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List of abbreviations

BICS ..... Basic Interpersonal Communication Skills
CALP ..... Cognitive Academic Language Proficiency
CDF ..... Cognitive discourse functions
CLIL ..... Content and language integrated learning
ELLs ..... English language learners
ESOL ..... English as a second or other language
EU ..... European Union
HOTS ..... Higher-order thinking skills
IRF ..... Initiation, response, feedback
L1 ..... First language
LOTS ..... Lower-order thinking skills
MVPA ..... Moderate-to-vigorous physical activity
PE ..... Physical Education
SLA ..... Second language acquisition
TBLT ..... Task-based language teaching
TPR ..... Total physical response
VET ..... Vocational education and training schools

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1 Introduction

Content and language integrated learning (CLIL) is a dual-focused educational approach which is receiving more and more attention across Europe (Coyle et al., 2010: 1). In CLIL, "an additional language is used for the learning and teaching of both content and language", which the European Union (EU) promotes to fulfill its language learning objective for each European citizen to achieve proficiency in two languages plus his or her mother tongue (European Commission 2006: 8). Although theoretically any language could be used to implement CLIL, English seems to be the target language of most European CLIL programs (Dalton-Puffer 2011: 183). Common subjects used for CLIL education in Austria belong to the canon of science subjects, namely mathematics, biology, physics, chemistry, and technology as well as the social science subjects like history, geography, and economics (European Commission 2006). However, Physical Education (PE) is not seen as a typical CLIL subject. This thesis focuses on the connection between language learning and PE, demonstrating that general and academic language play a large role in fulfilling the subject's objectives (Martin et al. 2018). Asher (1966) already established the positive influence of movement on language learning by developing the concept of the '[t]otal physical response' (TPR). Machunsky (2013) argues that the use of highly frequent vocabulary in PE supports the process of second language acquisition. Against this background, this thesis also draws on more recent research (Coral 2013, Lightner 2013, Nietsch & Vollrath 2007 and Rottmann 2006), presenting theoretical as well as practical approaches to implement CLIL in PE, to establish a theoretical foundation towards developing balanced PE-in-CLIL lesson material.

This thesis strives to answer the following research questions:

1. What options exist to implement content and language integrated learning (CLIL) in the Austrian lower secondary Physical Education (PE) curriculum?
2. Which design principles need to be considered to create a balanced PE-in-CLIL task? And finally
3. What do potential PE-CLIL lessons look like?

In order to answer these questions, this thesis will showcase desk research that focuses on CLIL teaching methodology, the school subject of PE, and its connection to language as well as current PE-in-CLIL publications. After establishing a sound theoretical foundation, this thesis aims to introduce a novel PE-in-CLIL Checklist, which can serve as a guiding principle for the process of planning a PE-in-CLIL lesson. Subsequently, this thesis will implement the

4Cs framework (Coyle 2005) to the Austrian lower secondary school PE curriculum to show their comparability. On the basis of this connection, this thesis will present a PE-in-CLIL Template, which can then serve as a tool for fully integrated PE-in-CLIL lesson plans within the Austrian school system. Finally, four PE-in-CLIL lesson plans, guided by the PE-in-CLIL Template and Checklist, will be presented.

2 Overview of Content and Language Integrated Learning (CLIL)

Content and language integrated learning (CLIL) "is an umbrella term adopted by the European Network of Administrators, Researchers and Practitioners (EUROCLIC) in the [sic] mid 1990s" (Coyle 2007: 545). It describes an educational approach with a dual-focus on language and content, "where curricular content is taught through the medium of a foreign language" (Dalton-Puffer 2011: 183). This means that the approach's objective is not the sole instruction of content or of language, but of both congruently (Coyle et al. 2010). Gajo (2007: 563) presents the concept of CLIL as "a powerful means of teaching a subject through a second language, thus enhancing the latter by the means of teaching and learning the former".

Approaches such as content-based language teaching or English as an additional language share some of the basic concepts with CLIL but do not fall under the same umbrella as they differ in some fundamental ways (Coyle et al. 2010; Dalton Puffer et al. 2014). EUROCLIC's definition of the CLIL approach includes "any activity in which a foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint curricular role" (Marsh 2002: 58). Dalton-Puffer et al. (2014: 215) present three characteristics that are prototypical for CLIL lessons:

1. Major or minor linguae francae are used as CLIL language.
2. CLIL does not replace the foreign language teaching but accompanies it.
3. CLIL is a content lesson and therefore also titled as one in the timetable.

The labelling of CLIL lessons as content lessons on students' schedule goes hand-in-hand with adopting "content learning goals and pedagogical traditions inscribed in the content-subject curricula" (Llinares & Dalton-Puffer 2015: 70). Subsequently, content teachers who instruct these lessons may or may not have additional education in second language teaching (Hüttner & Smit 2014: 163). Therefore, content CLIL teachers should work closely

together with foreign language teachers, to ensure a balance between content and language learning. CLIL lessons are also not to be treated as a substitute for foreign language lessons but as an addition to them (Dalton-Puffer et al. 2014: 215), as they do "not replace [modern foreign language (MFL)], but rather complement it" (Hüttner & Smit 2014: 166) through additional exposure to the target language (European Commission 2017b: 55).

The most widespread CLIL languages chosen in EU contexts are English (the most common), French, and German (European Commission 2017b: 57), although any "language that is neither their [students'] first language nor the dominant medium of instruction in the respective education system" would be applicable (Dalton-Puffer & Nikula 2014: 117). The languages chosen for CLIL often reflect the linguistic heritage of a country; in Spain, for example, CLIL programs are available in all of the six official regional languages (European Commission 2017b: 56).

The rationale behind the positioning of English as one of the main CLIL languages is its importance in the globalized society and the fact that a proficient use of spoken and written English is more often seen as a "key literacy feature [sic] world-wide" (Dalton-Puffer & Smit 2013: 546) and a factor in gaining personal and professional success (Grin 2001, Coyle et al. 2010).

For the last 20 years, the number of CLIL programs implemented in various educational settings has grown throughout continental Europe (Pérez Cañado & Lancaster 2017: 301, Hüttner & Smit 2014: 160). Although the term CLIL is not consistently used in different countries, the European Commission and EUROCLIC adopted it as a generic umbrella term (Marsh 2002: 58), which incorporates educational practices, such as bilingual education, immersion education, and interdisciplinary learning (Coyle 2018: 166; Pérez Cañado 2016). While the goal of immersion educational programs is to expose students to the target language to reach the "aim [of achieving] native-like or near native-like competence in the target language", it is still seen as a pioneer of CLIL, which, on the contrary, "aims at achieving […] functional competence" (Muñoz 2002: 36). Both of them provide, according to Morton and Jakonen (2017), an ideal environment for language learning because they engage the learner in meaning-focused tasks, giving them the opportunity to purposefully communicate in cognitively captivating content.

While the name of the teaching approach is well established all over the EU, its implementation, including its teaching aims and learning outcomes and objectives, may still vary from country to country. Therefore, Coyle (2002: 27) comes forward with three CLIL-specific aims that, she claims, are consistent throughout the EU:

1. Students should be given opportunities to learn subject matter or content effectively through the medium of a European language which would not be considered as the usual language for subject instruction in their regular curriculum.
2. Students should be given opportunities to use language/s in a variety of settings and contexts in order to enable them to operate successfully in a plurilingual and pluricultural Europe.
3. Young people need support in developing specific and appropriate inter-cultural as well as linguistic knowledge skills and strategies, in order to function as autonomous mobile European citizens.

The first aim focuses on opportunities to study in a different EU language. As English is the dominant CLIL language taught in the EU, and EU policy changes took effect in early 2020 in accordance with the United Kingdom's 2016 referendum to leave the economic bloc (informally known as Brexit), it will be interesting to observe whether English will still be considered a EU language or will just be seen as a prime lingua franca. The second aim aids the development of plurilingual and pluricultural EU citizens, while the third seeks to create an autonomous EU population, which is seen as functional insofar as dealing and knowing about different cultures and languages is concerned. These three objectives are in line with the EU language learning goals, which will be discussed in greater detail in the next sections.

2.1 The EU language learning goals

In June 1978, the European Commission proposed "to encourage teaching in schools through the medium of more than one language" (Marsh 2002: 51). In 1995, the Council of the European Union published the *Council Resolution of 31st March 1995 on improving and diversifying language learning and teaching within the education systems of the European Union*, which emphasized the importance of acquiring and maintaining the "ability to communicate in at least two community languages in addition to their [EU citizens] mother tongue" (European Commission 2006: 8). This resolution also introduces the method of teaching a non-language class in a foreign language, which later became the main premise of CLIL, and additionally emphasizes the importance and promotion of linguistic diversity in

language education. Lastly it also “proposes to improve the quality of training for language teachers” (European Commission 2006: 8).

In November 1995, the European Commission released the *White Paper on Education and Training*, which states that trilingualism is to be promoted for all young people so that they have “the ability to adapt to working and living environments characterized by different cultures” (Commission of the European Communities 1995: 47). It furthermore mentions that students in secondary schools should, in certain subjects, be taught in the first foreign language learned which in Austria would be English. Additionally, language learning is to be introduced as early as primary school, in order to begin foreign language acquisition at an early stage in students’ education(Commission of the European Communities 1995: 47).

This *White Paper* declaration can be seen as an effort to bring educational approaches such as CLIL to a broader EU audience, and it succeeded. Since its publication, CLIL has been part of the European pedagogical landscape (Wolff 2002: 47). If educational systems implement CLIL in line with these proposals, they take part in raising a more globalized citizenry(Bot 2002: 31). As the promotion of multilingual EU citizens is at the heart of the EU language learning goals (Dalton-Puffer 2011: 184) CLIL has been named as a major contributor to reach it (European Commission 2003: 8). Furthermore, declarations of the European Commission (1995, 2003, and 2008) gave prominence to the CLIL approach and aided its advancement throughout the EU.

The EU language policy intends for its citizens to speak at least two foreign languages (European Commission 2009) in order to be able to study or work in a different EU country. Furthermore, the ability to speak other languages is considered to “improve cognitive skills and strengthen learners’ mother tongue skills" (Dalton-Puffer 2011: 185). The book *A Guide to Languages in the European Union* (2008) highlights the importance of speaking more than one language:

> The European Union actively encourages its citizens to learn other European languages, both for reasons of professional and personal mobility within its single market, and as a force for cross-cultural contacts and mutual understanding. […] The ability to understand and communicate in more than one language is seen as a desirable life-skill for all European citizens, […] (EUbusiness 2008).

Furthermore, this document stresses that linguistic diversity and openness towards other cultures are, among others, considered core values of the EU. Coyle (2013: 246) highlights the importance of being proficient in more than two languages in order to "enhance employability and mobility". Garcia (2009: 6) agrees that bilingual education, including CLIL, plays a vital role in cross-cultural understanding and helps learners to become "global and responsible citizens" because CLIL offers a perspective on teaching that goes beyond "the cultural borders in which traditional schooling often operates". This is also highlighted by Camerer (2015), who points out the importance of intercultural communicative competence, which CLIL promotes, in order to succeed in a globalized world and to work in teams across national and cultural borders.

All in all, language learning enables EU citizens to interact with each other and appreciate and respect each other's culture. Furthermore, it supports the EU to "achieve its economic, cultural, and social potential' (Marsh 2002: 59). Additionally, language learning, especially through approaches like CLIL, provides a context in which core values of the EU, such as culture and language, can be addressed.

2.2 CLIL policies

While the definition and aims of CLIL may be consistent, the guidelines for its implementation vary greatly from country to country. This aided the adaptation of linguistic diversity of the EU landscape, while it also avoided the one-size-fits-all model that has "failed miserably" (Lorenzo et al. 2011: 454). Dickey's (2004: 13) metaphor to describe content-based instruction as "a small blanket on a large bed shared by many children, each pulling in their own direction" can also be applied on CLIL, but because of its different approaches and flexible nature, the blanket (CLIL) can be stretched to reach all children without tearing it apart.

Even though the European Commission named CLIL as a major contributor to language education goals, objectives and guidelines are scarce (Dalton-Puffer 2011: 185). However, empirical research in various national contexts started to emerge in the mid-2000s (Dalton-Puffer et al. 2014: 214). Throughout the EU, two types of CLIL provisions exist: type A and type B (European Commission 2017b: 141). In type A provisions, either all content subjects (case 1) or just a select number (case 2) are taught through a foreign language, which is

stated as such in the curriculum. In type B provisions, some non-language subjects are taught in either "a regional and/or minority language [sic] or a non-territorial language [sic] or a state language (in countries with more than one state language), and a second language, which may be any other language" (European Commission 2017b: 141).

The initial implementation of CLIL came either from high-level policymaking in order to enhance foreign language teaching, as in Spain and the Netherlands, or from grassroots action, which left it to the schools to decide if and how they adopted the CLIL approach (e.g. in Austria) (Hüttner et al. 2013: 270, Dalton-Puffer & Nikula 2014: 117). But now, many countries have established top-down guidance on how to implement CLIL programs. During the emergence of CLIL-like programs in Austria, terms like English/Foreign Language as a Working Language ("Englisch als Arbeitssprache/Fremdsprache als Arbeitssprache (EAA)"), Bilingual Teaching of a Subject ["Bilingualer Sachfachunterricht"] and bilingual ["zweisprachig"] were used to refer to them (European Commission 2006: 66). By now, the term CLIL is widespread, and curricular guidelines concerning the implementation of CLIL in different school types exist. Different Austrian guidelines are discussed in section 1.2.1.

A survey on CLIL provisions in 30 EU countries, conducted by Eurydice (2006), concludes that depending on the importance of either the language or the content of CLIL, the terminology used to distinguish different models varies. For example, Clegg (2003: 89) proposes a classification of subject-led CLIL for projects that "may well exclude language teachers and explicit language teaching" and language-led CLIL, which "imports parts of subjects [and] highlights language development".

In order to implement a successful CLIL project, according to Paran (2013), two points are important. First, "a high level of investment in teachers and teaching skills in general", and second, "a high level of L2 mastery on the part of CLIL teachers"(Paran (2013: 322)). Wolff (2002: 47) also argues that an additional special teacher training, apart from a foreign or content teacher training, is needed in order to plan and teach successful CLIL lessons.

Although nearly every country in the EU offers a CLIL provision of some sort, no current internationally comparable data exists at EU level to display the magnitude of this educational approach in each country (European Commission 2017a: 13). Therefore, the following subsection focuses on the execution of selected aspects within CLIL provisions in

different EU countries with a special focus on Austria's implementation of the teaching approach.

2.2.1 CLIL implementation in schools within the European Union

The Eurydice network has published, reports summarizing key data on teaching languages in the EU, among other topics, since 2006 that also focus on CLIL provisions. The most recent Eurydice report, which also provides a section on CLIL, was published in 2017 and builds the basis for the following discussion, in combination with the special issue on CLIL from 2006, which will focus on CLIL implementation in Austria. Furthermore, the differences to other EU countries will be under investigation to put Austria's policy into perspective.

There are only a hand full of countries that provide CLIL at some stage throughout the whole educational system: Austria, Cyprus, Italy, Luxembourg, Liechtenstein, and Malta (European Commission 2017b: 57). The general aims of CLIL programs in primary and general secondary education can be divided into four categories:

1. socio-economic objective
    - to prepare students for an international life and giving them better job opportunities
2. socio-cultural objective
    - development of intercultural understanding
3. linguistic objective
    - language skills and motivation to learn a language through interaction for real practical purposes
4. educational objective
    - subject-related knowledge and learning ability (European Commission 2006)

Whereas the focus in Austria is on socio-economic, linguistic, and educational objectives, countries like the Netherlands or the Czech Republic officially pursue all four. On the other end of the spectrum Italy, Estonia, and Latvia follow only one aim, namely linguistic objectives.

Another important point for implementation purposes is the amount of allocated time for CLIL lessons. While in Austrian primary schools, 27 annual lessons of CLIL teaching are allocated to foster foreign language learning (European Commission 2017b: 108), each upper and lower academic secondary school decides how many lessons they want to allocate to

the CLIL provision or whether they want to implement it at all (BMUKK 2019a: 18). In addition, the curriculum of *Mittelschule* [secondary school] does not require schools to implement CLIL but rather encourages them to do so in order to foster a competence-oriented teaching style (BMUKK 2012: 8–9). The curriculum of the *Berufsbildende Schule* [Vocational education and training schools (VET)] like the *Höhere Lehranstalt für wirtschaftliche Berufe* [secondary school for economic professions] refer to CLIL in two sections. First, it is outlined in the regulations governing the integration of foreign language learning, where it specifies that schools determine the subjects and hours used for it autonomously (BMUKK 2015a: 10–11). The second reference is under the section of didactical principles, to ensure on the one hand the promotion of knowledge and skills within the content subject area, and on the other hand support for the promotion of linguistic and communicative competence. Furthermore, the notion that CLIL can help foster an understanding of global and social developments is highlighted (BMUKK 2015a: 12). The curriculum of the *Handelsakademie* [secondary college for business administration] states that after graduation:

> students have the competence to acquire the required language competence necessary for a career as an employee and an entrepreneur as well as the ability to use the language correctly through Content and Language Integrated Learning – CLIL (foreign language competence) (BMUKK 2014b: 1).

In order to achieve this goal, students receive CLIL instruction in 72 lessons per year starting from year three (i.e. grade 11), which are allocated in curricula decided by the school (BMUKK 2014b: 11). *Humanberufliche Schulen* [schools and colleges of social and services industries] can include CLIL instruction if they provide classes of three modern foreign languages. In that case, the foreign language can be taught in a CLIL setting at the CEFR B2 level of proficiency in a minimum of 2 lessons per week (BMUKK 2015b: 1155). The new curriculum for *Höhere land- und forstwirtschaftliche Berufe* [colleges of agriculture and forestry], which took effect in academic year 2018/19, requires 36 lessons of CLIL teaching per year, starting in year three for the five-year school and in year two for the three-year school. The CLIL provision at the *Höhere technische Lehranstalt* [colleges of engineering] requires the highest number of CLIL lessons per year, starting from year three, with a minimum of 72 CLIL instructed lessons per academic year (BMUKK 2018).

In Italy, the comprehensive school reform in academic year 2014/15 implemented a CLIL provision for upper secondary education. For example, in the last year of *Licei* and *Istituti Tecnici* one non-language subject is taught in a foreign language. During the final three years of *Licei,* two different non-language subjects must be taught through CLIL, using two different foreign languages (European Commission 2017a: 14).

Science subjects are the predominant foci of various CLIL programs. While in Austria any subject may be used for CLIL, the most frequently cited ones are mathematics, biology, physics, chemistry, and technology; the social science subjects history, geography, and economics; and artistic subjects, as in music, plastic, and visual arts (European Commission 2006).

In Austria, no additional CLIL-specific teacher-training is needed to teach a CLIL subject, although courses for in-service teachers are becoming more and more available. In Vienna, the *Pädagogische Hoschschule* offers a two-semester, 8 ECTS credit course on *DLP-CLIL Foundation of Content and Language Integrated Learning*. The *Pädagogische Hochschule* in Lower Austria only offers a *CLIL-Kick-Off Day* course on CLIL implementation and methodology, while the schools in Upper Austria and Tyrol offer various CLIL courses such as *CLIL Brush-Up: Methods and Task Design, CLIL (Content and Language Integrated Learning) – Marketing, CLIL in commercial subjects – brush up your English language skills, CLIL (Content and Language Integrated Learning) – Controlling* or *CLIL für Fachpraxis und Labor*. The University of Vienna has offered one course per semester since 2018 on S*pecific Issues in Language Learning and Teaching/Specific Issues in EFL Teaching – Content and Language Integrated Learning* in the Master of Education program. In countries such as Italy, Poland, or Hungary, where regulations on specific teacher qualifications for CLIL exist, most of them refer to proficiency in the target language. In Italy, teachers need to pass a one year CLIL course at University (60 ECTS) and provide document stating the proficiency at a language level of CEFR C1, whereas in Poland the only qualification required is a certified language level of CEFR B2 (European Commission 2017b: 92).

After clarifying time, subjects, and teacher qualification, the question of assessment arises. In Austria, no special specification for CLIL assessment exists (BMUKK 2019b) other than for VET schools, in which students are able to choose whether they want to do an oral exam in

their first language or not. If the student chooses to do the exam of a non-language subject in a foreign language, the language proficiency of the student is not to be taken into account during the assessment (BMUKK 2019c). In countries like Germany, Spain, and Portugal, students' knowledge of the subject is only assessed in the target language.

Lastly, albeit countries such as France, Portugal, and Poland have established access restrictions focusing on the criteria of language skills and knowledge of the content subject or general attitude towards it, others like Austria, Germany, and Italy have no admission criteria for students who choose to participate in CLIL programs (European Commission 2017b: 58).

The following section deals with the effects of the CLIL approach on students and their level of language proficiency. Furthermore, it addresses how CLIL might influence students' affective dimensions and their attitude towards learning.

2.2.2 Effects of CLIL on Language Proficiency

Advantages

Wolff (2002: 48) argues that the learning environment created through CLIL complements modern pedagogical principles in a way traditional learning environments cannot. It fosters autonomous learning through project work where learners deal independently with the content at hand, creating a "learning laboratory" in the classroom. The classroom is defined by a holistic teaching approach in which subjects are not "arbitrarily divided and taught in isolation but are seen as a complex whole" (Wolff 2002: 48). The European Commission argues in favor of CLIL as well. On the one hand, it increases students' motivation towards learning a new language by providing authentic occasions for language use in "meaningful and rich communication situations", while on the other, it offers a higher exposure to the target language by combining a content subject with a language subject (European Commission 2017a: 13). Furthermore, CLIL fosters cultural awareness, improves cognitive development, and boosts students' motivation, factors which may also lead to overall higher achievements for learners (European Commission Directorate General for Education and Culture 2014: 29).

Hüttner and Smit (2014: 165f; see also Hüttner 2017; Rieder-Bünemann et al. 2019) draw attention to two more areas in which CLIL adds to student's learning experience: subject-specific language and genre proficiency as well as "changes in the affective dimension of language learning". Through CLIL lessons, students have the possibility to engage with subject-specific vocabulary, which they would not be able to in the context of a normal foreign language lesson, and through this get a grasp of the underlying subject-specific concepts and theories. Badertscher and Bieri (2009: 180) provide evidence that content learning in a CLIL context is not negatively affected and that in some cases CLIL students surpass non-CLIL students in learning content. Also, Van de Craen et al.'s (2007) study of CLIL mathematics learners in Belgium shows that CLIL learners outperform their non-CLIL colleagues when it comes to content acquisition. Vollmer (2010: 245) explains this phenomenon: CLIL students show a higher tolerance of frustration and thus are more persistent in their task work, leading to a more advanced application of procedural knowledge. Furthermore, they argue that linguistic problems, through persistent task work, result in an overall better understanding of the content. Contrary to this suggestion, a study conducted by Küppers and Trautmann (2013) points out the fact that students who choose to participate in CLIL programs in general achieve more and are more motivated than students who do not, which explains their better test results in the CLIL program.

Furthermore, CLIL positively affects the feelings students have towards the foreign language of instruction, which additionally helps to reduce students' anxiety towards speaking a foreign language in the classroom (e.g., Dalton-Puffer et al. 2008; Maillat 2010; Nikula 2007; European Commission 2017a). Moreover, improved language learning, one of CLIL's fundamental principles, helps pupils to develop their personality and reflexive skills through communication (Fazio et al. 2015: 919).

Skill development

Studies show that under certain circumstances, CLIL lessons contribute to students' positive development of linguistic competence, vocabulary learning skills, and grammatical awareness, as well as first language (L1) literacy. Additionally, learners' linguistic confidence, problem solving and risk-taking skills, and their independence in the classroom are positively affected. Teachers are also able to move beyond long-established foreign language topics

and thus raise expectations for their learners. The importance of cultural awareness is “back on the agenda” and dealt with in the classroom through CLIL (Coyle 2007: 548).

Dalton-Puffer (2011: 186) draws attention to studies on CLIL students’ receptive and productive lexicon, which is “larger overall, contains more words from lower frequency bands, has a wider stylistic range, and is used more appropriately”, especially when it comes to “academic vocabulary and words from the 5,000+ frequency range” than compared to non-CLIL students. This can be ascribed to the unique learning environment and conditions of learning within a CLIL context. Spelling and the correct use of tenses also improves through CLIL, whereas in writing, especially in “dimensions that reach beyond the sentence level, for example cohesion and coherence, discourse structuring, paragraphing, register awareness, genre and style,” (Dalton-Puffer 2011: 187) little to no effects were detected.

All in all, Mewald (2007: 143) concludes that “CLIL significantly enhances the language skills of a broad group of students whose foreign language talents or interests are average”. This is the reason why many parents are convinced that CLIL better equips their children for their future careers (Li 2002).

These positive research outcomes (for a detailed overview see Dalton-Puffer 2011 and Duske 2017) have been criticized by researchers such as Küppers and Trautmann (2013), Paran (2013), and Bruton (2013), who claim that the typical CLIL student, compared to its non-CLIL counterpart, is high achieving and highly motivated. Also, Dallinger et al. (2016: 24) report a bias selection process, which either happens through access restrictions or optional participation in the program that influenced the outcomes of previous studies. They further state that, at the beginning of the study, CLIL students show higher cognitive abilities and have a higher motivation in English than the control group (Dallinger et al. 2016: 29). Additionally, their study highlights the fact that CLIL practitioners are typically more enthusiastic than their non-CLIL counterparts.

Considering this wave of criticism, a cluster of longitudinal studies were conducted, including carefully selected experimental and control groups, “controlling for a wide range of student, classroom and teacher characteristics” (Dallinger 2016: 23), to overcome the imbalances criticized in earlier investigations. Dallinger et al. (2016) investigated skills development in German CLIL and non-CLIL students in grade eight. Their outcome suggests that the skill development in listening comprehension is greater in CLIL students than in the control

group, while the influence on general English and subject-specific skills shows to be insignificant (Dallinger et al. 2016: 29).

Pérez Cañado and Lancaster's (2017) research, on the other hand, examines the effect of CLIL on oral comprehension and production. Results suggest that CLIL students outperform non-CLIL students in the spoken interaction task, concerning their oral receptive skills, especially in cognitively demanding tasks and display a more sophisticated structure in their language use. All in all, the study highlights CLIL students' superior competence in fluency as well as grammatical and lexical skills (Pérez Cañado & Lancaster 2017: 312).

Another study conducted by Pérez Cañado (2018) investigates the effects of CLIL on foreign language achievement, including vocabulary, grammar, reading, listening, and speaking skills. The results show that especially productive skills, and in particular speaking in reference to fluency and task fulfillment, are most positively affected by the implementation of CLIL programs, although all linguistic skills show the positive influence CLIL has on language acquisition (Pérez Cañado 2018: 68).

A longitudinal study, following high school students in their last three years of senior high school at three different Swedish schools, reports that CLIL students outperformed non-CLIL student in all the tests and assignments throughout the study. This result was not unexpected because the typical student participating in the project is described as "an ambitious, motivated and hard-working individual" (Sylvén 2019b: 315) and had a higher extramural exposure to English. What is interesting about the results of the study is that although productive vocabulary proficiency in English was higher for CLIL students both at the beginning and at the end of the study, the developmental curve did not differ compared to non-CLIL students. Only in the area of reading comprehension did the researchers observe a significant CLIL effect (Sylvén 2019a: 316), making it the only area in which CLIL students showed a greater development than non-CLIL students.

A Swedish study conducted by Olsson (2015: 67) observed that the productive use of English academic vocabulary is not influenced by CLIL education. Likewise, significant changes in the use of pronunciation, syntax, or discourse skills have not been reported in a study conducted by Gallardo del Puerto and Martínez Adrián (2013).

Dallinger et al.'s (2016: 29) results point to an insignificant CLIL-effect on productive English skills and to a positive influence on students' receptive listening skills. Furthermore, their

findings suggest that CLIL has an insignificant effect on content subject learning. This, however, needs to be interpreted with caution because CLIL students had 50% more content lessons, suggesting that CLIL students need more input to achieve the same output as non-CLIL students when it comes to content knowledge (Dallinger et al. 2016: 30).

Considering all of the advantages the CLIL approach brings to its learners, one has to keep in mind that most CLIL students have their CLIL content classes in addition to their normal language learning classes and "thus have a time advantage over their peers" (Dalton-Puffer 2011: 186). Given this additional exposure to the foreign language, an advantage over non-CLIL students' language skills is to be expected. Ouazizi (2016: 129) argues that higher performance in the foreign language stems from the activation of implicit mechanisms of learning a language as displayed in students' simultaneous learning and practicing the target language.

Disadvantages

Considering the positive effects CLIL can have on students' language skills, one must also look at possible negative effects that a CLIL context might impose on its learners. First, students might struggle due to entering the course with a lower proficiency in the foreign language than that which is taught (Piesche et al. 2016: 114), limited background knowledge of the content subject, or further having to deal with lexically dense texts. Second, studies indicate that a real balance between language and content is difficult to implement (Mehisto et al. 2008).

Dalton Puffer (2007; 2011: 188f) draws attention to the observation of decreased active student participation in CLIL classes, leading to possible issues in language learning because in some CLIL classes, productive language skills such as speaking are focused on less. Furthermore, she reports an absence of academic discourse functions, which are crucial for language learning because they refer to the linguistic representation of cognitive learning goals specific to each subject (Dalton-Puffer 2013: 219). Vollmer (2010) states that a high number of CLIL students compared to their non-CLIL counterparts show a lack of academic writing skills and are often not able to articulate subject-specific issues in a suitable manner. Some studies also conclude that CLIL has "neither a positive nor a negative effect" regarding content learning (Dalton Puffer 2011: 188f).

Piesche et al. (2016: 115) report a flatter learning curve of bilingually educated (including CLIL) students concerning content knowledge, compared to monolingually educated students. This might be explained by CLIL students' lack of experience in being taught in a second language. The task of processing language and content at the same time might have been too much to process, resulting in an "overload on their working memory capacity", leading to a flatter learning curve (Piesche et al. 2016: 115).

Disadvantages of the CLIL program can often be attributed to a neglect of students' content or language proficiency level. Especially at the beginning of the program, students' inexperience in learning content in a foreign language might lead to mental overload. In order to avoid this, teachers need to ensure a learning environment that takes students' cognitive and language level into account. While this chapter provides an overview of the emergence of CLIL in the EU, its implementation in different EU countries as well as research on skill development through CLIL, the following chapter focuses on the introduction of CLIL teaching methodology. In order to develop a framework for the implementation of CLIL in PE and lesson plan material, a detailed analysis of existing frameworks and constructs, both in CLIL and PE, is necessary and provided in chapter 3.

3 CLIL Teaching Methodology

Meyer (2010: 12) identifies a lack of "appropriate teaching materials" and states that an extensive and integrated CLIL methodology has not been developed yet. This chapter provides an overview on various conceptualizations and planning tools that are currently available. Whole lesson plans including learning and teaching objectives are scarce, especially in Austria, which is why teachers fall back on already available frameworks and planning tools.

In order to understand the following frameworks, one has to start by identifying the goals of the CLIL program. In this context, Coyle (2002: 27-28) argues that Content and Language Integrated Learning promotes four key principles:

1. The first principle places successful content or subject learning and the acquisition of knowledge, skills and understanding inherent to that discipline at the very heart of the learning process.
2. The second principle defines language as a conduit for both communication and learning. From this perspective, language is learned through using it in

authentic and unrehearsed yet 'scaffolded' situations to complement the more structured approaches common in foreign language lessons.

3. The third principle is that CLIL should cognitively challenge learners
4. The fourth principle embraces pluriculturality. Coyle (2002: 27-28)

In order to promote those key principles, teachers need to prepare CLIL lessons accordingly. In the following section, the methodology of CLIL teaching will be discussed, starting with the 4Cs Framework (Coyle 2007), which is an evolution of the four principles quoted above, and ending with a discussion of the Graz Group's (Meyer et al. 2015) Pluriliteracies Model. Thereafter, Dalton-Puffer's (2018) Cognitive Discourse Functions (CDF) and their influence on CLIL will be discussed before moving on to a lesson planning tool, the CLIL-Pyramid, created by Meyer (2010). Finally, CLIL quality principles and criteria of quality CLIL materials will be explored.

3.1 The 4Cs Conceptual Framework

When looking for pedagogical models for Content and Language Integrated teaching, the most prominent one is the 4Cs Conceptual Framework (see Figure 1) developed by Coyle in 1999, which has been influenced by Mohan's Knowledge Framework (1986) (Coyle 2007: 549). It is a flexible planning tool created to aid practitioners in their efforts to prepare CLIL lessons, therefore offers a methodological and pedagogical base "for truly sustainable CLIL teaching and learning" (Meyer 2010: 26). Due to its holistic approach to CLIL, it brings together various aspects of the teaching method and builds on the interrelationship of 'Content' (subject matter), 'Communication' (language), 'Cognition' (learning and thinking), and 'Culture' (social awareness).

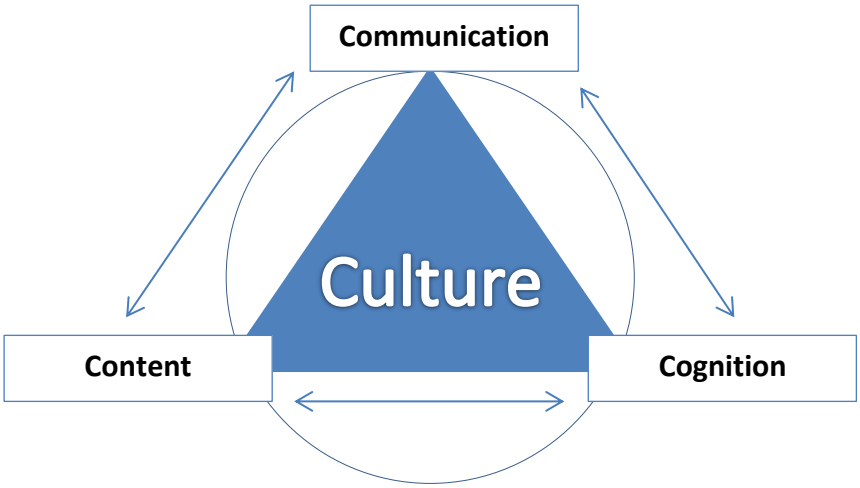


Figure 1: The 4Cs Framework for CLIL (Coyle 2007: 551)

The first building block 'Content' is the subject matter of the identified CLIL course. It focuses solely on the acquisition of content knowledge and subject-specific skills. Further, it is about "personalized learning", as in the creation of the learner's own understanding, knowledge, and skill development (Meyer 2010: 12). Coyle (2005: 5) further indicates that the content "determines the learning route" and is therefore to be seen as the starting point of planning a CLIL unit.

'Communication' is seen as the second building block of the 4Cs. It combines the two worlds of CLIL, namely "learning to use language and using language to learn" (Coyle 2005). In CLIL, where learning takes place through a foreign language, interaction in this language is fundamental to learning (Meyer 2010: 12). To support the learning process, teachers are required to lay out needed language aspects, grammatical skills, and vocabulary for students to successfully work with the content (Coyle 2005: 6). Furthermore, 'Communication' does not just include linguistic elements but also "the use of mother tongue and codeswitching" (Coyle 2007: 552).

While planning CLIL lessons, 'Communication' is seen as the link between content and cognition (Mattheoudakis & Ziaka 2019: 136). In the analysis of Coyle et al. (2010), who present the theory of a conceptual representation of language in CLIL called the language triptych, 'Communication' has been divided into three parts: 'language of learning', 'language for learning', and 'language through learning'. These three perspectives on

language enable students to learn “new language and new content and subsequently deepen their understanding” (Coyle 2013: 260). Below, Figure 2 shows the three perspectives of language and their connection to CLIL.

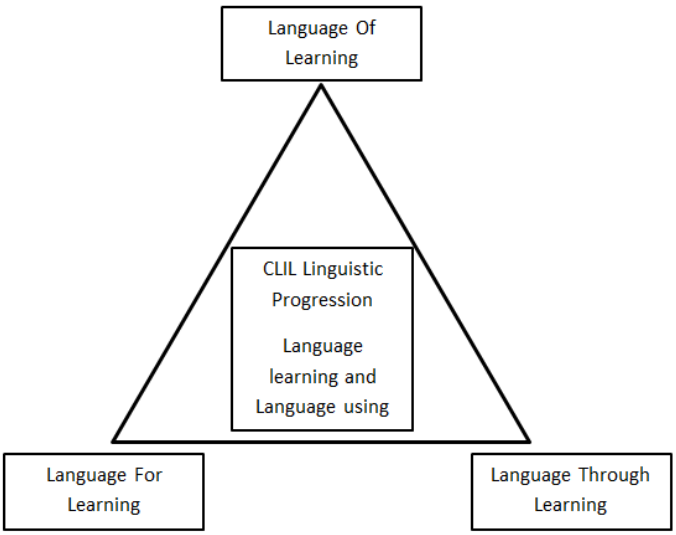


Figure 2: The language triptych (Coyle et al. 2010: 36)

The first corner of the triptych, ’language of learning’, is the analysis of language needed in order to access basic skills and concepts of a CLIL lesson. To support this process, teachers are required to identify the subject-specific vocabulary and grammatical as well as lexical features needed in a lesson. However, the focus should be on the functional language relevant to fostering understanding of the content rather than its grammatical difficulty (Coyle 2007: 553). Therefore, it is important for CLIL teachers to understand the linguistic demands of their lessons in order to be able to identify and scaffold ‘language of learning’ for their learners (Coyle et al. 2010). The term scaffolding was first used when referring to the talk parents use when interacting with their children and is now a main principle of CLIL lesson planning. In a school context, scaffolding is the support system for students who deal with authentic material (cf. 3.3.2).

’language for learning’, the second perspective, “is needed to operate effectively in tasks and activities in the classroom” (Coyle 2013: 260) and emphasizes particularly metacognitive processes like learning how to learn. It enables students to use the target language independently to operate in groups, debates, and discussions. In order to facilitate quality learning, teachers must include language for learning in their planning process and develop strategies to scaffold it (Coyle 2007: 553).

'language through learning' represents the last part of the language triptych. It follows the sociocultural assumption that without the active involvement of language and thinking, learning cannot take place (Vygotski 1978). This means that through the articulation of learners' understanding of the content, a deeper learning takes place. Therefore, teachers should incorporate tasks that call for dialogue and interaction in their lesson plans. Essentially, students in a CLIL context rely on interaction between language and learning. On the one hand, they need language to assist their learning, while on the other, they need their higher-order thinking skills to assist in their language learning (Coyle 2007: 554).

All in all, the language triptych is an essential addition to the 4Cs Framework and helps CLIL practitioners to identify as well as plan the language aspect of their lessons thoroughly and scaffold it according to the needs of their learners. The CLIL Matrix (https://archive.ecml.at/mtp2/CLILmatrix/EN/qMain.html) is an additional planning tool for teachers to integrate cognition and communication in a way that fits students' linguistic and cognitive levels and points out where scaffolding needs to take place.

'Cognition' is the third aspect of the 4Cs Framework and characterizes the learning and thinking skills expected to take place within an effective CLIL unit. A well-thought CLIL unit should activate learners' critical thinking skills. For that, students need to be able to develop their own understanding of the content at hand, rather than receiving the content in a simple transfer of knowledge from the teacher (Coyle 2005: 5). Hence, cognitive skills, such as predicting or analyzing, need to be promoted so that quality learning takes place. Coyle (2005) suggests that Bloom's taxonomy (discussed in greater detail in section 3.2), which provides an overview of various cognitive processes, helps in identifying and implementing learning objectives into a CLIL lesson plan.

Cummins (1984) introduced a matrix that addresses the relationship between the degree of cognitive involvement and range of contextual support in communicative activities. He conceptualizes language proficiency along two continua: first, the degree of context available, either "context embedded" or "context reduced"; second, how cognitively challenging the activity is, hence "cognitively demanding" or "cognitively undemanding" (Cummins 1984: 137). In context embedded communication, language is supported by "a range of meaningful paralinguistic and situational cues" (Cummins 1984: 138). In context reduced communication, the interpretation relies solely on language cues and thus depends

on language knowledge itself. Further, it is particularly important to consider the relationship between language and cognition in CLIL lessons to foster progress in both. If the language aspect is too challenging, thinking processes are not taking place, and understanding is compromised. If the cognitive aspect is too difficult, language learning will be hindered. Hence, one of the biggest challenges in CLIL is to develop material which are "linguistically accessible whilst being cognitively demanding" (Coyle 2005: 9).

Coyle adapted Cummins' matrix and developed the CLIL Matrix (see Figure 3), which should "serve as a useful audit for the cognitive and linguistic demands made on CLIL learners" (Coyle 2007). It builds on the mismatch of students' language and cognition levels. In other words, if the cognitive level of students is higher than their language level, teachers need to ensure a learning environment that takes this into account, for example by "accessing content through a lower linguistic level" (Coyle 2007). While quadrants 1 and 2 refer to a low level of cognitive demands, 3 and 4 refer to a high level. Concerning the level of linguistic demands, quadrant 2 and 3 refer to a low level, 1 and 4 to a high level. In practice, if a teacher plans on using a highly cognitive demanding text (quadrant 3 or 4) the linguistic demands should be on a low level (quadrant 2 or 3) to achieve understanding. Therefore, the text should be positioned in quadrant 3 on the CLIL-matrix. On the contrary, a linguistically demanding input should be positioned on a cognitively lower demanding quadrant, for example quadrant 1. In this context, 'language for learning' can be found in quadrant 3; when looking at quadrant 1, 'language through learning' is taking place. The goal of CLIL is to guide students from quadrant 3 to 4 (Coyle 2005: 9).

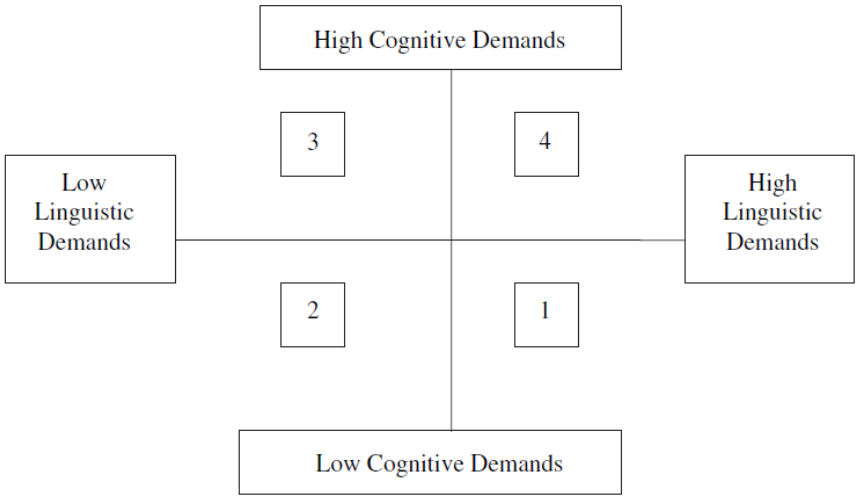


Figure 3: The CLIL Matrix (Coyle 2007: 555), adapted from Cummins (1984)

The fourth and last building block of the 4Cs Conceptual Framework is 'Culture'. Because of the complex relationship between language and culture, this 'C' runs through the whole framework and the related intercultural awareness is seen as fundamental to CLIL (Meyer 2010: 12). While the fact that it is addressed in CLIL is beneficial to students' education, unfortunately, it is the one aspect that is often overlooked by teachers in their planning, hence nicknamed the "forgotten C" (Coyle et al. 2010). In order to promote intercultural awareness in CLIL lessons, teachers may use authentic material and create intercultural curricular linkages. Consequently, students' awareness of 'self' and 'other' can be raised, and their development toward the EU language learning goals can be fostered. In later publications, this 'C' is extended to incorporate 'Community' (Mehisto et al. 2008, Coyle et al. 2010) because "meaning-making is both a personal and a social process" (Mehisto et al. 2008: 30) and refers to a feeling of enrichment and belonging to a learning community or the self-confidence and skillset to work within a team while balancing interests of oneself and others. Furthermore, it connects to the students' ability to define their role within the classroom as well as within local and global contexts (Mehisto et al. 2008: 31).

Because of its integrative nature, the 4Cs Conceptual Framework "offers a sound theoretical and methodological foundation for planning CLIL lessons and constructing materials" (Meyer 2010: 12). This is why it is one of the building blocks for the development of a fully integrated PE-in-CLIL curriculum in chapter 5. One must acknowledge that even though the 4Cs may be discussed in isolation, "they do not exist as separate elements" (Coyle et al. 2010: 55) as they overlap in various regards. Therefore, when it comes to lesson planning, CLIL practitioners have to connect all of them in order to create a fully integrated lesson.

A new understanding of the interconnectedness of CLIL has been developed to explain how integrated learning can lead to progression over time. The Graz Group's Pluriliteracies model is dynamic in nature, builds on the 4Cs Framework, and explains how integration takes place in a visual and theoretical way (Meyer et al. 2015: 51). They argue that in order for deeper learning to take place, the mere connection of content and language is not enough. It is necessary to conceptualize 'Content' in subject-specific ways ('Culture'), which determines the use of 'Cognition', in order to promote subject-specific literacies. The term pluriliteracies in this context refers to the foreign language CLIL students use in content classes to verbalize concepts ('Communication') and beyond that serves as a call for the consideration of

plurimodal semiotics in education. Because of a highly digitized and image-based world, which leads to semiotics being multimodal and hybrid in nature, the Graz Group sees the education of pluriliterate citizens as highly valuable (Meyer et al. 2015: 51).

The Pluriliteracies model maps the development of subject-specific literacies on a continuum of communication and conceptualization (Figure 4) and tackles 21st century plurilingual educational goals such as "critical thinking, knowledge creation, application and communication as well as social participation within and across individual subjects of schooling" (Meyer et al. 2018: 18). The conceptualization continuum incorporates subject-specific facts, concepts, procedures, and strategies while the communication continuum combines purpose, mode, genre, and style. Through the four major activity domains in school (doing, organizing, explaining, arguing), deeper learning takes place, and students move outwards through the pluriliteracy arc.

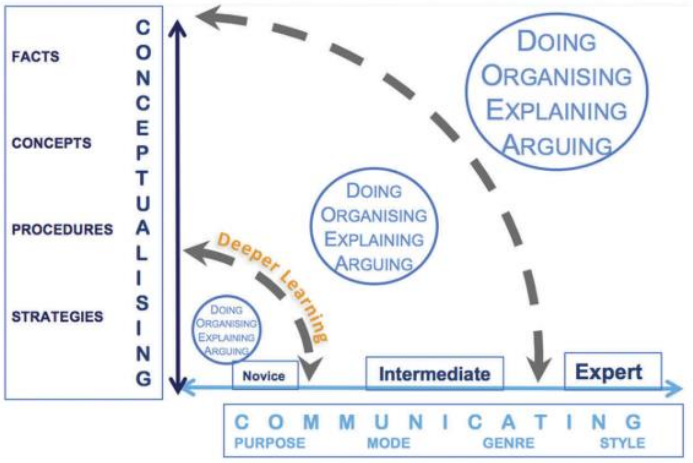


Figure 4: The Graz Group pluriliteracies model (Meyer et al. 2018: 22)

In order for students to move from 'novice' to 'expert', they have to develop their ability to communicate subject-specific concepts or conceptual knowledge in an appropriate manner, using a style, genre and genre moves in different modes that are suitable for the specific context. Therefore, for meaning-making processes to evolve, students need to strengthen the connection between the conceptual and communication continua. As students develop their pluriliteracy skills, they are more sensitive to social and cultural contexts. They are able to adapt their use of language to particular audiences, purposes, and modes, and this enables them to construct and participate in meaningful social interactions (Meyer et al. 2015: 50).

3.2 Cognitive Discourse Functions

Dalton-Puffer's (2013) construct of cognitive discourse functions (CDFs) builds a connection between content and language teaching domains, and Coyle (2018: 171) agrees that CDFs are „the key to bridging subject and academic literacies (content and language)". CDFs refer to the linguistic representation of cognitive learning goals which are specific to each subject (Dalton-Puffer 2013: 219). Dalton-Puffer et al. (2018: 5) argue that in order to enhance CLIL, one needs to pay extra attention on language to reach the goal of equipping students with the linguistic competence they need to succeed in education (Dalton-Puffer 2013: 218). Within the CDF construct, the organization of thinking skills as matrix is based on Anderson's (2008) adapted version of Bloom's Taxonomy rather than on the original, hierarchical ranking of cognitive objectives (Dalton-Puffer 2013: 222).

The revised two-dimensional version of the taxonomy includes six categories of cognitive processes, as did the original taxonomy, but additional four categories of knowledge (see Table 1). These categories are placed on a continuum, with the most cognitively complex process at the top, and the least cognitively complex one at the bottom and the most concrete knowledge on one end and the most abstract on the other (Anderson 2008: 28).

Table 1: Taxonomy Table (Anderson 2008)

The Knowledge Dimension	**The Cognitive Dimension**					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
A. Factual Knowledge						
B. Conceptual Knowledge						
C. Procedural Knowledge						
D. Meta-Cognitive Knowledge						

The cognitive process dimensions can be divided into lower-order thinking skills (LOTS) and higher-order thinking skills (HOTS). While LOTS include processes like remembering, understanding and applying, HOTS refer to skills like analyzing, evaluating and creating. As LOTS are at the bottom of the continuum, they represent the less demanding cognitive skills and HOTS are at the top of the pyramid and consist of cognitively more challenging processes (Coyle, Hood & Marsh 2010: 31).

Another model Dalton-Puffer refers to is Cummins' (2000) concept of Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) in which he tries to resolve the divergence between foreign language learners' shortcomings in their educational success and their evident proficiency in the language. In order to develop both BICS and CALP, face-to-face interaction in the classroom is of major importance. Cummins claims that in a normal school setting, the development of BICS is three to four times faster than the one of CALP, but Dalton-Puffer suggests that in a CLIL context, students' improvement concerning CALPs is fostered through a focus on HOT tasks (Dalton-Puffer 2013: 226).

The CDF construct itself relies on two hypotheses: first, it is through language that learners make sense of new knowledge and second, through language, learners share their new understanding of said knowledge with others (Dalton-Puffer et al. 2018: 8). Furthermore, CDFs are rooted in linguistic pragmatics as well as educational curriculum theory and encompass seven categories of "verbalizations which express acts of thinking about subject matter in the classroom" (Dalton-Puffer et al. 2018: 5). These verbalizations, or linguistic acts, are called CDF types, and are based on the underlying communicative intention, such as classify, define, describe, evaluate, explain, explore or report (Dalton-Puffer et al. 2018: 8). Table 2 below shows a list of CDF types and underlying communicative intentions and a list of their performative verbs.

Table 2: The Cognitive Discourse Function Construct (Dalton-Puffer 2013: 236)

Underlying basic communicative intention	CDF Type	*Performative verbs*
I tell you how we can cut up the world according to certain ideas	CLASSIFY	*Classify, compare, contrast, match, structure, categorize, subsume*
I tell you about extensions of this object of specialist knowledge	DEFINE	*Define, identify, characterize*
I tell you details of what I can see (also metaphorically)	DESCRIBE	*Describe, label, identify, name, specify*
I tell you what my position is vis a vis X	EVALUATE	*Evaluate, judge, argue, justify, take a stance, critique, comment, reflect*
I tell you about the causes or motives of X	EXPLAIN	*Explain, reason, express cause/effect, draw conclusions,*
I tell you something that is potential (i.e. non-factual)	EXPLORE	*Explore, hypothesize, speculate, predict, guess, estimate, simulate*
I tell you something external to our immediate context on which I have a legitimate knowledge claim	REPORT	*Report, inform, recount, narrate, present, summarize, relate*

Dalton-Puffer (2013: 235f) chose a word for each CDF type to act as a label, but as English lexemes do, it behaves like any other word would, being neither stable nor unitary, therefore the categories are most precisely represented by their communicative intention. Nevertheless, these labels do act as a "quick-access to the function".

The CDF construct may be useful as a heuristic to shed light on how language learning is accomplished and on the scaffolding of cognitive development (Dalton-Puffer 2013: 242). Furthermore, it is a visualization of routine classroom activities, with a verbal and cognitive focus and an interdisciplinary theoretical base, addressing both content as well as language teachers (Dalton-Puffer et al. 2018: 25).

In order to enhance the limited focus on CDFs in practice they need to be turned into and used as pedagogical goals, so students are required to actively perform them (Lorenzo & Dalton-Puffer 2016: 66). In competence-based Austrian curricula, CDFs are already used to communicate cognitive processes, be they general or subject-specific, to indicate the relationship between subject-specific terms and concepts (Lorenzo & Dalton-Puffer 2016: 66). Lorenzo and Dalton-Puffer (2016: 8) provide examples of CDFs from the Austrian upper secondary History and Geography curricula:

- Students can *identify* goal-conflicts in economic policy and are able to *formulate different positions*. (Geography, Austria) [Emphasis and translation by Lorenzo & Dalton-Puffer 2016].
- History education shall enable students to *critically analyse* social, cultural, economic and political structures and processes. (History, Austria) [Emphasis and translation by Lorenzo & Dalton-Puffer 2016].

Also, the Austrian lower secondary PE curriculum provides instances of CDFs, which will be discussed in greater detail in section 4.1. All in all, a successful CLIL classroom should provide learners with opportunities to engage with or produce cognitive discourse functions in an oral and written way (Lorenzo & Dalton-Puffer 2016: 62).

After discussing various frameworks that shed light on the integration of content and language, the next section focuses on specific criteria a fully integrated CLIL lesson or unit has to fulfill according to the most recent research conducted and presents a useful lesson planning tool developed by Meyer (2010) as well as a collection of criteria for creating quality CLIL material criteria.

3.3 CLIL Lesson Planning

3.3.1 The CLIL Pyramid

Meyer's (2010) contribution to expand the number of CLIL guidelines and frameworks to help teachers plan truly integrated lessons comprises six quality principles and strategies for a successful CLIL unit and his suggested CLIL pyramid. Both are based on insights from teaching methodology, second language acquisition, cognitive psychology, and CLIL research. Meyer also incorporated his own critical reflection of his personal experience of teaching CLIL and studies on classroom observation in several countries (Meyer 2010: 13). The resulting framework is supposed to guide teachers in creating truly integrated CLIL lessons.

Meyer's CLIL-Pyramid is based on Coyle's 4Cs-Framework and was developed as an integrative planning tool for material writers and lesson planners. It shows that one needs to consider all four Cs ('Content', 'Communication', 'Cognition', and 'Culture') in lesson planning in order to develop successful CLIL units. It also incorporates the six quality principles discussed above in its planning and "suggests a systematical, tried and tested

sequence for planning CLIL units and materials" (Meyer 2010: 23). The CLIL Pyramid follows a sequence of four important steps: topic selection, choice of media, task design, and the CLIL-Workout.

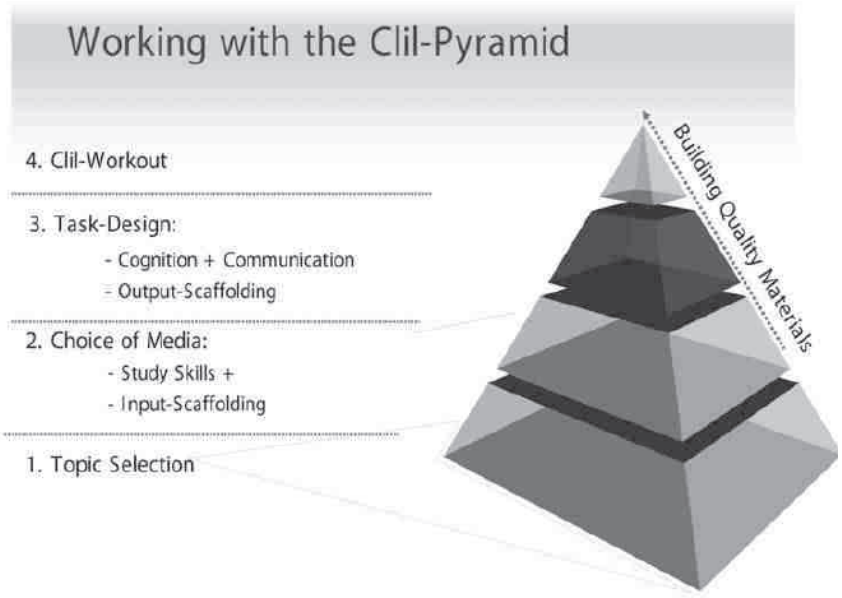


Figure 5: The CLIL Pyramid (Meyer 2010: 24)

As represented in Figure 5 above, planning a CLIL unit with the help of Meyer's CLIL Pyramid starts with the topic selection and incorporates the 'Content' C of Coyle's framework. The second step, choice of media, refers to the quality principle number 1 'rich input' and calls for a multimodal selection of material to "accommodate different learning styles and activate various language skills" to fosters new literacies (Meyer 2010: 23). The question of how much and what kind of input-scaffolding is required arises alongside the selection of multimodal material. Further, students need to be equipped with the relevant subject-specific skills to deal with the given input. The third step addresses the task design, which should trigger HOTS and further enable students to interact authentically in various arrangements, like group work, pair work, and so on. Additionally, for students to produce the desired output (presentation, poster, etc.) through the chosen output format, teachers need to provide special output-scaffolding. The fourth and last step, the CLIL-Workout, is a "review of key content and language elements" (Meyer 2010: 25).

3.3.2 Principles of CLIL material design

The scarcity of CLIL material reported by Meyer (2010: 12) is no longer relevant. More and more resources are available for CLIL teachers or are in the process of being published. The

most recent ones include, among others, Mehisto's (2017) *CLIL Essentials for Secondary School Teachers: The Cambridge Teacher Series*, the *CLIL Teacher Magazine* by onestopenglish, or the *CLIL Magazine* published by Paragon Multimedia. It is crucial to have quality learning materials available for students to help them "build a sense of security in experimenting with language, content, and the management of their own learning" (Mehisto 2012: 17). For Meyer (2012: 17), task design is the heart of a CLIL lesson and therefore is one of the most important competences for a CLIL teacher. Mehisto further points out that quality material is supposed to promote a "sense of belonging and engagement as a citizen of their own country, of supranational organizations such as the European Union" (Mehisto 2012: 17) and hence incorporates the cultural and European dimension to it.

To give an overview on CLIL material design, this chapter provides a review of criteria and principles compiled by various researchers (Meyer 2010; Dale et al. 2010, Mehisto 2012, Ball et al. 2015). To begin, overlaps in regards to individual criteria (scaffolding, input and output, addressing students' higher order thinking skills, sustainable and meaningful learning, sequencing, three dimensions of content, primacy of task, cultural dimension) will be presented, including a discussion of the selected criteria. At the end of the section, a checklist that incorporates the arguably most important criteria is created.

Scaffolding

The term scaffolding was first used when referring to the talk parents use when interacting with their children. Bruner (1978: 19) defined the term as "the steps taken to reduce the degrees of freedom in carrying out some tasks so that the child can concentrate on the difficult skill she is in the process of acquiring". In a school context, scaffolding is the support system for students who deal with authentic material. In order for input to become intake, learners need support in processing new information. Ball et al. (2015: 196) differentiate between scaffolding, which is explicit, and embedding, which is implicit. According to Meyer (2010: 15) scaffolding serves various purposes:

- Input-scaffolding refers to the process of helping learners make sense, cognitively and linguistically speaking, of the material in front of them
- It supports students in carrying out a task at hand by providing them with a supportive structure
- It facilitates pushed output, which is scaffolded language production, by equipping students with vocabulary, collocations and phrases, to verbalize their thoughts in order to be able to fulfill the task.

Aside from scaffolding, subject-specific study skills are as important for CLIL to foster deeper learning and must "become an integral part of every CLIL lesson" (Meyer 2010: 16). Such study skills include working with maps, diagrams, or graphs that further aid learning and understanding. Ball et al. (2015: 202f) further highlight the importance of making key language salient in order to help students understand the topic at hand, enable them to take part in discussions, and articulate their ideas appropriately by "explicitly integrating the conceptual content and the accompanying language".

Therefore, when quality scaffolding takes place, it will not just avoid a "cognitive overload" (Mehisto 2012: 20) but will actively "boost students' cognitive academic language proficiency (CALP)" (Meyer 2010: 15). In the end, as students show progress, the intensity and quantity of scaffolding may be adapted.

Gibbons (2002) and Mehisto (2012) argue that scaffolding helps student to reach well beyond what they could do on their own, enables them to participate in unknown situations, and helps them to deal with new tasks. Gibbons (2002) further stresses the importance of analyzing tasks according to two criteria: 1) identifying language requirements in order to participate in an activity, and 2) the need to select particular instances for language development. Gibbons also identifies three factors: "1) the listening tasks, 2) the spoken language demands, and 3) the specific vocabulary required" (Gibbons 2002: 8) and thus provides suitable scaffolding material. This way, understanding is fostered and students are able to apply, remember, and learn input, content, and language more efficiently (Dale et al. 2010: 103). According to Coral and Lleixà (2016: 122), scaffolding reduces the gap between content and language, making the task at hand fully integrated.

Meyer (2013: 299) presents three goals of scaffolding: first, the cognitive and language load is to be reduced; second, students are encouraged to complete tasks and reach their goals through structure and support; and third, language skills and CALPs are enhanced to enable students to verbalize their thoughts.

In order to reach those goals, Alber (2014) recommends six of her best practice scaffolding strategies. First, 'Show and Tell' helps to show students what exactly they are supposed to do or what the outcome is supposed to look like. Here, teachers are supposed to model the activity or thought process for their learners. Second, 'Tap into Prior knowledge' refers to providing students with the opportunity of sharing their own thoughts and experiences of a

topic, through connecting it to prior knowledge and their own lives. Third, 'Give Time to Talk' is supposed to help structure discussions or talking time, through employing activities like think-pair-share or turn-and-talk, to give students the opportunity to process and verbally make sense of new ideas and concepts. Fourth, 'Pre-teaching vocabulary' gives learners the chance to understand new vocabulary items before encountering them in a text. Fifth, 'the Use of Visuals Aids' like pictures, charts and graphic organizers "to visually represent their [students'] ideas, organize information, and grasp concepts such as sequencing and cause and effect" (Alber 2014) are successful scaffolding tools. Lastly, 'Pause, Ask Questions, Pause, Review' gives students time to process the material before asking them pre-designed, open-ended questions and pauses again for reflection time.

Input and Output

Dale et al. (2010: 37) state that the foundation of every lesson is its input, which can be divided into linguistic and non-linguistic forms. The appropriateness of the input, according to its intellectual and academic demands, especially concerning its language level, is of major importance (Dale et al. 2010: 39). If the input is too easy learners, are not challenged enough; if it is too difficult, they might lose their motivation. Furthermore, the authors argue that teachers are supposed to "guide their learners to gradually move from BICS to CALP" (Dale et al. 2010: 46).

Additionally, teachers should use various modes of input, e.g. visual, spoken, or written, to facilitate different learning styles (Dale et al. 2010: 46). Meyer (2010) points out that the concept of multi-modal input is crucial to material selection because it represents the different forms that content can take on. Also, the transformation of input from one mode to another can foster both language and content learning and is therefore a key element to CLIL teaching.

Mehisto (2012) and Meyer (2010) highlight the importance of authenticity and indicate that for authentic learning to take place, the material needs to be authentic as well. Meyer (2010: 14) claims that there is a positive correlation between authentic language and students' motivation and provides examples of authentic material, which include podcasts found on websites, web-quests, and further interactive material in English.

Meyer (2010: 17) highlights the importance of output by referring to two theories: Long's (1982) interaction hypothesis and Swain's (1993) output hypothesis. Long's interaction

hypothesis argues that communication and face-to-face interaction in the target language boosts second language acquisition. Swain's output hypothesis suggests that students need to be pushed to speak through properly designed tasks in order to be able to reflect on their output and enhance their speaking skills. The reason why the production of output is emphasized is the deepening of understanding that happens when learners are creating output and with it comes an enhancement of language proficiency (Dale et al. 2010: 118). Output can take an informal or formal form and may be linguistic or non-linguistic in nature. Above all, it is a way for students to show their understanding of the content (Dale et al. 2010: 117). Linguistic outputs are for example answers to questions, presentations, or a lab report; non-linguistic would be a painting or a sculpture.

To facilitate pushed output (scaffolded language production), tasks need to be designed accordingly. For example, teachers set up speaking tasks that not only require students to use the target language, but also "require them to adjust their language so that other learners can understand them" (Dale et al. 2010: 150). Meyer (2010) suggests facilitating this by incorporating Task-Based Language Teaching (TBLT) into the CLIL approach, as it offers a wide variety of methodological opportunities for teaching a foreign language. For example, the well-known gap-activities, which are based on the assumption that authentic interaction occurs through the medium of a communication gap and range from information and reasoning gap to opinion gap. These gaps need to be bridged by students to acquire additional communication skills. Another way to foster communication skills is through the use of task-repetition, which if combined with gap activities, offers an innovative "multi-performance-task" (Meyer 2010: 18). Through multi-performance tasks, the output production as well as the retention rate of subject content is maximized, all while performing under real-life conditions.

Addressing students' higher order thinking skills

Meyer (2010) highlights the need to incorporate more higher-order thinking skills (HOTS) (cf. 3.2) in CLIL lessons, because, as Mehisto et al. (2008) draw attention to, 80% of questions in the classroom are regarding factual knowledge, which is situated at the bottom of Bloom's taxonomy (cf. 3.2). Consequently, Meyer argues that in order to facilitate successful CLIL teaching, students need to be challenged and made to engage with various types of cognitive discourse functions (cf. 3.2) to be able to express their thoughts in an increasingly

complex way. For that reason, Meyer proposes a teaching methodology dedicated to fostering students' HOTS. Core features of this methodology (see Figure 6) are input, task, output, and scaffolding.

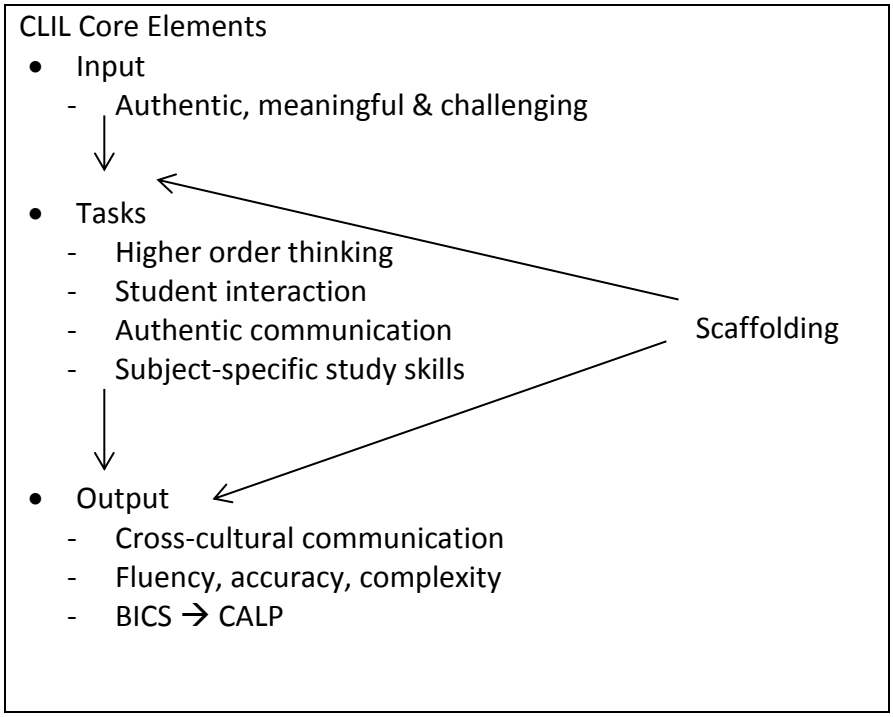


Figure 6: CLIL Core Elements (Meyer 2010: 20)

After discussing the importance of scaffolding input and output, the focus now lies on producing tasks that particularly foster students' cognitive academic language proficiency (CALPs). In order to do so, teachers need to develop tasks, with Bloom's (revised) taxonomy in mind, to address students' HOTS instead of their LOTS. In order to foster CALPs, Mehisto (2012) stresses the importance of highlighting different linguistic characteristics and functions of academic language in the given material. In order to do so, Dalton Puffer (2016) proposes using CDFs when planning lesson objectives to actively engage students' HOTS and consequently foster their CALPs. It is important to keep the CLIL Matrix (cf. 3.1) in mind when preparing tasks that are cognitively challenging so as not to overwhelm the students concerning both the cognitive and the language demands.

Sustainable and meaningful learning

For Meyer (2010: 14) and Mehisto (2012: 25), meaningful teaching material refers to the material's connection to students' lives. On the one hand, material is supposed to find a connection to students' everyday lives and their interests, while on the other hand, it is

supposed to incorporate global issues. Mehisto further emphasizes that to make learning meaningful, one has to link it to existing knowledge. It is important to choose material that students can relate to and to work within a setting that makes sense to the learners.

Through this, students' motivation is expected to increase, which in turn has a positive effect on language learning itself (Meyer 2010: 13). In the classroom, new topics are to be presented in such a way "that the affective filters of the students remain wide open" so "students can link new input to prior knowledge, experiences and attitudes" (Meyer 2010: 14).

Sustainable learning enables students to turn their passive knowledge into active knowledge, which in turn deeply roots knowledge into students' long-term memory. In order to achieve that, Meyer (2010: 22-23) proposes ideas for teachers, such as providing students with clear structures and transparent learning processes (by using advanced organizers) or incorporating portfolio work because it improves students' autonomous learning skills. Mehisto (2012) refers to research by Black et al. (2004), Gardner (1985), and MacIntyre (2002) to specify that, in order for motivation to build and learning to take place, students need to know and understand the expected learning goals. The purpose is to educate students in a way that enables them to draw on existing knowledge to accomplish tasks or solve problems.

Sequencing

Ball et al. (2015: 207) consider tasks and activities in CLIL lessons not as separate entities but as part of an overall sequence. Therefore, in order to engage in a task, students activate prior knowledge before and need to have a reason for engaging in it, which builds the 'after' stage of learning. They suggest that a CLIL lesson contains three moves (orientation, complication, and resolution) as a minimum.

The orientation is supposed to familiarize the students with the topic at hand and activates students' prior knowledge. When Dale et al. (2010: 15) talk about activating for CLIL they have three factors in mind: activating knowledge, experience, and language networks. It is a similar concept to activating prior knowledge and helps "getting the learners' brains working" (Dale et al. 2010: 15) prior to the introduction of new content. Also, the motivational levels of learners are activated when starting a lesson this way. Activating is not just important for the learners, but also for the teachers because it shows them how

much knowledge students have about the topic and what they can build on (Dale et al. 2010: 18). Dale et al. (2010: 22) stress the importance of this task in the long run; although it might seem time consuming at the beginning, it will make learning more effective in the long run. Tasks for activating may focus on language, knowledge, experience, or thinking and take into account interactions and multiple intelligences. Example tasks are whole class discussions or brainstorming and mind-mapping.

In the complication phase, most of the key language is introduced and worked with. The resolution phase is characterized by tying up activities using verbs like *discuss* before moving on to assessment and typically does not introduce new language, as it would be counter-productive (Ball et al. 2015: 207).

Three dimensions of content

Ball et al. (2015: 181) offer a three-dimensional model of CLIL by stating that "any activity or task could be defined as the teaching of conceptual content, by means of procedural choices using specific language derived from the discourse context". The intensity of those three dimensions (concept, procedure, and language) can be adjusted by the teacher to meet the demands of the students. Further, the authors suggest using the three-dimensional model as a planning tool. For example, if the priority is to teach students grammar, the language dimension is highlighted as opposed to the conceptual dimension if the content is of higher importance than the language used to convey it. The procedural dimension takes the upper hand if the goal is for students to interact as much as possible.

In his list of quality CLIL material criteria Mehisto (2012) refers to three learning intentions that are supposed to be made visible to students in order to enhance their learning outcome: language, content, and learning skills. Hence, he perceives CLIL tasks also through three dimensions, but does not differentiate between diverse forms of content. Therefore, a connection between Ball et al.'s three dimensions of content and Mehisto's three learning intentions can build a solid foundation for CLIL task and lesson planning.

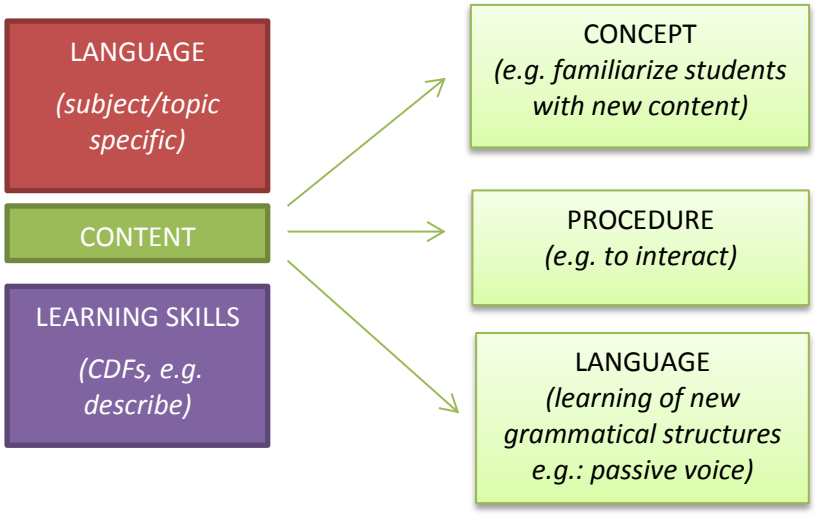


Figure 7: The 3 Dimensions of Content

Primacy of task

The principle of *primacy of a task* addresses the text-task relationship as well as 'fronting' of student involvement (Ball et al. 2015: 176ff). The text-task relationship has similarities with Dale et al.'s (2010) criteria of 'activating for CLIL', as both require a connection to students' prior knowledge about the topic. To summarize, the focus on input should not outweigh the task, as students are, following Mehisto (2012: 19) and Ball et al. (2015: 179), supposed to be cognitively challenged and their learner autonomy fostered. This can be achieved through a simple pair-work brainstorming activity. The 'fronting' of student involvement can be achieved through the discussion of a concept, which leads to better understanding prior to the discovery of the concept, rather than students reading about a concept on their own. The principle includes criteria that Mehisto (2012) stresses in his work, for example the fostering of cooperative learning, learning skills development, and learner autonomy.

Culture

Meyer (2010: 20), Coyle et al. (2010: 42), and Dale and Tanner (2012: 13) stress the importance of the intercultural dimension of CLIL and that the development of intercultural awareness is crucial in a CLIL setting. As intercultural communicative competence lies at the heart of CLIL teaching and is important for future generations to be successful in a globalized world, it needs to be highlighted during lesson planning to ensure an intercultural dimension in learning and teaching. CLIL practitioners need to cultivate students' understanding of underlying cultural codes and foster their appropriate skills, linguistic or non-linguistic, to address them. Mehisto (2012: 22) claims that the use of authentic material leads to the understanding of cultural connections and diverse cultures but offers its own challenges.

Without an appropriate use of scaffolding, students will not be able to make sense of the content. Also, Dale and Tanner (2012: 13) stress the importance of scaffolding to foster students' understanding of culture-specific concepts and information. Meyer (2012: 20) refers to the ability to "[sic] look at various topics from different cultural angles, realizing that other cultures tend to see things differently, have different values and beliefs" as highly beneficial to CLIL students.

Subsequent to the discussion of the different criteria highlighted by various researchers, a checklist for CLIL task design is presented below (see Figure 8). In chapter 5.3, this checklist will be further discussed against the backdrop of PE lesson planning and redefined as a checklist to plan PE-in-CLIL tasks. While the headings, e.g. sequencing, provide a broad understanding of the criteria in question, the sub questions with boxes next to them, e.g. 'connection to prior knowledge?', serve the purpose of controlling ones task and ticking off the box when the question is taken under consideration. It is important to keep in mind that this checklist is formulated in a broad sense, so as to be beneficial to the planning of various types of tasks, but it is under no circumstance the only option to do so as it is meant to serve as an aid for teachers to quickly recap ones CLIL task.

- **Sequencing**
  - □ Connection to prior knowledge?
  - □ When is new content introduced?
  - □ Tie up activity?
- **CDFs**
  - □ HOTS included?
- **Multi-Modal Input**
  - □ Different forms of input?
- **3 Dimensions of Content**
  - □ Which dimension is important for the task/lesson?
- **Output**
  - □ Are students urged to produce written or spoken output?
- **Scaffolding**
  - □ Language *of/for/through* learning identified?
  - □ Input and output scaffolding provided?
- **Sustainable and Meaningful learning**
  - □ Why and how is this important for students' life?
- **Culture**
  - □ How is the cultural dimension included?

Figure 8: The CLIL Checklist

After focusing on CLIL and its teaching methodology in these two chapters and the development of a CLIL task checklist, the following chapter 4 introduces the subject of PE and explores its connection to language and language learning. Furthermore, the following chapter provides an overview of the Austrian PE curriculum and didactic models used in teaching PE.

4 Physical Education

In order to be able to talk about a framework for teaching PE in a CLIL context, the subject itself and its connection to language and language learning need to be understood. When thinking of using language to learn, PE is often not the subject people consider important in this respect. This chapter focuses on the unique attributes of PE, the language used in the subject, and its contribution to (foreign) language learning. Movement was already linked to

language learning by Asher in 1966 as he introduced his teaching approach of 'Total Physical Response'. In Asher's studies, he uses motor activity to teach language by comparing his theory to the way children play. Later, Tomlinson and Masuhara's (2009) concept of 'Playing to Learn' drew on research reporting that physical activities boost students' attention span and their learning abilities. Their framework introduces physical games into the language classroom to enhance language learning. In the United States of America, teachers are required to incorporate the needs of ELLs (English language learners) into PE lesson planning and therefore provide a reference point on how to connect language learning and PE. Additionally, Block (2001) presents a framework for 'Literacy through Movement', which focuses on enhancing L1 proficiency in a PE context.

4.1 The uniqueness of the subject

Physical Education (PE) holds a unique place within the school subject canon because of the way it is taught and the setting in which it takes place. First, PE lessons do not take place in the classroom but a gymnasium, swimming pool, or even an outside facility, where there are no strict seating arrangements like in the classroom (Nietsch & Vollrath 2007: 147f). The second reason PE differs from other subjects is its promotion of physical exercise. While in English, Mathematics, or Biology, students are kept in their seats, the aim of a PE lesson is to promote healthy physical activity (Rottmann 2006: 76; Coral et al. 2017: 4). The stimulation of movement occurs in connection with special and unique teaching material (Rottmann 2006: 76), ranging from the use of a rope or ball to specific sports material like a beam or vault and beyond that to the simple use of everyday objects such as newspapers or hats. This multi-modal teaching environment also enables teachers to present content in various ways, e.g. through visual, written, or spoken input. The importance of PE in the curriculum is connected to its health benefits. Various studies, including the one undertaken by Janssen and LeBlanc (2010: 11), state that children between the ages of five and 17 benefit from as little as an average of 30 minutes of moderate intensity activity per day. An extensive review of research undertaken by Bailey (2006: 397) comes to the conclusion that PE positively affects children's development in a number of domains: physical, lifestyle, affective, social, and cognitive. He further states that PE has the potential to support the development of social skills and social behaviors, self-esteem, pro-school attitudes, and even academic and cognitive development (Bailey 2006: 399). Third, PE has a more relaxed character, meaning

that in the case of a school without a focus on PE or sports science, teachers do not set written homework or expect students to write tests, which relieves pressure from the students (Nietsch & Vollrath 2007: 147). This, combined with its playful and cooperative character, leads to a relaxing learning atmosphere that generates a generally positive attitude towards the subject (Rottmann 2006: 80). Additionally, Austrian PE teachers tend to be "very generous in their grading", rarely giving students a grade below 3 (Pühse 2005: 76). Lastly, PE is action-oriented (Rottmann 2007b: 205ff. Lightner 2013: 361), therefore giving students the chance to carry out instructions or explanations immediately (Nietsch & Vollrath 2007: 147-148).

Another unique characteristic of PE is the way studies indicate if a lesson is effective or not, namely through "the time that students are engaged in physical activity" (Coral et al. 2017: 2). One of the tools that is widely used to "comprehensively measure best practices to promote moderate-to-vigorous physical activity (MVPA)" (Coral et al. 2017: 2) is the SOFIT + tool, a system for observing fitness instruction. In order to put the MVPA time during a lesson into perspective, Logan et al. (2015) report a typical average of 49,7%, which means out of a 50-minute lesson, students are moderately to vigorously active for only 25 minutes. This leaves the question of what happens during the other 25 minutes of the lesson; a big part of it is communication in various forms.

4.2 Didactic Models of Physical Education

The discussion of didactic models in PE started in the 1970s with a change of the German teaching curriculum (Kuhn 2009: 114), and so far, four main teaching approaches can be identified: traditional, alternative, pragmatic, and education through sports[1]. Different approaches exist (see Aschebrock 2013, Balz 2009, Kuhn 2009), but due to the restricted scope of this paper and their irrelevance towards the research questions, only the major ones are discussed. The following paragraphs serve to provide an overview to the reader and are therefore reduced in complexity.

The traditional approach includes strands like the 'canon of sports approach' ["Sportartenkonzept"] and the 'approach of bodily and sportive fundamental training' ["Körperlich-sportliche Grundausbildung"] and has its roots in the social phenomenon of

[1] No official translations of the teaching approaches and their strands could be found. The translations used throughout this thesis are according to my own judgement.

sport itself (Balz 2009). It is supposed to prepare students to participate in extracurricular sports. In order to do so, improving motor skills as well as sport-specific techniques are the top priorities while pedagogic principles are not taken into much consideration (Kurz 1990: 43–44). Hence, the similarities between school and club sports outweigh the difference (Achtergarde 2015: 25) with the goal to win as a major focus. Also, traditional types of sports like gymnastics, track and field, sports games, and rowing receive most of the attention while trend sports are left out of the equation.

In contrast to this traditional position is the alternative one, with approaches like the 'approach of body education' ["Körpererfahrungskonzept"] and the 'approach of education through movement' ["Bewegungserziehung"] at the center of it. It stresses the importance of education in PE and is further seen as a direct opposition to commercial sports. It focuses on the human in motion and the emancipation or self-education through sport. Hence, it does not put performance at its center but rather sees sport as the medium towards autonomy and development of identity. The goal of this approach is to educate students to take part in sports autonomously and foster their search of their sport-identity through providing opportunities to engage in diverse forms of movement and sports (Kuhn 2009: 116f).

The pragmatic position finds itself in the middle of a continuum between the traditional and alternative position. Approaches under this umbrella include the 'approach of the competence to act' ["Handlungsfähigkeitskonzept"] and the 'approach of multiple perspectives' ["Konzept der Mehrperspektivität"]. Its defined goal is to foster students' competence to act in PE through addressing the six dimensions of meaning of sport: performance, excitement, movement expression, impression, health education, and cooperation (Bräutigam 2006: 96–99, Kuhn 2009: 118-119). Furthermore, PE through different perspectives (e.g. social, cognitive, etc.) fosters students' understanding and enables them to act accordingly in a role-specific, function-specific, and situation-specific way in the field of sports and movement (Achtergarde 2007: 26, Bräutigam 2009: 96-99, Kuhn 2009: 118). The approach of 'competence to act' has been further developed under the characteristic of education, and has influenced curricula decisions for a long time. Also, the dimensions of meaning can be found as refined pedagogical dimensions in various curricula (Achtergarde 2007:27).

The resulting position of an 'educational teaching of sport' ["Erziehender Sportunterricht"] focuses on the education *to* and *through* movement, games, and sport and their inherent culture (Prohl 2017). Education *to* sport is supposed to qualify students to a lifelong engagement in sportive activities. This happens through a multi-perspective teaching approach that is experience-oriented and makes use of cooperative activities because only in diverse sport settings students are able to access and make sense of the culture surrounding them (Achtergarde 2007: 27). Also, Rottmann (2006: 205) states that learning opportunities are created through action-oriented and content-based tasks. Education *through* sport fosters students' personal development, which adds a pedagogic perspective to PE that is not present within the pragmatic position. Also, the educational goal of this position redefines the aim of the pragmatic position because it adds 'fields of movement' ["Bewegungsfelder"] to the pedagogical dimensions (Stibbe 2013: 326), as can be seen in Figure 9. Pedagogic dimensions include social interaction, body perception, achievement health, expression, and venture. The fields of movement are running, jumping, throwing; movement on equipment; movement in water; gliding, rolling, driving; creating; dancing; presenting; playing with a structure of rules; and wrestling, fighting. On the content level, it distinguishes between these fields of movement contrary to the pragmatic position, which defines sport in a broader sense.

Figure 9: The Development of Movement Skills (Stibbe 2013: 326)

Bräutigam (2006: 84) states that current school curricula are proof that the idea of education through sport still finds broad approval and even goes as far as to name this position a 'didactic guiding principle' ["didaktische Leitidee"], hence a guiding idea in PE methodologies. The Austrian Lower Secondary School PE curriculum is broadly based on this position as it argues that the teaching should go beyond the basic teaching of sports to reach the whole personality of students (BMUKK 2019a), and it uses pedagogic dimensions and movement fields to distinguish various goals of the subject as well. Therefore, the Austrian PE curricula are shaped by the idea of educating students to and through Physical Education. The next section offers a brief overview of the Austrian PE curriculum before the connection between language and PE is explored.

4.3 The Austrian PE Curriculum

The teaching practice of the subject Physical Education, in Austria called *Bewegung und Sport*, is regulated by two documents: the curriculum ["Lehrplan"] (BMUKK 2019a) and the educational standard ["Bildungsstandard"] (BMUKK 2014a), which includes the model of competences ["Kompetenzmodell"]. This section briefly introduces both before drawing connections between them and the methodology of CLIL in order to show that PE is, indeed, a subject which has great potential within the CLIL context.

The Austrian secondary school PE curriculum (BMUKK 2016: 104-108) defines educational and teaching responsibilities as well as the subject's contribution to general fields of educational ["Bildungsbereiche"], including language and communication ["Sprache und Kommunikation"], the individual and society ["Mensch und Gesellschaft"], nature and technology ["Natur und Technik"], health and movement ["Gesundheit und Bewegung"], as well as creativity and design ["Kreativität und Gestaltung"] (BMUKK 2016: 102-103). The subject's educational responsibilities are to enhance the subject-, self-, and social competences. While subject competence includes diverse and responsible movement experiences and abilities as well as action-guided and value-based knowledge, self-competence incorporates self-confidence and self-awareness in terms of capabilities and experiences of movement. Social competence encompasses the ability to work in a team, the practice of fair play, and the reflective handling of gender roles. Furthermore, the curriculum states didactic principles, which address points like: adjusting the level of difficulty to students' capabilities; connecting the content to students' prior knowledge and

their lives; making sport meaningful; and fostering students' motivation through the acquisition of official achievement badges (BMUKK 2016: 103). The secondary school curriculum also defines teaching content (BMUKK2016: 104-106), which is divided into first/second grade and third/fourth grade and is comprised of six different fields: basics of movement practice, skill- and performance-oriented activities, playful activities and sport games, creative and performing activities, health-oriented and compensatory activities, and adventure oriented activities. An example from the fields of skill- and performance-oriented activities in the first/second and third/fourth grade is provided in table 3. While the focus in the first/second grade is learning, practicing, and use of track and field specific forms of movement, in the upper grades it is its improvement and diversified usage.

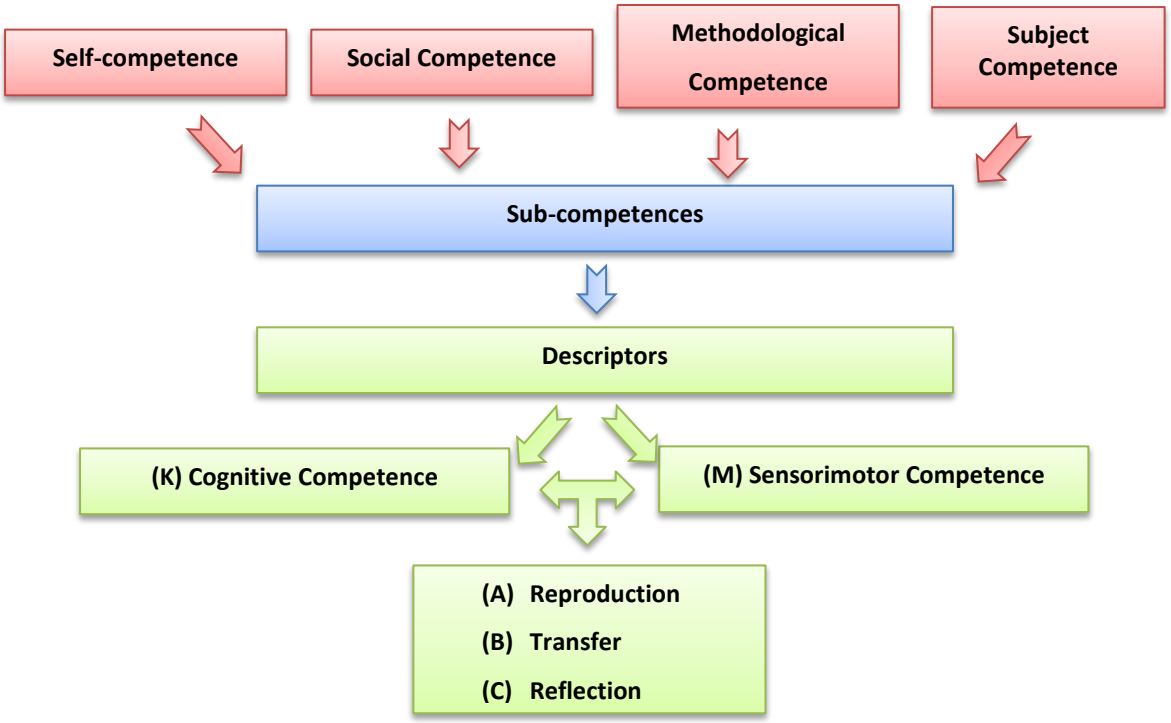
Table 3: Extract from the Austrian Secondary School PE Curriculum (BMUKK 2016: 104)

First/Second Grade	Third/Fourth Grade
Erlernen, Üben und Anwenden von leichtathletischen (Grund)Formen.	Verbessern und vielfältiges Anwenden von leichtathletischen (Grund)Formen.

The second document regulating PE teaching in Austria introduces educational standards along with a model and catalogue of competences unique to the subject. It distinguishes four dimensions, namely self-, social, methodological, and subject competence, each with its own sub-competences and descriptors to provide greater detail. Additionally, the descriptors are comprised of three consecutive dimensions: (A) reproduction, (B) transfer, and (C) reflection/problem solving. Each is distinguished between the development of cognitive (K) or sensorimotor (M) competences. Consequently, six categories of descriptors exist and are defined as follows: (AK) stands for cognitive reproduction and includes the description of movements and their regularities and the knowledge of rules; (BK), the abbreviation of cognitive transfer, deals with the transfer and expansion of knowledge to and in different situations; (CK) is cognitive reflection, more precisely the reflection of educational effects connected to education, training and exercise**;** (AM) stands for sensorimotor reproduction, which is the performance of given movements and the use of external or self-instruction in order to learn movements; (BM) is the sensorimotor transfer, which happens when movement patterns are applied and adapted in and to new situations; and finally (CM) refers to sensorimotor problem solving, which uses the sensorimotor (kinesthetic, tactile, acoustic

and visual) feedback in order to control the execution of movement. Figure 10 illustrates the model of competences visually:

Figure 10: The Model of Competences for PE



Before providing examples from the catalogue of competences for secondary school PE teaching in Austria, the four competences will be discussed in greater detail. Self-competence includes knowledge about oneself, referring to emotional, cognitive, and social functions and the body itself. Students are to be educated towards a realistic and positive assessment of their skills on different levels. Furthermore, they should be consciously aware of their behavior, thoughts, and emotional experiences and be able to reflect on their effect on themselves and others. Through PE, learners are trained to consciously perceive, experience, and regulate their emotions; reflect on and make sense of social interactions; and be aware of, assess, and use their physical abilities.

PE also fosters the development of social competence, which stands in close relation to the enhancement of self-competence. In order to gain a long-lasting educational benefit, it is important to include aspects of social competence in a diverse, consequential, and continuous manner, to take up situations that have an educational value, and to address them in plenum. Aspects of social competence include the implementation of fair play, raising awareness of rules, and following or modifying them. Additionally, communication

and cooperation are addressed insofar as the thought, speech, and behavior dimensions are concerned. Furthermore, social competence incorporates understanding, the acceptance of responsibility, and the reflection of tasks as well as the allocation of roles.

The most important competence for the process of learning is methodological competence. In PE, it incorporates fostering knowledge and skills in the field of sports organization, movement techniques, safety, and health. It is closely linked to subject competence and addressed in diverse settings, including the context of various sport disciplines. It encompasses the process of learning insofar as to spark learners' interest of the content and foster their understanding of it. Additionally, it focuses on the planning and organization of sport, more precisely on the arrangement, realization, and monitoring of it. Lastly, it also incorporates the awareness, assessment, and incorporation of aspects of health and safety.

The fourth competence fostered through PE is subject competence. This comprises skills of basic physical abilities such as endurance and coordination as well as the ability and knowledge of overall and sport specific movements and rules. As it offers various possibilities of development in different PE settings, it is subdivided into ten fields of competences: motor skills, health, gymnastics, track and field, swimming, sports games, acrobatics and dance, roller and gliding sports, duels, and further sports. It is important to keep in mind that these competences interact with each other and are not necessarily seen as entirely separate constructs.

After explaining the four competences PE is built on, an illustrative example of a specific subject competence in the field of health with its sub-competences and descriptors (table 4) is presented before moving on to a more detailed discussion of descriptors.

Table 4: Example of a subject competence in Health (BMUKK 2014: 17)

Subject competence	Students know anatomic and physiological principles of the body and are able to apply this knowledge.
Sub-competence	MUSCULAR SYSTEM: Students are able to describe the position and function of important muscle groups and are capable of performing proper exercises for these.
Descriptors	(AK) The student is able to name given muscle groups (AK) The student is able to point to mentioned muscle groups on the body (AM) The student is able to properly perform known exercises for strengthening and stretching the given muscle.

The example shows how broadly formulated competences are narrowed down through sub-competences and closely defined by the formulation of descriptors, which are marked with (AK) for the reproduction of cognitive and (AM) for the reproduction of motor skills.
The next section focuses on the connection between language and Physical Education and further explores the theory surrounding it.

4.4 Language and Physical Education

While PE has many unique characteristics, one is reluctant to add language or communication to that list. When thinking about the use of language in school subjects, the first ones that come to mind are usually language subjects, history, or philosophy. However, while language and communication play a lesser role in PE than in other content subjects (Nietsch & Vollrath 2003: 150; Rottmann 2006: 78), they are still a vital part of its facilitation (Kuhlmann 1985: 310). The function and demands of language, for example, differ immensely depending on spatial conditions (sports hall, sports field, swimming pool, skiing slopes) which strongly influence the use of language. Furthermore, it requires a rather instrumental use of language (Rottmann 2006: 75), because the focus lies on the practical nature of sports. Kuhlmann (1985: 310) states that during specific parts of a PE lesson, verbal communication outweighs non-verbal, motor activities. As a result, real opportunities for communication arise (Nietsch & Vollrath 2007: 148; Rottmann 2006: 78), which range from tactical situations to motor skill-related, or even social and emotive situations.

Because of its relaxed atmosphere and focus on social processes, general language plays a bigger part in PE than in other subjects (Nietsch & Vollrath 2003: 147-151). These instances of general communication take place throughout sports class and can take the form of one-to-one communication, small group, or whole class interactions. Examples of general language use would be checking attendance at the beginning of the lesson, students asking for the program, small talk during the lesson, or questions for clarification. Further issues, which are quite unique to the PE context, are reprimands and solving conflicts. These take on different forms because of its spatial conditions and affective nature of games. Students are more likely to get emotional during a ball game than during a grammar exercise while sitting in the classroom.

Another large aspect of language use during a PE lesson is of academic nature, starting with fundamental motor skills like balance or dribble and movement concepts like straight pathway or self-space (Buschner 1994). Martin et al. (2018: 35) emphasize that in order for students "to understand the meanings and words that are used in sports and physical activity settings", they have to be exposed to its own academic language. Academic language is generally defined as

> the language used in the learning of academic subject matter in a formal schooling context; aspects of language strongly associated with literacy and academic achievement, including specific academic terms or technical language and speech registers related to each field of study (Constantinou & Wuest 2015b: 29).

It consists of four elements, summarized as academic language demands, which include vocabulary, syntax, language discourse, and language function (Constantinou & Wuest 2015b: 29; Martin et al. 2018: 35).

The element of vocabulary refers to general academic vocabulary as well as to discipline-specific vocabulary. General academic vocabulary refers to words, used across all disciplines, including the technical part of language, namely syntax, as well as tenses, grammar, the use of active and passive voice as well as punctuation (Academic Language Development Network 2014). Subject-specific vocabulary includes words, phrases, and symbols whose meaning is unique to the context of PE (Martin et al. 2018:36). Furthermore, it is used to "communicate ideas and concepts within the particular discipline" (Constantinou & Wuest 2015b: 29), which makes it the "fundamental building block for language acquisition within a discipline" (Martin et al. 2018: 36).

The second element of academic language demands is syntax. As stated above, it is the technical part of language. With Bloom's taxonomy in mind, it can be said that syntax utilizes the LOTS of discipline knowledge, for example to list, recall, or state (Martin et al. 2018: 38). Therefore, it requires students to recall a series or progression of cues in the right order to correctly carry out a skill. With learning and gaining proficiency in applying LOTS, the teacher lays the groundwork to enable students to acquire and use HOTS.

Language function is the third element of academic language and "refers to the work students will be doing with the language" (Martin et al. 2018: 35). Through it, students are able to understand and express how and why different concepts and ideas within the

discipline are related to each other. This can take the form of lesson objectives. For example, "the student will *compare and contrast* (function) the cues (language) for performing the forehand and backhand strokes in pickleball" (Martin et al. 2018: 35). For a more in-depth discussion of academic language functions (or cognitive discourse functions), see section 3.2.

The fourth and last element is language discourse, which can take a verbal, written, or non-verbal form and refers to how academic language is used to communicate subject-specific concepts and ideas (Constantinou & Wuest 2015b: 29). In order for students to effectively take part in discourse, it is of major importance that they understand vocabulary, language function, and syntax to demonstrate their understanding of the content (Martin et al. 2018: 38).

To improve learners' understanding of the subject discipline, all four elements need to be considered and linked together. Additionally, teachers need to be aware of the subject-specific language demands and provide students with the needed support to acquire "discipline-specific vocabulary and language function to effectively communicate within the content area" (Constantinou & Wuest 2015b: 28; Meyer 2010: 21) in order to deepen students' knowledge. Coyle (2018: 171) also stresses the importance of cognitive discourse functions (LOTS & HOTS) to connect subject (content) and academic (language) literacy.

All in all, Physical Education offers various instances where language and communication play a large role in facilitating the lesson and its objectives. Through the discussion of academic language, it has been made clear that cognition plays a major role within this subject as well. Furthermore, through dependence on language, PE also facilitates language learning, a fact that will be discussed more closely in the next section.

4.5 Language Learning and Movement

Various authors draw the connection between language learning and the PE classroom. Wright (2010) highlights the role of language in PE, stating that it offers a framework to stress those parts of language that are relevant for a PE class to occur and for learning to take place. Additionally, Clancy and Hruska (2005: 31) argue that the PE setting is beneficial to second language acquisition because its conditions resemble those of children's first language acquisition process. In their work, they offer eight similarities:

(a) direct connections between language and concrete physical activities,

(b) physical and active involvement with language,

(c) use of multiple modalities (e.g., speech, manipulation, modeling) to present information,

(d) opportunities to demonstrate language comprehension through physical expression,

(e) low-stress environment for language performance,

(f) positive learning environment because children like to be active,

(g) opportunities to interact with others, and

(h) provision of a setting where success does not depend on language alone.

Some of the similarities listed above were already mentioned in section 4.1, e.g. positive learning (f), low-stress environment (e), and the use of multiple modalities (c). However, others like the direct connection between language and concrete physical activities (a), physical and active involvement with language (b), as well as opportunities to demonstrate language comprehension through physical expression (d) will be discussed in the following subsections. Adding to this, PE certainly offers more opportunities to interact with others (g) than science subjects, because communication is a crucial part of the facilitation and performance of different kind of sports. Furthermore, PE offers a space where success does not depend on language alone (h) because it is assessed through many different objectives, including cognitive processes and actual physical performance.

Machunsky (2008) also draws a line between language learning and PE, claiming that learning a foreign language within a PE setting is beneficial because physical educators often use highly frequent vocabulary which is known to students and consequently easier for them to understand and use. Additionally, Pavesi et al. (2001) suggest that PE offers the opportunity for language learners of any level of linguistic competence to enhance their proficiency because of its strong link between linguistic and subject-specific skills, for example listening to instructions (listening comprehension). Furthermore, Bell and Lorenzi (2004: 46) state that "the world of sports and Physical Education offers rich opportunities for linguistic interaction involving both social and academic aspects of language" and share ideas on how to facilitate second language acquisition in a PE class.

The following subsections provide an in-depth discussion of different approaches and ideas on how to implement language learning in a PE context. Starting with Asher's (1966) learning strategy of the total physical response (TPR) to the concept of playing to learn (Tomlinson &

Masuhara 2009) and Block's (2001) organizational approach to literacy through movement, it concludes by discussing the situation of ESOL students in the USA and how physical educators foster second language learning in their teaching. These approaches show that PE has great potential in facilitating a content and language integrated teaching approach and that the idea of connecting content and language learning in Physical Education is not novel.

4.5.1 Total Physical Response

The approach of Total Physical Response (TPR) developed by Asher (1966) coordinates "physical movement with foreign language learning and speech" (Mattheoudakis & Ziaka 2019: 138). Asher used knowledge from fields of developmental psychology, humanistic pedagogy, learning theory, and language teaching procedures to back up his theory. Generally, it can be said that TPR uses motor activity to teach language. (Richards & Rodgers 2001: 73).

Asher compared his theory to the way children play, as it includes many instances in which "language [is] synchronized with physical locomotion of the entire body [i.e. 'Come on, Tommy, lets ride our bikes!']" (Asher 1966: 81). Parents also use commands directed at their children, who are required to respond in a physical way and through this develop listening comprehension (Richards & Rodgers 2001: 74). This is also the general objective of TPR: to teach oral proficiency for beginners. Asher sees the verb in its imperative form as a central linguistic motif for language acquisition and therefore counts on commands as a major classroom activity. The teaching of grammar is supposedly taught inductively, but he stresses that TPR should be used in combination with other teaching techniques and methods (Richards & Rodgers 2001: 71-79).

Numerous studies undertaken by Asher demonstrate the relationship between language learning and movement through various age groups and with different languages. Outcomes depend on the form of testing, so that if students were allowed to act out the words during the retention test, as they did while learning them in contrast to writing them down, their test scores were significantly higher than the ones from the control group (Asher 1966: 84). A more recent study conducted by Fahrurrozi (2017) on TPR and vocabulary learning in the third-grade elementary school came to the conclusion that "teaching vocabulary using the Total Physical Response is more effective" (Fahrurrozi 2017: 118).

All in all, Asher (1966) describes TPR as a method that does not force oral language production. Through its game-like nature, it reduces learners' level of stress (Richards & Rodgers 2001: 73), their "inhibitions and lower[s] their affective filter" (Mattheoudakis & Ziaka 2019: 138).

The basic principle of TPR, namely the connection of speech and movement, assumes language learning takes place in PE lessons every day and so presents the groundwork for implementing foreign language learning in a PE setting. Additionally, the relaxed nature of the subject is an ideal environment to introduce a way of learning language that reduces the learners' level of stress. TPR can be implemented more easily to PE lessons compared to other subjects because of the available space and its organizational demands.

4.5.2 Playing to learn

Tomlinson and Masuhara (2009: 2) point out the scarcity of literature referring to "competitive physical games in relation to second or foreign language learning" over the last 30 years. Research by Schilling et al. (2006) claims that children's attention span as well as their "verbal, visual, and kinesthetic learning" is enhanced during active play during which they are driven to move around. Furthermore, their study also illustrates how physical play can boost children's self-esteem. Elder's (2008) framework shows how physical activities create an enjoyable and natural setting which facilitates learning and behavioral change. Drawing, among others, on this theoretical background, Tomlinson and Masuhara (2009) propose a framework for the development of learning materials, using physical games in language classrooms. An essential point of the framework is that physical games are an "economical, easy, and effective way of creating many of the optimum conditions for language acquisition" (Tomlinson & Masuhara 2009: 2). While physical games in the language classroom are mostly seen as a fun activity, it is also important to keep in mind that they do provide "rich opportunities for language intake and for purposeful use of language" (Tomlinson & Masuhara 2009: 2). Within the framework, games are seen as language texts that are open for students to interact with, and the physical aspect of it promotes instances of reflection on the language used. It is built on nine stages (Tomlinson & Masuhara 2009: 12–14), which are flexible and game-driven and can be used at any age. Some of these stages correspond to CLIL principles of task design and lesson planning which have been included in the Checklist (cf. 3.3.2).

1. Readiness Activities (compare checklist ‘Sequencing’)

This stage is similar to the activation of prior knowledge and the ‘activating for CLIL’ step discussed in 2.4. These activities are supposed to help students prepare mentally for the upcoming game and relate the rules and context of the game to existing knowledge. Also, activities in this stage are supposed to make students curious about and engaged in the game.

2. While-Listening/Reading Activities (compare checklist ‘Scaffolding’*)*

These include prepared activities students have to fulfill while reading about or listening to the rules of the upcoming game. They are supposed to help students respond to the instructions holistically in order to keep them from over-analyzing them. An example would be to ask students to visualize themselves playing the game while listening to the instruction.

3. Intake Response Activities (compare checklist ‘CDFs’)

During this stage, students have the opportunity to articulate and respond to the received instructions. This could happen, for example, in a group discussion about the presented game and their attitude towards it.

4. Trialing the Game

This activity gives students a chance to try to play the game and resolve any problems they might encounter doing so. If they are unclear on how to proceed, they might reread the instructions or ask the teacher for help.

5. Playing the Game

Playing the full competitive version of the game is probably the core of the lesson for the students. For the teacher, it is an opportunity to note any problems or useful strategies to discuss in the next stage.

6. Reflection Activities (compare checklist *CDFs)*

During the reflection stage, students have the opportunity to discuss in small groups what worked out while playing and what did not. After the small group discussion, the teacher leads a discussion in plenum to give every group and student the possibility to respond to any statement and the teacher to explain his/her notes.

7. Development Activities (compare checklist ‘sustainable and meaningful learning’, ‘CDFs’)

The development activity asks students to develop a different version of the game they played. With the help of the instructions, students try to come up with an altered version of the game and explain their thinking behind it.

8. Input Response Activities (compare checklist ‘language through learning’)

With previously provided instructions, the teacher points students’ attention to linguistic features. Students are supposed to examine how they are used and compare them to uses in different texts. For example, students may discuss the form and function of the first conditional while looking at instructions on how to play volleyball (e.g., “If a player touches the net while the ball is in the air, the opposing team gets a point”).

9. Revision

Students combine the outcomes of point 7 and 8 through improving the instructions of the altered version of the game by applying what they have learned in the input response activity. For example, one can do this by revisiting the part of the instructions in which students explain the conditions of the game and analyze if it is done with the correct use of the conditional.

Tomlinson and Masuhara (2009: 20) argue that because of the competitive nature of the game, learners focus on winning the game, which provides a use of language that is “authentic, useful, and relevant”. Furthermore, they point out that through the desire to win, students are “motivated to understand and use the language” and are also positive, engaged, and relaxed while using the language (Tomlinson & Masuhara 2009: 6). These statements go hand in hand with Nietsch and Vollrath’s (2003: 147-151) argument that the relaxed atmosphere in PE enhances the significance of language in the subject and Clancy and Hruska’s (2005: 31) statement that the low-stress setting provided in PE is beneficial to second language acquisition (cf. 4.4).

Tomlinson and Masuhara (2009) provide a useful framework for connecting language and physical games that can be used in language as well as PE lessons. It shows that the introduction of a competitive sports game can be used to focus on language acquisition and overlaps with results provided by other researchers (Nietsch & Vollrath’s 2003; Clancy &

Hruska 2005), which is based on second language acquisition (SLA) theory. The following section provides insights to existing theories on language learning in a PE context.

4.6 Language Learning and Physical Education

4.6.1 English Language Learners in the USA

In the USA, talk about integrating language and content in a PE setting is common. Due to the country's growing number of students from diverse linguistic backgrounds, summarized under the label of ELLs (English language learners), teachers are required to have knowledge about second language acquisition (Culp & Schmidlein 2012, Ladson-Billings 2011). Also, Bell and Lorenzi (2004: 46) state that "the increasingly diverse student population makes every teacher a teacher of English", which urges physical educators to plan lessons containing both PE and language goals (Clancy & Hruska 2005: 30; Gomez & Jimenez-Silva 2002: 15). Furthermore, they are asked to be "sensitive to the cultural and linguistic needs of English language learners" (Clancy & Hruska 2005: 30) because ESOL students are supposed to learn *the* language as well as learn *in* that language (Gomez & Jimenez-Silva 2002: 15). Clancy and Hruska (2005) provide various examples of language learning goals in PE, whole lesson objectives for primary and secondary school, and descriptions of student abilities at beginning, intermediate, and advanced language level to help teachers plan their lessons accordingly. An example of how to challenge both native speaker and ESOL students alike is the incorporation of academic language (Constantinou & Wuest 2015b: 29), which has been discussed in detail in chapter 3.2.

Some criteria to increase opportunities of SLA by non-language teachers have been outlined by the *American Council on the Teaching of Foreign Languages* (ACTFL, 2017a) as follows: "provide a language rich environment; support comprehension through gestures, visuals, objects and connections with prior learning experiences; and conduct frequent comprehension checks for learners and educators to understand and identify areas for improvement" (Mucedola 2018: 60). In order to incorporate these points in one lesson, Gomes and Jimenez-Silva (2002: 15) stress the importance of planning, especially when it comes to integrating content and language. Adding to the criteria on supporting comprehension through gestures, visuals, objects, and connections to a prior learning environment, Nguyen and Watanabe's (2013: 46) work *Visual Supports to Teach English*

Language Learners in Physical Education states that in order to enhance ELLs' understanding of PE, it is important to scaffold instructions by using multiple learning modalities. Although PE mainly promotes kinesthetic activities, it is important to help language learners follow and understand the lessons through, for example, visual support in order to create a "nurturing classroom atmosphere" (Nguyen & Watanabe 2013: 53). This visual support can take the form of pictures, charts, posters, web images, or technological devices (Nguyen & Watanabe 2013: 49). Gomez and Jimenez-Silva (2002: 14–15) agree that visual scaffolding makes it easier to understand language and add that especially in PE, physical demonstration is an important tool to enhance understanding.

Altogether, similarities between ESOL and CLIL students can be drawn, especially when it comes to the creation of language learning goals and multi-modal scaffolding in lessons. In creating CLIL lesson materials, one can draw on work provided by teachers in the USA fostering of English language proficiency in various subjects. Also, the incorporation of intercultural understanding is a topic which can be found in lesson plans from the USA.

4.6.2 Literacy through Movement

The organizational approach of *Literacy through Movement* is applicable for the US-American K-12 PE curriculum, which targets learners from 4 to 18 years old. Block (2001) builds on similarities between theories of the reading process as well as motor control and motor learning to create "organizational ideas for the infusion of reading theories into a movement curriculum" (Block 2001: 39). One similarity is the schema theory, which is well known in motor-learning as well as reading-process literature. Both build on the paradigm that knowledge is organized using schemata. Block's work tries to extend students' schemata by relating the written word and rhythm of speech to the physical interpretation of it. Through this, a deeper learning takes place because the whole child is involved in the educational process as he or she uses "psychomotor applications to integrate the cognitive and affective domains" (Block 2001: 41). Block introduces five organizational levels (see Table 5), starting at the stage of simple reading readiness and ends with the dissection of literary work through movement interpretation and dance-building (Block 2001: 41).

Table 5: Organizational Levels (Block 2001: 40)

Pre-Literate Level - Auditory comprehension - Internalization - Rhythmical processing - Movement translation
Symbolic Level - Visual processing - Movement translation - Pattern conceptualization
Lexical Level - Movement words - Meter - Grammatical phrasing - Sequencing
Syntactic Level - Sentence Structuring - Elements of poetry - Interpretive sequencing - Dance-building with words
Language of Movement Level - Movement notation - Laban's themes - Literary infusion - Choreography

This approach facilitates reading comprehension and provides an opportunity for the whole person to be involved in the process. It may accompany students through their entire school career, or just during specific phases of it. The implementation of advanced organizational levels such as the 'syntactic level' and the 'language of movement level' also depend on the physical educator's knowledge of dance and choreography. Introducing it as a second language learning approach has its limitations as well, because one has to adjust it to the timing of the foreign language curriculum. To conclude, the implementation of the earlier levels of the organizational approach has a high possibility of enhancing students' literacy in their first or a second language.

Adding to this approach, Vigil and Edwards (2002: 53) promote the use of sports fiction in PE, a valuable "cross-disciplinary effort to enhance literacy". They relate their claim to McBrides's (1999) work, which recommends that students' critical thinking should be encouraged. Learners may be asked to compare the depiction of a sport in the book with the reality or assess the influence of sport on a character in the book. Furthermore, it will give

students the opportunity to “connect their physical life with their emotional and intellectual experiences” (Vigil & Edwards 2002: 57).

These two approaches to enhance literacy in the PE context show the potential of this subject not only for foreign language learning, but also for L1 proficiency. The connection of language learning and the use of critical thinking and cognitive discourse functions can be extended to PE as well.

As highlighted in this chapter, the connection between Physical Education and language or language learning is not to be underestimated. Various researchers have drawn this connection and reported positive effects. The USA, which already incorporated language learning in the subject of PE, provides a positive outlook on this recently considered unlikely pairing. The next chapter focuses on implementing CLIL methodology in the Austrian PE curriculum and highlights present similarities between the two. Additionally, existing research on the link between CLIL and PE is presented before introducing a PE-in-CLIL lesson planning template and a PE-in-CLIL checklist for task design. This is followed by examples of PE-in-CLIL lessons and tasks.

5 PE-in-CLIL

Leung and Morton (2017: 247) state that “Integration in CLIL can be seen at three different levels: curriculum and pedagogies, participant perspectives and classroom practices“. In this thesis, two of these are addressed, namely the curriculum and pedagogies as well as the classroom practice. This chapter provides a short overview on existing PE-in-CLIL research before moving to present an idea of how the CLIL pedagogic framework of the 4Cs can be implemented in the Austrian PE curriculum and furthermore shows what balanced PE-in-CLIL lessons should look like. Additionally, it offers a template and checklist for planning balanced PE-in-CLIL lessons and tasks. The specific focus is on the Austrian secondary school PE curriculum with its competence-based approach in order to aid future PE teachers’ understanding of the implementation of PE-in-CLIL rather than a very general CLIL methodology. This should make the provided checklist easier to apply for PE teachers without much additional knowledge of language pedagogy and further take the pressure and fear off of future PE-in-CLIL practitioners who want to implement CLIL in PE.

5.1 Existing models of PE-in-CLIL

The following section offers a brief overview on existing research on teaching Physical Education in content and language integrated contexts. Spain is a noteworthy forerunner concerning research in this context (see Coral 2013; Coral & Lleixà 2016; Coral et al. 2017), but also Italy (Fazio et al. 2015) and Greece (Emmanouilidou 2019) published relevant concepts. As none of these publications use the Austrian PE curriculum as a reference point for lesson planning and material design, they cannot be directly used in the Austrian PE-in-CLIL context. Research concerning bilingual teaching for content subjects (similarly to the CLIL approach) focusing on PE is available in the German speaking area, including, among others, Lightner (2013), Nietsch and Vollrath (2007), and Rottmann (2006).

Nietsch and Vollrath (2007) and Lightner (2013: 365) emphasize the importance of foreign language as an additional planning element in a bilingual PE lesson to build an effective, goal-oriented, and meaningful connection between language learning and Physical Education. Furthermore, they provide some ideas on how to provide additional language input, e.g. with a reader, to foster vocabulary learning. Additionally, a selection of practical teaching material, ranging from track and field to handball and soccer, is offered. Nietsch and Vollrath (2007: 148f) present a framework for bilingual PE lessons, highlighting three different levels of integration of content and language learning in bilingual PE lessons. First, the content level of PE, regulated by the responsible PE curricula; second, the cultural aspect that is incorporated through the use of the foreign language; and third, the goal to foster the foreign language competence, on general and academic levels. As can be seen when comparing this framework to the 4Cs, three of them (content, culture, and communication) are incorporated into this framework in addition to positioning content and language on equal terms.

Rottmann (2006) introduces a model of competences based on Größing's (2001: 110) competence model of 'Action ability in sports and education through sports' with Bonnet, Breidbach and Hallet's (Bonnet 2004) competence model of bilingual teaching. Her model consists of three major competences, namely subject competence, social competence, and self-competence, made up of the following sub-competences: body and movement competence, foreign language competence, communication and interaction competence, conceptualization and discourse competence, methodological competence, and reflective

competence. Through the acquisition of these competences, students are supposed to obtain an overarching PE action competence (Rottmann 2006: 123). As the various competences intersect and complement each other in all areas, it is important not to examine them in isolation (Rottmann 2006: 89). Although Rottmann includes foreign language competence into her framework, this only takes on a supportive capacity in facilitating PE classes rather than putting content and language on equal terms, as is promoted in CLIL methodology. All in all, Rottmann's framework provides an overview of how integration of language and content is possible through implementation of the PE curriculum, but it does not offer further lesson planning advice and is therefore only suitable for PE practitioners on a theoretical rather than practical level.

Figure 11: Model of Competences for a bilingual PE (Rottmann 2006: 89)

More recent research on the topic of PE-in-CLIL is presented by Coral (2013), Emmanouilidou (2019), and Fazio et al. (2015), who all base their frameworks on the 4Cs. While Coral and Emmanouilidou provide guidelines to develop PE-in-CLIL programs at their schools, offering exemplary unit and lesson plans as well as teaching materials, Fazio et al. place their framework in a critical pedagogy context, naming three aspects important to achieving a certain degree of language competence through PE-in-CLIL: language awareness, functional competence and cognition, and language proficiency (Fazio et al. 2015: 920). Consequently, they suggest four steps for designing learning processes within the critical pedagogy context, in accordance with the 4Cs, namely

- "What": selection of content and objectives;
- "When": sequencing the contents;
- "How": choice of methodological strategies and teaching styles; and
- "What, how and when to assess" (Fazio et al. 2015: 923).

These steps are in correlation to some criteria provided in the checklist (cf. 3.3.2), for example “What” is included in ‘Input and Output’ as well as in the ‘3 Dimensions of Content’, “When” refers to ‘Sequencing’, “How” can be related to ‘Scaffolding’ as well as ‘Input and Output’. The last step “What, how and when to assess” is not taken under consideration in this thesis.

Emmanouilidou (2019) and Coral’s (2013) models and teaching materials are primarily based on the 4Cs framework with reference to the PE curriculum. In every formulated exemplary unit or task objective, the task is split up in the 4Cs with its respective PE element allocated. Additionally, Bloom’s taxonomy as well as the language triptych is included in the planning. Emmanouilidou provides an example of this style of planning PE-in-CLIL lessons, namely *Learning Outcomes for the Unit on Stability Skills - Grade 3 - according to the 4Cs* (2019: 133), which is partly presented below:

	CONTENT
PE *Goal* in the physical domain	▪ Demonstration competency in movement skills and proficiency in some of them
Unit outcomes	Learners should be able … ▪ to combine fundamental skills in mature stage and perform routines with locomotor and stability skills (static and dynamic balances) ▪ to perform stability skills with body & space awareness movement concepts (e.g. balance on different body parts, with and without equipment use) ▪ to transfer their weight from one position to another
	COGNITION
PE *Goal* in the cognitive domain	▪ Acquisition of sports science knowledge and its effective application during participation in physical activity
Unit outcomes	Learners should: ▪ know, understand and apply the critical elements of correct skills’ performance and the principles and strategies of effective and safe participation in static and dynamic balance activities ▪ understand and apply the concept of base of support and the principles which govern it ▪ know the names of the body parts that make a base of support ▪ know and understand the difference between points and surfaces of the body
Bloom’s taxonomy	▪ Low order thinking skills: remember, understand and apply the critical elements and guidelines of correct balances and the principles of the activities. ▪ High order thinking skills: evaluate, analyze

Figure 12: Learning Outcomes for the Unit on Stability Skills - Grade 3 - according to the 4Cs (Emmanouilidou 2019: 133)

Figure 12 provides an overview on this PE-in-CLIL lesson planning framework, which addresses all of the 4Cs. Although this framework is well thought through and serves its purpose, it may prove difficult for subject teachers to use in practicality because it does not offer any structural parallels to regular PE lesson planning. Furthermore, it is not in accordance with the Austrian PE curriculum and therfore can only serve as a point of reference for Austrian PE-in-CLIL practitioners.

Coral and Lleixà's (2016: 124) research on *successful interaction between Physical Education and English as a foreign language* resulted in a list of teaching strategies they recommend using when planning and conducting a PE-in-CLIL lesson:

1. Encourage students to explain games;
2. Translate practical knowledge into English during the rest phases;
3. Avoid long explanations that reduce children's movement time by dividing complex games into two or three simpler progressive sequences;
4. Referee teams, let them justify their explanation;
5. Embed the language into the tasks avoiding activities that slow down the pace of the game; and
6. Scaffolding.

This list highlights both the language and the content parts of a lesson and even links both of them together. For example, when refereeing teams, students have to use language to fulfill a task connected to PE. Furthermore, it is a short and precise list providing important points of reference during the process of planning a PE lesson. It, for example, addresses an important aspect of Physical Education, namely the MVPA time. As some practitioners may fear that students are less enganged in physical activity through the introduction of CLIL, it is important to keep the MVPA time in mind when planning a balanced PE-in-CLIL lesson.

To summarize, Rottmann's (2006) and Fazio et al.'s (2015) conceptualisations of a PE-in-CLIL approach offer some indications on how to connect both worlds but do not fulfill the needs of an Austrian PE-in-CLIL practitioner. Beyond that, Coral and Lleixà (2016) highlight strategies that are important to put the same emphasis on language and content, especially if students' MVPA times are in question.

The next part of the thesis aims to combine the Austrian PE curriculum and CLIL methodology to create practical and straightforward guidelines and support for Austrian PE-in-CLIL teachers' lesson planning. The next sections start by detailing the implementation of the 4Cs to the Austrian secondary school PE curriculum, followed by creating a PE-in-CLIL

template for lesson planning, before moving on to further developing a PE-in-CLIL checklist for task design.

5.2 The PE-in-CLIL competence model

After introducing the concept on CLIL and drawing the connection between CLIL and PE before introducing and discussing existing PE-in-CLIL models, a concept for the implementation of PE-in-CLIL in the Austrian school system is introduced. First the 4Cs framework will be combined with the Austrian PE curriculum, before moving on to introducing tools to assist in the planning of a balanced PE-in-CLIL lesson in accordance to the Austrian PE curriculum and model of competences.

5.2.1 The 4Cs and the curriculum

As presented in chapter 3.1, the 4Cs conceptual framework consists of 'Content', 'Cognition', 'Culture', and 'Communication'. The following section will show how those are represented in the Austrian secondary school PE curriculum and which adjustments need to be made to transform it into a fully integrated PE-in-CLIL curriculum. As shown in the analysis of existing models of PE-in-CLIL (cf. 5.1), most of them are built with varying focus on the 4Cs framework and the PE curriculum. The following section highlights the connection between them and presents necessary steps to create a balance between them. Hence, planning PE-in-CLIL lessons or units does not need to focus explicitly on the 4Cs, as in Coral (2013), Fazio et al. (2015), and Emmanouilidou (2019), as they are already present in the curricula guidelines.

Chapter 4.3 introduced the main features of the Austrian secondary school PE curriculum and its two guiding documents. The following analyzes similarities between the model of competences and the 4Cs conceptual framework and contributes to understanding the correlation between those two pedagogies. Additionally, the foreign language aspect will be added to create a fully integrated PE-in-CLIL framework, with the focus on content as much as on language learning.

Content

As stated by Coyle (2005; 2007), 'Content' refers to content knowledge and the subject-specific skills of the content class. Emmanouilidou (2019: 133) takes up the same notion in

her definition of learning outcomes according to the 4Cs, illustrating the content goal in PE as the "demonstration competency in movement skills and proficiency in some of them", which also adheres to the definition of subject competence in the PE curriculum, making it the most obvious connection between the two pedagogies. But aside from this, the connection between 'Content' and methodological competence is present as well. Concerning the model of competences, subject and methodological competence are closely linked, which makes it inevitable to also link it to 'Content'. Even though the connection is not as straightforward, the methodological competence still builds on the content of the subject so that students adjust, modify, or transfer the knowledge in different movement situations. The same can be said for social competence and self-competence, which connects the content with itself in various social and cultural situations and requires students to utilize or make suitable adjustments to the content knowledge or skill. The table below points out instances of 'Content' in all four competences of the PE curriculum:

Table 6: The connection of 'Content' to the four competences of the Austria PE curriculum

1. Self-competence	1a) Students are able to evaluate their motor and physical capabilities (Realistic bodily concept of self) (BMUKK 2014a: 10).[2]
2. Social competence	2a) Students are able to take up and reflect on various roles and functions (BMUKK 2014a: 13).
3. Methodological competence	3a) Students are able to assist and support others while practicing (BMUKK 2014a: 15).
4. Subject competence	4a) Students are able to perform skills in gymnastics (BMUKK 2014a: 18).

While example 4a) represents the subject-specific knowledge and skills, in this case referring to gymnastics, example 1a) asks students to estimate their physical and locomotive capabilities in comparison to their peers to create a realistic physical self-concept. An accurate estimation of one's abilities is only possible if students are aware of and understand the underlying concept of different abilities (content knowledge) and additionally can assess their peers' execution of it. Example 3a) expects students to practically apply content knowledge, in this case to assist and spot each other while exercising and therefore relies on proficiency in content knowledge and subject-specific skills

[2] No official translations of the documents published by BMUKK could be found. The translations used throughout this thesis are according to my own judgement.

in order to do so. Lastly, example 2a) refers to students taking on different roles and reflecting on them, which also presupposes the knowledge of them and their responsibilities.

Communication

Instances of 'Communication' can likewise be found in all four competences, as language to describe or assess movement (methodological competence), language to describe and reflect on behavior (self-competence), language to cooperate and negotiate meaning, or to argue (social competence) plus subject-specific terminology (subject competence). Addressing the language triptych (cf. 3.1) introduced by Coyle (2005; 2007) in combination with 'Communication', 'language of learning' corresponds with sport terminology, 'language for learning' would be topic-related speech acts, and 'language through learning' the reflection on language use. Some examples of the linkage of 'Communication' and the competences of the PE curriculum are presented below:

Table 7: The connection of 'Communication' to the four competences of the Austria PE curriculum

1. Methodological competence	1a) Students are able to describe and evaluate movements (BMUKK 2014a: 15). 1b) Students are able to assess selected movements (type of sport/exercise) according to its health-related aspects (BMUKK 2014a: 14).
2. Self-competence	2a) Students are able to recognize and regulate their own emotions (Emotional concept of self) (BMUKK 2014a: 11).
3. Social competence	3a) Students are able to communicate with each other in an appropriate manner (BMUKK 2014a: 12). 3b) Students are able to take on and reflect on different roles and tasks (BMUKK 2014a: 13).
4. Subject competence	4a) Students know and are able to apply the knowledge of anatomic and physiological basis of the body (BMUKK 2014a: 17).

Communication plays a major part in all aspects of PE teaching: this fact is highlighted by the PE curriculum in the general educational field of 'language and communication'. While example 4a) represents the 'language of learning', examples 1a), 1b) 2a) refer to the 'language through learning', because they expect students to be able to describe, compare, and evaluate content skills that need a sufficient amount of language proficiency in order to

be carried out successfully. Examples 3a) and 3b) focus on the reflection of the language used to communicate with each other in different social settings, hence portraying language through learning.

All in all, 'Communication' is the field that needs extra attention when planning a PE-in-CLIL lesson because although there are many possibilities to address it, CLIL's integrated nature requires balanced language and content input. To provide meaningful language input, one must address all three levels of the language triptych, which needs to be accompanied by scaffolding paired with the reflection on language aspects of a PE-in-CLIL lesson.

Cognition

*'*Cognition' has the strongest link to methodological competence because both address students' cognitive skills and foster understanding of content. Furthermore, the application and assessment of knowledge are of major importance to both. In addition, through the cognitive descriptor dimensions of 'reproduction', 'transfer', and 'reflection' the aspect of 'Cognition' is also connected to other competences and therefore permeates the whole PE curriculum. An example of the practical application of the cognitive descriptor dimensions (BMUKK 2014a: 6) to the basic throw is presented below.

Table 8: The cognitive descriptor dimensions of the basic throw

(AK) cognitive reproduction	Student is able to describe the basic throw. He or she knows the underlying laws of mechanics (e.g. starting point of movement; distance of acceleration; the transfer of momentum)
(BK) cognitive transfer	Student is able to justify, in which situations to apply the basic throw and how to adapt it to situational changes (e.g. opponent).
(CK) cognitive reflection/ problem solving	Student recognizes progress of the executing and use of the basic throw.

While (AK) and (BK) address LOTS like describing and applying, (CK) fosters HOTS as in analyzing and evaluating. The knowledge, execution, and use of the basic throw falls into the category of subject competence, albeit the implementation of the cognitive descriptor dimensions fosters students' cognitive abilities regardless of which competence is the focus of teaching.

Table 9: The connection of 'Cognition' to methodological competence

Methodological competence	1a) Students acquire an understanding of motor learning and physical and athletic development (BMUKK 2014: 14).
	1b) Students are able to organize competitions and games together as a class (BMUKK 2014: 14).
	1c) Students are able to describe and evaluate movements (BMUKK 2014: 15).

Methodological competence fosters understanding and cognitive skills, both LOTS and HOTS, which links it strongly to 'Cognition'. Example 1a) provides insight into the promotion of knowledge about motor learning as well as physical and athletic development. In particular, the awareness of knowledge gaps and the production of questions to close them and further the constructive usage of acquired answers are promoted. 1b) focuses on the organization of games and competition, where students need to not only be able to know and apply rules, but also evaluate behavior and justify their decisions (e.g. as referee). Furthermore, they are required to take on the role of game leader, create tactical moves, and explain their decisions in front of their teammates, which addresses students' HOTS. Example 1c) deals with the application of content knowledge, and more precisely with the description and evaluation of it, which mainly fosters HOTS. Students are supposed to be able to analyze a movement by focusing on specific coaching points and describe their observations. Furthermore, they are required to assess open forms of movement and combinations of movement patterns according to specific quality criteria and justify their decision.

As can be seen, the curriculum fosters both LOTS and HOTS, although the balance leans slightly towards the former. To lead students towards HOTS, which are of major importance in CLIL, it is necessary to highlight them in the curriculum in order to not fall back into predominantly fostering LOTS.

Culture

'Culture' is closely associated with self-competence, which refers to oneself in social situations, one's behavior when acting in a group, and the reflection on it. Also, social competence, which focuses on fair-play and the understanding of context specific rules and regulations as well as the communication and cooperation with other students, is strongly

linked to culture. The examples below present items of social and self-competence connected to culture.

Table 10: The connection of 'Culture' to social competence and self-competence

1. Self-competence	1a) Students are able to judge their own behavior in social situations (social concept of self) (BMUKK: 10).
2. Social competence	2a) Students are able to recognize the difference between fair and unfair behavior and are able to be fair themselves (BMUKK: 12).
	2b) Students are able to empathize with a different part. Students are able to take responsibility for a task (BMUKK: 12).
	2c) Students are able to be in a group and cooperate (BMUKK: 13).

An instance of the connection between self-competence and 'Culture' is seen in example 1a). It addresses students' social concept of self by letting them reflect on their own behavior in a group and on their contribution towards reaching a collective goal. Furthermore, it expects students to value people with different opinions, points of view, and needs and to see their potential in contributing to reach a goal, regardless of their gender and/or ethnicity.

The tie between 'Culture' and social competence is presented in examples 2a) to 2c). While 2a) introduces students to the notion of fair play and requires them to be fair themselves even without the control of a teacher or other students, 2b) expects students to be able to assume different roles and the corresponding responsibilities. Furthermore, it challenges students to put themselves in the position of someone else and understand and respect their point of view. Competence 2c) calls for students to be able to cooperate and persist within a group, especially if they need to put the needs of the group above their own.

Both social and self-competence from the PE curriculum represent aspects of the 'Culture' domain of the 4Cs framework, be it the social responsibility within a group, the respect and acceptance towards other ethnicities or genders, the recognition of others' needs, or the appropriate way of interacting with someone else, depending on the social situation or country in which they reside. All these foster intercultural understanding and awareness as well as the knowledge about 'self' and 'other' in different social situations. Apart from the

competences mentioned in the educational standard of PE, the subject offers further opportunities to integrate ’Culture’ into the curriculum. An example would be teaching sport games (e.g. cricket, American football, or rugby) and their connection to different countries and cultural backgrounds. Also, to expose students to dances and music from various countries offers a rich discussion focusing on the aspect of ‘Culture’. These examples need to be taken into consideration when implementing CLIL to the PE curriculum.

To sum up, all 4Cs are present and linked to the Austrian secondary school PE curriculum. While some links are stronger or connected to various parts, others seem to be weaker. Therefore, extra attention during PE-in-CLIL task design and lesson planning needs to be placed on ’Communication’, in order to include the language triptych so as to provide meaningful input, ‘Cognition’ (especially focusing on HOTS), and ‘Culture’, to educate students about different cultures. As the PE-in-CLIL checklist includes all these aspects, teachers are sure to give them the needed attention while planning.

5.2.2 PE-in-CLIL action competence

As can be seen from the discussion above, all 4Cs are present in the Austrian PE curriculum. But in order to create a fully balanced PE-in-CLIL curriculum, one has to put more emphasis on incorporating HOTS within ‘Communication’ as well as the inclusion of further aspects of ‘Culture’. For students to develop an action competence in PE-in-CLIL, they need to be proficient in both the subject competence as well as the foreign language competence. These structures are visualized in Figure 13.

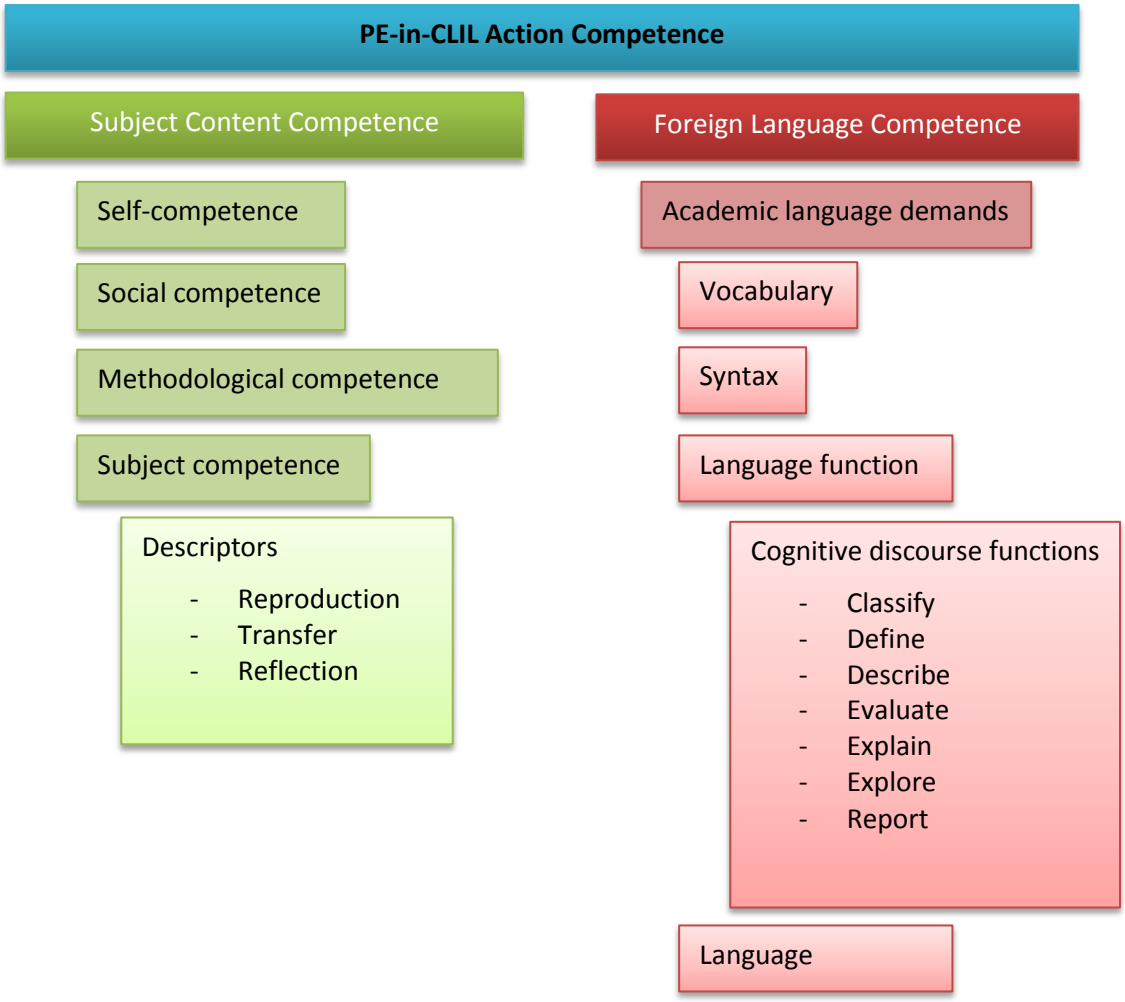


Figure 13: The PE-in-CLIL Action Competence

In order to integrate content and language learning, two competences build the focus of the PE-in-CLIL model: subject competence and foreign language competence. Subject competence is made up of the four core competences from the PE educational standard, while foreign language competence is composed of academic language demands, which are sub-divided into vocabulary, syntax, language discourse, and language function, which is better defined by the communicative discourse functions (CDF). Both the descriptor and the CDFs refer to students' cognitive abilities and are ranked from simple to complex, from LOTS to HOTS, on the one hand, focusing on the content and, on the other hand, shifting the attention towards language.

This PE-in-CLIL model is partly based on Rottmann's (2006: 86ff) competence model of bilingual education, which has the acquisition of action competence in and through bilingual PE lessons as its dedicated goal. By comparing Rottmann's model of competence to the PE-in-CLIL model, we can see that the four Austrian core PE competences are present in

Rottmann's model as well due to similarities between the German and Austrian PE curricula. However, Rottmann chose to adopt only three core competences because those are identical in every school subject and therefore facilitate both language and content learning (Rottmann 2006: 88), downgrading methodological competence to a sub-competence. Likewise, foreign language competence is placed on a lower level in Rottmann's model than in the PE-in-CLIL model, in which it is one of the core competences. While the PE-in-CLIL model sees it as a tool to utilize the language aspect of PE-in-CLIL and to balance language and content learning, Rottmann understands it as a competence facilitating all three core competences. As can be seen, the two concepts do share some terminology but are built on different foundations; the PE-in-CLIL model on the Austrian PE model of competences in order to promote understanding by Austrian PE practitioners and Rottmann's model on the German core competences that can be found throughout the subject canon in German schools. As the foreign language competence plays a key role in the acquisition of a PE-in-CLIL action competence, it is discussed in greater detail in the following section.

5.2.3 Foreign language competence

The language aspect of PE-in-CLIL is as important as the content and therefore requires extra attention in any pedagogic model. The PE-in-CLIL model presented above divides its focus between subject competence and foreign language competence. The acquisition of the latter is influenced by how well students deal with subject inherent academic language demands. The following examples are going to clarify the aspect of academic language demands (cf. 4.4.1) within the PE-in-CLIL model.

The vocabulary element of academic language demands deals with subject-specific vocabulary, which is the vocabulary needed for students to be able to understand the content at hand and articulate their understanding of it. It is placed in the LOTS of Bloom's taxonomy and simultaneously falls into the category of (AK) cognitive reproduction and is connected to the subject competence. Below some examples:

Vocabulary (Gymnastics)	Students are able to name different gymnastics equipment available to them at school. *e.g. rings, beam, horizontal bar, pommel horse, the floor, …* Students are able to name different gymnastics movements. *e.g. handstand, forward roll, backward roll, cartwheel, etc.*

The second element is syntax, which provides students with the necessary structure to use the vocabulary correctly and appropriately. This element gives teachers the opportunity to indirectly introduce new grammatical structures or tenses. The example below works with prepositions. Syntax likewise mostly fosters students' LOTS while at the same time preparing them for HOTS.

Syntax (Gymnastics)	Students are able to describe the setup of different gymnastics equipment available to them at school. *e.g.* *- In front of the vault there is a vault board.* *- Behind the vault there is a landing mat.* *- Under the rings there are sports mats.* *- The handstand is a basic skill on the floor.* *- The cast is a basic skill on the vertical bars.*

Language function is the third element of academic language demands and the first one to foster students' HOTS. In the PE-in-CLIL model, Dalton-Puffer's CDFs are used to refer to cognitive processes instead of Bloom's taxonomy because of their stronger focus on language. The element Language function is often found in the formulation of lesson objectives, because the verbs refer to the tasks students have to fulfill. In the PE-in-CLIL model, these verbs are supposed to be consciously chosen from the list of CDFs to foster both LOTS and HOTS with the focus on language production. Language functions can also be found in the Austrian educational standard for PE in the definition of competences, sub-competences and descriptors, for example '[Students] are able to describe essential criteria of athletic movement' ["*Kann wesentliche Technikmerkmale sportlicher Bewegungen beschreiben*"] (BMUKK 2014a: 15). However, in order to fully integrate content and language, a lesson objective should be defined by both its content and language goals (Gomez & Jimenez-Silva 2002: 15).

Language function (Gymnastics)	- Students are able to <u>evaluate</u> a peer's execution of a handstand. - Students are able to <u>explain</u> the basic coaching points of the handstand. - Students are able to <u>report</u> on their progress in the execution of a handstand.

The last element, language discourse, is the result of students' application of vocabulary, syntax, and language functions. It can be of written, verbal, or non-verbal form and demonstrates their knowledge and understanding of the content as well as their proficiency in the CLIL language. Language discourse is the expected output students are supposed to produce, be it written or spoken. The table below shows "Examples of Academic Language Demand Use at the Elementary and Secondary Levels" (Martin et al. 2018: 38):

Table 11: Examples of Academic Language Demand Use at the Elementary and Secondary Levels" (Martin et al. 2018: 38).

Objective	**Vocabulary**	**Syntax (demonstrated by students speaking)**	**Discourse (can be demonstrated by writing or speaking)**
Pathways and Routes			
Elementary Pathways — Explain the differences between the three pathways	Curve, zig-zag, straight	"The letter S represents a curved pathway." "The letter Z represents a zig-zag pathway." "The letter I represents a straight pathway."	Student speaking: "When you walk in a curved pathway, your turns are smooth and continuous, whereas in a zig-zag pathway your turns are sharp and you have to stop to change directions. In a straight pathway you never turn."
Secondary Routes — Explain the route differences	Flat, out, in	"The flat route is a quick break out." "The out route refers to running down the field 10 yards and breaking out." "The in route refers to running down the field 10 yards and breaking in."	Student writing: "When you run an out route, you run forward 10 yards and pivot left, whereas in an in route you run forward 10 yards and pivot right. In a flat route, you run forward briefly and pivot left. Thus, the differences in the routes are about distance and direction."

All in all, the PE-in-CLIL competence model provides an overview of the foreign language demands present in PE and how to tackle them step-by-step. It further shows how the Austrian secondary school PE curriculum already incorporates aspects of the 4Cs conceptual framework and how to transform it into a fully integrated PE-in-CLIL curriculum by adding an additional level of competence to the model of competences. Furthermore, this section has shown that some aspects of 'Communication', 'Culture', and 'Cognition' need to be focused on with greater intensity in order to fully commit to the integrated nature of CLIL. How these

can be further addressed in the process of lesson planning is part of the discussion of the following section.

5.3 CLIL up your PE lesson

5.3.1 PE-in-CLIL template

Based on the PE-in-CLIL competence model and the Austrian scholastic standard for PE, I developed a template for PE-in-CLIL lesson planning. Given below, this template shows the two sides of CLIL, subject competence (in green) and language competence (in red). In order to foster students PE-in-CLIL action competence, both need to be addressed when planning a PE-in-CLIL lesson or unit. Austrian PE practitioners will find it easy to employ this template because they are already familiar with the formulation of PE competences. The planning of language competence is based on the subject-specific academic language demands and is divided into three parts: CDF, objectives, and vocabulary and syntax, referring to the different elements discussed in section 5.2.3.

PE-in-CLIL Action Competence				
	Subject Competence	□ **Social Competence** □ **Self-Competence** □ **Methodological Competence**	**Foreign language competence**	
Competence	1	4	7	**CDF**
Sub-competence	2	5	8	**Objectives**
Descriptors	3	6	9	**Vocabulary & Syntax**

Figure 14: PE-in-CLIL Template

As mentioned above, this template is based on the model of competences of PE in Austria and has been extended by the foreign language competence. It allows practitioners to plan lesson objectives focusing on content as well as language. To simplify the following discussion, the different sections of the template have been numbered and represent the steps of planning a lesson.

The first step of PE lesson planning is usually the topic selection, which is done by choosing the subject competence and narrowing it down by adding sub-competences and descriptors (steps 1-3). After that, one or two of the remaining core competences are included, depending on the focus of the lesson, and again narrowed down by sub-competences and descriptors (steps 4-6). As it is almost impossible to include all four core competences in a 50-minutes lesson, it is probably best to focus on two competences in each lesson. Subsequently, the foreign language competence and academic language demands are the focus of the remaining act of planning. Martin et al. (2018: 40) sum up steps seven to nine as follows:

> In terms of the academic language demands, teacher educators teach teacher candidates to write measurable objectives (function), to identify new terms in the lesson (vocabulary), and to foster student language use in the lesson (syntax and discourse)".

Step seven focuses on the selection of suitable CDFs which is followed by the formulation of lesson objectives (step 8). These are formulated as 'be able to do' statements (Coral 2013: 46) with verbs included in the list of CDFs provided by Dalton-Puffer (cf. 3.2) (for example: 'Students are able to evaluate (CDF) the execution of a peer's movement'). Finally, in step 9, the vocabulary and syntax needed to reach the lesson objectives are determined. After applying steps one through nine, the lesson template for a volleyball lesson (see Appendix C) in grade four of a lower secondary school may look like this:

	Subject Competence (BMUKK 2014a: 8)	□ **Social Competence** □ **Self-Competence** ☒ **Methodological Competence** (BMUKK 2014a: 15)	**Language competence**	
Competence	Students are able to participate successfully in small games and sport games/racquet games.	Students are able to organize competitions and games within their class	- Describe - Explain	**CDF**
Sub- competence	Technique: Students master the technical fields of movement with a ball, passing and receiving of a ball and execution of a successful attack.	Games: Students are able to take on simple tasks of organizing and managing (small movement) games.	- Students are able to describe the technique of passing and overhead passing. - Students are able to explain their decisions as referee or coach of volleyball.	**Objectives**
Descriptors	- Students are able to describe and demonstrate within a game situation the specific forms of passing and receiving a ball.	- Students are able to take on organizational tasks for games - Students are able to take on the role of a facilitator.	- describing movement - justifying decisions - Volleyball specific vocabulary - Vocabulary to analyze a game	**vocabulary & Syntax**

Figure 15: PE-in-CLIL Template for a 4th Grade Volleyball Lesson

Subject competence states the broad topic of the lesson, which is the successful participation in various sports games, and in this case, volleyball. This is narrowed down by the sub-competence to the mastery of skills like passing, or receiving the ball. The descriptors are the well formulated and focused lesson objectives, in this case the description and demonstration of passing and overhead passing techniques. This core objective of the subject competence is already closely linked to the language aspect of a CLIL lesson because it encourages students to use the cognitive thinking skill of 'describing', which is transferred to the CDF box. The decision on the inclusion of other core competences is made in connection to the focus of the lesson. This lesson aims its attention at the students' organizational skills and therefore fosters, in addition to the subject competence,

the methodological competence. The sub-competence is directed towards the organization of a game, with students taking over important roles like that of a referee and is followed by formulating lesson objectives in the descriptor box. The next step is to identify the CDFs on which the lesson will focus. As mentioned before, one CDF, namely 'describing', has been defined with the help of the descriptor of the subject competence. A second CDF focused on during the lesson is 'explaining', because students need to justify their decisions and clarify their reasoning as referee or coach. This selection of CDFs leads to the formulation of objectives in the foreign language competence column, which are a combination of the subject competences and the CDFs. As a final step, the teacher is to determine which vocabulary and syntax is needed for the students to successfully fulfill the lesson objectives. For this final step, an analysis of students' level of language proficiency is to be made so as to provide them with necessary scaffolding.

After defining the topic, objectives and scaffolding needs for the lesson need to be designed, which influence the development of a more precise lesson plan. In order for practitioners to make sure that their lesson plan fulfills all the demands of a fully integrated CLIL lesson, this thesis features a PE-in-CLIL checklist, which is presented in the following section.

5.3.2 PE-in-CLIL Checklist for Task Design

This thesis draws on Meyer's CLIL pyramid as a planning tool and provides a PE-in-CLIL checklist to facilitate a fully integrated PE-in-CLIL lesson. In order to plan a PE-in-CLIL lesson, teachers need to be aware of various aspects important to CLIL task design and address them in their planning. An overview of criteria for CLIL lesson planning and material design by various researchers was presented in chapter 2 and on account of this survey, backed up by research in language learning and PE (cf. 4.6). Supported by these, this thesis adds a checklist for PE-in-CLIL task design to assist practitioners in their lesson planning.

Table 12: The PE-in-CLIL Checklist

- **Sequencing**
  - □ Is there a connection to prior knowledge?
  - □ When is new content introduced?
  - □ What is the tie up activity?
- **CDFs**
  - □ Are HOTS included?
- **Multi-Modal Input**
  - □ What are the different forms of input?
- **3 Dimensions of Content**
  - □ Which dimension is important for the task/lesson?
- **Output**
  - □ Are students urged to produce written or spoken output?
- **Scaffolding**
  - □ Is language *of/for/through* learning identified?
  - □ Is input and output scaffolding provided?
- **Sustainable and Meaningful learning**
  - □ Why and how is this important for students' life?
- **Culture**
  - □ How is the cultural dimension included?

During task development and after planning a PE-in-CLIL lesson, teachers should ask themselves the questions mentioned in the checklist above to guarantee that their lesson fulfills all the aspects needed to be entirely integrated. As discussed in section 5.2.1, not all aspects of the 4Cs framework are addressed by the PE curriculum in all respects, which is why the checklist and the CLIL Pyramid are important assets to the planning of a PE-in-CLIL lesson, as they ensure that all aspects necessary for a balanced PE-in-CLIL lesson are included.

The first aspect in need of extra attention is the inclusion of all uses of the foreign language outlined in the language triptych: i.e. 'Language of learning', covered by the input scaffolding of vocabulary, 'language for learning', realized in output scaffolding of syntax, and 'language through learning', which is represented by the produced output. Second, in

order to make up for the predominance of LOTS in the PE curriculum, the checklist provides an additional focus on HOTS to level the stimulation of both. Third, in order to include the aspect of 'Culture' in every PE-in-CLIL class, the checklist provides an extra reminder to foster it during each lesson.

5.3.3 The PE-in-CLIL Checklist in action

The following example of a volleyball lesson in grade four of a lower secondary school (see Appendix D) illustrates how to work with the CLIL pyramid and the PE-in-CLIL checklist.

The first stage of the CLIL Pyramid is topic selection, which has already been done by using and filling out the PE-in-CLIL Lesson Template (cf. 5.3.1). The selected topic is volleyball with a focus on describing and performing the pass and overhead pass, organizing a game, and students taking over the role of a referee/trainer while justifying their decisions or instructions. Consequently, the choice of media, stage two, is represented again in the PE-in-CLIL Checklist as multi-modal input and is addressed in the section of scaffolding. Stage three, task-design, is where the PE-in-CLIL Checklist is incorporated as follows:

(A) Task Design
    a. PE-in-CLIL Checklist
        i. Sequencing

At the beginning of the lesson, the teacher talks to the students in plenum, giving them an overview of their schedule in order to prepare the class socially and mentally and make them curious about the topic. Furthermore, in the form of an IRF structured talk, connections to prior lessons are drawn. For example facts about different kinds of volleyball techniques are revised. This is the orientation stage and helps students to get familiar with the topic. During this lesson, no new content is introduced because students have already learned about the rules of the game and its main technique. Also, the description of rules as well as the language used during the game (referee, player) have been developed in previous lessons and are therefore known to the students. The game serves as a tie up activity, as it brings together the use of technique, rules, and the language of the game, as well as the CLIL workout, which is the last stage of the CLIL Pyramid, and labeled as reflection phase in the lesson plan.

ii. CDFs

A quick analysis of the lesson's CDFs and lesson outcomes helps teachers focus on the HOTS in their task planning phase. In this case, one of the two CDFs (describe, explain) is of a higher order (explain), which is prioritized throughout the lesson.

iii. Multi-modal input

After selecting the topic with the help of the PE-in-CLIL Template, the outcomes of the lesson are defined, and it is time to select the lesson input. To address all learning styles, it is necessary to choose different kinds of modes to deliver input. For example, for the volleyball lesson, it is possible to prepare flashcards with a picture of a person demonstrating an exercise that students then must imitate (warm-up). Furthermore, for the practicing phase, students receive a listening input from the teacher, who is explaining them what to do. Lastly, the students are given a written description of task three, addressing yet another mode of input.

iv. 3 Dimensions of content

The warm-up favors the conceptual and language dimensions as students are supposed to perform each activity correctly and give each other appropriate feedback on the execution of them. While the practicing phase highlights the conceptual dimension, the game primarily emphasizes the procedural dimension by giving students space to interact as students focus only on the correct execution of the exercise. Conversely, it secondarily also aims at the dimension of language, as it provides some guidelines and examples of which language to use.

v. Output

While lesson objectives provide the guideline for the entire lesson, output is the product of students' efforts to achieve them. During the warm-up, students are expected to describe the technique of the forearm pass and overhead pass. While practicing, students are required to produce physical output. Contrary to that, the game pushes both verbal and physical output.

vi. Scaffolding

'Language of learning' is provided through input scaffolding and focuses on the description of actions to perform. Input scaffolding is as important as output scaffolding and can take on various forms. For example, the warm-up activity used provides a description of the action students are supposed to perform on the backside of the flashcard. Additionally, for the two flashcards depicting a pass and overhead pass, coaching points are included to facilitate the correct execution of the movement. The input for the practicing phase is scaffolded by the teacher demonstrating the realization of the exercise while the game offers a short discussion time for each team to rule out any misunderstandings or formulate questions for the teacher to clarify.

'Language for learning' is provided by the scaffolding of output. For instance, the scaffolding for the warm-up includes phrases for describing the forearm pass and overhead pass in volleyball on the flipside of the flashcard. For the practicing phase, no extra language scaffolding is needed. The output for the game is scaffolded by a poster, which includes phrases for referee decisions and player questions. 'Language through learning' is represented by the output produced by students.

vii. Sustainable and meaningful

Both lesson objectives are meaningful in a way that after reaching the required proficiency level, students are able to organize their own game of volleyball and explain to their peers how the forearm pass and overhead pass techniques work in order to facilitate a game of volleyball in their free time.

viii. Cultural aspect

The cultural aspect of the lesson deals with the communication between the referee and the team during a game of volleyball. Certain rules and regulations apply that were presented in the previous lesson and will only be revised briefly. Beyond that, students create a sense of community as a team and as volleyball players in general.

The CLIL Workout represents the last stage of the CLIL Pyramid and is a reflection phase at the end of the lesson, in which key content and language elements are reviewed. In this case, the teacher discusses in plenum the coaching points of the pass and overhead pass as well as appropriate language and phrases used during a game of volleyball. Furthermore,

students are given the opportunity to share their experience during the lesson and ask questions.

This chapter contributed to answer the research question, “What options exist to implement CLIL to the Austrian Physical Education curriculum?” It presents a way of connecting the CLIL approach to the Austrian PE curriculum. Furthermore, it introduces the PE-in-CLIL Template and PE-in-CLIL Checklist to answer the second research question, “Which design principles are necessary to create a balanced PE-in-CLIL task?” Subsequently, the following chapter proposes four exemplary PE-in-CLIL lessons based on the presented PE-in-CLIL Template and the PE-in-CLIL Checklist.

6 PE-in-CLIL lesson plans

In this last chapter, four PE-in-CLIL lesson plans are presented. It is important to keep in mind that these are mere examples of how a balanced PE-in-CLIL lesson might look like and are supposed to give an overview on the planning process. These four lesson plans build up two teaching units, one in the first grade and one in the fourth grade of lower secondary school. The first grade was chosen because students have a low level of language proficiency, and planning language input and output might present its own challenges at this level. The fourth grade was chosen to show how the focus on interaction can be achieved within the boundaries of the PE curriculum. Both lessons were planned in the context of the didactic approach of the educational sport teaching, focusing on the education to and through movement. Detailed lesson plans, their PE-in-CLIL Templates, and lesson materials can be found in the appendix. All of the presented lessons were planned with the PE-in-CLIL checklist, which is referenced throughout the description of the realization of the lesson objectives.

Further insight into PE-in-CLIL tasks and lesson material can be found when looking at publications of Nguyen and Watanabe (2013: 51), who present the “fitness deal game” or Constantinou and Wuest (2015a: 10) who introduce the idea of a “communication center”. While Drost and Todorovich (2013: 57) give an overview on various lesson examples for elementary school, Mucedola (2018: 60) demonstrates how language objectives may be implemented in an archery class at the secondary school level. These are just a few

publications that focus on language learning within the context of Physical Education and may be used as a starting point for one's own lesson planning.

6.1 Getting started: One of the first PE-in-CLIL units

Implementing a PE-in-CLIL project in a first grade of lower secondary might seem overwhelming to some PE practitioners because students' English proficiency is still low. But this PE-in-CLIL unit shows how students could acquire English skills in combination with enhancing their subject-specific knowledge. Of course, the teacher might not be able to speak English at all times, as he/she will have to explain games and rules in German as well. But as often as possible, English is to be preferred and will be understood by the students very quickly. This lesson is an example of sustainable and meaningful learning, as students acquire vocabulary of basic movements and of typical sports equipment, hence building a foundation for their future in school and in life.

6.1.1 'Rhythm and Moves': Basic movement descriptions

Lesson objectives

This lesson is based on two curricula guidelines from the first and second grade of lower secondary school (BMUKK 2019: 115-116), namely "diverse motor activities" and "[to] convert music and rhythm to movement and dance" with the subject competence of "students are able to realize dance-like, gymnastic and acrobatic movement patterns" with the sub-competence listed as "students are able to recognize simple rhythms and perform given movements in time with the rhythm" and the descriptor "(AM) students are able to replicate given movements in time with the rhythm"(BMUKK 2014: 23). Apart from the subject competence, the social and self-competence are to be fostered. In detail, the social competence focuses on the competence, "Students are able to take measures to produce rules and norms of behavior of conduct in a group and to act on them". With the sub-competence of "Play by the rules: Students are able to produce rules and norms of behavior and act on them' described more precisely by the descriptor "(AK) Students are able to play by the rules and adhere to behavioral norms". The self-competence is represented through the competence "Students are able to actively participate in the lesson", its sub-competence "Concentration/Motivation: Students are able to regulate their concentration and motivation" and descriptor "(AK) Students are able to regulate their

concentration/motivation in a way that enables them to actively participate throughout the length of an arranged task".

Furthermore, foreign language competence is fostered through the objectives, "Students are able to contrast movements" and "Students are able to match types of movement to rhythms". The corresponding CDFs are "classify" and "define" and the syntax and vocabulary to realize them include "Adjectives that describe movement" in this case "fast, slow, high, low, forward, backward" and the verbs "run, walk, jump, hop, stop, go".

To summarize, students are not only able to understand the contrasting features of different kinds of movements at the end of the lesson, but are also able to perform them in time with the rhythm of a song sequence. Furthermore, students learn to play by the rules, even if they may get away with breaking the rules. At the same time, they are to learn how to regulate their motivation and concentration in order to take part in the lesson successfully. How these goals are realized during the lesson is discussed in the next section.

Realization of lesson objectives

The first sequence of each lesson, be it PE, English, or PE-in-CLIL, introduces the students to the topic and rationale of the lesson, which connects to students' prior knowledge and makes them curious about what is to come. In the proposed lesson, students are additionally introduced to a poster of movement terminology (see Appendix C) provided by the teacher by saying the different words and performing the appropriate action. Through this, the task highlights the content dimension and provides two forms of input, namely visual and verbal. The poster is hung up on the wall and should be visible to the students throughout the lesson.

The warm-up activity is based on the concept of TPR, with the teacher saying and performing a word and the students repeating them. This way, students build a connection between the word and the movement, helping them to remember the target terminology. Through the movements of the teacher, output scaffolding is provided, while the focus of this task is on the language, as students have to say each word. Also, the conceptual dimension is addressed because students have to understand and remember the words. Furthermore, in this task, students are urged to produce spoken and physical output.

The main part of the lesson follows the warm-up, which in this case is split up into three sections, namely a game of tag, the choreography of a dance sequence, and the presentation of it. First, the game of tag is played over three different zones, marked by various lines and cones. The teacher assigns a movement to each zone, for example zone 1 run, zone 2 hop, and zone 3 walk and places the appropriate sign, showing the term and a visualization of it. This way, students have to react to and perform the different forms of movement within the zones, while executing diverse motor activities and training their stamina and coordination. This game fosters the CDF 'identify', because students have to identify the form of movement allocated to each zone, while focusing on the social competence of playing by the rules, as they have to change their form of movement when entering a different zone.

The following phase encompasses the choreography of a dance sequence and will take place in groups of five students, who have to decide which kind of movement fits which rhythm in the provided music sample. Hence, this task fosters the CDF 'classify', as well as the subject competence, "Students are able to replicate given movements in time with the rhythm". Furthermore, it highlights the conceptual and procedural dimensions of content, and output scaffolding is provided through the poster and through examples by the teacher. This task makes use of auditory input (music), which is the third form of input used in this lesson. Furthermore, it challenges students to stay focused and motivated even if the teacher is not working directly with them (self-competence). Third, in order to give meaning to the task of choreographing a dance sequence, students present their choreography to the rest of the class.

During the cool-down phase, students are required to use the learnt terminology in pairs. One will play a voice-controlled robot, and the other student directs it. Through the use of different movement terminology, the robot is put into motion. While the student in control practices new vocabulary, the robot reacts to auditory signals and executes diverse motor activities. Again, students are challenged to stay motivated and play by the rules. Output scaffolding is provided by the poster, which students are allowed to go to at any time of the lesson.

At the end of the lesson, the reflection phase not only helps to associate "foreign words and phrases with mental images of particular movements" (Rottmann 2006: 221), but also gives

students the opportunity to reflect on personal experiences and wishes while reviewing the lesson.

6.1.2 'Welcome to the jungle': Sports equipment

Lesson objectives

After familiarizing students with basic movement terminology, and to further foster the competence of 'playing by the rules', this lesson introduces students to the "jungle" of sports equipment. It is based on the following curricular guidelines: "Acquire, train and connect movement skills without, with and on diverse sports equipment" and "Gain movement experience and foster basic sport specific structures" (BMUKK 2019: 116). The subject competence focused on during this lesson is "Students are able to successfully participate in small games and sports/racquet games", with the sub-competence "Playing idea: Students are able to realize the idea of a game" and the descriptor "(AK) Students are able to play by the rules" (BMUKK 2014: 21). Furthermore, the social competence "Students are able to take on different roles and tasks and reflect on them" (BMUKK 2014: 13) is addressed, with its sub-competence "Taking on tasks: Students are able to take on tasks" and descriptors "(AK) Students know and understand their responsibilities during the lesson (e.g. cooperation/assistance)" and "(AK) Students fulfil their allocated tasks".

Foreign language competence is promoted through the following objectives: 'Students are able to name different kinds of sports equipment', 'Students are able to describe how to move to a certain place' and 'Students are able to use basic movement terminology'. While the CDFs focused on during the lesson are 'define' and 'describe', the vocabulary list includes sports equipment terminology like *vault, springboard,* and *pommel horse* and the syntax needed includes verb phrases like *walk slowly* or *stop at* etc.

To conclude, through this lesson, students gain additional movement experience in combination with sports equipment because they train certain movement skills (walking, running, hopping, and jumping) separately and in combination. Furthermore, students will reflect on their ability to abide by the rules during a game, their responsibility, and task fulfillment during the lesson. All of this is realized through the use of certain subject-specific terminology (sports equipment and basic forms of movement) and syntax.

Realization of lesson objectives

To activate students' prior knowledge and to prepare them for the lesson ahead, an introduction is inevitable to the start of each lesson. The teacher will prepare signs on various apparatuses outside of the equipment room, for example the wall bars or the climbing poles, for students to see before the lesson starts. During the introduction, the teacher walks with the students through the sports hall and introduces the apparatuses to them.

After the introduction, the warm-up prepares students physically for the lesson and at the same time gives the teacher the chance to practice the new terminology (basic movement and sports equipment) with the students. The teacher starts the warm-up by stating a form of movement (e.g. walk) and saying "On your marks, get ready, go!" before turning on the music. Now, the students have to walk through the sports hall and wait for the teacher to turn off the music. After doing so, the teacher says "stop" and, for example, "Walk to the climbing poles", waits for all students to arrive at the designated area in the sports hall before starting the whole procedure again, but this time using a different verb of movement and different apparatus to reach. This way, students are able to react to and perform various sports-specific terminologies while warming up their bodies. The input used is multi-modal, because of the available signs, music, and the verbal instruction from the teacher. Additional scaffolding is provided through the signs on the different apparatuses and through other students performing the actions. The content dimension highlighted during this task is the conceptual dimension because students are supposed to remember the terms used by the teacher.

The main part consists of three segments: the setting up of the equipment, the memory game, and the 'Go to…' exercise. The activity involving the set-up of the equipment is used to introduce even more apparatuses to the students. The teacher puts up signs on the different types of equipment located inside the equipment room, so the students will know which one to set up. Furthermore, a map of the sports hall with the location of the equipment after the set-up is put up by the teacher (see Appendix C). This way input and output scaffolding is provided in a visual way. To arrange the set-up, the teacher hands out memory cards to pairs of students and each pair receives a picture of an apparatus with the name of it and has to set it up. This way, new terminology is introduced and at the same

time students are required to fulfill a given task. When the students have finished, each pair introduces its apparatus to the rest of the class, ensuring that every student is familiarized with the terminology.

The second segment of the main part consists of the memory game, which not only provides students with the opportunity to train their endurance and coordination but also requires them to play by the rules while practicing subject-specific vocabulary and syntax. The path through "the jungle of sports equipment" requires students to train and connect different kinds of movements in relation to the sports equipment and builds one part of the required output. The second part of the output is of a written kind, in which students have to fill out their game sheets by adding the name of the matched apparatus to the picture of it.

In the third segment 'Go to …' students pair up again and have the chance to actively use recently acquired vocabulary. Through commands like 'Jump off the vault' students combine basic movement with the sports equipment terminology to create different kinds of commands. This task is scaffolded through a worksheet, which provides students with sentence structures they can use in combination with various terminologies. As one student formulates a command, the other has to fulfill it, giving them the opportunity to familiarize themselves with the new terminology while focusing on task-fulfillment and playing by the rules. On top of that, students gain movement experience and foster their CDFs, especially 'describe'.

After the main part, the sports equipment needs to be dismantled. This process presents the teacher with the possibility to test students' understanding of the basic movement and sports equipment terminology and syntax by allocating various apparatuses to different students to dismantle them. The map of the equipment room helps students to find the correct location for each apparatus, thus operates as a scaffolding tool, while the teacher helps with dismantling the more complex apparatuses.

At the end of the lesson, the final phase helps students to reflect on the lesson and their personal experience and wishes, while providing an opportunity to review the lesson objectives.

This 'Getting started' PE-in-CLIL teaching unit provides an idea of how the beginning of a PE-in-CLIL project, starting in grade one of the lower secondary school, might look like. As

mentioned before, the teacher is most likely not able to interact with students in the target language at all times, but the activities and tasks are chosen to support language learning at an early stage without slowing down the pace of a game (Coral & Lleixà 2016: 124). Students learn the language through movement, games, and repetition, often acting together as a group. The following exemplary lesson plan presents a contrast to the previous one, not only because it is planned for a grade four of lower secondary school but also due to its required use of highly technical and sport-specific terminology in connection with communicative tasks.

6.2 Volleyball unit

As Coral and Lleixà (2016: 124) mention in their teaching strategies, it is important to let students take over the role of referee to practice how to justify their decisions. This was taken into account when planning this volleyball unit for a grade four of a lower secondary school. Students bring a lot of prior knowledge to this lesson, starting from being able to execute volleyball-specific techniques, knowing their coaching points, the rules of the game, volleyball-specific vocabulary, and feedback rules. Therefore, in this unit, students have the opportunity to put their knowledge and skills into action during a three-on-three game of volleyball in the first lesson, and a volleyball tournament in the second lesson of this PE-in-CLIL unit (cf. Appendix D).

6.2.1 Lesson objectives

The curricular guidelines for this lesson include “Refine the ability to play under intensified technical aspects” and “Strict interpretation of rules. Take on the role of a facilitator (e.g. Referee) (BMUKK 2019: 116). The competences focused on are, as discussed in 5.3.1, the subject competence “Students are able to participate successfully in small games and sport games/racquet games” (BMUKK 2014: 8), with its sub-competence “Technique: Students are mastering the technical fields of movement with a ball, passing and receiving of a ball and the execution of a successful attack” and its descriptor “Students are able to describe and demonstrate within a game situation the specific forms of passing and receiving a ball”. To focus on the role of the facilitator, the methodological competence “Students are able to organize competitions and games within their class”, with its sub-competence “Games: Students are able to take on simple tasks of organizing and managing (small movement)

games" and descriptors "Students are able to take on organizational tasks for games" and "Students are able to take on the role of a facilitator". This way, students need to organize and referee a game of volleyball while using the previously learnt technique during a real game.

The foreign language competence for this lesson is 'Students are able to describe volleyball specific techniques and organize a volleyball game, using volleyball specific language', addressing two CDFs 'describe' and 'explain', which in combination with the required academic language, fosters students CALPS. The objectives formulated for this lesson are 'Students are able to describe the technique of forearm passing and overhead passing' and 'Students are able to explain their decisions as referee'. The necessary vocabulary and syntax to reach those objectives are first, terminology to describe movement and second, volleyball-specific vocabulary and the syntax to justify decisions.

6.2.2 Realization of lesson objectives

The realization of the first lesson of this PE-in-CLIL volleyball unit has been discussed in detail in section 5.3.2, and therefore will not be reviewed again. The second lesson of this unit deals with the organization of a volleyball tournament. The general warm-up is conducted by the teacher and concentrates on the conceptual and procedural dimension of content. The conceptual dimension is addressed through the tasks students need to complete and the procedural interaction through group interaction. Input is provided through visuals and terminology on the fact sheet. Scaffolding is not needed as students are familiar with the warm-up exercises.

The main part of this lesson highlights the procedural dimension of content, providing various opportunities for interaction, like explaining, justifying, discussing, or providing feedback. These interactions support the enhancement of students' CALPS because students have to verbalize their thoughts using appropriate academic language. The cultural dimension is addressed as students take on different roles and tasks through which they experience a sense of community, in this case the community arising when participating in a volleyball tournament. Scaffolding is provided in the form of role cards and game posters, which contain common phrases a player or referee might use. Through the task of officiating and playing a tournament, students are pushed to create spoken and physical output

throughout the lesson. Academic language plays an important role during this lesson, and its use is expected of students.

After this PE-in-CLIL volleyball unit, students will have acquired genre proficiency in the field of volleyball and organizing a tournament. Furthermore, they will have trained their verbalization of feedback adhering to the provided coaching points for each volleyball technique. Additionally, students will have gained skills in the field of refereeing a game, including the need to justify their decisions in front of their peers. Beyond that, students will have trained their volleyball skills and techniques in game-like situations.

This chapter provided lesson examples of two PE-in-CLIL units, thus answering the third research question, "What do potential PE-in-CLIL lessons look like?". It further demonstrated the use of the suggested PE-in-CLIL Template and the PE-in-CLIL checklist. In practice, these two units present a contrast between high and low language proficient students, and how language and content skills can be developed hand-in-hand. As mentioned before, these lesson plans are only to be interpreted as examples, as they represent the results of this thesis.

7. Conclusion

The connection between language, foreign language learning, and PE is stronger than one might expect. As presented in this thesis, general language does not only play an instrumental part in facilitating a PE lesson, but also academic language improves learners' understanding of the subject discipline. The importance of using cognitive discourse functions, especially HOTS, in order to guide students to reach academic literacy in PE has been highlighted throughout the thesis. The EU language learning goal, namely to educating students to be pluriliterate, is part of the foundation of this thesis. CLIL is the instrument to reach this goal. It fosters students' ability to communicate in more than one community language. Its positive effects have recently been diminished by some researchers, but more studies are published every year and results, especially from longitudinal studies, will show the effects CLIL actually has on students' language learning. The EU promotes CLIL as a means to reach its proclaimed language learning goal, which is defined as each citizen being proficient in two additional languages besides their mother tongue. The implementation of CLIL in PE classes is still uncommon. Although researchers from Spain, Greece, Italy, and

Germany have presented some theoretical and practical research in this area, guidelines and lesson material for PE-in-CLIL are still scarce.

This thesis has advanced this gap by providing principles and materials for PE-in-CLIL task and lesson design based on the most recent CLIL teaching methodology and the current Austrian PE curriculum, clearing the way to implement CLIL within the Austrian PE curriculum. PE teachers in Austria will find the PE-in-CLIL Template easy to use, as it builds on the competence model introduced by the relevant ministry and taught by teacher educators. The PE-in-CLIL Checklist breaks down the theoretical input necessary to design a balanced PE-in-CLIL lesson in a clear and coherent manner. The resulting exemplary lesson material demonstrates the efficiency of the tools developed in this thesis. Furthermore, they offer insights into how a PE-in-CLIL lesson might look like at a low level of proficiency, as in grade one of secondary school and at an already higher level in grade four of a lower secondary school. Hence, it shows how PE can be connected with early stages of language acquisition, like vocabulary learning, and it provides examples of how existing knowledge of academic language can be actively used and practiced during a game of volleyball. Many more examples would be possible, but due to the limited scope of this thesis, the choice fell on those two contrasting illustrations.

As the designed lessons and the planning tools they are based on have not been tested in practice, they are mere guiding ideas on how a possible implementation of CLIL to the Austrian PE curriculum might take place. Although most of the exercises visualized in the lesson plans originate from experienced PE practitioners, they have been altered to fit the needs of a PE-in-CLIL task or lesson which is why practical testing as a next step is of major importance to validate the designed principles.

8. References

Academic Language Development Network. 2014. Teaching academic syntax. http://aldnetwork.org/content/teaching/ (2 July, 2020).

Achtergarde, Frank. 2015. *Selbstständiges Arbeiten im Sportunterricht : ein Sportmethodenhandbuch* (6), 5th edn. Aachen Wien [u.a.]: Meyer & Meyer.

Alber, Rebecca. 2014. 6 Scaffolding Strategies to Use With Your Students: Support every student by breaking learning up into chunks and providing a concrete structure for each. https://www.edutopia.org/blog/scaffolding-lessons-six-strategies-rebecca-alber.

Anderson, Lorin W. 2008. *A taxonomy for learning, teaching, and assessing : a revision of Bloom's taxonomy of educational objectives.* New York [u.a.]: Longman.

Aschebrock, Heinz. 2013. *Didaktische Konzepte für den Schulsport* (21). Aachen Wien [u.a.]: Meyer & Meyer.

Asher, James J. 1966. The Learning Strategy of the Total Physical Response: A Review. *The Modern Language Journal* 50(2). 79–84.

Badertscher, Hans & Thomas Bieri. 2009. *Wissenserwerb im Content and Language Integrated Learning : empirische Befunde und Interpretationen* (16), 1st edn. Bern Wien [u.a.]: Haupt.

Bailey, Richard. 2006. Physical Education and Sport in Schools: A Review of Benefits and Outcomes. *Journal of School Health* 76. 397–401.

Ball, Phil, Keith Kelly & John Clegg. 2015. *Putting CLIL into practice* (Oxford handbooks for language teachers), 1st edn.

Balz, Eckart. 2009. Fachdidaktische Konzepte update oder: Woran soll sich der Schulsport orientieren? *Sportpädagogik*(1). 25–32.

Bell, Nancy D. & David Lorenzi. 2004. Facilitating Second Language Acquisition in Elementary and Secondary Physical Education Classes. *Journal of Physical Education, Recreation & Dance (JOPERD)* 75(6). 46–50.

Black, Paul, Christine Harrison, Clare Lee, Bethan Marshall & Dylan Wiliam. 2004. Working inside the Black Box: Assessment for Learning in the Classroom. *Phi Delta Kappan Magazine* 86. 21.

Block, Betty A. 2001. Literacy through Movement: An Organizational Approach. *Journal of Physical Education, Recreation & Dance* 72(1). 39–48.

BMUKK. 2012. Lehrpläne der Neuen Mittelschulen.

BMUKK. 2014a. Bildungsstandard für Bewegung und Sport - Kompetenzmpdell und Kompetenzkatalog Sekundarstufe I.

BMUKK. 2014b. Lehrpläne für die Handelsakademie und die Handelsschule.

BMUKK. 2015a. Lehrpläne der humanberuflichen Schulen.

BMUKK. 2015b. Lehrpläne der humanberuflichen Schulen.

BMUKK. 2016. Lehrpläne –allgemeinbildende höhere Schulen.

BMUKK. 2018. Handreichung zur Umsetzung von CLIL an Höheren land- und forstwirtschaftlichen Schulen: BMBWF 2018.

BMUKK. 2019a. Lehrpläne der allgemeinbildenden höheren Schulen.

BMUKK. 2019b. Leistungsbeurteilungsverordnung.

BMUKK. 2019c. Prüfungsordnung BMHS.

Bonnet, Andreas. 2004. *Didaktiken im Dialog : Konzepte des Lehrens und Wege des Lernens im bilingualen Sachfachunterricht* (2). Frankfurt am Main Wien [u.a.]: Lang.

Bot, Kees de. 2002. CLIL in the European Context. In David Marsh (ed.), *CLIL/EMILE*: *The european dimension; Actions, Trends and Foresight Potential*, 31–33.

Bräutigam, Michael. 2006. *Sportdidaktik : ein Lehrbuch in 12 Lektionen* (3), 2nd edn. Aachen Graz [u.a.]: Meyer & Meyer.

Bruner. 1978. The Role of Dialogue in Language Acquisition. In Anne Sinclair (ed.), *The child's conception of language* (2). Berlin [u.a.]: Springer.

Bruton, Anthony. 2013. CLIL: Some of the reasons why … and why not. *System* 41(3). 587–597.

Buschner, Craig. 1994. *Teaching children movement and skills, Becoming a master teacher..* Champaign IL: Human Kinetics.

Camerer, Rudolf. 2015. Sprache – Quelle aller Missverständnisse. Zum Verhältnis von Interkultureller Kompetenz und Sprachkompetenz. *Zeitschrift für interkulturellen Fremdsprachenunterricht* 12.

Clegg, John. 2003. The Lingue E Scienze Project: Some outcomes. In, *L'Uso Veicolare della lingua straniera in apprendimenti non linguistici*, 85–104. Turin.

Commission of the European Communities. 1995. *White Paper*: *Teaching and Learning - Towards the Learning Society*. Objective IV. Brussels: Council of Europe.

Constantinou, Phoebe & Deborah A. Wuest. 2015a. Using Academic Language to Level the Playing Field for English Language Learners in Physical Education: Part 2. *Strategies* 28. 9–14.

Constantinou, Phoebe & Deborah A. Wuest. 2015b. Using Academic Language to Level the Playing Field for English-Language Learners in Physical Education: Part 1. *Strategies: A Journal for Physical and Sport Educators;* 28(5). 28–33.

Coral, Josep. 2013. Physical Education and English integrated learning: How school teachers can develop PE-in-CLIL programmes. *Temps d'educació*(45). 41–64.

Coral, Josep & Teresa Lleixà. 2016. Physical education in content and language integrated learning: successful interaction between physical education and English as a foreign language. *International Journal of Bilingual Education and Bilingualism* 19(1). 108–126.

Coral, Josep, Meritxell Urbiola, Eduard Sabaté, Josep Bofill, Teresa Lleixà & Ruth Vilà Baños. 2017. Does the teaching of physical education in a foreign language jeopardise children's physical activity time? A pilot study. *International Journal of Bilingual Education and Bilingualism* 1(4). 1–16.

Coyle, Do. 2002. Relevance of CLIL to the European Commission's Language Learning Objectives. In David Marsh (ed.), *CLIL/EMILE*: *The european dimension; Actions, Trends and Foresight Potential*, 27-28.

Coyle, Do. 2005. CLIL: Planning Tools for Teachers. https://www.unifg.it/sites/default/files/allegatiparagrafo/20-01-2014/coyle_clil_planningtool_kit.pdf (16 January, 2021).

Coyle, Do. 2007. Content and Language Integrated Learning: Towards a Connected Research Agenda for CLIL Pedagogies. *International Journal of Bilingual Education and Bilingualism* 10(5). 543–562.

Coyle, Do. 2013. Listening to learners: an investigation into 'successful learning' across CLIL contexts. *International Journal of Bilingual Education and Bilingualism* 16(3). 244–266.

Coyle, Do. 2018. The Place of CLIL in (Bilingual) Education. *Theory Into Practice* 57(3). 166–176.

Coyle, Do, Philip Hood & David Marsh. 2010. *CLIL : content and language integrated learning* (Content and language integrated learning), 1st edn. Cambridge [u.a.]: Cambridge Univ. Press.

Culp, Brian & Robert Schmidlein. 2012. Preparing PETE Students for Culturally and Linguistically Diverse Learners. *Strategies* 25. 11–14.

Cummins, Jim. 1984. *Bilingualism and special education : issues in assessment and pedagogy* (6). Clevedon [u.a.]: Multilingual Matters.

Cummins, Jim. 2000. *Language, Power and Pedagogy*: *Bilingual Children in the Crossfire* (Bilingual Education & Bilingualism). Blue Ridge Summit, PA: Multilingual Matters.

Dale, L. W. van der Es & R. Tanner. 2010. *CLIL Skills*: *A practical book on Content and Language Integrated Learning:* European Platform - internationalising education.

Dale, Liz & Rosie Tanner. 2012. *CLIL activities : a resource for subject and language teachers* (Cambridge handbooks for language teachers), 1st edn. Cambridge [u.a.] [Stuttgart]: Cambridge Univ. Press Klett.

Dallinger, Sara, Kathrin Jonkmann, Jan Hollm & Christiane Fiege. 2016. The effect of content and language integrated learning on students' English and history competences – Killing two birds with one stone? *Learning and Instruction* 41. 23–31.

Dalton-Puffer, C. A. Llinares, F. Lorenzo & T. Nikula. 2014. "You Can Stand Under My Umbrella": Immersion, CLIL and Bilingual Education. A Response to Cenoz, Genesee & Gorter (2013). *Applied Linguistics* 35(2). 213–218.

Dalton-Puffer, Christiane. 2011. Content-and-Language Integrated Learning: From Practice to Principles? *Annual Review of Applied Linguistics* 31. 182–204.

Dalton-Puffer, Christiane. 2013. A construct of cognitive discourse functions for conceptualising content-language integration in CLIL and multilingual education. *European Journal of Applied Linguistics* 1. 216–253.

Dalton-Puffer, Christiane, Silvia Bauer-Marschallinger, Katharina Brückl-Mackey, Victoria Hofmann, Jennifer Hopf, Lisa Kröss & Lisa Lechner. 2018. Cognitive discourse functions in Austrian CLIL lessons: towards an empirical validation of the CDF Construct. *European Journal of Applied Linguistics* 6. 5–29.

Dalton-Puffer, Christiane & Tarja Nikula. 2014. Content and language integrated learning. *The Language Learning Journal* 42(2). 117–122.

Dalton-Puffer, Christiane & Ute Smit. 2013. Content and Language Integrated Learning: A research agenda. *Language Teaching* 46(4). 545–559.

Dickey, Robert J. 2004. Content (adj) or Content (n) With Your English Classes? *Education International* 1(3). 10–15.

Drost, Daniel K. & John R. Todorovich. 2013. Enhancing Cognitive Understanding to Improve Fundamental Movement Skills. *Journal of Physical Education, Recreation & Dance* 84(4). 54–59.

Duske, Petra. 2017. Bilingualer Sachfachunterricht. In Petra Duske (ed.), *Bilingualer Unterricht im Fokus der Biologiedidaktik*, 28–53. Wiesbaden: Springer Fachmedien Wiesbaden.

Eldar, Eitan. 2008. Educating through the Physical-behavioral interpretation. *Physical Education and Sport Pedagogy* 13. 215–229.

Emmanouilidou, Kyriaki. 2019. Teaching Physical Education through CLIL to young learners. In Marina Mattheoudakis & Ioanna Ziaka (eds.), *Promoting CLIL implementation in Europe*, 127-146. Thessaloniki.

EUbusiness. 2008. A guide to languages in the European Union. https://www.eubusiness.com/topics/Languages/eu-languages-guide/ (15 April, 2020).

European Commission. 2003. *Promoting language learning and linguistic diversity : action plan 2004-06.* Luxembourg.

European Commission. 2009. Language Policy. https://www.europarl.europa.eu/factsheets/en/sheet/142/language-policy (2 July, 2020).

European Commission, Eurydice. 2006. *Content and language integrated learning (CLIL) at school in Europe* (EURYDICE Survey). Brussels: Eurydice.

European Commission, Eurydice. 2017a. *Eurydice Brief*: *Key Data on Teaching Languages at School in Europe.* Brussels: Eurydice.

European Commission, Eurydice. 2017b. *Key data on teaching languages at school in Europe*: *Eurydice Report,* 2017th edn. Luxembourg: Publications Office of the European Union.

European Commission Directorate General for Education and Culture. 2014. *Improving the effectiveness of language learning*: *CLIL and computer assisted language learning*.

Fahrurrozi. 2017. Improving Students' Vocabulary Mastery by Using Total Physical Response. *English Language Teaching* 10(3). 118.

Fazio, Alessandra, Emanuele Isidori & Óscar C. Bartoll. 2015. Teaching Physical Education in English using CLIL Methodology: A Critical Perspective. *Procedia - Social and Behavioral Sciences* 186. 918–926.

Gajo, Laurent. 2007. Linguistic Knowledge and Subject Knowledge: How Does Bilingualism Contribute to Subject Development? *International Journal of Bilingual Education and Bilingualism* 10. 563–581.

Gallardo Del Puerto, Francisco & María Martínez Adrián. 2013. ¿Es más efectivo el aprendizaje de la lengua extranjera en un contexto AICLE?: resultados de la investigación en España. *Revista Padres y Maestros / Journal of Parents and Teachers*.

García, Ofelia. 2009. *Bilingual education in the 21st century.* Malden Oxford Chichester, [Ann Arbor]: Wiley-BlackwellProQuest Ebook Central.

Gardner, Robert C. 1985. *Social psychology and second language learning : the role of attitudes and motivation* (4). London [u.a.]: Arnold.

Gibbons, Pauline. 2002. *Scaffolding language, scaffolding learning : teaching second language learners in the mainstream classroom* (Teaching second language learners in the mainstream classroom). Portsmouth, NH: Heinemann.

Gomez, Conrado L. & Margarita Jimenez-Silva. 2002. The Physical Educator as a Language Teacher for English Language Learners. *Strategies* 25(4). 14–17.

Grin, François. 2001. English as economic value: facts and fallacies. *World Englishes* 20. 65–78.

Hüttner, J. & U. Smit. 2014. CLIL (Content and Language Integrated Learning): The bigger picture. A response to: A. Bruton. 2013. CLIL: Some of the reasons why … and why not. System 41 (2013): 587-597. *System* 44.

Hüttner, Julia. 2017. ELF and Content and Language Integrated Learning. In Jennifer Jenkins, Will Baker & Martin Dewey (eds.), *The Routledge Handbook of English as a Lingua Franca*, 481-493.

Hüttner, Julia, Christiane Dalton-Puffer & Ute Smit. 2013. The power of beliefs: lay theories and their influence on the implementation of CLIL programmes. *International Journal of Bilingual Education and Bilingualism* 16. 267–284.

Janssen, Ian & A. G. Leblanc. 2010. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int. J. Behav. Nutr. Phys. Act.* 7. 1–16.

Kuhn, Peter. 2009. *Kindgemäße Bewegungserziehung* (Studientexte zur Grundschulpädagogik und -didaktik). Kempten: Julius Klinkhardt.

Küppers, Almut & Matthias Trautmann. 2013. It's Not CLIL That Is a Success- CLIL Students Are!: Some Critical Remarks on the Current CLIL Boom. In Stephan Breidbach & Britta Viebrock (eds.), *Content and language integrated learning (CLIL) in Europe*: *Research perspectives on policy and practice* (Mehrsprachigkeit in Schule und Unterricht Band 14), 285–296. Frankfurt am Main: Peter Lang Edition.

Kurz, Dietrich. 1990. *Elemente des Schulsports*: *Grundlagen einer pragmatischen Fachdidaktik.* Schorndorf: Hofmann.

Ladson-Billings, Gloria. 2011. Is Meeting the Diverse Needs of All Students Possible? *Kappa Delta Pi Record* 48. 13–15.

Leung, Constant & Tom Morton. 2017. Conclusion Language Competence Learning and Pedagogy in CLIL - Deepening and Broadening Integration. In D. Luis Banegas (ed.), *Conceptualising integration in CLIL and multilingual education*, 235-248.

Li, Chor S. D. 2002. Hong Kong Parents' Preference for English-medium Education: Passive Victims of Imperialism or Active Agents of Pragmatism. In Andy Kirkpatrick & Hywel Coleman (eds.), *Englishes in Asia: Communication, Identity, Power Education* (25), 29–62. Melbourne: Language Australia.

Lightner, Birte. 2013. Sport. In Wolfgang Hallet (ed.), *Handbuch bilingualer Unterricht : content and language integrated learning*, 1st edn. (Reihe Handbücher zur Fremdsprachendidaktik), 359–365. [Stuttgart u.a.]: Klett [u.a.].

Llinares, Ana & Christiane Dalton-Puffer. 2015. The role of different tasks in CLIL students' use of evaluative language. *System* 54. 69–79.

Logan, Samuel W. Leah E. Robinson, E. K. Webster & Mary E. Rudisill. 2015. The influence of instructional climates on time spent in management tasks and physical activity of 2nd-grade students during physical education. *European Physical Education Review* 21(2). 195–205.

Lorenzo, F. & C. Dalton-Puffer. 2016. Historical literacy in CLIL: Telling the past in a second language. In Tarja Nikula, Emma Dafouz, Pat Moore & Ute Smit (eds.), *Conceptualising Integration in CLIL and Multilingual Education*, 55–72. Bristol: Multilingual Matters.

Lorenzo, Francisco, Pat Moore & Sonia Casal. 2011. On Complexity in Bilingual Research: The Causes, Effects, and Breadth of Content and Language Integrated Learning—a Reply to Bruton (2011). *Applied Linguistics* 32. 450–455.

Machunsky, Meike. 2008. Developing material for P. E. lessons in CLIL. https://www.grin.com/document/125403 (2 July, 2020).

MacIntyre, Peter. 2002. Motivation, Anxiety and Emotion in Second Language Acquisition. In Peter J. Robinson & Peter Robinson (eds.), *Individual differences and instructed language learning* (v. 2), 45–68. Amsterdam, Philadelphia, PA: J. Benjamins Pub.

Marsh, David (ed.) (2002). *CLIL/EMILE*: *The european dimension; Actions, Trends and Foresight Potential*.

Martin, Ellen H. Ann Klinkenborg & Pamela Wetherington. 2018. Highlighting edTPA Academic Language in Physical Education. *Journal of Physical Education, Recreation & Dance* 89(7). 34–40.

Mattheoudakis, Marina & Ioanna Ziaka (eds.) (2019). *Promoting CLIL implementation in Europe.* Thessaloniki.

Mcbride, Ron E. 1999. If You Structure It, They Will Learn…: Critical Thinking in Physical Education Classes. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 72. 217–220.

Mehisto, Peeter. 2012. Criteria for Producing CLIL Learning Material. *Encuentro*(21). 15–33.

Mehisto, Peeter, David Marsh & María J. Frigols. 2008. *Uncovering CLIL : content and language integrated learning in bilingual and multilingual education* (Macmillan books for teachers), 1st edn. Oxford: Macmillan Education.

Mewald, Claudia. 2007. A comparison of oral language performance of learners in CLIL and mainstream classes at lower secondary level in Lower Austria. In Christiane Dalton-Puffer (ed.), *Empirical perspectives on CLIL classroom discourse* (26), 139–178. Frankfurt am Main Wien [u.a.]: Lang.

Meyer, O. D. Coyle & K. Schuck. 2018. Learnscaping: Creating next-gen learning environments for pluriliteracies growth. In J. Buendgens-Kosten & D. Elsner (eds.), *Multilingual computer assisted language learning* (Multilingual Computer Assisted Language Learning), 18-37.

Meyer, Oliver. 2010. Towards quality CLIL: successful planning and teaching strategies. *Pulso: Revista de Educación*. 11–29.

Meyer, Oliver, Do Coyle, Ana Halbach, Kevin Schuck & Teresa Ting. 2015. A pluriliteracies approach to content and language integrated learning - mapping learner progressions in knowledge construction and meaning-making. *Language, Culture and Curriculum: Content-Based Instruction and CLIL: Moving Forward in the 21st Century* 28. 41–57.

Morton, Tom & Teppo Jakonen. 2017. Integration of Language and Content Through Languaging in CLIL Classroom Interaction: A Conversation Analysis Perspective. In D. Luis Banegas (ed.), *Conceptualising integration in CLIL and multilingual education*.

Mucedola, Mike. 2018. Second-language Acquisition in High School Physical Education Archery Class. *Journal of Physical Education, Recreation & Dance* 89(9). 60–62.

Muñoz, Carmen. 2002. Relevance & Potential of CLIL. In David Marsh (ed.), *CLIL/EMILE*: *The european dimension; Actions, Trends and Foresight Potential*, 35–36.

Nguyen, Huong T. & Megan F. Watanabe. 2013. Using Visual Supports to Teach English Language Learners in Physical Education. *Journal of Physical Education, Recreation & Dance* 84(8). 46–53.

Nietsch, Petra & Rolf. Vollrath. 2007. Physical Education: Sprachlernpotenzial im bilingualen Sportunterricht. In Manfred Wildhage (ed.), *Praxis des bilingualen Unterrichts*, 2nd edn. 147–169. Berlin: Cornelsen Scriptor.

Nikula, Tarja. 2007. Speaking English in Finnish content-based classrooms. *World Englishes* 26. 206–223.

Olsson, Eva. 2015. Progress in English academic vocabulary use in writing among CLIL and non-CLIL students in Sweden. *Moderna språk*(109). 51-74.

Ouazizi, Khalid. 2016. The Effects of CLIL Education on the Subject Matter (Mathematics) and the Target Language (English). *Latin American Journal of Content and Language Integrated Learning* 9.

Paran, Amos. 2013. Content and Language Integrated Learning: Panacea or Policy Borrowing Myth. *Applied Linguistics Review* 4. 317–342.

Pavesi, Maria, Daniela Bertocchi, Marie Hofmannová & Monika Kazianka. 2001. Teaching through a foreign language: A guide for teachers and schools to using foreign languages in content teaching. http://www.ub.edu/filoan/CLIL/teachers.pdf (2 July, 2020).

Pérez Cañado, María L. 2016. From the CLIL craze to the CLIL conundrum: addressing the current CLIL controversy. *Bellaterra: journal of teaching and learning language and literature* 9. 9–31.

Pérez Cañado, María L. 2018. CLIL and Educational Level: A Longitudinal Study on the Impact of CLIL on Language Outcomes. *Porta Linguarum: revista internacional de didáctica de las lenguas extranjeras*(29). 51–70.

Pérez Cañado, María L. & Nina K. Lancaster. 2017. The effects of CLIL on oral comprehension and production: a longitudinal case study. *Language, Culture and Curriculum* 30(3). 300–316.

Piesche, Nicole, Kathrin Jonkmann, Christiane Fiege & Jörg-U. Keßler. 2016. CLIL for all? A randomised controlled field experiment with sixth-grade students on the effects of content and language integrated science learning. *Learning and Instruction* 44. 108–116.

Prohl, Robert. 2017. Der Doppelauftrag des Erziehenden Sportunterrichts. In Volker Scheid, Robert Prohl & Limpert Verlag (eds.), *Sportdidaktik : Grundlagen – Vermittlungsformen – Bewegungsfelder*, 2nd edn. 70–91. Wiebelsheim, Hünsrück: Limpert Verlag.

Pühse, Uwe. 2005. *International comparison of physical education : concepts, problems, prospects.* Oxford [u.a.]: Meyer & Meyer Sport.

Richards, Jack C. & Theodore S. Rodgers (eds.) (2001). *Approaches and Methods in Language Teaching* (Cambridge Language Teaching Library), 2nd edn. Cambridge: Cambridge University Press.

Rieder-Bünemann, Angelika, Julia Hüttner & Ute Smit. 2019. Capturing technical terms in spoken CLIL. *Journal of Immersion and Content-Based Language Education* 7(1). 4–29.

Schilling, Tammy, Kelly McOmber, Kathy Mabe, Bess Beasley, Shari Funkhouser & Layvette Martinez. 2006. Promoting Language Development through Movement. *Teaching Elementary Physical Education*. 39–42.

Swain, Merrill. 1993. The Output Hypothesis: Just Speaking and Writing Aren't Enough. *The Canadian Modern Language Review*(50). 158–165.

Sylvén, L. K. 2019a. *Investigating content and language integrated learning: Insights from Swedish high schools* (Investigating Content and Language Integrated Learning: Insights from Swedish High Schools).

Sylvén, Liss K. 2019b. Epilogue. In Liss K. Sylvén (ed.), *Investigating Content and Language Integrated Learning : Insights from Swedish High Schools* (Bilingual Education & Bilingualism), 315-320. Blue Ridge Summit, PA: Multilingual Matters.

Tomlinson, Brian & Hitomi Masuhara. 2009. Playing to Learn: A Review of Physical Games in Second Language Acquisition. *Simulation & Gaming* 40(5). 645–668.

Van de Craen, P. Ceuleers, E. & Mondt, K. 2007. Cognitive development and Cognitive development and bilingualism in primary schools: Teaching maths in a CLIL environment. In David Marsh (ed.), *Diverse contexts - converging goals : CLIL in Europe* (6), 185–200. Frankfurt am Main Wien [u.a.]: Lang.

Vigil, Yvonne T. Y. & Sarah Edwards. 2002. Using sports fiction in physical education. *Journal of Physical Education, Recreation & Dance* 73(9). 53–57.

Vollmer, Johannes H. 2010. Fachkompetenz als fachbasierte Diskursfähigkeit am Beispiel Geographie. In Sabine Doff (ed.), *Bilingualer Sachfachunterricht in der Sekundarstufe : eine Einführung* (Narr-Studienbücher), 242–257. Tübingen: Narr.

Vygotski, L. S. 1978. *Mind in society : the development of higher psychological processes.* Cambridge: Harvard University Press.

Wolff, Dieter. 2002. On the importance of CLIL in the context of the debate on plurilingual education in the European Union. In David Marsh (ed.), *CLIL/EMILE*: *The european dimension; Actions, Trends and Foresight Potential*, 47–48.

Wright, Wayne. 2010. *Foundations for teaching English language learners: Research, theory, policy, and practice.* Philadelphia: Caslon Publishing.

9. Appendix

A Abstract

B Zusammenfassung

C Lesson materials ‘getting started‘

PE-in-CLIL Template

Basic movement terminology

Important sports equipment

D Lesson Materials ‘volleyball’

PE-in-CLIL Template

Lesson plan 1

Lesson plan 2

A Abstract

The popularity of Content and Language Integrated Learning (CLIL) across the EU is increasing in line with the European Commission's goal of promoting multilingualism. The interest of research in this area is becoming more substantial but is less distinct in Physical Education (PE), due to its specific teaching characteristics. As Asher's (1966) work on Total Physical Response already links physical activity to language learning, there is a solid base for PE-in-CLIL. Furthermore, as stated by Pavesi et al. (2001), PE provides a strong link between linguistic skills and subject-specific skills, making it a good fit for balanced PE-in-CLIL lessons. Bell and Lorenzi's (2004) work on ESOL students in the US provides ideas and examples for language learning in PE settings. While Lightner (2013), Nietsch and Vollrath (2007), and Rottmann (2006) provide theoretical frameworks for the implementation of CLIL in PE, Coral (2013) offers strategies to facilitate second language learning in PE, but due to its rare pairing, the existence of PE-in-CLIL lesson material in English is scarce. This thesis aims to fill the indicated gap and provides principles for planning balanced PE-in-CLIL tasks, learning outcomes, and actual lesson plans for Austrian lower secondary schools. Furthermore, it addresses the link between PE and language learning to point out the importance and validity of PE within the subject canon of CLIL. Additionally, options for the implementation of CLIL to the Austrian physical education curriculum are discussed. The proposed PE-in-CLIL template and the PE-in-CLIL Checklist are developed on the basis of the 4Cs framework, current CLIL literature, and the Austrian PE curriculum for lower secondary schools. They further guide the development of two PE-in-CLIL teaching units, one in the first grade and the second in the fourth grade of lower secondary school. Hence, the implementation of CLIL to the Austrian PE curriculum is possible. This thesis builds the starting point for practitioners to develop their balanced PE-in-CLIL lesson plans. However, in order to examine the usefulness of the presented guiding principles and template for lesson planning, further research, especially of a practical nature, needs to be conducted.

B Zusammenfassung

Die Popularität von Content and Language Integrated Learning (CLIL) nimmt in der gesamten EU, im Einklang mit dem Ziel der Europäischen Kommission Mehrsprachigkeit zu fördern, zu. Demnach steigt auch das Forschungsinteresse in diesem Feld, jedoch nicht im Bereich des Bewegungs- und Sportunterrichts, da er aufgrund seiner spezifischen Unterrichtsmerkmale nicht oft für einen CLIL Unterricht in Erwägung gezogen wird. Ashers (1966) Arbeit zur Total Physical Response stellt aber bereits in den 60er Jahren eine positive Verbindung zwischen körperlicher Aktivität und dem Erlernen einer Zweitsprache her. Auch Pavesi et al. (2001) sehen den Bewegungs- und Sportunterricht in engem Bezug mit dem Erwerb einer Zweit- oder Fremdsprache, da eine starke Wechselbeziehung zwischen sprachlichen und fachspezifischen Fertigkeiten vorliegt, was ihn zu einer guten Grundlage für einen ausgewogenen CLIL-Unterricht macht, welcher sprachliche und fachliche Lernziele in sich vereint. Auch die Arbeit von Bell und Lorenzi (2004), welche über ESOL-Schüler in den USA schreiben, liefert Ideen und Beispiele für das Erlernen einer Zweit- oder Fremdsprache im Bewegungs- und Sportunterricht und während Lightner (2013), Nietsch und Vollrath (2007) und Rottmann (2006) theoretische Rahmenbedingungen für die Implementierung von CLIL im Sportunterricht liefern, bietet Coral (2013) Strategien zur Förderung des Zweitspracherwerbs an. Aufgrund der seltenen Paarung ist die Anzahl an CLIL-Unterrichtsmaterialien für Bewegung und Sport in englischer Sprache jedoch gering.

Diese Arbeit zielt darauf ab, die aufgezeigte Lücke zu schließen und stellt Prinzipien für die Planung von integrierten CLIL-Aufgaben im Bewegungs- und Sportunterricht, deren Lernziele und darüber hinaus Stundenplanungen für die Sekundarstufe I bereit. Des Weiteren wird der Zusammenhang zwischen Bewegungs- und Sportunterricht und Sprachenlernen thematisiert, um die Bedeutsamkeit des Bewegungs- und Sportunterrichts innerhalb des CLIL-Fächerkanons zu bestätigen. Zusätzlich werden Optionen für die Implementierung von CLIL in den österreichischen Bewegungs- und Sportlehrplan diskutiert. Das vorgestellte PE-in-CLIL-Template und die PE-in-CLIL-Checklist wurden auf der Grundlage des 4Cs-Frameworks, der aktuellen CLIL-Literatur und des österreichischen Bewegungs- und Sportlehrplans für die Sekundarstufe I entwickelt. Sie dienen als Leitfaden für die Planung von zwei PE-in-CLIL Unterrichtseinheiten, eine in der ersten Klasse und eine weitere in der vierten Klasse der Sekundarstufe I. Hiermit wurde aufgezeigt, dass eine Implementierung von CLIL in den

österreichischen Bewegungs- und Sportlehrplan möglich ist. Diese Arbeit bildet außerdem einen Ausgangspunkt für Bewegungs- und Sportlehrpersonen, um integrierte CLIL-Stundenpläne für den Unterricht zu entwickeln. Um die Effektivität der vorgestellten Leitprinzipien und des PE-in-CLIL Templates zu prüfen, müssen jedoch weitere Forschungen, insbesondere in der Praxis, durchgeführt werden.

C Lesson materials 'Getting started'

Basic movement terminology

- First grade of lower secondary school
- Topic: Rhythm & Moves
- PE Curriculum:
    - Diverse motor activities (BMUKK 2019: 115)
    - Convert music and rhythm to movement and dance (BMUKK 2019: 116)
- Foreign language learning objective: Familiarize students with basic movement terminology

Basic movements Vocabulary:

Run	Walk	Fast	Slow	Forward	Go
Jump	Hop	High	Low	Backward	Stop

PE-in-CLIL Template

PE-in-CLIL Action Competence				
	Subject Competence S23 (BMUKK 2014: 23)	☒ **Social Competence** (BMUKK 2014: 12) ☒ **Self-Competence** (BMUKK 2014: 11) □ **Methodological Competence**	**Foreign language competence**	
Competence	Students are able to realize dance-like, gymnastic and acrobatic movement patterns.	Students are able to take measures to produce rules and norms of behavior of conduct in a group and to act on them. Students are able to actively participate in the lesson.	match, identify	**CDF**
Sub- competence	Music and rhythm: Students are able to recognize simple rhythms and perform given movements in time with it.	Play by the rules: Students are able to produce rules and norms of behavior and act on them. Concentration/Motivation: Students are able to regulate their concentration and motivation.	- Students are able to contrast movements - Students are able to match types of movement to rhythms	**Objectives**
Descriptors	(AM) Students are able to replicate given movements in time with the rhythm.	(AK) Students are able to play by the rules and adhere to the behavioral norms. (AK) Students are able to regulate their concentration/motivation in a way that enables them to actively participate throughout the length of arranged tasks.	- Adjectives that describe movement (e.g. fast, slow, high, low) - Verbs	**Vocabulary & Syntax**

Lesson plan

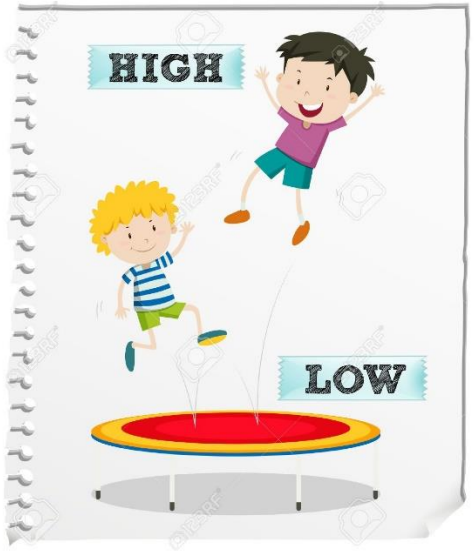
Lesson Sequence	Rough time frame	Procedure	Interaction format	Pedagogical intention for language learning	Pedagogical intention for physical education	Material needed
Introduction	3 min	Introduction	T-S	Activate prior knowledge; introduce topic	mental and social preparation	Poster with terms and pictures (stays on the wall during the whole lesson)
	First, the teacher welcomes the students and introduces the topic and plan for the lesson before asking them if they know any kind of movements in English. After that, they move on to introduce and explain the terminology represented on the poster.					
Warm-up	5 min	Warm-up - Referee	T-S	Learn new terminology	- Physical preparation - Coordination training	Poster
	The teacher says a word from the poster and performs the action, students are supposed to repeat the word and movement after the teacher. Starting with simply saying a word to more complex actions like to walk fast or start to run until the students understand the different meanings and combinations.					
Main part	10 min	Game of tag in zones	S-S	Realize and react to new terminology	- Stamina training - Coordination training	3 Flashcards with actions on it (walk, hop, run)
	In this game of catch students move through three zones, marked by cones. In the first zone students are only allowed to walk, in the second one to hop and in the third one to run. Each zone is additionally marked by one of the A4 print outs with the dedicated action written on them. Two to three students try to tag the others, who got caught helps them, until everyone is tagged.					

	10-15 min	Choreograph a dance segment	S-S	Use new terminology	- Match movements to music - Train sense of rhythm	- 12 flashcard per group (each card with one newly learned term on it) - Music box
	In groups of five, students develop a choreography to a piece of rhythmic music. They have to use, among others, the movements they learnt at the beginning of the lesson. Each time they use one of them, one student has to hold up the corresponding flashcard for everyone to see.					
	5 min	Presentation of choreography	S-S-T	Review new terminology	- Match movements to music - Train sense of rhythm	- 12 flashcard per group (each card with one newly learned term on it) - Music box
	The different groups are presenting their choreography to the rest of the class and the teacher.					
Cool down	5 min	Voice controlled robot	S-S	Use new terminology	React to auditive signals	
	Students pair up; one is taking on the role of a voice-controlled robot, the other one controlling the robot. The one controlling the robot is only allowed to use the words on the poster (basic movement terminology) to move the robot through the sports hall. After two minutes students change roles.					
Reflection	5 min	Reflection phase	T-S	Recapitulate the lesson	Reflect on personal experience and wishes	
	The teacher asks the students if they understand the terminology presented to them before moving on to discuss their experience during the design of the choreography and the robot game. Furthermore, the teacher asks the students if it was difficult for them to stick to the rules during the game of tag and why.					

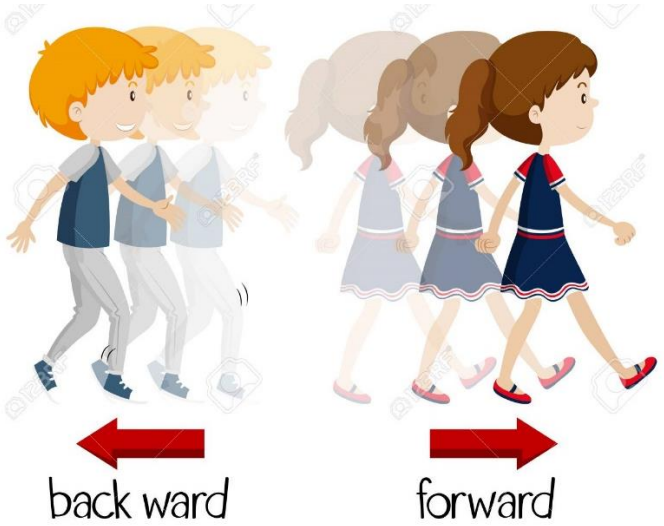
Vocabulary poster/flashcards

Run  https://clipartlook.com/img-108170.html	**Walk**  https://playbaamboozle.eu2.frbit.net/classicjr/11999
Jump  https://ya-webdesign.com/explore/jump-clipart-child-jump/	**Hop**  https://clipartart.com/categories/hopping-clipart.html

https://www.123rf.com/photo_49391657_stock-vector-opposite-adjectives-with-fast-and-slow-illustration.html



https://www.123rf.com/photo_49391432_stock-vector-opposite-adjectives-high-and-low-illustration.html



https://www.123rf.com/photo_71260383_stock-vector-opposite-words-for-backward-and-forward-illustration.html

https://www.gograph.com/de/clip-art/halten-gehen-zeichen-gg58380051.html

Important sports equipment

- First grade of lower secondary school
- Topic: Welcome to the jungle
- Curriculum:
    - Acquire, train and connect movement skills without, with and on diverse sports equipment (BMUKK 2019: 116)
    - Gain movement experience and foster basic sport specific structures (BMUKK 2019: 116)
- Foreign language learning objective: Familiarize students with the available sports equipment terminology

Sports equipment vocabulary:

Vault	Springboard	Pommel horse	Rings	Rope	Hoop
Gymnastics mat	Soft landing mat	Cone	Gymnastics bench	Wall bars	Climbing pole

PE-in-CLIL Template

PE-in-CLIL Action Competence				
	Subject Competence (BMUKK 2014: 21)	☒ **Social Competence** (BMUKK 2014: 13) □ **Self-Competence** □ **Methodological Competence**	**Foreign language competence**	
Competence	Students are able to successfully participate in small games and sports/racquet games.	Students are able to take on different roles and tasks and reflect on them.	Define, Describe	**CDF**
Sub- competence	Playing idea: Students are able to realize the idea of a game.	Taking on tasks: Students are able to take on tasks.	- Students are able to name different kinds of sports equipment. - Students are able to describe how to move to a certain place. - Students are able to use basic movement terminology.	**Objectives**
Descriptors	(AK) Students are able to play by the rules.	(AK) Students know and understand their responsibilities during the lesson (e.g. cooperation/assistance) (AK) Students fulfil their allocated tasks.	- Sports equipment terminology - Basic movement terminology - "Walk slowly to the beam" - "Stop at the ____" - "Hop on the ___" - "Jump off the ___" - "Run to the ____"	**Vocabulary & Syntax**

Lesson plan

Lesson Sequence	Rough time frame	Procedure	Interaction format	Pedagogical intention for language learning	Pedagogical intention for physical education	Material needed
Introduction	5 min	Introduction	T-S	Activate prior knowledge; introduce topic and new terms	Mental and social preparation	Signs on the apparatus outside of the equipment room
	First, the teacher welcomes the students and introduces the topic (Welcome to the jungle) and plan for the lesson before asking them if they know any kind of sports equipment in English. After that, they refer to the signs hanging on pre-selected equipment, visible to the students, and walks through the sports hall to introduce the different apparatuses.					
Warm-up	5 min	Warm-up: Move to the music	T-S	Introduce new terminology	Warm up the body	- Music box (Song "The lion sleeps tonight") - Signs for apparatuses outside of the equipment room
	The teacher tells the students how to move through the sports hall (walk, run, hop, jump) and starts the warm-up with the words "ready, set, go" and turning on the music. After 20 seconds the teacher stops the music, says "stop" before ordering the students to go as quickly as possible to an apparatus with a sign on it, for example "climbing pole". When all students arrive at the named apparatus, the teacher chooses a different form of movement and starts the music with the word "go". This continues until the students have an idea of the names of the different apparatuses.					
Main part	10-15 min	Set up the equipment	T-S S-S	Introduce new terminology	- Introduce the available equipment - Set up sports equipment - Fulfil allocated task	- Various sports equipment and signs with their names on them. - Memory cards (one card with the picture of the apparatus and the matching one with the name of it).

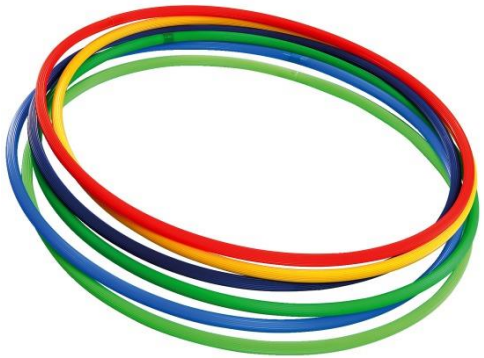
						- Map of the sports hall with the location of the different apparatuses. - Poster of the different kinds of sports equipment and their names.
	The teacher hands out the memory cards to the 12 groups of students (2-3 students per group). Every group receives one apparatus (picture and name) and has to get it from the equipment room and set it up at the indicated location on the provided map. The teacher assists the class in setting up and is available for questions. They also make sure that not all students are going to the equipment room at the same time to avoid collisions and ensure enough space to move the different apparatuses. After a group has set up, they should wait at the meeting point for the rest of the class to finish. When the setting up process is finished, the teacher introduces, together with the respective groups of students, the different kinds of sport equipment. At the end the teacher puts up a poster of the different sports equipment and their names.					
	10-15 min	Memory Game	S-S	- Introduce new terminology - Practice new terminology	- Endurance training - Coordination training - Play be the rules	- 4 x Memory card sets with the picture of the different types of equipment and names of them - 4 dices - 4 game sheets (round 1 and round 2) - 4 pens - 4 cones - 4 hoops - Poster of sports equipment - Various sports equipment
	Round 1: Students play the game memory in four groups. Each group stands behind their cone (which marks the starting point) and has to make their way to the dedicated memory cards (also marked by cones) to try to find two matching ones (picture and matching name). They are just allowed to turn over two cards each time they are there. If they find two matching cards, they put					

<table>
<tr><td rowspan="3"></td><td colspan="6">them in the hoop and try to remember the English name of the apparatus, because they have to fill it out on their game sheet. The group that filled out the entire game sheet correctly wins the game.
Round 2: Same rules but students have to roll a dice before making their way to the memory cards. The number of eyes on the dice determines their type of movement (e.g. 1-run, 2-walk, 3-hop, 4-jump, 5-walk backwards, 6-jocker). If the students roll a 6, they are allowed to choose the type of movement themselves.
The poster is a scaffolding tool. It should be positioned close to the memory cards so students might check on it while playing.
It is easy for students to cheat in this game, which is why it is interesting to talk and reflect on playing by the rules before, in between rounds and after the game.</td></tr>
<tr><td>8 min</td><td>Go to…</td><td>S-S</td><td>Use new terminology</td><td>- Familiarization with sports equipment
- Fulfil allocated task
- Play by the rules</td><td>- Various sports equipment
- 1 pen/student
- 1 worksheet/student</td></tr>
<tr><td colspan="6">The class splits up in pairs and each student gets a pen and a worksheet. Students have to command each other to fulfill different tasks. With the help of the worksheet they can connect locations, forms of movements and tasks to create different tasks. For example, “Jump off the ____” can be turned into “Jump off the vault”. The students are supposed to fill in the blanks and write down different forms of actions while the partner is physically doing them.</td></tr>
<tr><td rowspan="2">Dismantle equipment</td><td>5 min</td><td>Dismantle the equipment</td><td>S-S
T-S</td><td>React to new terminology</td><td>- Familiarization with sports equipment
- Fulfil allocated task</td><td>- Various sports equipment</td></tr>
<tr><td colspan="6">The teacher allocates the various apparatus to different groups of students, who are responsible to dismantle and return them to their assigned location in the sports hall or equipment room. The teacher assists the students and makes sure not everyone is going to the equipment room at the same time. After that, students are waiting at the meeting point.</td></tr>
<tr><td rowspan="2">Reflection</td><td>3 min</td><td>Reflection phase</td><td>T-S</td><td>Recapitulate the lesson</td><td>Reflect on personal experience and wishes</td><td></td></tr>
<tr><td colspan="6">The teacher asks the students if they understand all the terminology presented to them before moving on to discuss whether or not students were adhering to the rules while playing memory.</td></tr>
</table>

Vocabulary poster/memory cards/Game sheet for Memory

Vault	 https://www.turkna.com/sportgeraete/mobile-geraete/
Springboard	 https://www.turkna.com/sportgeraete/mobile-geraete/
Pommel horse	 https://www.turkna.com/sportgeraete/mobile-geraete/

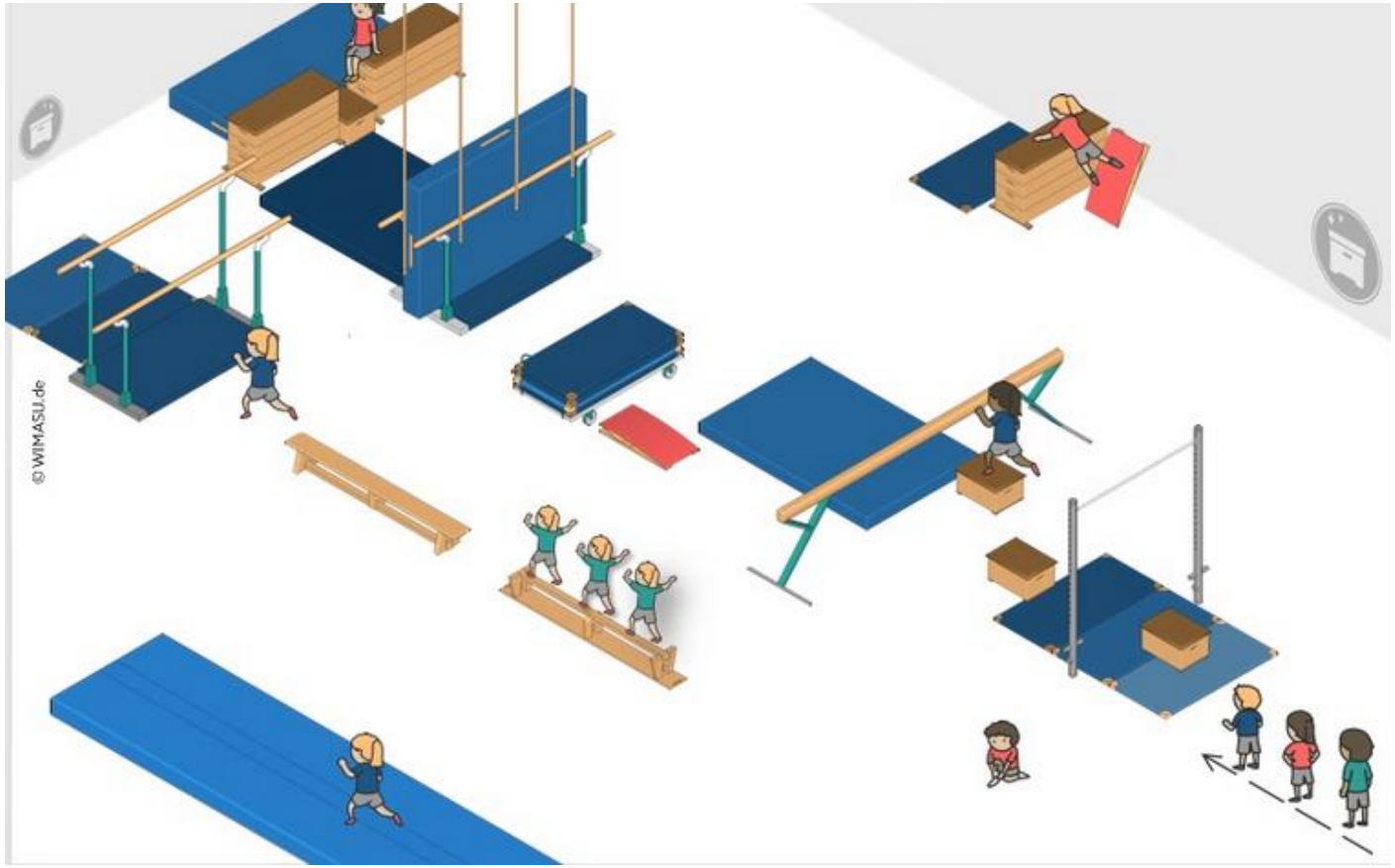
Rings	 https://www.turkna.com/sportgeraete/mobile-geraete/
Rope	 https://www.teamsportbedarf.de/fussball/fussball-trainingshilfen/springseile/gymnastik-springseil-3-farben-laenge-3-m/a2561/?ReferrerID=7&gclid=EAIaIQobChMI0tj5rtia6gIVA8wYCh25HQsdEAQYByABEgK28vD_BwE

Hoop	 https://www.sport-thieme.de/Therapie/Psychomotorische_%C3%9Cbungsger%C3%A4te/GruppenKoordinationsspiele/art=1338919
Gymnastics mat	 https://www.turkna.com/sportgeraete/mobile-geraete/
Soft landing mat	 https://www.turkna.com/sportgeraete/mobile-geraete/

Cone	 https://www.stratasports.co.nz/product/marker-cone-kicking-tee-5cm/https://www.stratasports.co.nz/product/marker-cone-kicking tee-5cm/https://www.indiamart.com/proddetail/plastic-cone-15514314448.html
Gymnastics bench	 https://www.turkna.com/sportgeraete/mobile-geraete/

Wall bars	 https://www.turkna.com/sportgeraete/mobile-geraete/
Climbing pole	 https://www.turkna.com/sportgeraete/mobile-geraete/

Exemplary plan for equipment set up



https://wimasu.de/shop/hallenplaner/

Worksheet

Basic movements Vocabulary + Sports equipment vocabulary:

- Run to the vault.
- Jump off the _____.
- Hop on the _____.
- _____ backwards to the _____.
- _____ slowly to the _____.
- _____ fast to the _____
- _____ to the _____.
- Stop at the _____.
- _____.
- _____.
- _____.
- _____.

Basic movements Vocabulary:

Run	Walk	Go	Fast	Forward
Jump	Hop	Stop	Slow	Backward

Sports equipment vocabulary:

Vault	Springboard	Pommel horse	Rings	Rope	Hoop
Gymnastics mat	Soft landing mat	Cone	Gymnastics bench	Wall bars	Climbing pole

D Lesson materials ‘Volleyball’

- Fourth grade of lower secondary school
- Topic: Volleyball
- PE Curriculum:
    - Refine the ability to play under intensified technical aspects (BMUKK 2019: 116).
    - Strict interpretation of rules. Take on the role of a facilitator (e.g. Referee) (BMUKK 2019: 116).
- Foreign language learning objective:
    - Students are able to describe volleyball specific techniques and organize a volleyball game, using volleyball specific language.

PE-in-CLIL Template

	Subject Competence (BMUKK 2014a: 8)	□ **Social Competence** □ **Self-Competence** ☒ **Methodological Competence** (BMUKK 2014a: 15)	**Language competence**	
Competence	Students are able to participate successfully in small games and sport games/racquet games.	Students are able to organize competitions and games within their class.	- Describe - Explain	**CDF**
Sub- competence	Technique: Students are mastering the technical fields of movement with a ball, passing and receiving of a ball and execution of a successful attack.	Games: Students are able to take on simple tasks of organizing and managing (small movement) games.	- Students are able to describe the technique of a forearm pass and overhead pass. - Students are able to explain their decisions as referee.	**Objectives**
Descriptors	Students are able to describe and demonstrate the specific forms of passing and receiving a ball within a game situation.	- Students are able to take on organizational tasks for games. - Students are able to take on the role of a facilitator.	- Describing movement - Justifying decisions - Volleyball specific vocabulary - Vocabulary to analyze a game	**vocabulary & Syntax**

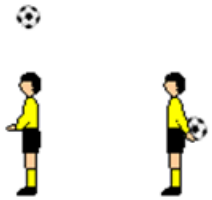
Lesson plan 1

Lesson Sequence	Rough time frame	Procedure	Interaction format	Pedagogical intention for language learning	Pedagogical intention for physical education	Material needed
Introduction	3 min	Introduction	T-S	Activate prior knowledge; introduce topic and new terms	Mental and social preparation	
	The teacher welcomes the students and introduces the topic of the lesson. Subsequently different kinds of volleyball techniques are discussed in plenum.					
Warm-up	8-10 min	Warm up with a ball	S-S	Describe the technique of forearm pass and overhead pass.	- Students are able to execute the forearm pass and overhead pass - Students know the coaching points of the forearm pass and overhead pass	- 1 volleyball/student - flashcards
	In pairs students receive flashcards with a picture and a description of the task in the back. They can choose the sequence of the exercises themselves. The teacher provides a timeframe (1-2min/exercise) for each exercise. In pairs, students give each other feedback on the forearm pass and overhead pass, with the help of coaching points and descriptions provided on the back of the flashcard.					
Main part	5 min	Set up the volleyball net	T-S S-S	Use general language to communicate.	- Preparation for the next task - Take on organizational tasks	- Volleyball net
	The students set up the volleyball net, mostly by themselves. The teacher assists if necessary.					
	15 min	Practice the overhead pass	S-S	Use general and academic language to communicate.	Practice the technique in a game-like situation	- Volleyball net - 1 volleyball/group

<table>
<tr><td></td><td colspan="6">In groups of three, five minutes per round:
<u>Round 1</u>: The Students build a triangle (about two meters apart) with two people standing by the net (Student 1 and 2) and one in the back (Student 3) of the volleyball field. Student 1 throws the ball to student 2, who stands on the right side of the net and passes the ball to student 3, who catches the ball and throws it back to student 1.
<u>Round 2</u>: Student 1 passes to student 2, who passes to student 3, who passes to student 1, who catches the ball.
<u>Round 3</u>: Passing the ball in-between each other, from student 1 to student 2 to student 3 back to student 1, …

The students change position after each round.</td></tr>
<tr><td></td><td>15 min</td><td>Game: 3 vs. 3</td><td>S-S
T-S</td><td>- Justify decisions
- Ask questions
- Use volleyball specific terminology</td><td>- Practice game-like situations
- Practice technique in game-like settings
- Organize a game of volleyball
- Take on the role of a referee</td><td>- Volleyball net
- 4 volleyballs
- 8 Posters
- Input: revision of rules in plenum
- Output scaffolding: Phrases for Referee & players</td></tr>
<tr><td></td><td colspan="6">Eight teams are playing on four volleyball fields. The students need to appoint one referee per field and one captain per team. Before starting the game, the teacher revises the rules of volleyball together with the students and discusses the poster with phrases to use during the game for the referee and the players. The posters will be hung up on the net in order to be seen by the students while playing.
One game lasts four minutes, after each game the opponents change, new captains and referees are appointed.</td></tr>
<tr><td>Dismantling</td><td>5 min</td><td>Dismantle the volleyball net</td><td>T-S
S-S</td><td>Use general language to communicate</td><td>Take on organizational tasks</td><td>- Volleyball net</td></tr>
<tr><td></td><td colspan="6">The students are dismantling the volleyball net, mostly by themselves. The teacher assists if necessary.</td></tr>
<tr><td>Reflection</td><td>3 min</td><td>Reflection phase</td><td>T-S</td><td>Recapitulate the lesson</td><td>Reflect on personal experience and wishes</td><td></td></tr>
<tr><td></td><td colspan="6">The teacher uses this time to ask students how they felt in the role of a captain or referee and what made it difficult to execute this role. Furthermore, any questions regarding the technique of the forearm pass and overhead pass are discussed.</td></tr>
</table>

Flashcards

Front	Back
 https://themen.schule.at/themen/bewegungsideen/	Throw the ball up in the air and **catch** it behind your back.
 https://www.mobilesport.ch/kindersport/rituale-im-kindersport-verabschiedunglektionsabschluss-ameisenstrassen/	Throw the ball up in the air, **sit down**, get up, and catch the ball again.

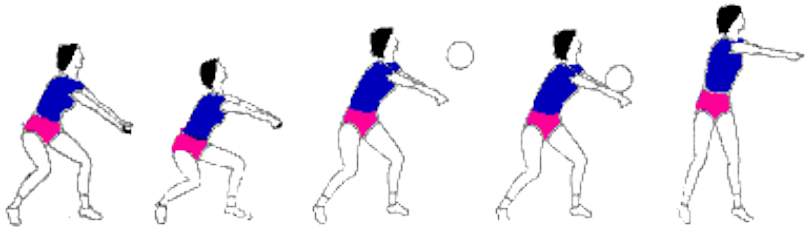
https://www.zazzle.de/klatschende_hande_emoji_postkarte-239506097033407156

Throw the ball up in the air, **clap** as often as possible before catching the ball again.

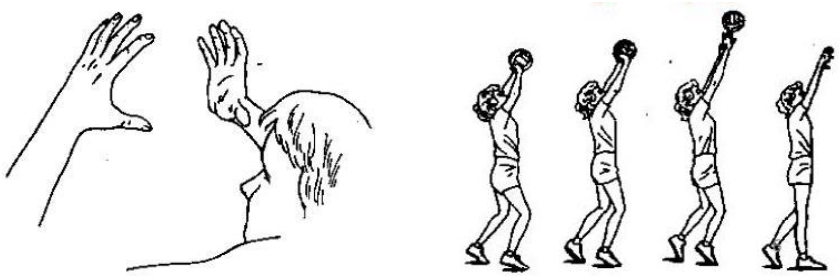
Use the **forearm pass** to play the ball against the wall.

Choaching points:

- **Face** the ball.
- **Feet** slightly wider than shoulder width apart.
- **Knees** bent.
- Bend **Trunk** slightly forward.
- Create a **flat platform** with your forearms, by straightening your elbows.
- **Position** yourself behind the ball.
- When playing the ball the **whole body** moves forward.



https://web.uvic.ca/~thopper/Unitplan452/netwall2000/Kate%20&%20Darryl/Pages/Links.html

Use the **overhead pass** to play the ball against the wall.	Choaching points: ➢ Move your feet and shoulders so they are **facing the target.** ➢ Bend your **knees.** ➢ Make a big **diamond shape** with your hands. ➢ **Contact** the ball with spread fingers and push the ball up and out. ➢ Finish with your hands pointing towards the **sky.**  https://www.slideserve.com/lane-walters/sisa-protocol-volleyball

Game Poster

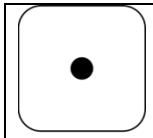
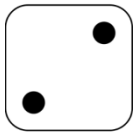
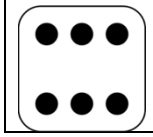
Phrases for…	
Referee	**Player**
The ball is in/out.	What's the score?
Net fault, ___ touched the net.	I challenge the decision, because ___.
Set/match point for team __.	Whose net fault is it?
Replay the rally, because ___.	Who is serving?
Ball interference, repeat the rally.	
The score is __ to __ for team __.	
Team A/B won with a score of __ to __.	

Lesson plan 2

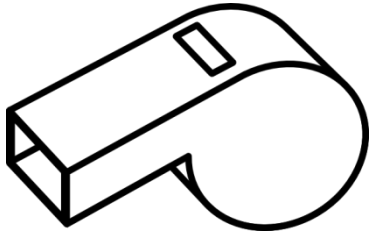
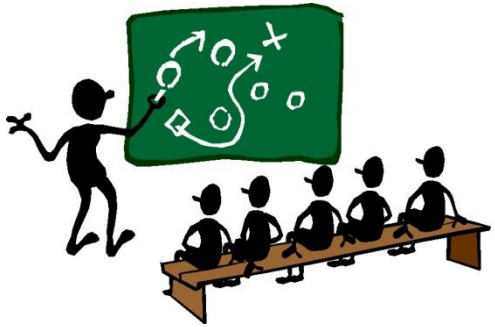
Lesson Sequence	Rough time frame	Procedure	Interaction format	Pedagogical intention for language learning	Pedagogical intention for physical education	Material needed
Introduction	3 min	Introduction	T-S	Activate prior knowledge; introduce topic and new terms	mental and social preparation	
	The teacher welcomes the students, introduces the topic of the lesson, and draws connections to the previous lessons. This way, students review the learnt knowledge, and are prepared for the upcoming lesson.					
Warm-up	9 min	Game of Dice	S-S T-S	Playing and communicating as a team	General and specific warm-up	- 5 dices - 5 game sheets - 5 cones
	Students split up in five groups; each group receives one dice and a game sheet. After rolling the dice, the number of eyes on the dice determines the exercise from the gaming sheet. The group that first fulfills all six exercises wins the game.					
Main part	30 min	Tournament	S-S	Use general and academic language to officiate a tournament	- Take on organizational tasks - Take on various roles - Demonstrate the forearm and overhead pass during a game	- Role cards - Volleyball net - 3 volleyballs - 3 Game posters (see lesson 1)
	Six teams, each consists of four students: one player, one captain, one trainer, and one referee. Each role has its own tasks concerning the facilitation of the tournament (see role card). Every team plays against each other on three fields. Each game lasts five minutes and the final score is entered to the score board. The team with the highest amount of points wins the tournament.					
Dismantling	5 min	Dismantle the volleyball net	T-S S-S	Use general language to communicate	Take on organizational tasks	- Volleyball net

	The students dismantle the volleyball net, mostly by themselves. The teacher assists if necessary.					
Reflection	3 min	Reflection phase	T-S	Recapitulate the lesson	Reflect on personal experience and wishes	
	The teacher uses this time to ask the students how they felt in the role of a captain or referee and what made it difficult to execute this role. Furthermore, any questions regarding the technique of the forearm pass and overhead pass are discussed.					

Game sheet

	Do five Squats.
	Rotate your arms ten times forward, then ten times backwards.
	Rotate your hip ten times.
	Do three up-downs.
	Rotate your wrists for twenty seconds, and then clap ten times.
	Perform five high straight jumps.

Role cards

Referee/player  http://clipart-library.com/clipart/307872.htm	Responsibilities: ➢ Organize the set-up of the volleyball net and three volleyballs. ➢ Referee at least one game. ➢ Play in all the games.
Trainer/player  http://clipart-library.com/search2/?q=coach#gsc.tab=1&gsc.q=coach&gsc.page=1	Responsibilities: ➢ Organize the tournament schedule (see poster). ➢ Act as a coach during the games and provide feedback to your team members. ➢ Play in all the games.

Captain/player  http://clipart-library.com/search2/?q=team%20captain#gsc.tab=1&gsc.q=team%20captain&gsc.page=1	Responsibilities: ➢ Look for three additional team members. ➢ Interact with the referee during the game: discuss or ask for clarification. ➢ Play in all the games.
Player  http://clipartlibrary.com/search2/?q=volleyball#gsc.tab=1&gsc.q=volleyball&gsc.page=1	Responsibilities: ➢ Support the referees during the set-up. ➢ Represent your team at the coin-toss. ➢ Play in all the games.