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Chapter 6

Discussion



6

6.1 Introduction

This dissertation has sought to contribute to a better understanding of the nature and range of pedagogies employed by CLIL teachers and build the knowledge base about 'CLIL subject pedagogies'. That is, the instructional strategies that teachers use to support their students' learning of both content and language in subject lessons taught through an additional language. It has done so by investigating the pedagogies of CLIL teachers in the context of bilingual secondary education in the Netherlands. In order to obtain a holistic view of CLIL pedagogies in practice, research into this issue was approached from several different perspectives, and through using a 'funnel' approach, i.e. progressing from more general to more specific studies. This research approach resulted in four studies: (1) a review study investigating the research trends into CLIL subject pedagogies in the Netherlands and abroad; (2) an interview study investigating the perceptions of a selected number of CLIL practitioners and specialists about the ideal goals and practices of CLIL pedagogies; (3) a questionnaire study investigating Dutch CLIL teachers' self-reported pedagogical practices; and, (4) an in-depth observational study of pedagogies used by CLIL teachers of the subject, *Global Perspectives*. Below the main findings per chapter are summarized, followed by a discussion of general findings, and, finally, a discussion of implications for practice and research.

6.2 Main findings per chapter

Chapter 2. *A review of Dutch CLIL subject pedagogies against an international backdrop*

Chapter 2 reported the first study, a review study investigating the research trends into CLIL subject pedagogies in the Netherlands and abroad. Three databases (Web of Science, ERIC and the University Library Catalogue) were searched for peer-reviewed academic journal articles using the keywords 'CLIL' and 'Content and Language Integrated Learning'. Studies were selected for inclusion on the basis of their focus on, what is defined in Van den Akker's (2003) curriculum levels framework as the 'Implemented' curriculum, either 'perceived' (curriculum as interpreted by its users) or 'operational' (actual observed process of teaching and learning). As a result of the search and selection process, in total, seven Dutch and thirty-eight international studies were analyzed using an elaborated 4Cs Analysis Framework (adapted from Coyle, Hood, & Marsh, 2010; Coyle, 2015a, 2015b). This Framework included the following five components: (1) 'Content' (subject or theme being learned); (2) 'Cognition' (cognitive processing required by students to complete learning activities); (3) 'Communication' (learning & using language and, 'Role of the

L1', referring to language alternation practices); (4) 'Culture' (referring on the *macro*-level to how teaching promotes students' intercultural understanding and, on the *micro*-level, to how teaching facilitates apprenticing students into the discourse, genres and/or approaches specific to each (school)subject); and, (5) 'Integration' (how content and language are integrated in the teaching). The research questions that guided the review were: (1) 'What appear to be the most prominent international trends with regard to the implementation of the 4Cs in CLIL subject pedagogies?'; and, (2) 'To what extent do Dutch CLIL subject pedagogies appear to reflect these international trends?'

With regards to the first research question, there were five main areas of overlap between the Dutch and international studies. Firstly, it was observed that *Content* did not represent a distinct area of CLIL pedagogy as it was only addressed as a situational variable in these studies. Secondly, *Cognition* was found to be an area in which research from both Dutch and international contexts was limited. Thirdly, whilst the focus of most studies in the Review was on the component *Communication*, the extent to which *Communication* played an explicit role in teaching varied. Where *Communication* was an important focus of CLIL teaching, the emphasis tended to be on *meaning* (using language) rather than on *form* (learning language). In terms of the latter, examples of teaching that were reported tended to be unplanned by teachers in their classrooms. A further area of overlap between the Dutch and international studies lay in the limited evidence of attention to *Culture* at the *micro*-level (or 'subject-specific culture') by teachers. Similarly, with respect to *Integration* (of content and language), both the international and the Dutch studies provided limited insights because research into this area was limited.

In terms of the second research question, on the basis of the evidence presented in the review, CLIL subject pedagogies employed in Dutch classrooms were found to differ in relation to the international backdrop with regard to two main aspects. Firstly, compared to the international studies, the Dutch studies provided relatively more evidence of strong focus on *Culture* at the *macro*-level (promoting intercultural understanding). While there was evidence of an explicit cultural focus in both Dutch and international studies, the manner in which this was handled in different contexts varied. International studies tended to emphasize a narrower focus, namely on improving students' knowledge about aspects of the Target Language (TL) country and culture. In contrast, Dutch studies tended to emphasize a wider focus, on developing students' international and culturally-aware outlook. Secondly, studies focusing on CLIL pedagogies in the Netherlands were also found to differ in terms of their lack of attention to the role that the first language (L1) can play in CLIL subject pedagogy. Whereas a number of international studies investigated and ascribed positive pedagogical functions to strategic language alternation between the L1 and the TL, none of the Dutch studies acknowledged this possibility.

In summary, chapter 2 provided insights into the most prominent trends with regards to the implementation of CLIL subject pedagogies in the Netherlands and abroad from the perspective of existing published research into this topic. The next step in the funnel approach was to better understand the specific nature of the Dutch CLIL context from the perspective of key stakeholders.

Chapter 3. *Specialist and practitioner perceptions of 'ideal' CLIL pedagogies*

Chapter 3 reported the second study, an interview study investigating the perceptions of a selected number of key CLIL practitioners and specialists about the ideal goals and practices of CLIL pedagogies. To investigate these stakeholders' perceptions in an in-depth way, semi-structured interviews were held with seven CLIL practitioners (experienced CLIL teachers and coordinators) and nine CLIL specialists (researchers, teacher-educators and policy-experts). The research question that guided the study was: 'What are specialist and practitioner perceptions of the goals and practices of 'ideal' CLIL pedagogies in the context of bilingual secondary education in the Netherlands?'

Inductive content analysis of the interview transcripts identified four themes relating to stakeholders' perceptions of 'ideal' CLIL pedagogies: (1) Meta-goals; (2) Teaching resources; (3) Student output; and, (4) Feedback and assessment. Each of these themes contained three to six sub-themes. In addition to providing a rich picture of 'ideal' CLIL pedagogies by key stakeholders in the Netherlands, the results also showed that specialist and practitioner perceptions did not seem to be fully aligned.

Firstly, specialists referred more to the theme *Meta-goals* (of CLIL teaching) than did practitioners. None of the practitioners, but most of the specialists emphasized the goal of apprenticing students into 'speaking, thinking and writing' like subject experts in the target language. Moreover, nearly all the specialists, but only a minority of practitioners explicitly mentioned that a meta-goal of CLIL subject teachers should be to have both content and (related) language goals. Regarding the role of an English teacher in a CLIL setting, only the specialists explicitly referred to this aspect and mentioned that, ideally, the English teacher should focus on the language needed in subject lessons. The only sub-theme mentioned by both groups was that student-centered teaching is a prerequisite for effective CLIL teaching.

Secondly, the theme *Teaching resources* showed some clear differences related to which sub-themes were considered most important by specialists and practitioners. Whilst specialists placed emphasis on CLIL resources being multi-modal and including cross-curricular projects, practitioners placed emphasis

on making and using their own tailor-made resources, and the use of subject-terminology wordlists.

Thirdly, *Student output* was the theme most often referred to by both groups. Both groups emphasized the need for students to have various opportunities to interact with each other to generate output. Moreover, both groups emphasized that teachers should provide students with tasks requiring them to speak and write in the TL. Scaffolding of tasks to facilitate student output was emphasized by both specialists and practitioners. However, there were also differences in alignment between the two groups on this theme. Specialists placed more emphasis on sustained teacher-student interaction and on teachers adjusting their language to the level of their students than did practitioners. Also, more of the specialists emphasized students communicating with peers from abroad. Practitioners placed more emphasis on stimulating student output through collaborative group work, creative tasks and by exclusive use of the TL in the classroom, than did specialists.

Finally, compared with the other themes, there were notably fewer sub-themes identified by both groups related to *Feedback and assessment*. Within this theme, both groups emphasized that CLIL teachers should provide students with feedback about their language use. However, practitioners mentioned more additional points related to this aspect than specialists. For example, in addition to providing feedback on language, practitioners also emphasized the importance of always including a language component in assessment and assessing students' efforts to use the TL.

In summary, chapter 3 provided a rich, in-depth picture of ideal CLIL pedagogies in the Dutch context from the perspective of a selected number of key stakeholders. The next step of the funnel approach was to investigate, on a larger-scale, the implemented pedagogical practices of CLIL teachers in the Dutch context.

Chapter 4. *Teachers' self-reported pedagogical practices*

Chapter 4 reported the third study, a questionnaire study investigating Dutch CLIL teachers' self-reported pedagogical practices. To investigate these teachers' pedagogies, a questionnaire was designed, validated and subsequently completed by 297 teachers (218 CLIL teachers and 79 'regular' [non-bilingual stream] teachers) from secondary schools across the Netherlands. The questionnaire contained two parts and a combination of open and closed questions. Part A asked participants for background information and Part B asked participants to indicate, on a 5-point Likert scale, for 42 items how often

they use particular pedagogical approaches in their lessons. Additionally, teachers in both CLIL and 'regular' education were asked to answer the following open question: 'Are there differences in the teaching approaches you use to teach these classes? Please elaborate.' The questionnaire allowed a detailed investigation of the following research questions: (1) 'What are the main characteristics of self-reported pedagogical practices of CLIL teachers and how do they differ from those of regular teachers?'; and, (2) 'To what extent are differences in self-reported pedagogies of CLIL teachers related to the subject-disciplines they teach and how does this differ from regular teachers?' Descriptive statistics, qualitative content analysis and multivariate analysis of covariance were used to analyze the questionnaire data.

Four factors were identified through analysis of the Likert-scale items of the questionnaire. These four factors relate to various clusters of ideas about what is important in CLIL teaching existing in the literature, including: (1) 'Literacies', the importance of students become knowledgeable about the specific language used in particular subject-disciplines; (2) 'Language', the importance of developing students' written and spoken ability in the TL; (3) 'Scaffolding', the importance of providing scaffolds to enable students to better understand both the content and the language to which they are exposed; and, (4) 'Input', the importance of providing students with both creative and diverse input that is tailored to their content and language abilities.

Regarding the first research question, on the whole, the participating CLIL teachers reported lower scores in the Likert-scale items on the *Literacies* and *Language* approaches than they did on *Scaffolding* and *Input*. The CLIL teachers reported least use of the *Literacies* approach; this approach was also hardly mentioned in the CLIL teachers' responses to the open question about differences in the approaches they use to teach CLIL and 'regular' classes. Whilst CLIL teachers also reported using fewer approaches linked to the *Language* approach, interestingly, in the open question, teachers most frequently distinguished their CLIL teaching from their 'regular' teaching by mentioning the *Language* approach. However, whilst most teachers mentioned encouraging spoken output, few teachers mentioned a focus on language forms, for example by correcting students' language mistakes.

When the self-reported pedagogical practices of CLIL teachers were compared to those of regular teachers, the findings revealed that for all approaches except *Literacies*, CLIL teachers scored significantly higher than did regular teachers. Especially for the *Languages* approach, a high degree of variance was explained by the different teacher groups. This finding allows the inconsistency between the quantitative and qualitative results for the first research question to be explained: although CLIL teachers had relatively low scores on *Language*, the

difference with regular teachers is large. So, compared to regular teachers, CLIL teachers score high on the *Language* approach.

Regarding the second research question, the results showed that for CLIL teachers, subject-disciplines explained a great deal of variance for all four pedagogical approaches. English teachers scored significantly higher than the teachers of all other subject-groups for the *Literacies*, *Language* and *Input* approaches. The study also found that CLIL teachers of the Creative and Physical subjects scored lowest on all approaches except for *Language*. The analysis of differences in the self-reported pedagogical practices of 'regular' teachers related to subject-discipline showed that subject-discipline significantly influences pedagogical practices. However, contrary to findings from CLIL teachers, subject-discipline only explained variance for the pedagogical approach *Language*.

In summary, chapter 4 provided insights into the nature and range of pedagogies employed by CLIL teachers from the perspective of Dutch CLIL teachers from a variety of subject-disciplines. The next, and final, step of the funnel approach was an in-depth investigation of the *integrated* content-language pedagogies used by teachers of one specific subject.

Chapter 5. *Characterizing integrated content-language pedagogies used to teach Global Perspectives*

Chapter 5 reported study 4, an in-depth observational study of the pedagogies used by CLIL teachers in the skills-focused subject *Global Perspectives* (GP). The study focused specifically on characterizing the *integrated* content-language pedagogies used in classroom teaching. The research question guiding this study was: 'How can integrated content-language pedagogies used in GP teaching in Dutch bilingual secondary schools be characterized?' Eleven teachers from seven bilingual schools participated in the study. To obtain a comprehensive view of these teachers' pedagogies, the following data was collected. Firstly, semi-structured interviews were held with individual GP teaching-team members at each participating school about the goals and curricular organization of their GP program. Secondly, for each participating teacher a series of two to six (near) consecutive GP lessons was observed and video-taped.

Van den Akker's (2003) curriculum levels framework was used to allow all of the collected data to be analyzed at two different levels. Firstly, the program organizational interviews were used as data about the 'Intended Curriculum' and these interviews were analyzed through a thematic analysis of what the teachers reported focusing on in their GP curricula. Secondly, the videos were used as data about the 'Implemented Curriculum' and these videos were

analyzed using Dalton-Puffer's (2013) Cognitive Discourse Functions (CDF) Construct to identify the *integrated* content-language pedagogies used by teachers during different types of 'tasks', referring to academic occurrences such as a lecture, discussion or other. The CDF Construct was used to capture 'integration' as it bundles the multitude of verbalizations ('linguaging'), which express acts of thinking about subject matter in the classroom into seven basal categories, called CDF types (Classify, Define, Describe, Evaluate, Explain, Explore, Report). Each type is based on an underlying communicative intention, which is realized by teachers and/or students in the process of teaching and learning.

The main findings from the seven schools participating in the research revealed that although all schools were using the name '*Global Perspectives*' for their subject, three distinctly different overall curricular foci were identified: (1) teaching academic skills *through* global content; (2) teaching academic skills *and* global content; and, (3) teaching *domain-specific* academic skills and global content. Within these three different curricular foci, five different characteristic types of integrated content-language learning pedagogies were identified.

The pedagogies observed from the video studies of the teachers from the schools with an Intended Curriculum focus on teaching academic skills *through* global content could be divided into two characteristic types: *Type 1A*, in which the focus was on the CDF *Evaluate*, through use of task-types that focused on the end-product (e.g., a student presentation) and *Type 1B*, in which the focus was both on the end-product and on the process of students engaging in a group research project, leading to characteristic use of the CDFs *Describe*, *Explore* and *Evaluate*.

The pedagogies observed from the video studies of the teachers from the schools with an Intended Curriculum focus on teaching academic skills *and* global content could also be divided into two characteristic types: *Type 2A*, a pedagogy characterized by the greatest diversity of CDFs and task-types as a result of the dual curricular focus on teaching both academic skills *and* global content, and *Type 2B*, a pedagogy that could not be characterized as an *integrated* content-language pedagogy due to the absence of a strategic focus on students communicating through the TL.

Finally, the pedagogies observed from the video studies of the teachers from the school with an Intended Curriculum focus on teaching *domain-specific* academic skills and global content constituted *Type 3*, a pedagogy most characterized by the CDF *Evaluate* in combination with the task-type group-work.

In summary, chapter 5 provided insight into the range of *integrated* content-language pedagogies used in classroom teaching for the subject *Global Perspectives*.

6.3 Discussion of general findings

Below the general findings of this dissertation are discussed in terms of their contribution to the main aim of better understanding the nature and range of pedagogies employed by CLIL teachers and building the knowledge base about CLIL pedagogy and practice in the context of Dutch bilingual secondary education. The general findings emerging from the four studies are discussed in relation to the key literature about CLIL pedagogies.

6.3.1 Lack of attention to subject-specific content-language integration

During the period in which the research for this dissertation was conducted (2013-2018), conceptualizations of CLIL in the literature have progressed quite remarkably. Notably, as described in the Introduction (1.3), recent research has argued that whilst Coyle's (2007) widely cited 4Cs Framework is useful in guiding understanding of *what* pedagogies ought to encompass, there needs to be more focus on *how* the integration of the various elements can be achieved (e.g. Coyle, 2015; Meyer et al., 2015). In parallel to this, recent studies have increasingly emphasized the need for researchers and practitioners to focus more on the 'I' in the acronym CLIL, i.e. on the actual concept of *integration*, specifically what it entails and how it can be materialized in the classroom (e.g. Llinares, 2015). To address these concerns, the Graz group, a team of international experts and practitioners in CLIL, proposed a Pluriliteracies model (Meyer et al., 2015), using insights from genre-based pedagogy. Essential to the Pluriliteracies model is that it privileges 'Culture' in its micro-level form as a 'subject-disciplinary filter through which the other Cs are interpreted and inextricably melded together uniting conceptual and language progression' (p. 5). Hence, these more recent theoretical insights emphasize that to analyze integration and to understand how it unfolds in the classroom, awareness of the characteristic genres of each subject is essential (Llinares, 2015, p.60).

The studies of this dissertation have revealed to us, however, that there appears to be a lack of focus on *subject-specific* culture and the associated *integration* of content and language, both in research and in teaching practice. As such, the Review study revealed that few studies to-date addressed the integration of content and language pedagogy and/or provided evidence of how the integration of subject-specific content and language is achieved in practice. In the Interview study, the relevance of genre-based pedagogy (e.g. Morton, 2010) was only mentioned explicitly by specialists, who identified that a key goal of

CLIL pedagogy should be to apprentice students into ‘thinking, speaking and writing’ like subject-specialists in the TL. The practitioners only mentioned subject-specific discourse in the narrow sense of focusing on subject-specific terminology in the TL. In relation to this point, specialists in the Interview study emphasized that an insufficient focus on this aspect in teacher-education programs has led to a situation where most teachers are not explicitly aware of the typical forms of discourse used in their subject, aside from subject-specific terminology. Moreover, in the Questionnaire study, CLIL teachers reported the least use of the *Literacies* approach in the Likert-scale items and hardly mentioned this approach in their responses to the open question, indicating that, in general, promoting disciplinary literacy is not something that is at the forefront of teachers’ minds when they consider their pedagogical practices.

On the basis of this dissertation, it appears that the relatively new ‘Pluriliteracies approach’ to CLIL teaching, with its associated focus on content-language integration in a subject-specific context, has had limited use in research thus far, and is yet to be applied in teacher-education, or to reach the grassroots practitioners. The Observation study attempted to address the research deficit by explicitly focusing on characterizing *integrated* content-language pedagogies used to teach the skills-focused subject *Global Perspectives*. This study revealed that, in terms of research, Dalton-Puffer’s (2013) CDF Construct in combination with a focus on subject-specific culture is a useful heuristic to analyze the *integrated* content-language pedagogies used by subject teachers. In terms of practice, the Observation study revealed that regarding subject-specific culture, the seven schools participating in the research, although all using the name ‘Global Perspectives’ for their subject, had three distinctly different overall curricular foci: (1) teaching academic skills *through* global content; (2) teaching academic skills *and* global content; and (3) teaching *domain-specific* academic skills and global content. This finding is interesting in the context of *Global Perspectives* being a relatively new subject in the Dutch context, still being developed. Hence, there was not one shared subject-specific culture and this contributed to *five* different types of integrated content-language pedagogies being identified for this skills-focused subject.

Recent calls in the literature for teachers to focus more attention on addressing CLIL pedagogies at the *subject-discipline* level appear well-supported by the findings of this dissertation. The Questionnaire study results showed that for CLIL teachers, subject-disciplines explained a great deal of the variance for all four pedagogical approaches. For example, the results showed that CLIL teachers of the Creative and Physical subjects scored lowest on all but one of the approaches (*Language*). A possible explanation for this is that the more traditional models of what constitutes effective CLIL pedagogy are based on insights from language education and are therefore considered less relevant for less text-based subjects such as physical education, music and drama.

Moreover, it appears that addressing CLIL pedagogy at the subject-specific level might also help clarify for subject-teachers *which* aspects of language, aside from terminology, they need to address in their classes. Whilst traditional CLIL theory advocates an explicit language focus, including both elements of deliberate language-focused teaching as well as a strong focus on meaning (Coyle et al., 2010), the findings of this dissertation show that when subject teachers focus on language in their teaching, the emphasis tends to be on *meaning* rather than on *form*. The Review study underscored this point and revealed that teaching moments that were reported that did focus on form tended to be unplanned by the teacher. Similarly, in both the Interview study and the Questionnaire study, attention to form-focused processing was hardly referred to by participants.

6.3.2 Characteristic aspects of the Dutch CLIL context

All the studies of this dissertation have focused on pedagogies employed in the context of bilingual secondary education in the Netherlands. Below, four characteristic aspects of the Dutch bilingual context, revealed through the findings of the studies, are discussed.

Firstly, as the Review study showed, the Dutch studies provided relatively more evidence of strong pedagogy in terms of *macro-level Culture* (promoting intercultural understanding) than the international studies. In the international contexts, a narrower focus was emphasized, namely on students learning about aspects of the TL country and culture. In contrast, as also evidenced in the Questionnaire study, in the Dutch context, teachers self-report an emphasis on their students developing an international and culturally aware outlook, which is closer to the description of (macro-level) Culture in the 4Cs Framework. The focus on also improving students' global understanding (in addition to their TL proficiency) in Dutch bilingual education may account for this difference, since in many international contexts, this dual emphasis is not present and CLIL is primarily seen as an innovative way to promote language learning.

In the most recent policy for Dutch bilingual education, which is currently in the process of being implemented, 'TTO 2.0' (2018), promoting students' intercultural understanding still has a central role, as the aim of bilingual education is reformulated to go beyond improving students' TL proficiency, and to promote and improve students' global citizenship and personal development (Van Wilgenburg & Van Rooijen, 2018). However, as the Observation study revealed, what is considered essential in promoting students' 'global citizenship' is not yet clearly defined in a subject such as GP. In this study, the schools with a curricular focus on teaching academic skills *through* global content appeared to have a clear emphasis on students' self-understanding and questioning their own values. In contrast, the schools with the focus on teaching academic skills *and* global content appeared to have a more traditional understanding of

‘intercultural’ with a focus on ‘understanding otherness’ (Byram, 2014) through expanding students’ general knowledge.

Secondly, in relation to the most recent literature about CLIL pedagogies, the Netherlands also stands out for its lack of attention to the role that the L1 can play in CLIL subject pedagogy. As pointed out by the Review study, an increasing number of recent international studies have investigated and ascribed positive pedagogical functions to strategic language alternation between the L1 and the TL, while none of the Dutch studies acknowledged this possibility. A possible explanation for the position of the L1 in the Dutch context is that the Quality Indicators for Bilingual Education include the requirement that all teachers should use English effectively as the language of instruction (De Graaff & Van Wilgenburg, 2015), which could be interpreted as implying exclusive TL use.

Thirdly, although the importance of collaboration between CLIL teachers and TL teachers working in a CLIL setting is often emphasized in the literature (e.g. Pavón Vázquez & Ellison, 2013), it appears this collaboration tends not to be realized in practice. In the Interview study, the importance of collaboration between subject teachers and TL teachers working in a CLIL setting was only mentioned by specialists, who identified their ‘ideal’ goal for English teachers to also focus on the language needed in subject lessons. However, most of these specialists also remarked that it is very difficult to realize this goal in practice, because there is limited interaction between teachers from different disciplines. This sits in contrast not only to the literature, but also the Dutch *Standard* for Bilingual Education that was in place during the course of the research, which envisions a role for English teachers to work with other subject teachers to address the language needs in other subjects.

Finally, characteristic of the Dutch CLIL context is that, although bilingual education is highly institutionalized and the *Standard* places heavy emphasis on bilingual teachers being well-versed CLIL teachers, there is not yet a standardized education program for CLIL teachers working in the Netherlands. As a result, most CLIL teachers in the Netherlands are not native speakers of English; neither do they have a background in language pedagogy (De Graaff et al., 2007). To meet the language proficiency requirements (at least B2 of the Common European Framework of Reference for Language), most non-native teachers follow a Cambridge English course. In contrast, teacher-education specifically related to CLIL pedagogies is much more diverse. As the background information about the CLIL teachers (N=218) participating the Questionnaire study revealed, only a minority (18%) had followed either a dedicated University or university of Applied Sciences CLIL program. Rather, the majority had followed a shorter CLIL training at their school. Moreover, as the Interview study revealed, the professional development of practitioners had

been generally more of a 'how to' type of development consisting of tips and strategies. The Interview study showed that whilst the practitioners in the study held a good understanding of aspects considered essential to CLIL pedagogies, they often lack practical knowledge about how to realize these aspects in practice. For example, providing feedback about language and assessment of language were areas where the practitioners felt they did not possess sufficient knowledge due to their limited CLIL education. This is especially noteworthy given the expert status of these practitioners. If this is the case for them, it can be inferred the rest of the CLIL teaching population are probably struggling to at least the same degree.

Teacher-education in CLIL pedagogies is of essential importance as, arguably, CLIL teachers' knowledge and implementation of CLIL pedagogies is more important than their (near-)native speaking ability in the TL. This is because the role of the CLIL teacher is to mentor and to facilitate *students'* learning of the subject through the TL. For example, as reported in the Review study, in relation to several studies from the Hong Kong context (Lo, 2015; Lo & Macaro, 2015), if teacher-talk takes up at least ninety per cent of the interaction time, this will not contribute to students learning the TL at a functional level because it will allow little room for 'negotiation of meaning' or 'pushed output' (Long, 1983; Swain, 1995), two approaches originating from Second Language Acquisition (SLA) theory that are considered essential to actively support students' language learning in CLIL.

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6.4 Implications

By approaching research into CLIL pedagogies from several different perspectives, and through using a funnel approach, this dissertation has contributed to a holistic view of CLIL pedagogical practices in the context of bilingual secondary education in the Netherlands. Below the main implications for teacher-education and research are discussed.

6.4.1 Implications for teacher-education

As the studies of this dissertation have clearly shown, despite the longstanding level of institutionalization of bilingual education in the Netherlands, there is no guarantee that policy or theoretical insights will find their way to the practices of the grassroots practitioners. It seems there is a key role for teacher-education, both pre- and in-service, to address this issue by making theoretical insights more practical and accessible for practitioners. Given the existing lack of focus on *subject-specific culture* and the associated *integration* of content and language in teaching practice to-date, it seems of paramount importance for CLIL teacher-education to place more emphasis on the specificities of the genres of individual subjects and how to incorporate these into teaching.

Including this focus would require adaptations to be made to current Dutch CLIL teacher-education programs as the models used in both pre- and in-service teacher-education to-date have been predominantly based on insights coming only from language education, such as Westhoff's (2004) penta-pie model of effective second language acquisition. As a result, these models are often perceived as generic, but not directly relevant to the (subject-)specific context of subject teachers. Including also more tailor-made elements specifically about how to teach individual subject-disciplines through CLIL would make teacher-education programs more relevant for subject teachers.

6.4.2 Implications for research

In order to inform and allow CLIL teacher-education to be provided that is more subject-focused and evidence-based, it appears of paramount importance for future research to be conducted that focuses on characterizing *subject-specific integrated* content-language teaching pedagogies. The Observation study has done this type of research small-scale for the new, skills-focused subject *Global Perspectives*. In terms of practice, this study revealed there was not one shared subject-specific culture and this contributed to *five* different types of integrated content-language pedagogies being identified. A future area of research could be to investigate on a larger scale whether this is also the case within more traditional domain-subjects or whether in these well-established subjects, the subject-specific integrated content-language pedagogies are less diversified.

Findings from this proposed research could be used in teacher-education to help clarify *which* aspects of language (including genre and discourse features) subject teachers need to make explicit to their students and also provide evidence of *how* they can do so. However, to use the research findings in teacher-education it would be important also for future research to investigate what is possible at different stages of experience – in terms of a continuum of learning about subject-specific CLIL. i.e., it might not make sense for pre-service or beginning in-service CLIL teachers to make sense of all of these aspects at once – but what could they make sense of and at what stage?

To-date, as the Review study showed, most research about CLIL pedagogies has focused on the *Communication* component. A reason for this is that research has mostly been conducted by applied linguists and been based on insights from SLA theory. In realizing the proposed future research, it will be important that methods are used to investigate CLIL pedagogies in more holistic ways and that conceptual models are used that are based on insights from language theory *and* from subject-teaching theory. A useful starting point in this direction could be using a focus on subject-specific culture and the CDF Construct (Dalton-Puffer, 2013) as a heuristic.

Moreover, in this proposed future research, it will be important to pay attention to what is *subject*-specific and what is *teacher*-specific in pedagogies, as the most recent work of the Graz Group (the authors of the Pluriliteracies framework) also emphasizes (e.g. Meyer et al., 2018). As such, it would be useful to focus on individual teachers in more detail and how their subject-backgrounds, their preferred pedagogical styles, classroom activity types and their relationship with their students relate to their teaching practices.

6.5 Concluding remarks

With regards to the question posed in the title of this dissertation, ‘What’s CLIL about bilingual education?’, the studies of this dissertation have clearly shown there is no single answer to this question and nor should the search for a single answer be the aim of the research. Rather, the findings from the individual studies all appear to indicate that a most useful approach to begin addressing this question would be to work from the *subject-discipline* level because this allows the explicit identification of what constitutes effective *integrated* content-language teaching for particular subject-domains.

Specifically for the Dutch context, as the studies of this dissertation have clearly shown, despite the enormous growth over the past thirty years and the longstanding level of institutionalization of bilingual education, there is no guarantee that policy or theoretical insights will find their way to the practices of the grassroots practitioners. As discussed, it seems there is a key role for teacher-education, both pre- and in-service, to address this issue by making theoretical insights more practical and accessible for practitioners. Specifically, in CLIL teacher-education more emphasis could be placed on the specificities of the genres of individual subjects and how to incorporate these into teaching. As discussed, this requires further research to be conducted into *subject-specific* CLIL and what is feasible in terms of teacher learning about these aspects at different stages of teachers’ CLIL-teaching careers.

Addressing these implications will allow further bridging of the current gap between theory and practice in CLIL and therewith ensure a high quality of CLIL education is developed and sustained.