



Universiteit
Leiden
The Netherlands

CLIL challenges in designing learning experiences

Dale, L.; Mearns, T.L.; Banegas, D.L.; Zappa-Hollman, S.

Citation

Dale, L., & Mearns, T. L. (2023). CLIL challenges in designing learning experiences. In D. L. Banegas & S. Zappa-Hollman (Eds.), *The Routledge Handbook of content and language integrated learning*. Routledge. Retrieved from <https://hdl.handle.net/1887/3718440>

Version: Accepted Manuscript

License: [Leiden University Non-exclusive license](#)

Downloaded from: <https://hdl.handle.net/1887/3718440>

Note: To cite this publication please use the final published version (if applicable).

25 CLIL challenges in designing learning experiences

Liz Dale & Tessa Mearns

This chapter explores issues encountered by beginning CLIL teachers in making sense of and applying guidelines aimed at teachers when designing learning experiences for CLIL. After summarising current guidelines, the authors draw on Coyle et al.'s (2010) 4Cs model, an additional C for *collaboration* and developments conceptualising integration and disciplinary literacy, to reflect on their own experiences as CLIL teacher educators in The Netherlands. They discuss how principles behind CLIL can be made relatable to both content and language teachers. They argue that, in taking a holistic, literacy-based view of subject teaching, teachers from both linguistic and non-linguistic disciplines are positioned as experts in all aspects of their subject, and can enter into collaboration on an equal footing with each other. Challenges remain, including a need for cross-disciplinary collaboration between language specialist and subject specialist teacher educators.

Keywords: CLIL, teacher education, language teachers, subject teachers, teacher collaboration, genres, disciplinary literacies, lesson planning, activities

Introduction

CLIL takes place in many different ways and contexts. It is therefore not surprising that CLIL specialists (academics, researchers, teachers and teacher educators) have developed their own conceptualizations of CLIL and interpretations for implementation. These do not always align (van Kampen et al., 2017). In this chapter, we draw on our experiences as teacher educators in pre-service undergraduate (bachelors) and postgraduate (masters) programmes specialising in bilingual secondary education. We reflect critically on the recommendations presented in literature aimed at teachers and identify issues our student teachers face when designing learning experiences for CLIL in practice. We start by defining *learning experiences*, and summarising current guidelines in teaching handbooks for designing these.

We use the term *learning experiences* rather than lessons to acknowledge that the unit of learning teachers prepare may vary. As such, a learning experience can involve a single task, a series of tasks, a whole lesson, or a series of lessons. It can involve learning inside or outside the classroom, online or in person. We use the term *design* rather than *plan* to emphasise that the process involves more than selecting, ordering and organising materials and activities, and that it is an iterative, creative process driven by a desire to optimise the learning experience for all learners.

An emphasis on designing learning experiences reflects approaches presented to teachers via teaching handbooks. Whilst some resources provide examples of isolated learner tasks (cf. Dale & Tanner, 2012), most sources implicitly and explicitly suggest that CLIL tasks should form part of a learning progression, defined by Mehisto and Ting (2017) as “a pathway that students travel as they seek to achieve intended short and long-term content and language learning outcomes that have been set for them” (p.263). These authors focus on designing learning progressions both within individual lessons and across series of lessons. In Dale and Tanner (2012), learning progression is implicit in the chapter structure (activate, guide understanding, focus on language, focus on speaking, focus on writing, assessment, review and feedback), which moves from providing input to encouraging output. Coyle et al. (2010) focus on designing at institutional, departmental and

curricular level, and Coyle and Meyer (2021) coin the term *deeper learning episodes* (p. 128) to emphasise that the design process should focus not only on timetabled lessons.

CLIL teaching handbooks offer an array of guidelines and frameworks for designing learning experiences. These include types of learning progressions, features of CLIL tasks, and types of CLIL activities. As Ball et al. (2015) point out, the terms 'activity', 'exercise', and 'task' are often used interchangeably in informal educational discourse. In discussing design for CLIL, handbooks make use of all these terms, as well as the term 'materials'. Ball et al. (2015) give a broad definition of a task as 'an educational process or procedure intended to stimulate learning' (p.307). In this chapter, we follow the use of these terms as they occur in the teaching resources cited. Suggested learning progressions include helping learners move along a mode continuum from spoken to written, from lower order to higher order thinking skills, from word level to text level to discourse level, and from guided to independent learning activities. Ball et al. (2015) advocate a sequencing of tasks which helps learners move from private to public talk, along with a parallel progression from personalised (own) ideas to standardised (subject) ideas and from informal to formal language. Coyle and Meyer (2021) suggest a mode continuum should also include how learners move between subject-specific non-linguistic (graphs, symbols) and linguistic (spoken and written) modes, and analogue and digital modes.

Coyle et al. (2010) suggest that the tasks CLIL teachers design determine how learners make sense of subject material and express their understandings of the subject. Although more research is needed on the effects of task type on learner achievement in relation to both content mastery and language acquisition (Coyle et al., 2010; Mehisto & Ting, 2017), teaching handbooks suggest a number of features required in CLIL tasks. These include: being meaningful (e.g., relevant, linked to learners' lives); having a clear purpose; being carefully sequenced; encouraging cross-curricular transfer; fostering critical thinking; fostering learner autonomy; being language-sensitive (e.g., highlighting differences between spoken and written language, Bentley, 2012); and encouraging spoken interaction as preparation for writing.

Coyle et al. (2010) place content at the fore, linking language and content in terms of first helping learners understand input (making sense of material) and then asking learners to talk or write about what they have heard or read (expressing understanding). This reflects an underlying distinction in Second Language Acquisition on understanding input (e.g. Krashen, 1985) and producing spoken or written output (e.g. Swain, 2005) and provides an organisational principle which is evident in handbooks (e.g., Ball et al., 2015; Bentley, 2012; Coyle et al., 2010; Dale & Tanner, 2012; Mehisto & Ting, 2017). Suggestions are made for how CLIL teachers can design input tasks which guide learners in understanding texts and materials and help them to notice language, and design output tasks which show learners how to use appropriate language to demonstrate understanding of content. Example activities for guiding understanding encourage teachers to activate prior knowledge, use multimodal input, and use graphic organisers to identify, process and reorganise important subject concepts. Activities for helping learners to notice language include having learners select, order, define and analyse vocabulary and language use in subject-specific texts. Activities for supporting the use of appropriate language to demonstrate understanding of content include analysing models or examples of subject-specific texts (spoken or written), providing speaking and writing frames, comparing and transforming texts from social to academic language, rewriting or reorganising subject-specific texts and using self- and peer assessment.

Coyle and Meyer's more recent (2021) *Pluriliteracies Teaching for Deeper Learning (PTDL)* model emphasises that learning is linked to subject-specific ways of building knowledge. Making sense of subject concepts through language remains central to this model. The authors reiterate that

the teaching and learning of subject literacies includes “language activities as a means to promoting understanding” (p.185). They introduce the construct of *task fidelity* (p.131). The input-output distinction is less prominent in the ten elements they list under this construct. Additions to the above features include giving learners opportunities to experience subject-specific “practical knowledge building and knowledge using” (p.131), develop subject-specific literacies across subjects and languages, mentoring of both learning and personal growth, building awareness, engagement and progression by doing, organising, explaining and arguing, critical reflection, assessment for learning, and learning in partnership.

As teacher educators based in The Netherlands, our roles involve supporting pre-service teachers in learning how to design effective learning experiences for their future CLIL learners. Our student teachers may be training primarily to teach the target language as the object of study (henceforth language teachers) or the content of non-language subjects through English (content teachers). In our view, both language and content teachers can struggle to implement learning progressions and the advice included in CLIL guidelines. Drawing on our experience as CLIL teacher educators, in what follows we explore struggles our student teachers typically face. We structure our exploration around five key features of CLIL which are commonly found across CLIL teaching handbooks.

Issues when designing learning experiences for CLIL

In this section, we draw on developments addressing how teachers integrate elements of CLIL through a focus on disciplinary literacy. In academic developments, explorations of systemic functional linguistics (Llinares et al., 2012; Llinares, 2015) and cognitive discourse functions (Dalton-Puffer et al., 2018) have helped to map how communication and cognition interact with content in particular subject areas (e.g., Llinares & Peña, 2015; van Kampen et al., 2020). Practical CLIL literature has followed suit, moving towards a concept of disciplinary literacies to describe subject-specific ways of generating and communicating knowledge (Coyle & Meyer, 2021). Disciplinary literacy is the underlying concept in positioning *culture* as the culture of a particular academic discipline (Coyle & Meyer, 2021; Dale & Tanner, 2012). In this way, Coyle et al.’s 4Cs (*content, communication, cognition* and *culture*) are integral aspects of learning any subject, rather than something extra for teachers to attend to in their already full curriculum. In addition to this, an important element of CLIL according to the literature is that content and language teachers work together to promote the integration of language and content in the curriculum. We therefore add a fifth C to this discussion: *collaboration*.

Views on Language

In our experience, taking a disciplinary literacies approach can help content teachers to relate to the idea that language has a role to play in their teaching. Content remains the starting point in designing learning experiences but disciplinary literacy helps them to understand how the other Cs are intrinsically connected to that content. Perhaps this addresses some content teachers’ fear that learners taught in an additional language may not fully grasp subject concepts (cf. Skinnari & Bovellan, 2016). A disciplinary literacies approach underlines that language is integrated in CLIL rather than an add-on. Our student teachers are open to techniques that will support understanding and which focus on their role as specialist in their subject area. Whilst they are open to the idea that language is an integral aspect of learning their subject, they still struggle with helping learners to notice language. This applies to content teachers, but also to language teachers when teaching content (e.g., literature; for similar findings see de Graaff et al., 2007). We suggest this may have

something to do with the lens through which language is viewed in much of the guidance offered in the literature.

Several teaching handbooks emphasise that CLIL is different to traditional language teaching. In the latter, language is the object of learning and the language syllabus is often based on systematic grammatical progression. In CLIL, language is the medium of learning and the language used does not follow a predictable grammatical progression (Coyle et al., 2010). However, the way language is presented in CLIL literature aimed at teachers has not always been congruent with this view. Some statements in the guidelines reflect the more functional or usage-based approach to subject literacies advocated by Llinares et al. (2012), for instance, indicating that the language of art, design and technology “recounts, - i.e., retells events in chronological order in biographies and descriptions of artistic movements” (Dale & Tanner, 2012, p.48). Others, even within the same resource, echo more form-focused or structure-based traditions common in English language teaching (ELT), as in, “simple present for descriptions and characteristics in art, design and technology” (Dale & Tanner, 2012, p. 50). A challenge we encounter as teacher educators is that we are not specialists in the subjects – or the subject-specific language – of many of our student teachers. This also applies to the authors of many of the existing handbooks for CLIL teachers, whose main area of expertise, like ours, is often in language teaching, and may help account for the discrepancies found in those resources.

For our student teachers of both language and content, these contrasting views of language can be problematic, as they feel themselves being pulled in opposing directions. In our experience, more integrated approaches to formulating objectives and designing learning experiences are the most relatable for content teachers. They are receptive to approaches in which language is viewed as an aspect of content and as being learned through use in relation to content (cf. Llinares et al., 2012). When the focus on language is placed on its form (i.e., a view of language as primarily a set of rules), the content teachers we work with tend to pass responsibility for language learning back to the language teachers (Dale et al., 2018b), who in turn feel they lack expertise in the language of other subjects. We find a more usage-based approach highlighting genres as an element of their subject can be less alienating and help content and language teachers to retain their sense of expertise in their subject, including its language.

In addition to being an object of learning, language – or indeed, languages – in CLIL are also a vehicle for learning. There is increasing attention in CLIL research to the role of deliberate translanguaging as a form of scaffolding or to stimulate content processing (Nikula & Moore, 2019). For our student teachers the role of other languages can sometimes be an area of internal conflict. As has also been observed in studies of qualified teachers’ classroom practice (Oattes et al., 2018), some of them instinctively recognise the potential benefits of pedagogical translanguaging (Cenoz, 2017), but strict school policies based on the traditional “two solitudes” view (Cummins, 2000) often discourage or even forbid use of any language other than the target/instructional language (English in our context) in the CLIL classroom.

Mehisto and Ting (2017) take a clear stance on this subject, setting out empirically-based parameters for planned translanguaging, and providing examples from practice, such as bilingual projects involving teachers of subjects taught in different languages in order to encourage interaction between the languages in learners’ repertoires. Some other authors mention the possibility of planning for use of different languages, e.g., as a tool to activate prior content knowledge, summarise lesson content or evaluate a lesson (Bentley, 2012), or as a consideration in activity design (Coyle et al., 2010), although extensive exploration of this topic and practical

recommendations with regard to how to make effective use of multiple languages in the CLIL classroom are not prominent.

More recently, Coyle and Meyer (2021) argue the concepts of translanguaging and translation have a place in their inclusive view of a mode continuum from everyday and academic language to subject literacies. In addition to advocating the inclusion of learners' home languages, they emphasise the need for learners to practice moving to and fro between everyday and academic language, translating from one to the other and in both directions. They also emphasise the need for learners to practice moving between multiple modes (semiotic translation), e.g., from texts to graphs, from audio to visual and vice versa. This approach places the development of subject knowledge at the centre of CLIL learning experiences. In our experience, student CLIL teachers appreciate input which helps them become aware of the range of languages learners need to learn to control and navigate as they develop subject knowledge, even when learning in their first language or the majority school language. More explicit attention to benefits and strategic implementation of translanguaging (including the use of home languages) would be a helpful addition to existing recommendations for designing learning experiences for CLIL. Tedick and Lyster's (2020) overview of the evidence and arguments provide a useful resource here, but there is certainly scope for both future teaching handbooks and research to provide more support for teachers in this area.

Views on Content

While universally regarded as being at the heart of CLIL, content as a concept is rarely addressed in the literature. In their review of research into CLIL pedagogical practices, van Kampen et al. (2018) highlighted that, of the 45 studies reviewed, none addressed the role of subject content in teachers' pedagogical choices. In our experience, shared understanding of the role of content in relation to the other Cs is not necessarily a given for content teachers, and language teachers are often unsure as to whether this C even applies to them. Yet, as disciplinary literacies focus specifically on the intricate relationship between the 4Cs, the nature and role of content in CLIL can be an issue for both.

For content teachers in CLIL settings, working through the prescribed content of their subject curriculum presents relatively few problems. However, what subject teachers are not quite ready to do is engage in designing learning experiences that support students' development of critical thinking, intercultural development, and global citizenship. These are all important aspects of development that CLIL is well positioned to address (Coyle et al., 2010; Mehisto & Ting, 2017). Yet given that these aspects are not typically included explicitly in the curriculum of subjects such as mathematics or physical education, among others, content teachers appear to be ill-equipped to address them in their practice. If it is our expectation that CLIL content teachers address these areas, additional guidance is required. This will be discussed in more detail with regard to the Cs for cognition and culture, below.

For language teachers, content can in itself be an ambiguous concept. "The language **is** my content," is a commonly-heard claim from our student teachers, and is to some extent supported in the literature. Coyle et al. (2010), Dale and Tanner (2012) and Mehisto and Ting (2017) suggest the language teacher in CLIL settings might take a more language-focused approach than content teachers in their own lessons. Ball et al. (2015) also emphasise that the language teacher should help learners develop general academic language and cross-curricular language skills. This potentially addresses issues of language teachers lacking expertise in content areas and allows content teachers

to maintain authority in their own subject. What it does not address, however, is the question of whether language teachers also have their own content.

Beyond this, the language teacher is referred to by many authors primarily in terms of adopting a supporting role for content teachers, planning reactively in response to and addressing the language needs that arise as an element of content teachers' curricula (e.g., Bentley, 2012; Dale & Tanner, 2012). Genesee and Hamayan (2016) suggest language teachers use themes borrowed from other parts of the curriculum (e.g. weather from Science) to introduce students to genres (e.g. a report on the weather or a process description of the evaporation cycle) and associated language features. Mehisto and Ting (2017) point out that a focus on subject-specific language skills in content teaching offers language teachers the opportunity to focus on common academic language functions such as how to express cause and effect, using content from parallel classes. In our practice, alongside supporting their subject teacher colleagues, we encourage student language teachers to retain a view of their subject as a discipline in its own right, and to explore the opportunities offered by the CLIL context and the principles behind CLIL pedagogy to enrich the language curriculum with disciplinary content closer to the language teachers' own areas of expertise. Some English teachers in bilingual streams in Dale et al.'s (2018a, 2018b) studies expressed a strong disciplinary affinity with literature as content, whereas others had not considered positioning literature as content in their curriculum. Coyle and Meyer (2021) respond to Dale's suggestion that "placing subject-specific literacy at the heart of CLIL risks side-lining language teachers" (2020, p.168) by exploring how language teachers can be re-positioned as subject-specialists in their own right using the study of literature or linguistics (e.g., prosodic features) as their content. CLIL for language teachers could be viewed as supporting development of the communicative, cognitive and cultural skills needed to navigate content related to the literacies of their own discipline, rather than focusing primarily on communicative or form-focused language teaching in which content is secondary. This has been proposed not only for teachers of the CLIL target language (often English), but also for teachers of other languages (Mearns & Platteel, 2020).

The role of Cognition

Teaching handbooks recommend CLIL teachers design learning experiences which facilitate learners' cognitive processing of content and language. In many cases, this goes hand in hand with sequencing and progression. For example, Bentley (2012) includes a chapter on cognitive skills and addresses them as an element of her sample lesson plan, and Dale and Tanner (2012) mention the higher and lower-order thinking skills addressed by each of their sample lesson activities. Ball et al. (2015) and Coyle et al. (2010) each highlight the interrelatedness of language, content and cognition explicitly in their models for CLIL planning (*procedures* in Ball et al.'s [2015] *3 Dimensions of CLIL content*, and the *cognition* element of Coyle et al.'s [2010] *4Cs*). Mehisto and Ting (2017) and Coyle and Meyer (2021) address this relationship in terms of the promotion of enquiry-based learning. Bloom's taxonomy of thinking skills and Anderson and Krathwohl's (2001) four kinds of knowledge (factual, conceptual, procedural and metacognitive) are also commonly referenced. From the perspective of disciplinary literacy, thinking skills and types of knowledge are subject-specific. This raises issues for both our student teachers, and ourselves as teacher educators.

On the one hand, we notice that our student teachers find integration of content and cognition an easier fit than the integration of content and language. They respond positively to the generic idea of helping learners progress from lower to higher-order thinking skills, and to Coyle et al.'s (2010) CLIL Matrix. The latter introduces the idea that language demands may need to be reduced (e.g., through scaffolding) where cognitive demands are higher, and vice versa. In peer-teaching sessions and lesson observations, we have noticed that student teachers actively adjust

their language and stage their explanations in response to peers or learners struggling with language or a subject concept. However, they find it more challenging to anticipate such difficulties and to design activities which plan-in and stage support to develop subject-specific thinking skills and language. Perhaps this is because, as Coyle and Meyer (2021) suggest, the relationship between everyday language and the language of schooling is more dynamic and complex than previously assumed. They highlight, for example, how Cognitive Discourse Functions - seven categories of cognitive skills, and the types of language required for each in different subject areas - (Dalton-Puffer, 2013) can be combined with the genre of explanations (Berg, 2020; Connolly, 2019 as cited in Coyle & Meyer, 2021). This offers an additional resource for teachers to increase or decrease cognitive and linguistic complexity, and support learners in moving from everyday to more academic and subject-specific language.

On the other hand, our student teachers are not always aware of how unique to their subject certain ways of thinking may be. This presents challenges to us as teacher educators steeped in the disciplines of language learning and teaching. We notice that we are not fully versed in which subject-specific thinking skills our student teachers seek to develop in their subjects and how these are best developed. Valdés et al. argue that “new teachers will only become aware of the language demands made by their particular curriculum if they are guided by members of their own discipline in analysing the kinds of receptive and productive language that is normally taken for granted in ordinary teaching. [...] Because language demands are unique to each discipline and curriculum, this can only be done in the context of students’ work on their area of specialization.” (Valdés et al., 2005 p.167). A similar argument could be applied to supporting student teachers in making explicit how they develop their learners’ subject-specific thinking skills.

Furthermore, as mentioned above, critical thinking may not be prioritised in existing curricula. Some authors (e.g., Mehisto & Ting, 2017; Reagan, 2016) view CLIL as an opportunity to promote the development of learners’ critical thinking, whereby learners should be encouraged to take a critical view of subject content and develop the language skills needed to engage in critical analysis and discussion. However, this in itself can create issues for our student teachers in their position as beginning teachers. Higher order thinking skills may not be prioritised in the classrooms where our student teachers carry out their traineeships, and existing subject curricula or department assessment practices may leave student teachers little space to experiment. In such cases, subject-specific suggestions for focusing on language as an aspect of critical thinking are crucial.

Understandings of Culture

The extent to which culture is approached as an integral aspect of CLIL pedagogy, and the understandings of what is meant by *culture* vary across teaching handbooks. Three main understandings of culture in CLIL emerge across the literature: learning about cultures by placing the subject in a global context; developing intercultural competence; and with respect to disciplinary literacy, developing understanding of subject culture.

The first understanding of culture relates closely to the approach taken in many language classrooms: learning about the world beyond the local context. In CLIL classrooms, this understanding of culture impacts on the choice of and approach to subject content. Coyle et al. (2010) suggest teachers can extend content to include a global perspective, select content relating to different cultural contexts, or discuss attitudes to content in other cultural contexts. Examples include a technology lesson taking the topic of bicycles as transport across the world, a maths lesson investigating geometrical patterns in Asian and European culture, or attitudes to recycling in different countries. Mehisto and Ting (2017) similarly suggest teachers make cultural connections in

content, although from a more explicitly critical standpoint. They give the example of showing how multicultural knowledge has informed understanding of the circulatory system in biology from ideas developed in China, Damascus and England, or addressing ethnocentrism in maps in history and geography. Furthermore, as Baetens Beardsmore (2014) points out, subject content may be addressed differently in different cultures, which can have implications for choice of textbooks and authentic materials, but also offers opportunities for cultural comparison. This relates to the earlier discussion on critical thinking, and in our experience, student teachers react similarly, some heartily embracing the invitation to adjust content, while others feel more limited. Again, a challenge we experience as teacher educators of heterogeneous groups of student teachers is that we are not our student teachers' main source of learning with regard to subject pedagogy. While we can suggest they take alternative perspectives on subject content, our suggestions are not always concrete enough for student teachers to transfer them to their practice. What we miss in this regard is a subject-specific angle on culture.

The second understanding of culture explored in the literature is intercultural communication. Mehisto and Ting (2017) suggest teachers introduce learners to frameworks which help explore perspective-taking, e.g., Meyer's (2014 as cited in Mehisto & Ting, 2017) eight frames of reference on attitudes to communicating, evaluating, persuading, leading, deciding, trust, disagreeing and scheduling. In addition, they suggest teachers have learners share or investigate each other's cultural backgrounds, or use drama to explore different perspectives. They include a chapter on culture and intercultural communication, in which they explore intercultural content in relation to language, critical thinking and equity. In this view of CLIL, *culture* is integrated with all three of the other Cs. A further point, addressed by Coyle et al.'s (2010) examples, and highlighted by Genesee and Hamayan (2016) is that intercultural awareness can be developed through physical or virtual exchanges and projects. This is a prominent aspect of our Dutch CLIL context (Nuffic, 2019; see also Ch.35), in which bilingual schools are expected to organise international collaborative projects for all learners. Such projects require extensive planning and preparation, but this is not an area that can easily be taught without an element of practical experience. As it is not always possible for student teachers to gain experience in projects like these as part of their internship in school, alternative approaches need to be found. Our programmes aim to include an opportunity for student teachers to engage in a virtual exchange project themselves (cf. O'Dowd, 2017), although this needs to be carefully embedded in the teacher education curriculum in order to be effective. We have also found it helpful to invite guest speakers, including learners, to share ideas and experiences of international collaboration, and for student teachers to receive feedback from teachers in the field on proposals for their own collaborative projects.

As also referred to by Mehisto and Ting (2017), an aspect of exploring intercultural communication with teachers is to begin by having them explore their own identity and the role played by their own culture. In our experience with pre-service student teachers, this not only helps them to grow in self-awareness but also gives them ideas for activities and resources they can adapt for use with learners (e.g., from Mompoin-Gaillard & Lázár, 2015), and can help with group forming. We also explore questions of equity and inclusion, for example using Banks' dimensions of multicultural education (2008). Genesee and Hamayan (2016) point out that learners' families and communities can also be a resource for enriching the cultural curriculum and culturally responsive teaching. This is an area which is under-explored in our teacher education programmes.

The third understanding of culture, as an aspect of disciplinary literacy, emerged after the publication of many of the most widely used CLIL handbooks, as an extension to the original 4Cs model. As identified by Coyle (2015), "in CLIL contexts there is not only a sense of broader societal

cultures that are inextricably connected to language use, but in addition the academic culture associated with individual subjects or disciplines. Hence the focus is also on the role of culture in learning.” (p.93). In this vein, Coyle and Meyer (2021) further integrate culture by re-purposing it to include subject-specific ways of thinking and knowing. They advocate the formulation of objectives which make explicit subject-specific procedures and strategies, subject-specific conceptual lenses needed to understand content, and subject-specific ways in which knowledge is constructed and interpreted. In this approach to culture, the 4Cs are integrated and on an equal footing with each other.

We find that student teachers respond well to the invitation to reflect on the culture associated with their own subject as an aspect of disciplinary literacy but that the idea of cultural and/or intercultural learning as an objective in their subject classroom is not always one that they expect to encounter. As non-subject specialist teacher educators, we find that the best approach is to ask student teachers to reflect themselves on the culture – practices, assumptions, text types, ways of communicating – that are typical for their subject. Exchanging thoughts and comparing with peers from other disciplines helps them to identify subject specific features, but we notice that as language teacher educators we miss the perspective of subject-specialist colleagues when addressing this question.

Collaboration in practice

CLIL is by its very nature cross-curricular, not only due to the focus on both language and content, but also because, as we have seen above, it can involve placing subject content within a broader global context. In some settings, it is a whole-school endeavour that can involve multiple disciplines and affect the entire curriculum (Morton & Llinares, 2017). In other settings, collaboration (referred to as coordination by Genesee and Hamayan, 2016) goes beyond the school to involve learners’ families and communities or society in general. Collaboration between teachers (e.g., content teachers and language teachers), within and between departments (e.g., for cross-curricular projects), is mentioned in the literature as desirable, although it is addressed by some authors in more detail than by others. When teachers from different subject areas co-design learning experiences for CLIL, the success or failure of their collaborative practices is influenced by a variety of factors. These include organisational factors, and underlying issues relating to differing cultural and disciplinary identities (Dale et al., 2018a). However, limited guidance is provided in teaching handbooks on collaboration between subject teachers, or between subject and language teachers.

Some teaching handbooks acknowledge the organisational challenges of collaboration, emphasising the importance of schools creating structural opportunities for co-designing learning experiences for CLIL. Mehisto and Ting (2017), Coyle et al. (2010) and Coyle and Meyer (2021) propose cross-departmental or even whole-school approaches. They propose frequent joint-planning meetings involving all departments, shared objectives for language and cross-curricular skills, cross-curricular projects and clear agreements on the sharing of plans and materials. Coyle et al. (2010) also promote collaboration in terms of agreeing shared priorities, and joint reflection and evaluation as part of an iterative planning process. Mehisto and Ting (2017) mention that content teachers can support language teachers in understanding subject content, agree assessment procedures and (see above) reinforce both the majority language and the target language in bilingual projects. Such bilingual projects have the advantage of involving all teachers, including those teaching in the majority language in a bilingual setting. Similar suggestions are made elsewhere (Ball et al., 2015; Bentley, 2012; Dale & Tanner, 2012). For example, departments might conduct a joint language audit of the curriculum (Ball et al., 2015) or work together to identify

language aims for content subjects (Dale & Tanner, 2012), within the parameters of what is possible in the local context. The latter present a rubric for *Collaboration in CLIL* (pp. 25-9), including a number of elements relating to curriculum and lesson planning. In general, we find that our student teachers enthusiastically embrace opportunities to co-design with peers from other subject areas, to explore connections between their subjects and to discuss different perspectives on the same theme. This not only helps them to think beyond the boundaries of their own subject curriculum but can also strengthen their own sense of disciplinary identity, as they recognise features of how their subject is taught and learned in comparison to others.

An aspect of collaboration that receives less consistent attention in CLIL handbooks, however, is how teachers can mitigate their differing cultural and disciplinary identities when they collaborate. In addition to lacking expertise, knowledge and skills regarding language or their respective subjects, teachers often lack expertise, knowledge and skills regarding collaboration itself (cf. Arkoudis, 2006). Cross-disciplinary conversations, for example, involve specialised skills which are not necessarily self-evident (Arkoudis, 2006). Subject teachers and language teachers balance content and language in different ways (cf. Arkoudis, 2006; Kong, 2014; Tedick & Cammarata, 2012), and teachers from different disciplines (e.g., scientists, linguists, historians) may value different ways of thinking, affecting how they interact (Tedick & Cammarata, 2012). No guidance is provided in teaching handbooks, for example, on how teachers can conduct cross-disciplinary conversations, an important skill if content and language teachers have varied understandings of what to teach and how to teach it.

Not unrelated to this are issues of inequalities of power and status, in particular with regard to the relative roles of language and content teachers in collaboration. These inequalities can be bound up with teachers' relative language skills or content knowledge (cf. Creese, 2006), and may be reinforced if we emphasise more structure-based approaches to language rather than taking a functional approach and focusing on subject-specific literacy. These risks and challenges are not addressed explicitly in CLIL teaching handbooks, in spite of the emphasis on collaboration. As explored above, a risk in our context can be the tendency to view the role of language teachers in the co-designing process mainly as a supporting one (Dale et al., 2018b). In our experience, more functional perspectives acknowledge the expertise of content teachers in the language of their subject and may place them on a more equal footing with language teachers in terms of being experts in their own field. At the same time, when language teachers take as a starting point disciplinary literacy in their own fields of literature, culture or linguistics, as suggested earlier, their understandings of what content to teach and how to teach it may align more easily with teachers of non-language subjects.

Some literature also advocates collaboration between teachers and learners in designing learning experiences for CLIL (e.g., Genesee & Hamayan, 2016). According to Mehisto and Ting (2017), learners should be consulted at every stage of the planning process, while Coyle et al. (2010) refer to learner input at the evaluation stage. Both authors highlight that involving learners in planning and evaluation of CLIL can be a learning experience for them as well as for their teachers. This aligns well with our approaches in teacher education. Our student teachers are required to engage in research in the form of lesson study involving learner interviews or participatory action research (Ponte & Smit, 2007). The clear presence of learner voice as part of the recommendations for planning in some handbooks, but not all, suggests that this is not yet a universally accepted aspect of CLIL, although we believe it may be worthy of further exploration and more extensive attention. Here, again, more practical recommendations regarding dynamics of power and status

would be welcome in order to position learners as co-designers rather than research respondents (Smit et al., 2020).

Conclusions

Practical CLIL literature contains many suggestions to support teachers in the design of learning experiences for their learners. We have explored issues we and our student content and language teachers face in implementing these suggestions in practice. As an organising principle for this exploration, we drew on five elements which feature in CLIL teaching handbooks: communication, content, cognition, culture, and collaboration. We also drew on developments advocating integration through a focus on disciplinary literacy. Our student teachers find an emphasis on disciplinary literacy both helpful and challenging. Whilst there is no one formula or design that can be applied to all subjects in all CLIL settings, we see disciplinary literacy as a promising starting point. Our student teachers are open to the idea that disciplinary language is an integral aspect of every subject and therefore of designing learning in that subject. As CLIL teacher educators we endorse developments which emphasise that it is essential to treat disciplinary literacy not as an extra focus in planning, but to take it into account throughout the design process. With this in mind, we argue that CLIL teachers will best learn how to teach subjects in ways that suit the discipline, the learners, the curriculum and the context when disciplinary literacy is given a central role for all CLIL teachers, including teachers of the target language.

Challenges our student teachers face with regard to the five Cs we have identified include the lens through which practical literature views language and the use of all languages at learners' disposal, and the nature of content in both subject and language curricula. They also include identifying subject-specific thinking skills and designing-in scaffolding for the development of related subject-specific language if higher order thinking skills are not part of existing curricula. Furthermore, our student CLIL teachers find it a challenge to include several different understandings of culture in their practice, and to navigate cross-disciplinary collaboration without explicit guidelines on how to do so.

We argue that it is more helpful for both content teachers and language teachers to take a usage-based rather than a structure-based view of language. For this reason, we welcome the use of "a functional understanding of language as a process of meaning making" as the basis for the pluriliteracies model (Coyle & Meyer, 2021, p. 185). However, we are also mindful of the potential conflict this may bring about for language teachers trained to design language learning based on grammatical systems and lexical expansion. We suggest that both language teachers and content teachers will need to develop knowledge and expertise in this area. In addition, we are aware that our current CLIL teacher education curricula lack practical ideas for how teachers can use their learners' multilingualism as a resource for learning. Coyle and Meyer's suggestion that "translanguaging might be re-conceptualised as a discipline-based, plurimodal activity to *language subject understanding* adequately across the full linguistic and cultural repertoire of learners" (2021, p.75) offers potential for developing our ideas further. Coyle and Meyer call for critical reflection on the adage "every teacher is a language teacher" (2021, 185). In response, we agree that CLIL teacher education should not aim to turn content teachers into language teachers. Nor should it aim to turn language teachers into teachers of non-language subjects. However, we suggest there is potential for CLIL teacher educators to concern themselves with how we help both content and language teachers to view themselves as literacy teachers who give content and meaning a primary position. This could entail re-positioning language teachers as subject-specialists in their own right, with content derived from affiliated disciplines such as literature and linguistics.

We are curious as to how our student teachers will respond to Coyle and Meyer's (2021) suggestions for linking cognitive discourse functions and genres. We contend that if future teachers are to see culture as a central concern of their teaching and not as an add-on requirement, they need to be aware of and prepared to teach their own disciplinary culture. This aligns closely with placing disciplinary literacy at the heart of CLIL. We find raising content and language teachers' awareness of their own disciplinary identities and values through comparison with other subjects has potential for encouraging understanding of how subject concepts and ways of thinking are expressed through language. In this way, in addition to exploring culturally-specific perspectives on their subjects, intercultural awareness could be linked to both inter-disciplinary and inter-cultural communication.

Furthermore, we suggest teacher education also has a role to play in providing CLIL teachers with practical guidelines for cross-disciplinary collaboration and opportunities to practice designing cross-disciplinary learning experiences. Here lies a challenge for teacher educators such as ourselves to lead by example. Just as student content and language teachers have their own subject disciplines, so do teacher educators. As teacher educators with a background in language education, we rely on our student teachers to explore the language and culture of their own disciplines and to explain those disciplines to us. Whilst this can be fruitful, students often cannot do this independently and we are not always fully equipped to provide adaptive support. We see potential not just for student teachers but also teacher educators from different disciplines to bring together subject and linguistic knowledge and work together to explore and map the literacies of their respective subjects, and how to approach them in practice.

Further reading

Coyle, D. & Meyer, O. (2021). *Beyond CLIL: Pluriliteracies teaching for deeper learning*. Cambridge University Press. *The pedagogical approach laid out in this resource demonstrates comprehensively how and why content and language teachers can build disciplinary literacy into their practice.*

Mehisto, P., & Ting, T. Y. L. (2017). *CLIL essentials for secondary school teachers*. Cambridge University Press.

This volume provides guidance to both content and language teachers on implementing CLIL in secondary schools.

Tedick, D.J., & Lyster, R. (2020) *Scaffolding language development in immersion and dual language classrooms*. Routledge.

This book includes strategies for encouraging biliteracy and cross-linguistic connections.

References

- Anderson, L. W., & Krathwohl, D. R. (eds). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Arkoudis, A. (2006). Negotiating the rough ground between ESL and mainstream teachers. *International Journal of Bilingual Education and Bilingualism* 9(4), 415-433.
<https://doi.org/10.2167/beb337.0>
- Baetens Beardsmore, H. (2014, September 18-19). *The cultural element in Content and Language Integrated Learning (CLIL) programmes*. [Paper presentation]. Sociocultural Competence and Language Learning in Multilingual Settings Conference 2014, Brussels, Belgium.
http://histoire-geo.ac-amiens.fr/IMG/pdf/clil_hugo_baetens_beardsmore.pdf
- Ball, P., Kelly, K., & Clegg, J. (2015). *Putting CLIL into practice*. Oxford University Press.
- Banks, J. A. (2008). *An introduction to multicultural education* (4th ed.). Pearson.
- Bentley, K. (2012). *The TKT course CLIL module*. Cambridge University Press.
- Cenoz, J. (2017). Translanguaging in school context. International perspectives. *Journal of Language, Identity and Education*, 16(4), 193–198. <https://doi.org/10.1080/15348458.2017.1327816>
- Coyle, D. (2015). Strengthening integrated learning: Towards a new era for pluriliteracies and intercultural learning. *Latin American Journal of Content and Language Integrated Learning*, 8(2), 84-103. <https://doi.org/10.5294/laclil.2015.8.2.2>
- Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL: Content and language integrated learning*. Cambridge University Press.
- Coyle, D., & Meyer, O. (2021). *Beyond CLIL: Pluriliteracies teaching for deeper learning*. Cambridge University Press.
- Creese, A. (2006). Supporting talk? Partnership teachers in classroom interaction. *International Journal of Bilingual Education and Bilingualism* 9(4), 434-453.
<https://doi.org/10.2167/beb340.0>

- Cummins, J. (2000). *Language, power, and pedagogy: Bilingual children in the crossfire*. Multilingual Matters.
- Dale, L. (2020). *On language teachers and CLIL: Shifting the perspectives*, PhD thesis. Amsterdam University of Applied Sciences Centre for Applied Research in Education.
<https://hdl.handle.net/11245.1/98c15569-9e2f-4542-8472-9515aa7bac7d>
- Dale, L., Oostdam, R., & Verspoor, M. (2018a). Searching for identity and focus: towards an analytical framework for language teachers in bilingual education. *Journal of Bilingual Education and Bilingualism*, 21(3), 366-383. <https://doi.org/10.1080/13670050.2017.1383351>
- Dale, L., Oostdam, R., & Verspoor, M. (2018b). Juggling ideals and constraints: the position of English teachers in CLIL contexts. *Dutch Journal of Applied Linguistics*, 7(2), 1776-202.
<https://doi.org/10.1075/dujal.18002.dal>
- Dale, L., & Tanner, R. (2012). *CLIL activities*. Cambridge University Press.
- Dalton-Puffer, C. (2013). A construct of cognitive discourse functions for conceptualising content-language integration in CLIL and multilingual education. *European Journal of Applied Linguistics*, 1(2), 216-253. <https://doi.org/10.1515/eujal-2013-0011>
- Dalton-Puffer, C., Bauer-Marschallinger, S., Brückl-Mackey, K., Hofmann, V., Hopf, J., Kröss, L., & Lechner, L. (2018). Cognitive discourse functions in Austrian CLIL lessons: towards an empirical validation of the CDF Construct. *European Journal of Applied Linguistics*, 6(1), 5-29.
<https://doi.org/10.1515/eujal-2017-0028>
- de Graaff, R., Koopman, G. J., Anikina, Y., & Westhoff, G. (2007). An observation tool for effective L2 pedagogy in Content and Language Integrated Learning (CLIL). *International Journal of Bilingual Education and Bilingualism*, 10(5), 603-624. <https://doi.org/10.2167/beb462.0>
- Genesee, F., & Hamayan, E. (2016). *CLIL in Context: Practical Guidance for Educators*. Cambridge University press.

- Kong, S. (2014). Collaboration between content and language specialists in late immersion. *The Canadian Modern Language Review/ La Revue Canadienne Des Langues Vivantes* 70(1), 103-122. <http://dx.doi.org/10.3138/cmlr.1607>
- Krashen, S. (1985). *The input hypothesis: Issues and implications*, Longman.
- Llinares, A. (2015). Integration in CLIL: a proposal to inform research and successful pedagogy. *Language, Culture and Curriculum*, 28(1), 58-73. <https://doi.org/10.1080/07908318.2014.1000925>
- Llinares, A., Morton, T., & Whittaker, R. (2012). *The roles of language in CLIL*. Cambridge University Press.
- Llinares, A., & Peña, I. P. (2015). A genre approach to the effect of academic questions on CLIL students' language production, *Language and Education*, 29(1), 15-30. <https://doi.org/10.1080/09500782.2014.924964>
- Mearns, T., & Platteel, T. (2020). Exploring teacher support for a content and language integrated modern languages curriculum. *Language, Culture and Curriculum*, 34(3), 207-223. <https://doi.org/10.1080/07908318.2020.1809665>
- Mehisto, P., & Ting, T. Y. L. (2017). *CLIL essentials for secondary school teachers*. Cambridge University Press.
- Mompoint-Gaillard, P., & Lázár, I. (2015). *Tasks for democracy: 60 activities to learn and assess transversal attitudes, skills and knowledge*. Council of Europe.
- Morton, T., & Llinares, A. (2017). Content and Language Integrated Learning (CLIL): Type of programme or pedagogical model? In A. Llinares, & T. Morton (Eds.), *Applied linguistics perspectives on CLIL* (pp. 1–16). John Benjamins. <https://doi.org/10.1075/llt.47.01mor>
- Nikula, T., & Moore, P. (2019). Exploring translanguaging in CLIL, *International Journal of Bilingual Education and Bilingualism*, 22(2), 237-249. <https://doi.org/10.1080/13670050.2016.1254151>

- Nuffic. (2019). Kwaliteitsstandaard tweetalig onderwijs 2.0. Nuffic. Retrieved from <https://www.nuffic.nl/publicaties/kwaliteitsstandaard-tweetalig-onderwijs-20/>
- Oattes, H., Oostdam, R., De Graaff, R., Fukkink, R., & Wilschut, A. (2018). Content and Language Integrated Learning in Dutch bilingual education. How Dutch history teachers focus on second language teaching. *Dutch Journal of Applied Linguistics*, 7(2), 156-176. <https://doi.org/10.1075/dujal.18003.oat>
- O'Dowd, R. (2017). Exploring the impact of telecollaboration in initial teacher education: The EVALUATE project, *The EuroCALL Review* 25(2). <https://doi.org/10.4995/eurocall.2017.7636>
- Ponte, P., & Smit, B. H. J. (2007). Introduction. Doing research and being researched? In P. Ponte & B. H. J. Smit (Eds.), *The quality of practitioners' research. Reflections on the positions of the researcher and the researched* (pp. 1–8). Sense Publishers. https://doi.org/10.1163/9789087903190_002
- Reagan, T. (2016). Language teachers in foreign territory: A Call for a Critical Pedagogy-Infused Curriculum. In L. Cammarata (ed.) *Content-based foreign language teaching: Curriculum and pedagogy for developing advanced thinking and literacy skills* (pp. 173-191). Routledge.
- Skinnari, K., & Bovellan, E. (2016). CLIL teachers' beliefs about integration and about their professional roles: Perspectives from a European context. In T. Nikula, E. Dafouz, P. Moore, & U. Smit (Eds.) *Conceptualising integration in CLIL and multilingual education*, (pp. 145-167). Multilingual Matters.
- Smit, B.H.J., Meirink J.A., Berry A.K. & Admiraal W.F. (2020), Source, respondent, or partner? Involvement of secondary school students in participatory action research, *International Journal of Educational Research* 100: 1-12. <https://doi.org/10.1016/j.ijer.2020.101544>
- Swain, M. (2005). The output hypothesis: Theory and research. In Hinkel, E. (ed.), *Handbook of research in second language teaching and learning* (pp. 471-483). Erlbaum.

- Tedick, D. J., & Cammarata, L. (2012). Content and language integration in K-12 contexts: student outcomes, teacher practices and stakeholder perspectives. *Foreign Language Annals* 45(S1), S28-S53. <https://doi.org/10.1111/j.1944-9720.2012.01178.x>
- Tedick, D. J., & Lyster, R. (2020). *Scaffolding language development in immersion and dual language classrooms*. Routledge.
- Valdés, G., Bunch, G., Snow, C., Lee, C., & Matos, L. (2005). Enhancing the development of students' language(s). In L. Darling-Hammond, & J. Bransford (Eds.) *Preparing teachers for a changing world: What teachers should learn and be able to do*, (pp. 126-168). Jossey-Bass.
- Van Kampen, E., Meirink, J., Admiraal, W., & Berry, A. (2017). Do we all share the same goals for content and language integrated learning (CLIL)? Specialist and practitioner perceptions of 'ideal' CLIL pedagogies in the Netherlands. *International Journal of Bilingual Education and Bilingualism*, 23(8), 855-871. <https://doi.org/10.1080/13670050.2017.1411332>
- van Kampen, E., Mearns, T., Meirink, J., Admiraal, W., & Berry, A. (2018). How do we measure up? A review of Dutch CLIL subject pedagogies against an international backdrop. *Dutch Journal of Applied Linguistics*, 7(2), 129-155. <https://doi.org/10.1075/dujal.18004.kam>
- van Kampen, E., Meirink, J., Admiraal, W., & Berry, A. (2020). Characterising integrated content-language pedagogies of global perspectives teachers in Dutch bilingual schools. *Language, Culture and Curriculum*, 34(1), 18-34. <https://doi.org/10.1080/07908318.2020.1732999>

Dr Liz Dale is a senior lecturer and teacher educator for secondary and vocational education English and CLIL teachers. She is based in the Department of English at the Amsterdam University of Applied Sciences (AUAS). Her recent research interests, carried out at the AUAS Centre for Applied Research in Education (CARE), include the pedagogical and collaborative practices of language teachers in CLIL contexts and enhancing students in vocational education's use of their full plurilingual repertoire in their studies and future profession. Liz is the author of several teaching handbooks for CLIL. She is also a CLIL consultant and regularly chairs audit panels for the accreditation of bilingual schools in the Netherlands. <https://orcid.org/0000-0001-7063-9748>

Dr Tessa Mearns began her CLIL career as a modern languages teacher in the UK, before moving into bilingual secondary education in the Netherlands. She is now a lecturer and teacher educator in the World Teachers Programme (WTP) at ICLON Leiden University Graduate School of Teaching. The WTP is a specialised bilingual track of the pre-service secondary Teaching Master aimed at promoting linguistically and culturally-aware teaching for bilingual and international education. Tessa's research and teaching interests include learner perspectives in bilingual education, subject-specific approaches to CLIL, and equity, diversity and inclusion in (teacher) education. She regularly chairs audit panels for the accreditation of bilingual schools, and is actively involved in CLIL events in the Netherlands and internationally. <https://orcid.org/0000-0003-4914-0365>

Pre-print