrent in the DLP. For example, all teachers emphasise that each student should have the opportunity to be an active learner. One teacher states that the lessons should allow students to be engaged, active and creative. Consequently, students are encouraged to colour pictures, to sing in the lessons or to move around in the classroom during 'running dictations'. Another teacher reports that she promotes task-based learning and occasionally asks the students to read for the gist in simple English texts.

Another typical feature of the DLP lessons is the extended use of visuals such as images, maps, atlases, graphs, overhead transparencies and videos. The increased use

of such aids improves the students' understanding, contextualises the topics and renders them more concrete.

The materials are employed in a multitude of ways, for example to present and practise content, but also to revise and summarise. One geography teacher reports how she used several teaching aids to revise the Austrian provinces. First, she showed the class a large map of Austria, subsequently, the students were asked to tag English name cards of the Austrian provinces onto the map. After the teacher had removed some of the cards, the students had to name the missing provinces.

The activity mentioned above does not only exemplify the use of visual teaching aids in lessons, but also the playful element which is considered a very important aspect of the DLP. Apart from introducing such playful elements, teachers also conduct projects and organise school trips as well as guest lectures in English in order to motivate their students.

In conclusion, the Dual Language Programme allows teachers to introduce new and innovative teaching methods, but at the same time their personal teaching styles can be preserved. Consequently, a great range of different methods can be observed in the DLP. These methods are applied according to the focus of the lesson and the teacher's personality. Despite the large variety of teaching methods employed, certain teaching principles are prominent in all lessons in the DLP: The increased usage of visuals as well as of tasks which encourage student activity.

10.5. Teachers' pleasures, problems & proposals

Apart from investigating lesson preparation, teaching methods and teaching aims, this evaluation study has also focussed on the teachers' attitudes towards the DLP. Several of the pleasures and problems of teaching in the DLP were captured. Interestingly, all of the teachers identify similar problem areas and also name similar aspects of teaching which they enjoy.

For example, several teachers mention that the DLP makes space for adopting new and exciting approaches towards teaching. Teaching in the DLP is described as a positive challenge, as an escape from the teaching routine and as an opportunity for development. For instance, some teachers state that the DLP provided them with the opportunity to improve their own English skills.

The Austrian teachers also report that teaching in the DLP widens their horizon, especially due to the team work with the English native speaker. The collaboration with the native speaker teacher is referred to as enjoyable. Moreover, the support which the Austrian teachers get from their team partner is highly valued. The native speaker teacher provides help in English and additional ideas for teaching.[71]

Those DLP teachers who have English as a second subject, feel highly motivated when they see their students' progress in the foreign language. Indeed, the Austrian teachers expect that the DLP helps them to pass on their own enthusiasm for the English language to the students. This expectation is a powerful force fuelling the teachers' commitment.

Another reason why teachers enjoy working within the DLP is that they hope learning could be more fun for students. Furthermore, the DLP teachers receive positive feedback from their students and thus feel confirmed in their bilingual approach towards teaching.

Despite all these motivating aspects mentioned above, the teachers also experience working in this programme as very straining at times. In fact, all teachers complain that teaching in the DLP is too time consuming and work intensive. They feel that the additional burden is caused, among others, by a lack of appropriate teaching materials. The teachers report that they have to invest a considerable amount of time in producing and searching for materials.[72] Since not all DLP teachers have English as their second subject, the question arises whether those teachers who are not that competent in English can be expected to create high-quality materials.

Apart from the increased effort to obtain suitable teaching materials, team teaching causes additional work. DLP teachers have to invest a considerable amount of time to plan lessons together with their partner, for example to discuss language and content questions. Moreover, subject teachers often have to introduce the Austrian school system and teaching methodology to native speaker teachers.

Furthermore, CLIL places higher demands on lesson preparation. For instance, teachers have to plan in great detail which content is taught and how the English language is integrated. Moreover, it is important to plan how teaching aids are employed to ensure student activity and understanding of the content. Thus lesson

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[71] Cf. chapter 11 for a detailed description of the various aspects of team teaching.
[72] Cf. chapter 10.3. for more information on teaching materials in the DLP.

planning is more time consuming, especially in the initial phase of the DLP. Finally, some teachers also voluntarily undertake to promote the programme, for example by writing articles on the Dual Language Programme for newspapers.

Due to the burden mentioned above, the enthusiasm of the teachers involved in the DLP has already been dampened. The teachers feel overburdened and think that their commitment is not appreciated enough.

However, the teachers make several suggestions how the work load of the DLP could be reduced: For example, a weekly paid hour for subject and native speaker teachers in which teaching matters can be discussed. Several teachers indicate that this would be helpful. Moreover, teachers would welcome better opportunities for networking, such as seminars for DLP teachers could be organised by The Vienna Board of Education. In these seminars teaching ideas and materials could be produced and shared. Furthermore, a website or a booklet with thematically ordered links, references, materials for teaching and vocabulary lists, is requested. Ideally, students should also have bilingual textbooks. These could be purchased by parents or provided by the school library.

Apart from the time consuming lesson preparations in the DLP, two teachers also report that initially it was difficult to integrate the English language into subject lessons. However, with increasing experience this problem vanished.

In conclusion, the teachers enjoy many aspects of teaching in the DLP. Their enthusiasm for the programme is, however, dampened considerably by the heavy workload. It is particularly this increased work load, which constitutes the main problem for the teachers. Thus, it is highly recommendable to reduce the teachers' burden in order to ensure that their strong commitment is maintained.

11. Team teaching

DLP lessons differ from regular lessons by being taught both by a subject *and* a native speaker teacher. The miscellaneous facets of team teaching are discussed in this chapter: Firstly, the problems and demands teachers have to cope with are presented, followed by a description of how DLP lessons are prepared and carried out. Next, teachers' role allocations will be analysed and, finally, the advantages of team teaching from the teachers' point of view will be outlined.

11.1. Team teaching: a challenge for teachers

DLP teachers point out that team teaching requires intensive planning and preparation which has proved to be a rather challenging and time-consuming task.

Effective team teaching necessitates clear arrangements among the team members: Both subject and native speaker teacher need to know who is in charge for which parts of the lesson beforehand. All teachers state that lesson planning is carried out in spare lessons and breaks in-between classes.[73] Even if the teachers prepare their parts independently, subject teachers consider it to be inevitable to discuss the most important facts of the topic which will be taught with the native speaker. Moreover, the chapters of the coursebook which will be covered are specified. Thus, intensive lesson planning is absolutely necessary for two reasons: Firstly, to ensure that the team teachers do not have to negotiate their scope of duties in class. Secondly, the teachers want to avoid presenting contradicting facts, which would inevitably confuse the students.

Another extra demand is imposed on the teachers: In contrast to their usual teaching situation in which they are the only teacher in the classroom, in the DLP context they have to cooperate with a partner teacher. In order to create a lesson with well-integrated German and English parts, it is of major importance that the two teachers adapt to the team teaching situation. One teacher reports that she has to set herself stricter time frames during team teaching lessons to ensure that the native speaker teacher has enough time to present the core facts in English.

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[73] Cf. chapter 9.5. in which a possible solution to this problem is discussed, i.e. a paid planning hour for co-teachers to organise and prepare their lessons.

Consequently, there are situations in which the teachers are not able to alter the lesson spontaneously according to the needs of the students, that is to say, they are not as flexible as they are in regular lessons.

Almost all of the teachers indicate that such a close collaboration is only successful, if the colleagues like each other. Moreover, several teachers anticipated difficulties before working with their team partner. However, these concerns were dispelled.

Another anticipated problem which did not occur concerns the language barrier between the two teachers. Especially the biology teacher with a limited knowledge of English was scared that the communication with the native speaker could be an obstacle. The English teachers also indicate that communicating with a native speaker who has a strong accent can be challenging.

Although the native speakers' contribution is regarded as enriching, the subject teachers' workload is not reduced. On the contrary, team teaching is a rather demanding situation for subject teachers as they have to focus on various aspects: They have to teach the class and simultaneously cooperate with the native speaker teacher to ensure the lesson's progress. Additionally, after handing over to their partner teacher, the subject teacher cannot just 'sit back', but has to stay focused during the English lesson parts.

Shifting the focus from subject to native speaker teacher, it can be observed that the native speaker teachers' most challenging task is possibly that they have to study relatively large amounts of subject knowledge.[74] This is due to the fact that the native speaker is not only meant to function as a model of authentic English language use, but also teaches various topics in subjects such as geography or biology. Frequently, the native speaker teachers need to rely on their colleagues' expertise when asking for explanations of lesson content. In response to the high demands imposed by the DLP, one of the native speaker teachers feels the need to expand her knowledge in didactics and methodology.[75]

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[74] Note that the subjects taught within the Dual Language Programme range from biology, geography, mathematics to arts and musical education. Therefore, the native speakers have to expand their knowledge in various fields.

[75] Cf. chapter 14, where the necessity to introduce a training course for DLP native speaker teachers is discussed.

11.2. Integrating the foreign language & the native speaker

Most of the time the DLP lessons are divided into a German part in which the core facts are presented, followed by an English section with the native speaker teacher summarising the most important aspects. Usually the subject teacher introduces a new topic in one lesson, followed by a revision lesson in English with the native speaker. Technical vocabulary is paraphrased and if necessary translated into German. In contrast to abstract topics, descriptive ones are occasionally directly introduced in English.

One can observe that the KMS teachers are very concerned not to overtax their students with the demands imposed by the bilingual lessons. If necessary, the teachers divide the class into an advanced and a basic group to ensure that all students grasp the core facts of the topic in both languages.

When preparing for DLP lessons subject teachers focus on learning technical vocabulary in English, whereas native speaker teachers study the subject matter. The native speakers describe their preparation as a three-step process: Firstly, they carefully research the new topic. Secondly, they look up technical vocabulary. In the third step, they try to simplify the facts in order to make them more accessible for students.

In this context one particular difficulty arises: The native speaker frequently has to translate course book chapters into English in order to be prepared for subject lessons. This is not only a very exhausting, but also a rather time-consuming task.

The teachers of both schools make an effort to keep DLP lessons interesting to make foreign language learning an exciting experience for the students. The DLP class occasionally goes on excursions, for instance they visit museums where they have to fulfil certain tasks in English. Sometimes English-speaking guest lecturers are invited. For example, the DLP class watched a slide show with pictures of the rainforest presented by an external native speaker. Additionally, the students have plenty of opportunities to be creative: For instance, when singing English songs or playing language games.

11.3. Role allocation in the team teaching situation

In team teaching lessons the teachers are allocated to different roles. Apart from this role allocation, we investigated which areas they feel responsible for.

The biology teacher, who was concerned beforehand that her English might not be good enough, reports that her insecurities vanished when she accepted that the responsibility for the foreign language lies with the native speaker teacher. As soon as she acknowledged her partner teacher as the foreign language expert and also did so openly in front of students, she was no longer worried about her English. Consequently, there is a clear role allocation in this team: The subject teacher is responsible for the lessons' content and progress, whereas the native speaker teacher is in charge of the English language. During the interview the biology teacher concludes that the first DLP year's success was achieved through this clear role allocation and the effective teamwork resulting from it.

If necessary, the native speakers do not only teach English to the students, but also help the subject teachers to improve their foreign language skills. If the subject teachers accept to be occasionally corrected in front of the students, they slip into the role of a learner. Conversely, through this close collaboration native speaker teachers also improve their German.

One of the teachers states that all the parties involved in a DLP class are "in the same boat", that is to say, they are all learners. Consequently, the atmosphere in the DLP class can be described as "considerate" and "friendly". In other words, subject and native speaker teacher as well as students pull together and are thus involved in a collective learning process. Therefore, the students consider themselves as equal members of the team.

As it has already been discussed in chapter 7.4., in the KMS the native speaker teacher could only be integrated once a week in the DLP class. Among other areas, the role allocation in the team teaching situation was also affected by this compromise. Since the native speaker attends the DLP class only once a week, the subject teachers clearly have more responsibilities. Both subject teachers of the KMS are concerned to increase their students' foreign language input by using English as a medium of instruction also when the native speaker is not present.

When analysing the role allocation in the KMS, the following conclusions can be drawn: The subject teachers need to give their colleague specific information on lesson content as well as on the students' level. Since the native speaker teaches the DLP class no more than once a week, she finds it hard to evaluate her students' English skills.

Regarding the relationship between native speaker teacher and students, further observations have been made: Due to the fact that the subject teachers frequently use English as a medium of instruction to compensate for the missing native speaker lessons, the KMS students do not acknowledge the native speaker teacher as the language expert. Moreover, the KMS students are not as fond of the native speaker as their AHS counterparts appear to be; probably a direct consequence of the reduced semester hours.

The native speaker teacher, on the other hand, indicates that she would appreciate more responsibility which would ultimately make her less dependent on her colleagues. She also states that it would make her feel less replaceable, if she was in charge of the English lesson parts. Moreover, she hopes that in the future she will be teaching the DLP class more than once a week to foster a good teacher-student relationship.

At this point it has to be mentioned that the native speaker teacher appreciates the teamwork with her colleagues. Her insecurities presumably root in the blurred role allocation. However, the subject teachers have only taken on the main responsibility in DLP lessons due to the organisational problems mentioned above. The fact that the two subject teachers are very experienced in using English as a medium of instruction can therefore be seen as an advantage as they try to compensate for missing lessons with the native speaker teacher.

When planning the schedules of future DLP classes it is advisable to ensure that the native speaker teachers can be in the DLP class three times per week. Moreover, it would also be advantageous to assign more responsibility to the native speaker teachers by defining the scope of their work. The native speaker should be a role model for authentic pronunciation and language use. Additionally, the fact that the native speaker teacher is not fluent in German should animate students to use English.

Apart from being a role model for authentic language use, the native speaker teacher is also a cultural representative. Several teachers report that references to the native speaker's homeland are occasionally made during DLP lessons. These are often initiated by students' questions. Sometimes the native speakers share anecdotes with the class, for instance, before holidays they explain cultural differences. A teacher who did not consider this cultural dimension beforehand points out that this aspect opens up new possibilities and thus should be explored for future DLP classes.

One native speaker teacher considers his cultural anecdotes to be a "treat" for the class and thinks that talking about his culture allows him to establish a good rapport with the students. Both native speakers agree that their cultural background is always influencing their teaching, directly or indirectly.

11.4. The advantages of team teaching

One advantage has already been mentioned above: Subject teachers inevitably improve their English skills in their cooperation with the native speaker. Team teaching has further advantages for all of the parties involved.

Since team teaching causes considerable variation, students find it easier to follow the lesson: Because students have to shift their attention from one teacher to the other in the course of a lesson, their concentration is revived. Moreover, having a second teacher can be motivating for pupils: Especially those students, who see their native speaker teacher very often, are rather fond of him and enjoy talking to him.

All of the subject teachers appreciate the cooperation with the native speaker teachers as they enrich the lessons, for instance with their authentic pronunciation. Furthermore, the fact that two teachers look after the class is also considered as advantageous, since it allows the teachers to deal with individual students' problems. In other words, team teaching can not only make classroom-management easier, it can also be beneficial for the lesson's flow.

12. Students in the DLP

12.1. How teachers evaluate the students' learning progress

An important aspect of this study was the evaluation of the students' progress. Since the programme was still in its first year, it was too early to compare the DLP students' competence in English with that of their counterparts in regular classes. Therefore, questionnaires and interviews were used to gain impressions of teachers, parents and pupils concerning learning in the Dual Language Programme. This chapter focuses on the teachers' view.[76]

As has already been mentioned above, in the DLP the teachers want to achieve two principal aims: Firstly, to improve the pupils' English language competence considerably, especially in subject specific areas. Secondly, to reduce their students' foreign language anxiety. Already in the programme's first year these goals were partly accomplished. The DLP teachers report that they have noticed several positive developments. For example, students seem to be more open towards the foreign language and new words in both German and English seem to be acquired without much effort. Moreover, students speak English of their own accord.

One teacher even reports that students in the DLP have a larger vocabulary in English than pupils of higher forms, who attend regular classes. This impression is strengthened by observations of parents who report that their child involved in the DLP is better in English than older siblings.

Other teachers observe that DLP students develop problem solving skills to cope with language difficulties earlier than their peers in regular classes. Rather than getting hung-up on every word which they do not understand, they try to grasp the main ideas by using several strategies. Furthermore, teachers claim that students do not worry but make use of code-switching if they cannot express themselves in English during bilingual lessons.

Most of the teachers also point out that the DLP students are very proud of their English knowledge and consider themselves to be something 'special'. This becomes obvious on their field trips, for instance, when the pupils talk loudly to the native speaker teacher in public in order to demonstrate their English skills.

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[76] Cf. chapter 13.4. for the parents' evaluation of their children's language learning.

These and other observations suggest that the DLP reduces anxieties to talk in a foreign language and boosts children's language competence. Especially the knowledge of English subject-related vocabulary seems to be improved. Indeed, several teachers report that DLP students revise the content of previous lessons in English without any difficulty.

The teachers attribute this success to the fact that students are exposed to English regularly, but their foreign language competence in DLP subjects is not graded.[77] Moreover, several teachers point out that students are motivated to talk in English, since they cannot use German to communicate with the native speaker teacher. Furthermore, the teachers are convinced that due to the great variation in teaching methods students enjoy the DLP very much.

Students do not only improve their language competence in the DLP, but also expand their subject-specific knowledge. Before the beginning of the programme, two teachers worried that content knowledge could be neglected. However, their fears have been dispelled. Although the DLP requires a more careful selection of content, the core facts of each subject can still be conveyed. As the curriculum allows teachers to be flexible when selecting their topics this kind of teaching conforms to regulations.

One teacher also emphasises that it is quality not quantity that counts. She reports, for example, that DLP students seem to find it easier to understand new content and to retain new facts in memory. She attributes this positive effect to frequent revisions of content in English *and* German. Furthermore, she observes that students particularly remember anecdotes by "the popular native speaker teacher". The pupils' attention also seems to be revived in DLP lessons, because the teachers take turns during team teaching.

A teacher who was sceptic before the start of the programme, reports that the content knowledge of DLP students is better than expected. After all, students know the subjects' core facts and can communicate them in German as well as in English.

Despite these positive observations, some critical comments concerning the learning progress of DLP students have been voiced. For example, one teacher in the AHS is worried that some students are still inhibited because they are afraid to make

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[77] Cf. chapter 10.1 for teachers' reflections on the aims of the DLP and the reasons why the DLP can help to achieve these goals.

mistakes when talking in English. Therefore, teachers try to encourage quiet students to use English in DLP lessons, even if they do not participate voluntarily. Of course, the teachers support pupils in formulating their sentences.

In the KMS, on the other hand, worries that pupils could be overtaxed have been expressed. These fears existed from the beginning of the programme and, unfortunately, could not be allayed completely. For instance, one teacher reports that at the beginning of the school year some pupils were anxious that the DLP is too demanding for them. This teacher also observes that some students are certainly pushed to their limits as far as their ability to grasp new content in DLP lessons is concerned. Since already one bilingual lesson appears to be very exhausting for these pupils, the teacher recommends that there should only be one DLP lesson a day. Moreover, several teachers are of the opinion that smaller student groups and the possibility to attend optional bilingual subjects would improve the learning outcome in the DLP.

In conclusion, the teachers mainly report positive effects of the DLP on learning. The language proficiency of students is improved and contrary to initial fears, content knowledge does not seem to fall by the wayside. However, anxieties to talk in the foreign language could not yet be overcome completely and some students seem to be overtaxed.

12.2. Students' attitude towards the English language

According to DLP teachers, students participating in the programme hardly show any inhibitions when it comes to talking in the foreign language. In addition, the pupils' language competence seems to improve considerably. This chapter complements the teachers' perspective by the students' view on language learning in the DLP.

When investigating the pupils' opinion on English, predominantly positive attitudes towards the foreign language can be observed. When we asked the students in an open question to name positive and negative aspects of the English language, the following results were obtained: 55 times students mention positive features, whereas only 26 answers are negative.

As figure 1 reveals, the most frequent student answer regarding their favourite feature of English refers to pronunciation, which is mentioned 15 times and

described as "cool" and "funny". 10 students could not decide on one particular aspect of English and report to like 'everything' about the foreign language. 9 students even list English grammar and spelling among their favourite features of English and describe these as "easy".

On the other hand, figure 2 shows, 6 children report that they find grammar, spelling and text production very hard in English. 5 times English is referred to as "complicated". Equally often the English pronunciation and more generally talking in the foreign language are considered as difficult. 5 students also complain about the great effort required for succeeding in the DLP. Thus, it can be observed that not all students are enthusiastic about English. Still, a positive attitude towards the foreign language and especially the pronunciation predominates. The popularity of the English pronunciation could be related to the native speaker teacher.
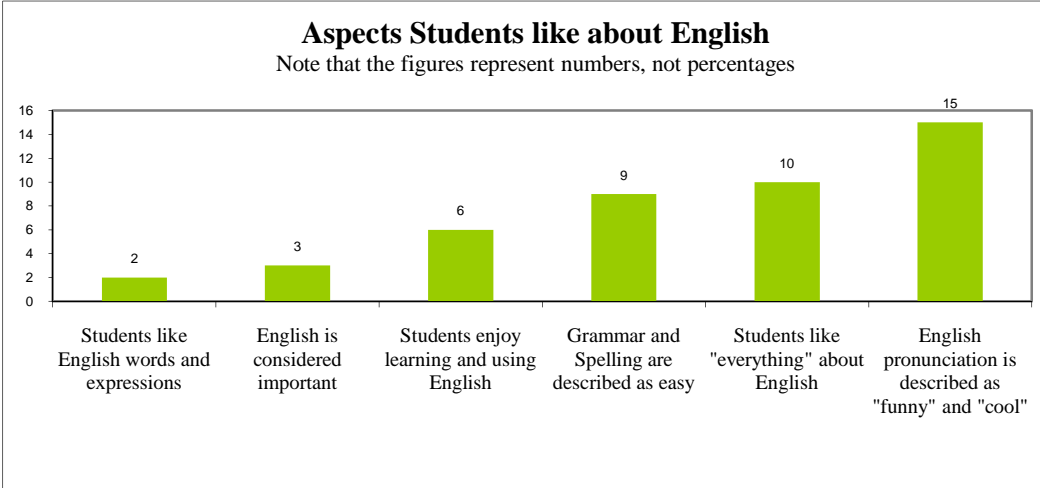
Fig.1: Aspects Students like about English
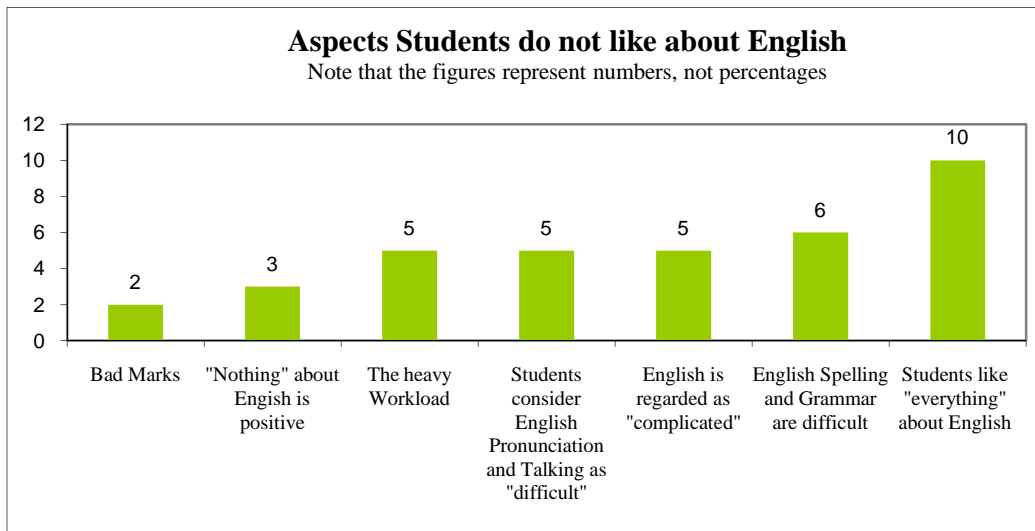
Fig.2: Aspects Students do not like about English

Talking in English is popular among the majority of DLP students. Figure 3 reveals that 50% of all pupils enjoy participating in English during bilingual lessons. An additional 31.8% have a neutral attitude. Only 6 pupils dislike speaking English in the DLP. Thus, most students like talking in English during content lessons. Surprisingly, pupils find it more enjoyable to talk in the foreign language in their regular English lessons. As figure 4 shows, an impressive number of students (81.8%) enjoy speaking in their English lessons very much.

Fig.3: Attitude towards speaking English in DLP Lessons

95

**Attitude towards speaking English
in regular English Lessons**

Do not mind
to talk in
English
14%

Do not like to
talk in
English
4%

Enjoy to talk
in English
82%

Fig.4: Attitude towards speaking English in regular English Lessons

The reason for the students' preference to use the foreign language in their regular English lessons could be related to the great popularity of the English teachers. These are acknowledged repeatedly in the questionnaires. Another possible explanation could be that students feel more pressure during English content lessons, because they think they have to pay attention to content *and* language. Apparently, students seem to 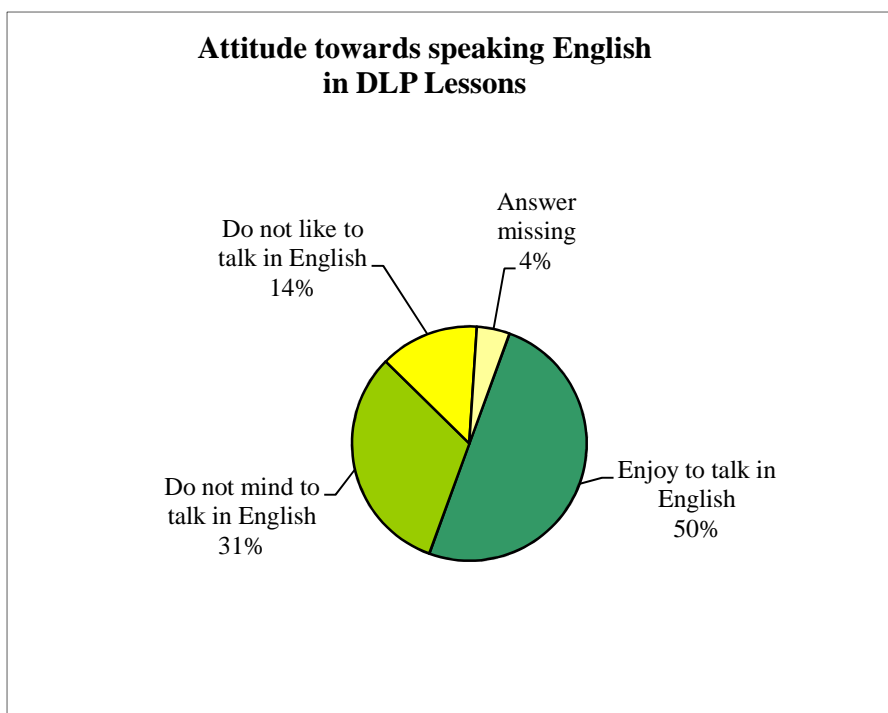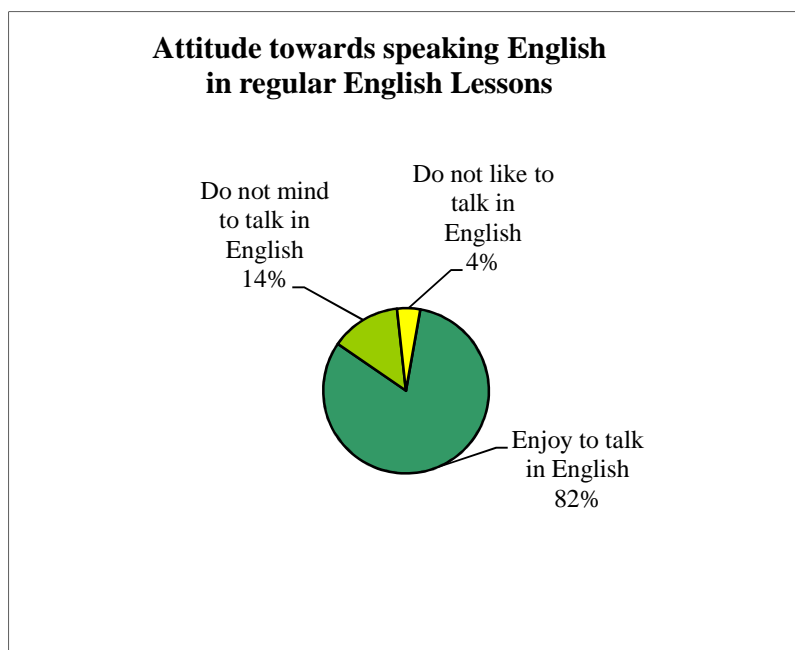be rather ambitious and try to avoid mistakes. This impression is reinforced by a teacher's comment and is strengthened by several students' answers. For example, as much as 47.7% of all students state that occasionally they do not raise their hand, because they do not know how to formulate their answers in English. However, at this point it is important to note that students are 'speechless' only occasionally. The replies to another question indeed confirm that DLP students are rarely afraid to talk in English, as 54.4% reply that they do not feel inhibited to speak in English at all.

When splitting the students into different groups and classifying them according to their sex and school, certain trends emerge. For instance, more girls than boys seem to like talking in English in DLP lessons: While 58.3% of the girls enjoy talking in the foreign language, only 40% of the boys do. Furthermore, 55% of the schoolboys state that they feel inhibited in their participation because they lack English vocabulary. Among their female peers, only 41.7% encounter this problem.

After a comparison of the two schools, the following trends can be observed: 60.9% of the students attending the KMS state that they sometimes do not raise their hand, because of a lack in English vocabulary. When combining the answers of both schools to this question, the average lies at 47.7%, therefore the problem seems to be more present in the KMS than in the AHS.

This result could be related to the fact that in the KMS no official registration procedure for the DLP took place. It is also possible that the students in the KMS feel less secure in English, because of the small number of lessons with the native speaker teacher. However, in the KMS 82.6% of all students have at least a neutral attitude towards speaking in English during DLP lessons. 43.5% of all KMS students even state that they enjoy talking in English very much.

In conclusion, the majority of students seem to have a positive attitude towards speaking in English. Nevertheless, a great variety of opinions regarding the English language exists. For instance, some students describe English as "complicated", while others state that they like "everything" about it. Comparisons between different groups of students indicate that girls and students of the AHS enjoy talking in English more than their peers.

12.3. Students' satisfaction with the DLP

To assess how satisfied the students are with the DLP, we asked them about their attitude towards various aspects of the programme. For example, they could express their opinion on team teaching or the quantity of bilingual lessons, as well as state what they like about the programme. The students' replies are presented in this chapter.

Asked whether they like the German or English parts of their DLP lessons better, 63.6% of the students report that they enjoy the sections in English at least as much as those in German. 22.7% of all the students, most of them AHS students, even prefer the English lesson parts.

Furthermore, with 56.8% of all students the majority are satisfied with the quantity of bilingual lessons. 6 students (13.6%), 5 of whom attend the AHS, even want more DLP lessons. However, 12 pupils (27.2%) would prefer fewer bilingual lessons.

There are more boys than girls among these students. Indeed, 40% of the male pupils - in contrast to 16.7% of the girls - want fewer DLP lessons.

Regarding the team teaching, the majority of students are content with this aspect of the DLP. 52.3% of DLP students report that they enjoy team teaching very much and 38.6% have a neutral attitude. More girls (15 of 24) than boys (8 of 20) express their enthusiasm towards this mode of teaching. Whereas in the KMS as much as 62.5% state that they like team teaching very much, most of their peers in the AHS (52.4%) adopt a neutral position. The difference between the two schools could be explained by the fact that the KMS teachers were more experienced in team teaching than their colleagues in the AHS.

When asked which teacher receives more attention during team teaching, 56.8% report that they concentrate on subject and native speaker teacher equally. However, a quarter of the students focus more on the subject teacher and 15.9% state that they pay more attention to the native speaker. If the students are correct in their self-assessment, more boys (40%) than girls (12.5%) focus on the subject teacher.

When investigating the students' satisfaction with the DLP, the impression arises that the majority of children have a positive attitude towards the programme. However, this positive first impression suffers when pupils' replies regarding their comprehension are taken into account.

On the one hand, 45.5% of all students state that they are able to follow English and German lesson parts equally well. In the AHS even 57.1% give this answer. On the other hand, the majority of the students (54.5%) report that they find it easier to understand the lessons in German. Nevertheless, the majority of children enjoy talking in English in the bilingual lessons, which has already been mentioned above. Consequently, problems of comprehension do not seem to have a direct impact on the students' attitude towards speaking English. This observation indicates that students are not frustrated when they do not understand every single word.

The remainder of this chapter concentrates on the aspects of the DLP which students consider as especially enjoyable. Figure 5 shows that numerous students like the increased use of the English language in the DLP. This suggests again that the popularity of English does not suffer even when problems of comprehension and production occur. Indeed, the extended use of English in the DLP is positively mentioned 14 times by students. Another 10 students report that they especially like

it when content is taught in English. The teaching materials and methods are also popular among the pupils (6 replies). Moreover, the native speaker teacher is mentioned 4 times as a positive aspect. Similarly, 4 students talk about their pleasure when learning in the DLP. Finally, 3 students state that they enjoy the great variety of topics presented in DLP lessons.

Aspects of the DLP Students enjoy
Note that the figures represent numbers, not percentages

Category	Value
The Variety of Topics covered	3
The Native Speaker Teacher	4
Learning	4
Teaching Materials and Methods	6
The English Lesson Parts	10
The increased Use of English	14
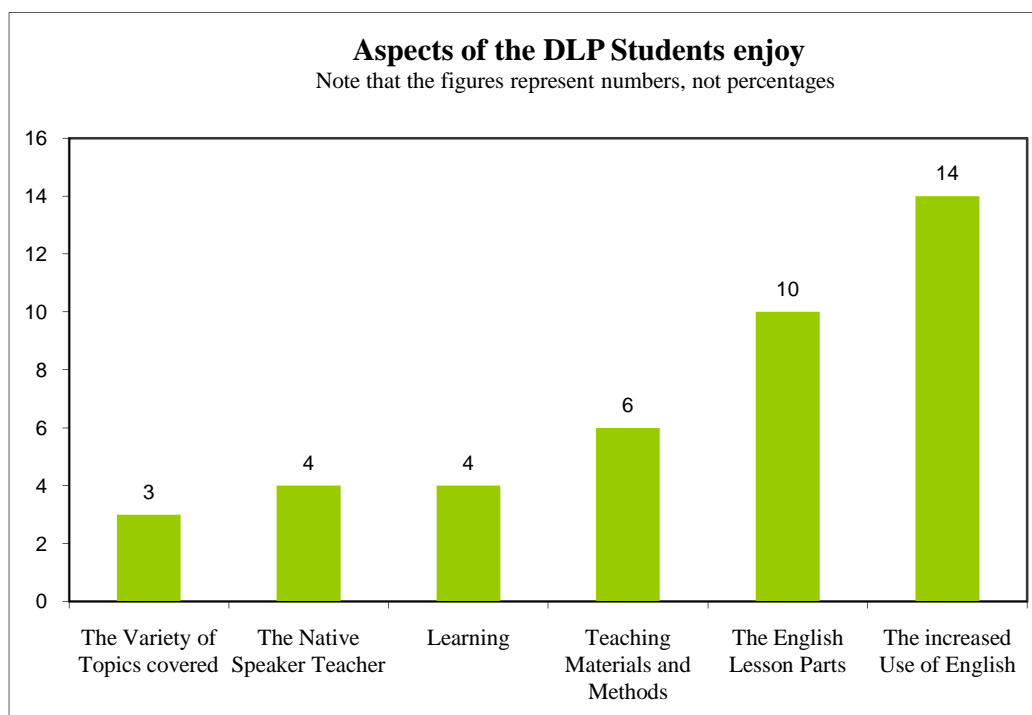
Fig.5: Aspects of the DLP Students enjoy

We asked the students of both schools about their favourite aspect of the DLP. While the AHS students see the native speaker teacher as the highlight of the programme, the KMS students emphasise that DLP lessons are "fun".

On the whole, students seem to be satisfied with the DLP. The majority of them are content with both the team teaching and the quantity of bilingual lessons. Students report that they enjoy English and have fun in their DLP lessons. Moreover, the native speaker teacher is often seen as a positive aspect of the DLP. However, some children would prefer fewer DLP lessons and find it easier to follow the German lesson parts. Therefore, the pupils' opinions on the programme differ.

12.4. Students' problems in the DLP

Several problem areas of the DLP have already been hinted at in the preceding chapters. For example, students occasionally do not participate during English lesson parts, because they lack in vocabulary. Furthermore, some students have difficulties in comprehension when being taught in English. An analysis of the students' answers has revealed that 36.6% have both problems and thus seem to experience English as a barrier to learning.

The impression that the extended use of English poses a problem to some students is strengthened by several pupils' answers. Asked about difficulties they face in the DLP, comprehension problems are mentioned most frequently (13 times). Difficulties with expressing themselves in English were mentioned 7 times. In their answers to the question regarding negative aspects of the DLP, students again point out that they experience comprehension difficulties (7 times). Since 8 pupils state that they feel overtaxed, this is the most common complaint. This feeling is, however, not specified in more detail. The native speaker teacher is also criticised; 5 times the KMS students give her a negative evaluation. [78]

In contrast to these negative aspects pointed out above, 12 students state that they encounter no problems in the DLP and another 7 say that "everything" is good about the programme.

These answers confirm the impression that a wide range of opinions exist among the students. While the extended use of English poses a problem for some, others enjoy the foreign language considerably.

In sum, 24 pupils especially like the increased use of English in the DLP, whereas 15 students indicate that the foreign language is their greatest problem.

Regarding the students' attitude towards speaking in English, 50% state that they enjoy communicating in English. Moreover, 54.4% report that they do not have any inhibitions when talking in English. In contrast, 36.6% of the students mention that occasionally they lack in vocabulary or encounter comprehension difficulties. Thus, while the majority of DLP students like English, the extended use of the foreign language creates problems for about one third of them.

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[78] Cf. chapter 11.3 for more details on the relationship between students and native speaker teacher.

13. The Parents' Perspective

In this chapter the parents' view on the Dual Language Programme is presented in greater detail. The parents' motives for registering their child for the programme, their satisfaction with the DLP and their evaluation of their child's progress are discussed. When considering these aspects aforementioned, the parents' attitude towards the DLP becomes clear.

13.1. Motives for registration & advantages of the DLP

In order to discover the parents' motives, we asked them to select from a set of pre-given answers, representing possible reasons for registering their child.

Because no official registration for the DLP was carried out in the KMS, the questionnaire item was slightly altered for the parents of KMS children. These parents were given the same set of possible answers, but were asked to choose aspects which they see as advantages of the DLP. Despite this difference in question wording, a very similar picture emerged. The results are displayed in figure 6.

When looking at the results it becomes clear that the majority of parents have high expectations in the DLP. For instance, they hope that the programme will have a positive influence on their child's educational and occupational future. 85.3% of the parents think that the English competence acquired in the DLP will be very useful for their child's career. This aspect seems to be considered the greatest advantage of the DLP. 68.2% think the programme will help their children in the course of their education. Furthermore, 51.2% of the parents expect that the DLP is a good preparation if their child wants to study or work abroad.
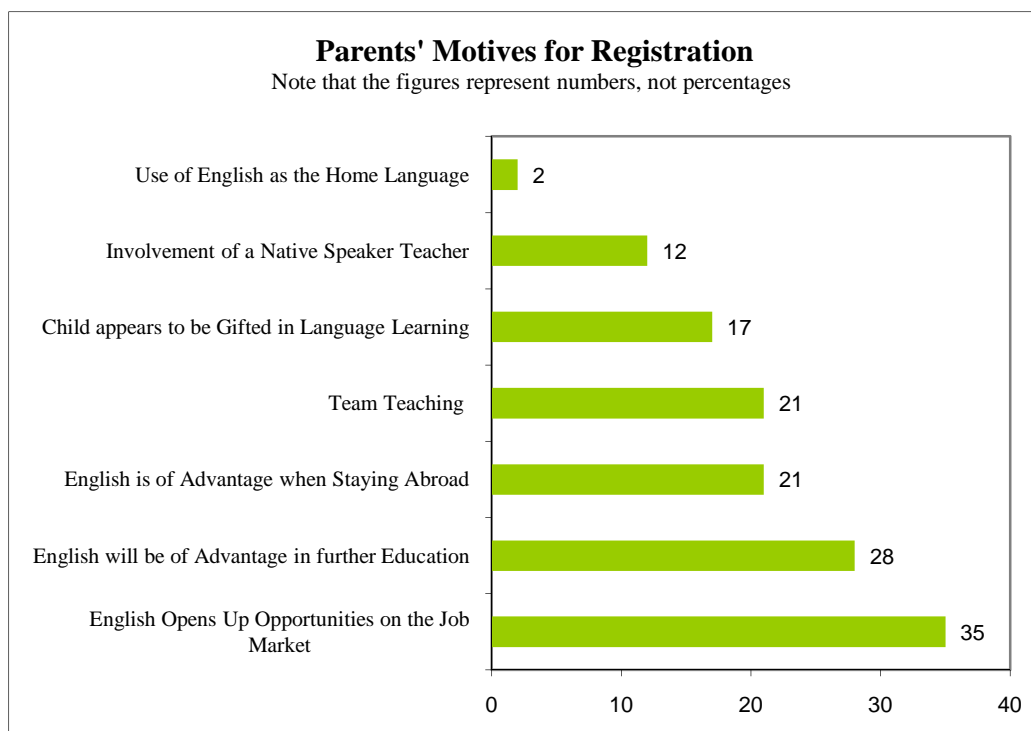
Parents' Motives for Registration
Note that the figures represent numbers, not percentages

Motive	Value
Use of English as the Home Language	2
Involvement of a Native Speaker Teacher	12
Child appears to be Gifted in Language Learning	17
Team Teaching	21
English is of Advantage when Staying Abroad	21
English will be of Advantage in further Education	28
English Opens Up Opportunities on the Job Market	35

Fig.6: Parents' Motives for Registration

Due to the advantages expected in education and occupation, parents hope that that the DLP will provide their child with a better social status in the future. Additionally, 41.4% of the parents believe that the programme will have a positive effect on their child's linguistic talent.

Aspects of teaching specific to the DLP are also seen as positive. For example, 51.2% of the parents emphasise the significance of team teaching. Surprisingly, only 29.2% of the parents consider the native speaker teacher as an important feature of the DLP. Only the answer that English is spoken at home is given less often by parents as an advantage of the programme.

Thus, for two thirds of the parents the incorporation of a native speaker teacher is not a decisive factor of the DLP. This could imply that parents consider Austrian teachers as competent in implementing bilingual teaching – with or without the support of a native speaker teacher. It is also possible that those parents who chose the pre-given answer "because my child is taught by two teachers" felt that this reply already includes their appreciation of the native speaker.

Although the parents of the two schools do not differ considerably in their answers, team teaching seems to be more popular in the KMS. 33.3% of the parents with a child in the AHS mention team teaching as a motive for registration. In the KMS as

much as 65.2% of the parents consider team teaching as an advantage of the DLP. There are several possible explanations for this difference. Firstly, team teaching is certainly considered to be a positive aspect of the DLP, but may not be a decisive reason for registration. Secondly, the parents of KMS students could receive team teaching with more enthusiasm than those of AHS students. This conclusion is supported by questionnaire replies of KMS students, who seem to have a very positive attitude towards team teaching.[79] However, these attempts to explain the results of the parents' questionnaires remain speculative.

In conclusion, the questionnaires have revealed that parents expect the DLP to be advantageous for their child's future education and occupation. Parents also hope that the programme will foster their child's linguistic talent. Moreover, the implementation of team teaching is also regarded as an advantage. It is rather surprising that the participation of a native speaker teacher is not appreciated as much as the researchers of the study anticipated beforehand.

13.2. The parents' attitude towards the English language

In order to understand a child's language development properly, more aspects than just the school environment have to be taken into consideration. For example, the parents' attitude towards foreign languages and their language competence are factors that can influence the child's language development. Moreover, investigating the parents' language background helps to assess to which extent students have the opportunity to use English at home.

An analysis of the parents' language background has revealed the following: Apart from 2 parents of KMS students, all speak one or more foreign languages. 78% of all parents are competent in English, with 68.3% thinking they have achieved at least an intermediate level in this foreign language. 7 parents (17.1%) even believe that their English skills are advanced.

When comparing the parents' English knowledge, differences between the schools become apparent. While only one parent of an AHS student cannot speak English, 30,4% of parents with a child in the KMS (i.e. 7 respondents) are not competent in English at all.

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[79] Cf. chapter 12.3. for a discussion of the pupils' attitudes towards team teaching.

The parents were also asked about their attitude towards English and the role that the foreign language has in their life. The answers show that 90.2% of the parents consider English as important. About 40% use English while on vacation. Equally many report to have friends and relatives with whom they speak English. 40% of the parents also have English books and movies. Nevertheless, one third of the parents state that they hardly ever encounter English in their everyday life. Among these are 5 parents of AHS students and 9 parents whose child attends the KMS.

These results show that students experience foreign language use as something natural and can to a certain extent rely on their parents' English skills. Moreover, they already realise that English is regarded as an important language in their family. When considering the parents' English competence, it becomes clear that the AHS students are in an advantageous position. Since their parents have a better knowledge of English than most of the KMS children's parents, they have more opportunities to use English.

13.3. The parents' satisfaction with the DLP

To evaluate the parents' satisfaction with the DLP, we asked about their opinion on several aspects of the programme. Moreover, we invited them to tell anecdotes about what their child reports about DLP lessons. Thus, it was assumed that the children's attitude towards the programme influences that of their parents.

An analysis of the parents' answers shows that they seem to hold a very positive opinion of the DLP, in other words, they seem to have great trust in the programme. Indeed, only 4 parents express worries when asked to name possible fears related to the DLP. These parents mainly seem to be anxious that their child could be overtaxed by the DLP. In related questions, the parents' trust in the DLP also becomes apparent. For example, when asked if any effects of the DLP on the child can be observed, no negative developments are reported. 36.1% of the parents (mainly those of KMS students) have not noticed any effects, neither positive nor negative ones. 63.8% have only observed positive developments in their child and attribute these to the DLP.

When having a closer look at the parents' observations, the following picture emerges: As figure 7 below shows, parents mainly notice positive effects on their

child's language development. 14 parents report that their child improved considerably in English. 8 times parents attribute their child's increased interest in English to the DLP. Furthermore, 7 parents think that due to the DLP, their child's foreign language anxiety has decreased.
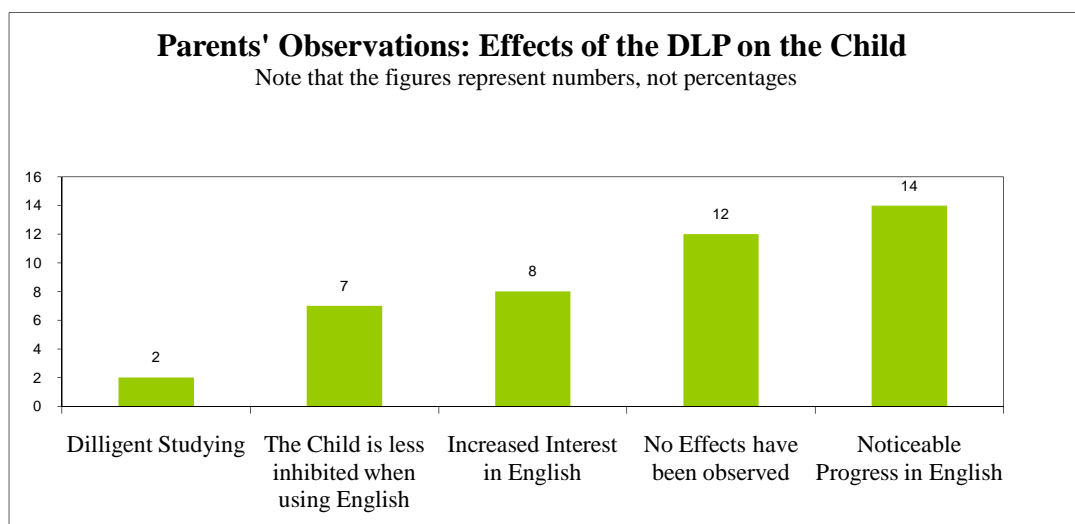

Fig.7: Parents' Observations: Effects of the DLP on the Child

The AHS parents, who had registered their child for the Dual Language Programme, were asked whether the DLP has fulfilled their expectations. Their answers are very positive. For instance, they report about their child's growing interest in and enthusiasm for English. Moreover, they express great satisfaction with the programme. Only 2 out of 17 parents express slight disappointment, because they would have wished for more DLP lessons.

Most of the parents are convinced that their child likes being in a DLP class. According to 87.8% of the parents, their child thinks the DLP is "alright". 41.5% even think that their child is "enthusiastic" about the programme. Only 5 of the DLP students seem to talk so little about the DLP at home that their parents feel they cannot evaluate their child's attitude towards the programme at all.

With an open question, we invited the parents to share anecdotes about what their child reports at home. The majority of answers (52.9%) show that most DLP students talk rather positively about the DLP at home. Only 3 parents (8.8%) point out that their child's reports are predominantly negative. In 38.2% of the answers, both pleasant as well as unpleasant aspects of the DLP are mentioned. Among the answers which reflect a positive attitude towards the DLP, the child's enthusiasm for the DLP

is mentioned 19 times. 6 parents note that the native speaker teacher is very popular or students enjoy team teaching lessons. 4 parents mention that their children like to talk about the content covered in the DLP lessons. This suggests that these children have a positive attitude towards learning in the DLP. However, 6 parents report that their child complains about difficulties in the production and comprehension of English.

When considering the responses above, it is not surprising that 80.4% of the parents are very satisfied about the quantity of DLP lessons and 6 parents would even welcome more bilingual lessons. The parents' satisfaction becomes most apparent when they are asked whether they would register their child for the DLP again. 39 out of 41 parents would certainly sign up their child for the Dual Language Programme again. One respondent did not answer this question and one parent is not convinced of the programme's benefits. In conclusion, even the parents of the KMS students, who did not deliberately choose the DLP, welcome the programme.

13.4. The parents' view on the child's language development

To learn more about the language development of pupils in the Dual Language Programme, the parents were asked to evaluate their child's attitude towards learning languages. The answers have revealed that 97.6% of all parents are convinced that their child is interested in languages. Two thirds (68.3%) even observe their child's great enthusiasm for languages. Only one DLP student apparently does not like learning languages very much. If the students' interest in learning languages is as strong as the parents report, this would indicate a great success of the DLP. However, the extent to which DLP students were already interested in languages before the start of the programme remains unknown.

It should be mentioned that primarily the parents of AHS children believe in their child's enthusiasm for languages. In the AHS 88.9% of the parents think that their child enjoys learning languages very much. In the KMS, on the other hand, only 52.5% give this answer. Differences can also be observed in the parents' evaluation on how the DLP has influenced their child's interest in languages. While 88.9% of the parents of AHS students believe that their child's interest in English has grown, only 56.5% of the parents with a child in the KMS have made this observation.

There are several possible explanations to account for this divergence. For example, children, who are registered for a CLIL programme by their parents, are possibly more interested in languages than the average. Indeed, some parents of DLP students state that their child's linguistic talent was a decisive factor for them to choose the DLP. It is also possible that parents who decide on bilingual education, carefully observe their child's language development. Finally, it could also be that the interest in languages of AHS pupils was boosted by the quantity of lessons with the native speaker teacher. The KMS students' interest in language learning could possibly not develop similarly well due to the reduced number of native speaker lessons.

However, monocausal explanations should be avoided in this context. Moreover, it needs to be pointed out that the difference between the two schools is not statistically significant.

The parents were also asked to which extent their child is exposed to English outside of school. Despite the great interest in languages identified by the parents, 53.7% of DLP students do not seem to use English beyond doing their homework. However, according to the parents, 24.4% of the DLP students read English books and watch movies in the foreign language. Additionally, 14.6% of the pupils use the English language in other contexts.

Regarding the students' use of English again differences between the two schools can be observed. In the KMS, two thirds of the parents do not think that their child uses English outside the school context. In the AHS, only one third of the parents have this impression.

In conclusion, the majority of parents seem to be convinced of their child's great interest in languages. This enthusiasm for language learning could be an indicator for the success of the Dual Language Programme.

14. The DLP: Core findings and recommendations for improvement

14.1. Core findings of the study

In this section the most important results of the evaluation study on the *Dual Language Programme* (DLP) are presented. Like the study itself the summary considers the different perspectives of the stakeholders involved in the DLP.

When investigating the students' attitude towards the DLP, a great range of opinions on the programme can be discovered. For example, the majority of students seem to enjoy the different aspects of the DLP and especially the increased use of English. Other pupils, however, complain about comprehension difficulties and state that they sometimes lack in vocabulary. Surprisingly, the majority of students find it more enjoyable to talk in the foreign language during their regular English lessons than during their bilingual subject lessons. This result contradicts common assumptions about bilingual teaching in academic literature which claims that students are less inhibited when using a foreign language in subject lessons (c.f. the notion of 'The Affective Filter', Krashen & Terrell: 1984).

Nevertheless, with AHS students reporting about their enthusiasm for the native speaker teacher and KMS pupils emphasising that DLP lessons are "fun", a great number of positive opinions on the DLP have been voiced.

The analysis of the parents' view on the DLP has revealed a very positive attitude towards the programme. The parents hardly ever express fears related to the programme and negative aspects of the DLP are only rarely mentioned. Several parents would even welcome a higher quantity of bilingual subject lessons; this suggests great trust in the programme. Nearly all parents are convinced of their child's strong interest in learning languages. Especially those parents who registered their child for the programme attribute this increasing interest in languages to the positive influence of the DLP.

The results concerning the parents of DLP students also proved to be surprising: In contrast to the researchers' initial expectations, the involvement of a native speaker teacher does not seem to be a decisive factor for choosing the DLP. Instead parents

register their child for the DLP, because they expect the programme to be beneficial for their child's educational and occupational future.

As far as the teachers are concerned, two of their main teaching objectives in the DLP could be identified: Firstly, the DLP is aimed at decreasing students' foreign language anxiety. Secondly, the programme should help to improve the students' competence in English, especially as far as subject specific vocabulary is concerned. The teachers report that these objectives have already been reached within the first year of the DLP. For example, the pupils' pride in their English skills can already be observed. Moreover, contrary to initial fears of some teachers, content knowledge does not fall by the wayside.

Although the teachers complain about the lack of appropriate materials and the heavy workload entailed by the DLP, they feel confirmed in their approach by the students' positive feedback. Furthermore, the teaching in the DLP is considered an interesting challenge posed, among other aspects, by team teaching.

Overall, team teaching seems to be successful; especially the opportunity to deal with individual students' problems is regarded to be an advantage of this particular form of teaching. Initial worries have been dispelled. For example, some teachers feared that they could have problems in understanding the native speaker teacher or that differences on a personal level could occur. However, these worriers vanished due to the positive team teaching experience. Nevertheless, team teaching places great demands on DLP teachers: Among others, detailed lesson planning is necessary, the teachers' spontaneity during lessons is reduced and the native speaker teacher has to learn considerable amounts of content in several subjects.

An investigation of the role allocation in team teaching has revealed the following picture: The subject teachers are responsible for choosing and structuring the content. The native speaker teachers, on the other hand, are in charge of the language. If the distribution of responsibilities within the team is not clear, feelings of insecurity arise in the native speaker teacher as well as in the students.

Confusions in role allocation can occur, for example if the quantity of DLP lessons with the native speaker teacher is reduced for organisational reasons. Both schools investigated had problems to integrate the native speaker teacher into their schedules. Consequently, the schools had to alter the programme's organisation.

14.2. Recommendations & suggestions for improvement

This chapter has a dual focus: Firstly, it aims to enumerate the problem areas that have been identified in the course of the evaluation study and, secondly, suggests solutions which could enhance the quality of the Dual Language Programme.

One aspect that needs improvement is teacher training. Because of the high demands of the programme, it is advisable that both subject and native speaker teachers have the opportunity to improve their didactic and pedagogic skills by participating in teacher training courses. It is of major importance that the native speaker teachers also attend these courses for two reasons: On the one hand, they could take on more responsibility and thereby reduce the workload of the subject teachers. On the other, considering that not all native speakers are trained teachers, this would certainly improve the quality of their teaching.

Another teacher training related issue of equal importance needs to be pointed out: The majority of teachers express the wish for regular meetings with all of Vienna's DLP teachers to build up a network. This is indeed recommendable as it would not only allow teachers to exchange materials, but also to share experiences. Ideally, this would go hand in hand with the launch of a DLP website where teachers could find useful links, materials and possibly also technical vocabulary subdivided into subjects. This would certainly simplify and shorten the teachers' intensive preparatory work.

The second subject area which needs enhancement concerns the native speaker teacher. There are primarily two organisational aspects which need to be improved: Firstly, the native speaker should ideally work in only one school to make a trouble-free integration into the school's schedule possible. Secondly, The Vienna Board of Education should strive for a better payment for qualified and trained native speaker teachers. Ultimately, the Dual Language Programme would benefit from these changes in several ways: The native speaker teachers' motivation and commitment would be increased and, additionally, it would be easier for the schools to find competent staff. Another recommendation can be made in this context: There is an urgent need for a weekly paid hour in which the team partners can organise and plan their DLP lessons. Since subject and native speaker teacher are currently struggling to find the time to set up lesson plans and search for materials, this would also improve the DLP's quality.

Furthermore, the public relations of the Dual Language Programme need improvement. DLP teachers point out that it would be very important to promote the programme's advantages. Indeed, better PR of the DLP could help to avoid certain problems. For instance, due to a lack of promotion, some parents were too late in registering their child for the orientation talks. If the DLP was promoted better, this problem could be avoided in the future.

In a first step public relations could be improved with the launch of a clearly structured website for parents and students. This website should provide information on aspects such as registration, the programme's benefits and important dates.

Finally, The Vienna Board of Education should strive to make the label "DLP" and its logo more known, for instance by visibly attaching the logo on the buildings of DLP schools. Additionally, the DLP logo should also be present in the online school guide of Vienna to ensure that the schools involved can be easily identified. At this point it is important to stress that the PR work should not be a part of the teachers' area of responsibility, but has to be taken over by The Vienna Board of Education.

15. Conclusions

CLIL has developed as an alternative to traditional language teaching with the aim to allow for natural and successful second and foreign language learning. Although still constrained by a lack of qualified staff and funding, CLIL has spread in mainstream education at a remarkable speed along with its reputation for pushing foreign/second language proficiency to a very high level. Because of this, it has been the aim of this thesis to explore the learning possible in CLIL, i.e. the opportunities and limitations for language learning this method engenders. To answer this question the main insights gained from both theory and empirical studies will be reviewed in the following section. Based on these results, it will be argued that CLIL has enormous potential for language learning. To exploit this potential fully, however, it is vital that teaching follows certain guidelines. Moreover, it will be proposed that traditional foreign language classes still have a contribution to make in language education by catering for language areas which are not focused on in CLIL lessons.

15.1. Learning in the Dual Language Programme

Although it was still too early to conduct comparative tests involving pupils from the DLP, Barbara Unterberger's and my study could reveal first trends as concerns language learning in the DLP. According to teachers as well as parents, pupils in the DLP show considerable improvements in their English competence, especially in the area of vocabulary. DLP children are described as knowing more words than older siblings. Subject-specific vocabulary knowledge in particular has developed as expected with students being able to review content in the English language. One teacher has also observed that DLP students can cope better with unknown words than children in regular classes. They seem to have developed language strategies which allow them to glean meaning from texts without stumbling over new terms. Thus, the first steps towards the development of CALP can be observed with pupils showing increased vocabulary knowledge and improved abilities to apply problem solving strategies when confronted with difficult words.

The attitude towards the English language among DLP pupils is predominantly positive. Pupils enjoy speaking English and do this of their own accord. Moreover, one third of the students also use English outside school e.g. to watch movies and

pupils seem to be very proud of their language competence. However, the data from this study suggests that it is not just the teaching in the DLP which plays a role but that it is also the parents' positive attitude towards language learning which influences the children's attitude towards English considerably.

Although 80% of the pupils feel positive or neutral about speaking English in DLP lessons, the student questionnaires revealed that pupils prefer to speak English in their regular English lessons. Moreover, despite being allowed to switch to German, nearly half of the pupils report that they sometimes remain silent in CLIL lessons if they cannot express themselves in English. This fits reports by the DLP teachers, according to which some pupils are still inhibited when it comes to using English and some are afraid to make mistakes. About one third of the DLP pupils report problems participating in English and understanding English lesson parts; one fourth would prefer fewer CLIL lessons. This suggests that the DLP pupils are still challenged by being taught in English and need more time to develop CALP. Considering that the DLP is still in its first year these difficulties are not surprising. It is to be hoped that further evaluation studies will be conducted on the DLP which investigate how long pupils need to develop adequate CALP in the Dual Language Programme.

When relating these outcomes of language learning to the immediate sociocultural context of the DLP, several aspects can be observed which seem to be conducive to learning or which could constitute obstacles for learning. The fact that English is a very prestigious language, which is recognised by parents as well as by pupils, can be expected to have a positive effect on the students' motivation. Furthermore, the parents have a high opinion of the DLP and of language learning. In addition to that, the schools themselves had already implemented CLIL in different lessons before the official beginning of the DLP. This suggests that the DLP pupils are encouraged by their environment at school and at home to learn the English language.

The great variety of methods reported by teachers and mentioned positively by some pupils, as well as the integration of the native speaker, can also increase learning motivation. For instance, the fact that the pronunciation is listed most often by DLP pupils as an aspect which they like about English, and that the native speaker is named as a positive feature of the DLP several times, seems to confirm this expectation. Nevertheless, the integration of the native speaker teacher can of course also lead to problems, as can happen in all team teaching situations. The evaluation

study of the DLP could show that a clear role allocation between subject and native speaker teacher and the opportunity for the native speaker teacher to be in class regularly are vital for a positive learning atmosphere. If the native speaker teacher due to organisational problems cannot fulfil his or her role as the language expert and is often absent from CLIL lessons, the rapport between native speaker teacher and class can be affected negatively and so can learning.

Another problem which can still be observed in the first year and which has been mentioned already is that CALP has not yet developed fully. Consequently, one third of the pupils sometimes experience problems both in the production and the comprehension of English. Moreover, pupils are exhausted faster in CLIL lessons. Because of that, one teacher has suggested that the number of CLIL lessons should be limited to one per day. Concerning this issue, it should be mentioned that studies have shown more intensive CLIL to be more successful (Baker [2006]: 276). Thus, it might be advisable to increase the number of CLIL lessons in the DLP in order to support the development of CALP. At the same time, however, teachers have to take care not to overtax their students in the initial phase of the DLP. Because of this, the amount of CLIL teaching could be extended at a later stage in the programme.

Finally, it should be mentioned that a successful CLIL programme always depends on the enthusiasm of the teachers involved. Thus, it is vital that this motivation is not squandered and that problem areas of teaching in the DLP are considered. Consequently, the school as an institution needs to ensure that teachers are supported in organising planning lessons in the team, in obtaining appropriate material, in exchanging teaching aids and ideas and that they are also paid adequately.

In conclusion, the DLP affects language learning as studies on CLIL programmes would predict. Students show an increased knowledge of vocabulary and improved abilities when it comes to language related problem solving strategies. Moreover, they seem to have a positive attitude towards the English language. Nevertheless, CALP still needs to be developed further. This could also be one reason why pupils surprisingly prefer to talk English in their regular English lessons. As for the immediate sociocultural context of the DLP, the prestige of the English language, the environment which supports the learning of this language and the introduction of a greater variety of methods into lessons as well as of the native speaker teacher seem to affect learning positively. On the other hand, organisational problems experienced

in the DLP which led to unclear role allocations between native speaker teacher and subject teacher seem to affect the learning atmosphere negatively. Moreover, teachers experience difficulties in organising and planning DLP lessons which could hamper their strong commitment to the DLP.

Thus, although the evaluation of the programme's first year could reveal certain problem areas for learning, pupils already show very promising improvements in their English competence. Further evaluation studies on the programme would be advisable both to see how learning in CLIL continues to develop and also to feed theory on CLIL.

15.2. Reviewing CLIL from the perspective of theory

Since the development of CLIL as a new method for language teaching, empirical studies have revealed the enormous positive effects CLIL has on language learning. Depending on the intensity of the programme, CLIL can even boost the development of certain areas of second or foreign language competence to native speaker levels. In particular the following beneficial effects on learning can be observed in CLIL programmes:

- pupils learn to communicate fluently (Cummins 1998: 1),
- CALP is developed, i.e. students are able to use and understand subject-specific academic language (Grabe & Stoller 1998: 8),
- depending on the extent of CLIL, receptive language skills can reach near native speaker levels (Cummins 1998: 2),
- pupils have very positive attitudes towards the target language and its culture (Cummins & Swain 1996: 52f), inhibitions are lowered and the motivation to learn the foreign language is increased (Dalton- Puffer 2007b: 144),
- a broad range of learners, even those with low IQ or learning disabilities, can achieve those aforementioned skills in the target language especially in early and intensive CLIL (Cummins & Swain 1996: 51f),
- skills in the mother tongue are pushed to higher levels (ibid.: 10f),
- intensive programmes can lead to improved cognitive development (Baker [2006]: 172f),

- in extensive CLIL students reach the same levels of content knowledge as those in non-CLIL classes and sometimes even surpass these, after a temporary lag while CALP is built (Cummins & Swain 1996: 59).

The theories which have been discussed in this thesis allow these aforementioned outcomes on language learning to be understood better. For example, Krashen's monitor model suggests that CLIL is so beneficial for language learning because it provides the ingredients necessary for natural language acquisition. Firstly, by using the target language in several content subjects, CLIL offers extensive comprehensible input which is needed to feed the learners' innate language acquisition device. Secondly, CLIL lowers language inhibitions, for example, by focussing on language meaning rather than form (Krashen 1985: 16f). Thus, according to Krashen, CLIL fulfils conditions essential for language acquisition.

The psychological theory of constructivism can show that CLIL also constitutes a beneficial environment for language learning, if evaluating it with respect to more general principles of learning. For example, constructivism states that for learning to happen it is important that an authentic environment is provided in which schemata can be constructed. When it comes to the development of academic language knowledge, CLIL in contrast to the regular foreign language classroom offers such an authentic environment with ample opportunities for language construction (Wolff 1996). Moreover, CLIL can boost disequilibrium in the students by increasing the adaptive value of constructing target language knowledge considerably. By being the language of instruction the target language becomes immediately relevant for pupils. It reveals its function as a means for communication and opens doors to new subject specific concepts for the pupils (ibid.). Therefore it is not surprising that CLIL can reach the majority of pupils and that these construct language knowledge at a high level especially in the area of academic language skills.

Cummins' hypotheses on bilingualism and cognition suggest that a high degree of bilingualism as can be achieved through CLIL is beneficial for both first language and cognitive development. Because all language knowledge is connected at the level of the common underlying proficiency (CUP) knowledge gained about and through one language also improves concept development in and about other languages. This is possible if the bilinguals' language knowledge can achieve certain thresholds. These thresholds can be reached if schooling takes the pupils' language

level into consideration and provides adequate support in the weaker language as is the case in CLIL (Baker [2006]: 170 - 173).

As can be seen, empirical studies as well as theories on learning reveal that CLIL enables learners to achieve a very high level of competence in the foreign language. Nevertheless, some areas of the target language do not seem to develop as well as others, these are:

- grammar competence (Swain 1985: 245)
- discourse competence (which is affected by the problems with grammar) (ibid.)
- interpersonal communication skills (Tarone & Swain 1995: 168).

For proponents of Krashen's monitor model which has dominated in CLIL rationales, this was very surprising. After all, it was believed that the innate language acquisition device should be able to construct target language knowledge fully if extensive comprehensible input is provided and a low affective filter is ensured. As a consequence, further studies on teaching in CLIL have been conducted (Swain 1985: 246). These have not only led to new theories on language learning such as the output hypothesis but also to new recommendations for CLIL practice.

These studies on CLIL could show, for instance, that the students' lack of grammar knowledge is related to restrictions in input and limited opportunities for interaction and producing output in CLIL classrooms. In other words, certain grammatical structures are absent in classroom instruction and therefore cannot be acquired. Moreover, as the output hypothesis argues, CLIL students have problems developing a high grammar competence in the target language because processes which seem to be encouraged most if comprehensible output is produced like noticing of target language structures, hypothesis testing on the target language and metalinguistic reflection, are underused in input- focused CLIL classrooms (Swain 1996: 95- 101). When interpreting these study results by applying constructivist concepts, it can thus be concluded that opportunities for constructing grammar knowledge in the target language are limited in the CLIL classroom. In addition, meaning-focused CLIL classrooms do not seem to cause enough disequilibrium in the pupils when it comes to developing grammar competence in the foreign language.

Further studies on this problem for learning in CLIL which have drawn on sociocultural theory remind that learning opportunities must be analysed with reference to the sociocultural context in which learning takes place. These studies could reveal that CLIL classrooms by virtue of being environments for institutional learning show features very similar to regular foreign language classrooms(Dalton-Puffer 2007a: 279). Discourse patterns which result in restricted input and output opportunities as mentioned above can thus be identified across all subjects. Moreover, CLIL classes use language typical for talking about academic matters (Tarone & Swain 1995: 168). As Cummins (Cummins & Swain 1996: 151f) points out this language differs from the language used in everyday interpersonal communication. On the one hand, it is this feature of the CLIL classroom which makes it an authentic environment for developing cognitive academic language skills in the target language (cf. Grabe & Stoller 1998: 8). These are especially important if the target language will be used in occupational and educational contexts after school. On the other hand, this aspect of CLIL leads to language difficulties because hardly any opportunities for the construction of sociolinguistic and interpersonal language skills are provided (Tarone & Swain 1995: 168-172). Taking a sociocultural perspective again, the lack of social language functions realised in CLIL classes is not only problematic because this area of the target language cannot be developed but also because humans are considered social beings who learn because they want to participate in a community and make most progress when co-operating with others (cf. Block 2003: 64; Donato 1994: 52).

In sum, depending on its intensity, CLIL allows learners to develop language skills to a level which is only rarely achieved through regular language teaching. CALP can be constructed, motivation to learn a language can be increased and positive effects on first language and cognitive development can be expected. Despite these promising results, language learning in CLIL also faces challenges, in particular in the areas of grammar competence and BICS.

15.3. Exploiting the potential of CLIL for language learning

As has been shown, CLIL has much to offer for language learning as well as for cognitive development. However, to exploit this potential fully, teaching has to take into account the specific strengths and weaknesses of this approach and find ways to remedy the latter. The learning theories and studies on CLIL presented in this thesis can offer valuable guidelines on how this could be achieved. Several guidelines seem especially noteworthy for CLIL practice.

For instance, considering that CLIL does not naturally provide all language structures which a learner may be required to know, it seems advisable to formulate concrete language aims when starting a CLIL programme (Dalton- Puffer 2007a: 295). This language curriculum for CLIL should take into account the language needs which arise from the content-subjects, i.e. identify 'content-obligatory' language. Furthermore, 'content-compatible' language goals should be defined to cater for those language structures which do not occur automatically in the content subjects but which might be of importance to the learner (Snow, Met & Genesee 1989: 204 - 206).

If these language goals have been defined several aspects need to be taken into account such as which language areas can be learned incidentally in CLIL and which need to be focused on explicitly. Although more research is required to identify the specific language features which are used in CLIL classrooms and are learned without effort, studies suggest that grammar structures require more explicit attention in CLIL. Especially those which do not carry a high communicative load or which do not occur regularly in CLIL classroom discourse naturally have to be focused in CLIL teaching (Lyster 2007: 30).

Grammar teaching in CLIL should involve meaningful communicative contexts and not constitute of abstract and detached analyses of language structure. Enriching CLIL input with target structures, designing collaborative noticing activities and providing language feedback are strategies which have been proposed in literature to push grammar accuracy in CLIL students (Swain 1996: 97). Nevertheless, the issue of teaching form in CLIL is still debated and will probably not be resolved soon. More studies on CLIL programmes and the outcomes achieved are still required.

Another guideline that can be derived from this survey of learning theories and CLIL studies is the advice that methods which support co-operative learning and learner autonomy need to be incorporated (cf. Wendt 1996: 75; Donato 1994: 52). While this advice is true for all teaching, CLIL research has revealed how important it is that learners are encouraged to participate actively and collaboratively to allow for the development of productive language skills in particular of interpersonal communication skills and of grammatical accuracy (Swain 1995: 129- 141; Swain 1985: 248f). Thus, tasks which require students to be active, to produce output and to co-operate in groups have to feature more prominently in CLIL classes.

The aforementioned guidelines can certainly help CLIL students to achieve higher levels of productive target language competence. Regular foreign language teaching should, however, still complement CLIL in language education. Firstly, foreign language classes can focus on grammar structures which are underused in CLIL teaching, especially until the question to what extent and how grammar should be included into CLIL has been resolved. More importantly, the foreign language class can also offer a room where the learner as a social being can develop basic interpersonal communication skills (bm:ukk 2000: 3). It is certainly possible and maybe necessary to include language needed to order in a restaurant, to discuss literature and movies and to talk about hobbies and feelings into content-subjects. However, the regular foreign language lesson can provide more space for experiencing and focussing on the social functions of language than the geography, biology and mathematics lessons can.

This does not mean that there should be a dichotomy between CLIL and regular foreign language classes with each catering for different language areas, but that these methods might complement each other ideally by giving more room to those aspects of language which are not so easily developed by the other method. Consequently, CLIL and regular foreign language teaching should be reconceptualised as content and language- driven CLIL respectively with different but not mutually exclusive focuses.

In conclusion, CLIL does not cater for all language areas equally well. Teaching has to take this into consideration by specifying language goals for CLIL, including more explicit teaching on form and emphasising tasks which allow for co-operative and autonomous learning. Moreover, regular foreign language teaching should

complement CLIL to provide additional support in the area of grammar development and of basic interpersonal communication skills. If these guidelines are followed, higher productive language skills can be expected to develop in CLIL programmes. Despite these challenges still facing it, CLIL constitutes a method which enables a great proportion of pupils to achieve impressively high levels in the foreign language. Without claiming additional time in the school timetable, CLIL allows pupils to develop target language skills and content knowledge in parallel, while also improving first language and cognitive development. Considering that CLIL is especially successful in increasing motivation for language learning, improving communicative proficiency and developing subject-specific academic language skills, the method of CLIL seems to provide those language competencies needed in our globalised information society.

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Appendix

The appendix includes the questionnaires and interview guidelines which were developed and used by Barbara Unterberger and myself for the evaluation study of the Dual Language Programme.

Questionnaires:

- for DLP students
- for parents of DLP students

Guidelines for interviews with

- the Biology and Geography teachers in the DLP
- the native speaker teachers in the DLP
- the head teachers of the schools

Fragebogen für DLP SchülerInnen

Hier gibt es nur richtige Antworten! Danke, dass du mitmachst! ❀

1. Ich bin ein: ☐ MÄDCHEN ☐ BUB

2. Zuhause sprechen wir diese Sprache: ....

3. Diese Sprachen spreche ich noch: ....

4. Bevor ich in diese Schule gekommen bin wusste ich, dass manche Fächer auf Englisch unterrichtet werden:

   ☐ ja ☐ nein

5. Wie gefällt es dir im DLP von 2 Lehrern gleichzeitig unterrichtet zu werden?

   ☺ ☺ ☹
   ☐ ☐ ☐

6. Welchem Lehrer gibst du mehr Aufmerksamkeit in den DLP Stunden?
   ☐ dem Michael
   ☐ der Geo- oder Biolehrerin
   ☐ beiden gleich viel

7. Das finde ich in den DLP Stunden schwer:

   ....

   ....

8. Ich rede gerne Englisch in den DLP Stunden:

   ☺ ☺ ☹
   ☐ ☐ ☐

9. Ich rede gerne Englisch in meiner normalen Englisch-Stunde:

   ☺ ☺ ☹
   ☐ ☐ ☐

10. An der englischen Sprache…

… gefällt mir ....

… gefällt mir nicht...

11. Kreuze an, was auf dich zutrifft! Du kannst auch mehrere Kreuze machen!

□ In der normalen Englisch-Stunde habe ich Angst beim Reden Fehler zu machen.

□ Im DLP Unterricht rede ich ganz locker in Englisch darauf los

□ Im DLP Unterricht zeige ich manchmal nicht auf, weil ich es nicht auf Englisch sagen kann.

12. Welcher Unterricht gefällt dir besser?

□ der Geo/Bio Unterricht auf Deutsch

□ der Geo/Bio Unterricht auf Englisch

□ beides gleich gut

13. Kreuze an, was auf dich zutrifft!

□ Ich hätte gerne mehr Fächer auf Englisch

□ Ich hätte gerne weniger Fächer auf Englisch

□ Es ist gut so wie es ist

14. In den Geo/Bio Stunden, in denen auf Deutsch unterrichtet wird, kenne ich mich…

□ … besser aus

□ … schlechter aus

□ … gleich gut aus wie in den englischen Teilen

15. An den DLP Stunden gefällt mir…

… am Besten:...

… überhaupt nicht: ....

Super, schon fertig! ☺ Danke!

Fragebogen für Eltern von DLP SchülerInnen

Bitte machen Sie ein Kreuz vor jene Aussagen, die **für Sie** stimmen!

Manchmal bitten wir Sie, uns Ihre Meinung in einem kurzen Kommentar mitzuteilen.

Für uns ist jede Antwort eine richtige und wichtige Antwort! ☺

A.) Angaben zum Erziehungsberechtigten:

1. Ich bin…

   ☐ Mutter   ☐ Vater   ☐ ....

   ☐ 20-30 Jahre alt   ☐ 30-40 Jahre alt   ☐ 40-60 Jahre alt

2. Letzte abgeschlossene Ausbildung:

   ☐ Hauptschule   ☐ Lehre / Berufsbildende Schule ohne Matura

   ☐ Universität   ☐ Kolleg / Lehrgang (z.B. med.tech. Dienst)

   ☐ Matura   ☐ keine

3. Meine Erst- oder Muttersprache ist: ....

4. Weitere Sprachkenntnisse, die ich habe:

Sprache	sehr gut	gut	mittel	etwas
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

5. Zuhause, in der Familie sprechen wir vor allem:

   ....

6. Bitte kreuzen Sie jene Aussagen an, die für Sie zutreffen.
    Mehrere Antworten möglich:

☐ Ich habe im Altag kaum mit Englisch zu tun

☐ Englisch ist mir egal

☐ Wir sprechen Englisch auf Reisen

☐ Ich komme aus einem englischsprachigen Land

☐ Ich habe englischsprachige Bekannte, Freunde oder Verwandte

☐ Ich spreche mit meinem Kind Englisch

☐ Wir haben englische Bücher oder Filme zuhause

☐ Ich halte Englisch für wichtig

B.) *Angaben zu Ihrem Kind:*

1. Interessiert sich Ihr Kind für Sprachen?
    ☐ ja   ☐ eher ja   ☐ eher nein   ☐ nein

2. Verwendet ihr Kind außerhalb der Schule Englisch?
    ☐ nein, nicht über die Hausübung hinaus
    ☐ ja, mein Kind trifft englischsprachige Freunde
    ☐ ja, mein Kind verwendet englische Medien (Bücher, Filme, Spiele)
    ☐ ja, mein Kind...

3. Seit mein Kind in am DLP Programm teilnimmt…
    ☐ beschäftigt es sich mehr mit Englisch
    ☐ beschäftigt es sich weniger mit Englisch
    ☐ hat sich nichts verändert

C.) *Angaben zum DLP Unterrichts Ihres Kindes:*

1. Warum haben Sie Ihr Kind für die DLP Klasse angemeldet?
   Mehrere Antworten möglich:

   ☐ mein Kind ist sprachbegabt

   ☐ wir sprechen zuhause Englisch

   ☐ weil mein Kind in manchen Stunden von 2 Lehrern unterrichtet wird

   ☐ bessere Chancen für den zukünftigen Berufsweg meines Kindes

   ☐ bessere Vorraussetzungen für Auslandsaufenthalte (Reisen, Au
   Pair, etc.)

   ☐ Vorteile in der Weiterbildung (Studium, etc.)

   ☐ die Mitwirkung einer Lehrperson, deren Muttersprache Englisch ist

   ☐ Andere Gründe: ....

2. Den englischen Unterricht meines Kindes finde ich:

   ☐ zu viel ☐ eher viel ☐ gerade richtig ☐ eher wenig ☐ zu wenig

3. Meine Erwartungen an das Dual Language Programme wurden erfüllt:

   ☐ ja, weil ....

   ☐ nein, weil ....

3. Glauben Sie, dass DLP Nachteile für ihr Kind haben könnte?

   ☐ nein

   ☐ ich befürchte, dass mein Kind den Stoff nicht versteht

   ☐ ich befürchte, dass weniger Stoff behandelt wird

   ☐ ich befürchte, dass mein Kind überfordert ist

   ☐ ich befürchte, ...

4. Was berichtet Ihr Kind von seinem DLP Unterricht?

   ☐ mein Kind ist begeistert von DLP

   ☐ meinem Kind gefällt DLP ganz gut

   ☐ mein Kind erzählt kaum etwas über DLP

   ☐ mein Kind beklagt sich manchmal über DLP

5. Bitte beschreiben Sie kurz, was Ihr Kind zuhause vom DLP Unterricht erzählt:

....

....

....

....

....

6. Wenn ich noch einmal wählen könnte würde ich mein Kind wieder für DLP anmelden:

     ☐ ja   ☐ nein

7. Gibt es bei Ihrem Kind irgendwelche positiven oder negativen Auswirkungen des verstärkten englischen Unterrichts, die Ihnen aufgefallen sind?

....

....

....

8. Was ich noch anmerken möchte:

....

....

....

Danke, dass Sie sich Zeit genommen haben! ☺

Interview guidelines: subject teachers

Hintergrund

1. Wie lange sind Sie schon an der Schule?
2. Warum glauben Sie führt ihre Schule das DLP durch?
3. Wie sind Sie zum DLP dazugekommen?
4. Was interessiert Sie persönlich am DLP?
5. Wie wurden Sie auf das DLP vorbereitet?
6. Wie hat diese Vorbereitung konkret ausgesehen?
7. Was hören Sie von den Eltern zum DLP?
8. Was gefällt Ihnen daran in DLP Klassen zu unterrichten?
9. Was gefällt Ihnen nicht so sehr daran in DLP Klassen zu unterrichten?

Organisation

1. Wie war das DLP organisatorisch ursprünglich geplant?
2. Bitte beschreiben Sie die jetzige Organisation des DLP (die Abläufe, Meetings, (Zeit)Pläne, Verantwortlichkeiten usw.)
3. Wenn Sie reflektieren…was gelingt in der DLP Organisation gut, was gelingt nicht so gut?
4. Wie klar sind die Anforderungen an den DLP Unterricht seitens Stadtschulrat und Direktion?
5. Was davon ist hilfreich, was hinderlich?
6. Wie sollten DLP Klassen in der Zukunft organisiert sein?

Lehren, Unterrichtsgestaltung

1. Welche Erwartungen, Hoffnungen und Befürchtungen, hatten Sie an den DLP Unterricht vor Beginn des Programms?
2. Welche Erwartungen haben sich erfüllt, welche nicht?
3. Welche Lernziele verfolgen Sie mit dem DLP Unterricht?
4. Warum denken Sie ist der DLP Unterricht für diese Lernziele besonders geeignet?
5. Wie versuchen Sie diese Lernziele konkret im Unterricht umzusetzen?
6. Was hat sich dabei beim Unterricht als gut bewährt, was als weniger gut?

7. Wie bereiten Sie sich auf eine Unterrichtsstunde mit Englisch als Unterrichtssprache vor?

8. In der Vorbereitung…was gelingt dabei gut, wo stoßen sie auf Probleme?

9. Welches Material verwenden Sie in den DLP Stunden?
   Wie wird es eingesetzt?

10. Woher kommt es?

11. Was verändert sich am Unterrichten dadurch, dass der Unterricht teilweise in Englisch gehalten wird?

12. Wie halten Sie die Balance zwischen Sprache und Fach (Inhalt/Stoff) im DLP Unterricht?

13. Wie gelingt Ihnen das? Was gelingt besser, was schlechter?

14. In wiefern setzen Sie sich im Rahmen des DLP Unterricht mit der angloamerikanischen Kultur auseinander?

Team teaching

1. Welche Anforderungen stellen sich an den Unterricht durch das Team teaching?

2. Wo, wann und wie oft treffen Sie sich um die DLP Stunden zu planen?

3. Wie arbeiten Sie mit Ihrem Partnerlehrer/Ihrer Partnerlehrerin zusammen?

4. Wie sehen Sie, als Fachlehrerin, Ihre Rolle innerhalb einer DLP Stunde während des Team Teaching?

5. Was sind die Vorteile von Team teaching (für LehrerInnen und SchülerInnen)?

6. Welche Nachteile hat es?

7. Ganz allgemein, haben Sie neue Möglichkeiten, neue Aspekte des DLP Unterrichts entdeckt, mit denen Sie vor Begin nicht gerechnet hätten?

8. Wenn Sie alles noch einmal Revue passieren lassen… was sollte am Unterricht in Bezug auf das Team teaching und Unterrichten im DLP geändert werden?

Lernen, Schülermotivation

1. Welche Hoffnungen und Befürchtungen hatten Sie in Bezug auf die Schülermotivation vor Beginn des Programms?

2. Welche haben sich erfüllt, welche nicht?

3. Wenn Sie sich die DLP Klasse vorstellen und eine Parallelklasse dazu denken, welche Unterschiede sehen Sie zwischen DLP Schüler und jenen aus anderen Klassen im Hinblick auf Schülermotivation?

4. Welche Unterschiede sehen Sie zwischen DLP SchülerInnen und jenen aus anderen Klassen im Hinblick auf fachliche Leistung?

5. Welche Unterschiede sehen Sie zwischen DLP SchülerInnen und jenen aus anderen Klassen im Hinblick auf den Umgang und den Gebrauch von Sprache allgemein (Deutsch und Englisch/ schriftlich und mündlich)?

6. Welche Unterschiede sehen Sie zwischen DLP SchülerInnen und jenen aus anderen Klassen im Hinblick auf die Einstellung zur englischen Sprache?

7. Unter welchen Umständen könnten die Schüler noch besser lernen und wären noch mehr motiviert?

8. Abschließend noch eine Einschätzung: Was glauben Sie, wie gut muss man Englisch können, um im DLP gut unterrichten zu können?

9. Gibt es etwas, das Sie noch gerne gefragt worden wären?

Interview guidelines: native speaker teachers

Background

1. For how long have you lived in Austria?

2. What is your professional background?

3. When did you start teaching?

4. Why did you choose to come to Austria as a language assistant?

5. What was your relation to the teaching profession beforehand?

6. How would you evaluate your German?

Team Teaching

1. How would you describe a typical DLP lesson?

2. What is your role in a DLP lesson?

3. How does your role differ from that of the subject teacher?

4. What are the advantages of team teaching?

5. Which disadvantages would you point out?

6. What are the special challenges of teaching in a bilingual environment?

The Students

1. Do you think that the students enjoy their DLP lessons?

2. What do you do students like especially?

3. And what is it that they don't like?

Culture

1. Is it important for you to incorporate your own cultural background into the lessons?

2. How do you incorporate your cultural background?

3. How does your co-teacher feel about teaching Anglo-American culture?

Organisation

1. How is the DLP Programme organised within the school?

2. What do you experience as helpful?

3. What would you identify as an obstacle or hindrance?

Changes

1. What should be changed organisation-wise?

2. What should be changed regarding teaching?

Interviewleitfaden Direktion

Hintergrund

1. Welche Schwerpunkte hat ihre Schule?
2. Warum führt ihre Schule das Dual Language Programme durch?
3. Was erwarten Sie sich für die Schule durch das DLP?
4. Welchen Stellenwert hat DLP in ihrer Schule?
5. Was soll für die SchülerInnen durch das DLP erreicht werden, welche Ziele werden mit dem Programm verfolgt?
6. Warum glauben Sie ist das DLP zur Erreichung dieser Ziele geeignet?
7. Welche dieser Ziele sind Ihrer Meinung nach bis jetzt erfüllt worden?
8. Welche Hoffnungen und Befürchtungen gab es vor Start des DLP seitens der Lehrerinnen? Was davon ist eingetroffen, was nicht?
9. Welche Hoffnungen und Befürchtungen gab es vor Start des DLP in Bezug auf die SchülerInnen? Was davon ist eingetroffen, was nicht?
10. Was hören Sie von den Eltern zum DLP?

Organisation

1. Wie hat sich die Schule auf die Durchführung dieses Programms vorbereitet?
2. Bezüglich der Organisation des DLP, welche Befürchtungen hatten Sie vor Start des Programms?
3. Wie wurden die LehrerInnen für das DLP ausgewählt?
4. Wie sind Sie zum Native Speaker Teacher an ihrer Schule gekommen?
5. Beschreiben Sie bitte das Auswahlverfahren, das die Schüler durchlaufen müssen, um in die DLP-Klasse aufgenommen zu werden? (Feldgasse)
6. Wie klar sind die Anweisungen in Bezug auf die Durchführung des Programms seitens des Stadtschulrats?
7. Wie war das DLP organisatorisch ursprünglich geplant?
8. Bitte beschreiben sie die Organisation des Programms wie es jetzt durchgeführt wird!
9. Was gelingt bei der DLP Organisation gut, was gelingt nicht so gut?
10. Wie sollten DLP Klassen in der Zukunft organisiert sein?

Lehrpersonal

1. Was hören Sie von den involvierten Lehrpersonen über das DLP?

2. Wie äußern sich die Lehrerinnen Ihnen gegenüber hinsichtlich dem Zeitaufwand, der Zweisprachigkeit im Unterricht und der Vermittlung des Fachstoffs in der DLP Klasse?

3. Was hören Sie vom Native Speaker Teacher zum DLP?

4. Wie äußern sich andere Lehrpersonen, die nicht im DLP involviert sind zum Programm?

5. Was denken Sie sind die Anforderungen an das Lehrpersonal, die durch das DLP gestellt werden?

6. Was haben Ihnen die Lehrpersonen zur DLP Ausbildung erzählt?

7. Was würden Sie ändern wollen, um die LehrerInnen, sowohl den Native Speaker Teacher als auch die Fachlehrerinnen, noch besser unterstützen zu können?

Summary in English

In our globalised information society, foreign language skills are undoubtedly of great importance. Understanding this brings with it the question of how languages can best be taught and learned. Several methods for teaching languages have been proposed throughout history. Since the 1990s a new alternative method has spread with unexpected speed in the mainstream education of many European countries. In this method, called CLIL (Content and Language Integrated Learning), content is taught through the medium of a second or foreign language with the aim to build both language and content knowledge.

The studies on CLIL programmes have reported astounding results for language learning and expectations are consequently high. Because professional teaching practice involves having a deeper knowledge about methods and their particular strengths and weaknesses, this thesis explores CLIL, in particular the aspect of language learning in CLIL in greater detail.

After the method, its historical background and its features are presented briefly the question of which opportunities and limitations for language learning CLIL engenders is discussed in depth. This issue is approached from two sides. Firstly, CLIL is explored with reference to theory. Six theories are drawn on in the thesis which have all featured in academic discourse on CLIL and have also been used in rationales for this method. From the field of second language acquisition theory Krashen's monitor hypothesis, the interaction and the output hypothesis are referred to. From the field of psychology two general learning theories have been included into this thesis – namely epistemic constructivism and sociocultural theory. Furthermore, Cummins' hypotheses on the relation between bilingualism and cognition have also been applied to gain a deeper understanding of the learning possible in CLIL.

Apart from a theoretical look on language learning in CLIL, the paper also provides insights into CLIL practice by presenting an evaluation study on a Viennese CLIL programme. This study on The Dual Language Programme (DLP) was conducted in the year of the programme's start in 2006/07 by my colleague Barbara Unterberger

and me. It presents the organisational structure of the DLP as well as the stakeholders' perspectives on teaching and learning in this CLIL programme.

Thus, the thesis provides a comprehensive picture of language learning in CLIL, which reveals that CLIL contributes differentially to various areas of target language development. One of the advantages of CLIL is that the teaching of content through the foreign language and the focus on meaning rather than language form makes foreign language use immediately relevant to the pupils. Moreover, it ensures an environment which provides extensive comprehensible input and conditions which should lower inhibitions to use the target language. As a consequence, communicative proficiency, the motivation to learn languages and subject-specific academic language skills reach levels only rarely achieved through regular foreign language teaching. In addition to that, positive effects for cognitive and first language development could be observed.

On the other hand, conditions which generally limit institutional learning also affect CLIL classes, such as the focus on the learner as an intellectual and rather passive being. Therefore, pupils have only limited opportunities to produce output and the input they receive in CLIL classes is functionally restricted. Because of this, the grammar competence and interpersonal communication skills in CLIL students are not as well developed as other language areas.

As a result, it is argued in this thesis that concrete language aims are needed for CLIL and that CLIL teaching should include more attention on language form as well as encourage more autonomous and co-operative learning experiences. Moreover, the thesis proposes that regular foreign language learning still has its place in language education by offering room for practicing language form and social language functions. If these guidelines are followed, it can be expected that the potential of CLIL for language learning can be exploited fully and learners can be equipped with the language knowledge needed in today's globalised society.

Zusammenfassung auf Deutsch

In unserer globalisierten Wissensgesellschaft, sind gute Fremdsprachkenntnisse von großer Wichtigkeit. Diese Einsicht bringt die Frage mit sich, wie Sprachen am besten gelehrt und gelernt werden können. Verschiedene Methoden wurden im Laufe der Geschichte vorgestellt. Seit den 1990er Jahren kann man in immer mehr europäischen Schulen eine neue alternative Methode des Sprachunterrichts finden. Diese Methode, welche international als CLIL (Content and Language Integrated Learning) bezeichnet wird und im deutschsprachigen Raum auch den Namen Fremdsprache als Arbeitssprache trägt, kombiniert Sprach- und Sachfachunterricht. Ziel ist es sowohl Sprach- als auch Sachkenntnisse zu entwickeln, indem verschiedene Sachfächer in einer Fremd- oder Zweitsprache unterrichtet werden.

Die Studien über CLIL Programme berichten von erstaunlichen Resultaten beim Fremdsprachenlernen und die Erwartungen an CLIL sind konsequenterweise hoch. Da Professionalität im Sprachunterricht erfordert, dass Lehrpersonen ein tiefergehendes Verständnis von Unterrichtsmethoden haben, beschäftigt sich diese Diplomarbeit mit der Methode CLIL, insbesondere mit der Seite des Sprachlernens.

In einem ersten Teil werden die Entwicklung und die Charakteristiken von CLIL kurz vorgestellt, bevor dann der Frage auf den Grund gegangen wird, welche Möglichkeiten und Grenzen sich für das Sprachlernen durch CLIL ergeben. An diese Frage wird von zwei Seiten herangegangen. Zunächst wird CLIL von der theoretischen Perspektive beleuchtet. Sechs Theorien werden herangezogen, welche alle im akademischen Diskurs über CLIL eine Rolle spielen. Theorien über Fremdspracherwerb, welche verwendet werden, sind Krashens Monitor Hypothese, der Interaktionismus und die Output Hypothese. Auch allgemeinere Lerntheorien aus dem Bereich der Psychologie werden auf CLIL angewendet, im speziellen der soziale und der epistemische Konstruktivismus. Schließlich werden noch Cummins Hypothesen über die Beziehung zwischen Bilingualismus und Kognition herangezogen, um ein besseres Verständnis über Sprachlernen in CLIL zu erlangen.

Die Diplomarbeit nähert sich dem Phänomen jedoch nicht nur von der Seite der Theorie, sondern auch über die Empirie, indem sie die Evaluationsstudie eines wiener CLIL-Programmes präsentiert. Diese Studie des Dual Language Programmes (DLP) wurde von meiner Kollegin Barbara Unterberger und mir im ersten Jahr des

Programmes, 2006/07, durchgeführt. Sie zeigt die DLP Organisation, sowie die Perspektiven aller Beteiligten auf die Bereiche Lehren und Lernen im DLP.

Es kann also gesagt werden, dass die Diplomarbeit ein umfassendes Bild des Sprachenlernen in CLIL bietet. Dieses zeigt, dass CLIL verschiedene Sprachbereiche unterschiedlich gut fördert. Einer der Vorteile von CLIL ist, dass die Fremdsprache durch die Verwendung als Unterrichtssprache für die SchülerInnen eine große unmittelbare Relevanz erlangt. Die CLIL-Umgebung stellt sicher, dass die SchülerInnen der Fremdsprache in großem Ausmaß ausgesetzt sind und diese auch verstehen. Weiters ermöglicht CLIL durch den Fokus auf Sprachbedeutung statt Sprachform, dass Sprachängste reduziert werden. Aufgrund dieser Eigenschaften erreicht die kommunikative Kompetenz, die Motivation für Sprachenlernen und die Fähigkeit fachspezifische akademische Sprache zu verwenden in CLIL ein Niveau, welches nur selten im regulären Fremdsprachenunterricht erlangt wird. Hinzu kommt, dass positive Effekte auf die Erstsprach- und kognitive Entwicklung der SchülerInnen in CLIL-Programmen beobachtet werden konnten.

Auf der anderen Seite ist Lernen in CLIL von denselben Bedingungen betroffen, welche allgemein Lernen in Institutionen erschweren. Aufgrund dieser institutionellen Rahmenbedingungen haben SchülerInnen in CLIL-Klassen z.B. nur eingeschränkt die Möglichkeit die Fremdsprache aktiv zu verwenden. Außerdem werden sie in der Klasse nur mit einer beschränkten Anzahl von Sprachfunktionen konfrontiert. Die Konsequenz daraus ist, dass die Grammatikkompetenz und das Wissen wie Sprache in sozialen oder in Alltagssituationen verwendet werden kann, nicht so gut entwickelt ist wie andere Sprachbereiche.

Auf der Basis dieser Ergebnisse, wird in dieser Diplomarbeit argumentiert, dass ein konkretes Sprachcurriculum für CLIL entwickelt werden sollte. Außerdem sollte der Sprachform mehr Aufmerksamkeit gewidmet und autonomes sowie kooperatives Lernen in CLIL verstärkt werden. Weiters, wird dargelegt, dass der reguläre Fremdsprachenunterricht nach wie vor wichtige Funktionen erfüllt, da er einen Raum bietet, in dem Grammatik und soziale Sprechfunktionen geübt werden können. Sollten die oben genannten Vorschläge berücksichtigt werden, kann das große Potential für Sprachentwicklung, welches CLIL bietet, sicher ausgeschöpft werden und CLIL SchülerInnen mit jenen Fremdsprachfertigkeiten ausstatten, die in unserer heutigen globalisierten Welt gebraucht werden.

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