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Content and language integrated learning in the Netherlands: teachers' self-reported pedagogical practices

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ABSTRACT

In recent years, a surging uptake of content and language integrated learning (CLIL) has permeated the European context. This article presents the outcomes of a study about the self-reported pedagogical practices of CLIL teachers in the Netherlands. To investigate these teachers' pedagogies, a questionnaire was designed, validated and, subsequently completed by 297 teachers (218 CLIL teachers and 79 regular teachers) from secondary schools across the Netherlands. This allowed a detailed investigation of the nature and range of pedagogies of CLIL teachers as well as differences between CLIL teachers of different subject disciplines. The results of the CLIL teachers were compared to a sample of regular teachers. Three main findings emerged from the study. First, CLIL teachers report using more pedagogical approaches focusing on providing students with diverse input and scaffolding than approaches focusing on developing students' language and their knowledge of disciplinary literacies. Second, the subject discipline of a CLIL teacher seems to influence the pedagogical approaches they report using. Third, there is a notable difference between the kinds of pedagogies reported by CLIL teachers and their regular counterparts.

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CLIL; bilingual; classroom pedagogies; practicing teachers; the Netherlands

1. Introduction

Content and language integrated learning (CLIL) is commonly described as a 'dual focused educational approach in which an additional language is used for the learning and teaching of both content *and* language' (Coyle, Hood, and Marsh 2010, 1). CLIL is often referred to as an 'umbrella' term, that is difficult to define at both theoretical and practical levels because it includes many variants depending on the specific context in which it is implemented (Cenoz, Genesee, and Gorter 2014). The main aim of CLIL as an educational approach is to improve students' foreign language competence whilst simultaneously facilitating their learning of subject matter.

The use of CLIL has spread greatly in the past two decades, especially in Europe, and is most often used in schools offering a form of bilingual education (Pérez-Cañado 2012). These schools offer students the opportunity to study some subjects through a language other than their first language. This means, in practice, that subject teachers take on an additional role, teaching their subject in the context of a foreign language. Research into the specific pedagogical practices employed by CLIL teachers has been limited to-date and, as such, has been identified as a key area in need of further investigation (Pérez-Cañado 2012; Dalton-Puffer and Smit 2013).

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Considering that a key component of quality CLIL education lies in teachers' classroom pedagogies, this study seeks to contribute to broadening the knowledge base about the nature and range of practices employed by CLIL teachers. It does so by investigating the self-reported pedagogies of CLIL teachers in the Netherlands.

2. Context of study

Dutch bilingual schools provide a rich context for CLIL research as the Netherlands has offered this form of education for over 25 years, with currently over 120 schools involved (see www.europeesplatform.nl/tto). A key characteristic of the Dutch CLIL context is its highly institutionalized approach. One organization, the EP-Nuffic, coordinates all activities related to CLIL education in the Netherlands. All members of the Network of Dutch Bilingual Schools have endorsed a *Standard for Bilingual Education* (De Graaff and van Wilgenburg 2015), which defines the basic requirements for schools with a bilingual stream. The *Standard* includes a *Competency profile for teachers*, outlining the competencies expected from teachers in bilingual education that includes knowledge about theories underpinning CLIL, an ability to identify essential elements of a CLIL approach in one's own subject domain, and the use of CLIL-related pedagogical approaches that, for example, support language production and the development of language learning strategies.

In the Netherlands, students are streamed into one of three main secondary school types: VMBO, HAVO and VWO, following the completion of primary school. VMBO is the four-year pre-vocational stream, HAVO is the five-year intermediate stream and VWO is the six-year pre-university stream. Initially, CLIL education was only offered at VWO level. However, Dutch CLIL education is slowly expanding to include different school types (HAVO and VMBO) and levels (primary education). In Dutch bilingual secondary schools, there is a greater focus on CLIL teaching in the lower forms compared with the upper forms because all students need to complete the Dutch-language national exams (with the exception of foreign language subjects) in their final year of school. Bilingual HAVO and VWO schools are expected to offer at least 50% of lessons through the foreign language. Most CLIL teachers are not native speakers of the foreign language; neither do they have a background in language pedagogy (De Graaff et al. 2007).

3. Theoretical framework

3.1. Effective CLIL pedagogy

While CLIL is defined very broadly both in research and practice, it can be distinguished from other forms of bilingual education, immersion education and content-based instruction on a number of points: CLIL is about using a foreign language or lingua franca that is generally not regularly used outside of the classroom; students are usually exposed to CLIL teaching only once they have already acquired literacy skills in their mother tongue; CLIL teachers are generally subject specialists and non-native speakers of the target language; and CLIL lessons are usually timetabled as regular lessons within the school curriculum (Dalton-Puffer 2011, 183–184).

The broad definition of CLIL and its use in varied contexts also means that it is not associated with one specific form of pedagogy. Rather, CLIL functions as 'a type of instruction that fuses the best of subject matter and language teaching pedagogies' (Morton 2010, 97). Coyle (1999) proposed a holistic conceptual framework for CLIL, the so-called 4C's model, which combines different aspects associated with CLIL teaching: Content (subject matter), Communication (language to learn and use), Cognition (learning and thinking) and Culture (social awareness of self and others). Coyle's framework was developed to support beginning CLIL teachers in organizing lessons and planning units of work.

Another issue associated with the broad definition of CLIL is the difficulty to distinguish it from 'good teaching' generally. CLIL pedagogy is typically associated with innovative, student-centered pedagogical approaches. Focusing on student-centeredness is considered necessary for effective

subject and foreign language learning to occur. However, arguably, this focus is not unique to CLIL teaching. Rather, what makes CLIL teaching distinguishable from 'good teaching' is its focus on integrating subject teaching with *language* teaching. CLIL teachers are expected to carry out an extra role in that they need to ensure that the content they teach is understood by students through the medium of a foreign language, that is, they are language teachers at the same time they are teachers of specific subject matter (Coyle, Hood, and Marsh 2010).

Theoretical models of CLIL pedagogy are generally based on approaches to effective foreign language learning. These approaches range from simple to more complex. The most simple, the so-called 'language bath' approaches (Dalton-Puffer 2007, 3), reflect the view that, simply by immersing students in the target language, they will learn it. In contrast, more elaborate approaches draw on a much wider theoretical base. For example, Swain's (1995) output hypothesis, which claims that learners will only learn a language once they are forced to produce their own written or spoken output in that language, and Lyster's (2007) focus on attention to form and corrective feedback for the development of learners' accuracy in the foreign language.

Westhoff's (2004) penta-pie model illustrates an even more elaborate theoretical perspective. This model emphasizes that effective foreign language pedagogy should facilitate five aspects: (1) exposure to meaningful input; (2) meaning-focused processing; (3) form-focused processing; (4) opportunities for output production and (5) awareness and use of language learning strategies. De Graaff et al. (2007) transformed the penta-pie into a CLIL observation tool for effective second language pedagogy, and argued that in CLIL lessons a mix of all five aspects should be present.

Recently, there has been an increased emphasis on the teaching of disciplinary literacies in CLIL contexts, including the discourse and genres associated with particular subject disciplines (e.g. Morton 2010; Meyer et al. 2015). For example, in learning about science, students need to understand and produce different kinds of texts such as laboratory reports, or descriptions of phenomena. It is important that either in their Science lessons or English lessons students are introduced explicitly to the purposes and key linguistic features of these text types as, especially in a foreign language learning context, knowledge about these forms of language cannot be assumed (Morton 2010). Through a focus on disciplinary literacies, more *integrated* subject-specific content and language teaching and learning is expected to occur (e.g. Meyer et al. 2015).

3.2. CLIL teachers' classroom pedagogies

As emphasized in the introduction, teachers' classroom pedagogies have been identified as a key area for further CLIL research. Relatively, little is known about the kinds of pedagogical designs and approaches that characterize CLIL lessons and to what extent these differ from regular subject teaching and foreign language teaching (Dalton-Puffer and Smit 2013). What follows is a synthesis of research that focuses on CLIL pedagogies in secondary education.

Several researchers have investigated the nature of CLIL pedagogies as innovative and student-centered. Coonan (2007) conducted research over three years with a group of language and subject teachers enrolled in a two-year post-graduate CLIL training program in Italy, using teacher logs, questionnaires, focus groups and interviews. Her study revealed that the teachers considered CLIL as an ideal environment for pedagogical innovation and that it fosters greater teacher awareness of student learning needs. In comparative lesson observations, in which CLIL and regular content lessons in three subjects of six Swiss classes were followed over a period of two years, Badertscher and Bieri (2009) found no difference in overall lesson design. Nikula (2010) studied to what extent teaching through a foreign language affects a teacher's interactional and instructional style by observing one Finnish biology teacher's CLIL and regular lessons. In CLIL lessons, the teacher used less varied and subtle language as well as shorter monologues compared with regular lessons. Also, in these CLIL lessons, students often adopted a more active role asking questions and making comments. Pérez Cañado (2014) investigated the perceived training needs of in-service CLIL teachers from various

countries, using a survey. A main finding was that teachers considered their current knowledge to be the lowest, and training needs the highest, regarding the theoretical underpinnings of CLIL.

In the Dutch CLIL context, Koopman, Skeet, and de Graaff (2014) reported that the few studies investigating pedagogy have tended to do so from a 'process-product' perspective, with teacher behavior (process) used to predict learner outcomes (product) (e.g. Admiraal, Westhoff, and de Bot 2006). De Graaff et al. (2007) used the observation tool they constructed for effective second language pedagogy in CLIL (see Section 3.1) to analyze a set of nine CLIL lessons from a variety of school subjects in three Dutch schools. They found that, over all the lessons they observed, teachers used almost the whole range of indicators of effective CLIL pedagogy. Little evidence was found for facilitating noticing of and explaining problematic and relevant language forms. Koopman, Skeet, and de Graaff (2014) conducted a small-scale study with six CLIL subject teachers from three different Dutch bilingual schools to investigate these teachers' knowledge of language pedagogy. They concluded that the teachers generally had a complex view of what language teaching involved, and that specific areas for further professional development should include: teaching language 'chunks' (i.e. specific sentence constructions and lexical collocations), focus on language form and understanding students' developmental processes in relation to second language acquisition.

There are few empirical studies investigating teaching of disciplinary literacies in CLIL classes. This is not surprising given it is a relatively new focus of research and models of how to do so have only recently begun to emerge (e.g. Meyer et al. 2015). Morton's (2010) research is one of the few empirical studies explicitly focusing on the application of genre-specific teaching by CLIL teachers. Using audio, video and interview data from three history lessons in two bilingual schools in Spain, Morton observed that in none of these classrooms was there any explicit focus on the linguistic features of history genres, either as texts to be understood or deconstructed, or as texts to be produced by the students. Interestingly, the textbooks used by the classes in Morton's study required students to use a variety of genres in written exercises without offering any scaffolding. Some assignments required only very limited written production by students, an aspect that other studies about CLIL practices in Europe (e.g. Dalton-Puffer 2007) have also highlighted.

4. Research questions

The motivation for this study emerges from the above described situation that we do not yet know much about secondary CLIL teachers' pedagogies, and that what little research exists is rather disparate. If we want to support more effective teaching and learning in CLIL, then we need to know more about the characteristics of current teaching practice. To this end, it is relevant to produce a comprehensive account of what teachers say they do in their teaching. Hence, the following research questions guided the current study investigating the self-reported pedagogical practices of CLIL teachers in the Netherlands:

- (1) What are the main characteristics of self-reported pedagogical practices of CLIL teachers and how do they differ from those of regular teachers?
- (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?

5. Methods

5.1. Participants

The study was conducted from November until December 2014. Teachers from all Dutch secondary schools offering CLIL education at VWO level ($N = 111$) were invited to participate. In addition, participants were also recruited from a smaller, regional sample of 40 regular VWO secondary schools that do not offer CLIL education. Some of the VWO schools also offered education at HAVO and VMBO

level. Approximately 1200 teachers (based on an average of 8 teachers per school) were indirectly invited to participate, mainly via school coordinators.

Table 1 provides background information about all of the participating teachers. Over half of the teachers have more than 10 years teaching experience. The range of subjects taught by the participating CLIL teachers is representative of the Dutch CLIL context in that, for example, fewer creative (arts based) and physical subjects are offered through English. Note that we have included English as a separate subject because English teachers are considered to have a special role in Dutch CLIL schools in that their main emphasis is language acquisition and use, whereas CLIL teachers in other subject areas have a main emphasis on subject-specific content knowledge. Also, English teachers in CLIL schools are expected to possess specific competences that allow them to support and complement the teachers of other school subjects in developing students' knowledge of subject-specific language. Hence, including English-language teachers in the analyses, but keeping them separate from the teachers of the other school subjects allows us to investigate the differences. We also invited teachers of Other Foreign Languages to take part in the survey to allow us to investigate possible differences between this group and other groups. However, too few CLIL teachers of Other Foreign Languages participated to allow a meaningful comparison.

Appendix 1 provides additional background information about the CLIL teachers. The number of years of CLIL teaching experience of the participating CLIL teachers varies greatly (from 0 to 11 or more) as does the number of hours per week that the teachers report teaching CLIL classes (from 1 to 11 or more). In terms of their entry into CLIL teaching, the majority indicated that they were asked to teach in the CLIL section by school management. Few of the CLIL teachers followed a course about CLIL teaching as part of their higher education (either pre- or in-service). Most of the teachers are not native speakers of English and do not have a bi- or multilingual background. At the same time, they rated their level of English as high, although speaking, reading and listening ability were rated consistently much higher than writing ability.

5.2. Instrument

5.2.1. The CLIL questionnaire

To investigate the self-reported pedagogical practices of CLIL teachers, an English-language online questionnaire – the *Content and Language Integrated Learning Questionnaire (CLIL-Q)* – was designed

Table 1. Background variables considered for CLIL and regular teachers.

Variable	All teachers (%) (N = 296)	Regular teachers (%) (N = 78)	CLIL teachers (%) (N = 218)
Subject discipline			
English	27.1	20	29.8
Other foreign languages	8.4	26.7	1.5
Mathematics and sciences	28.6	21.3	31.3
Social sciences	26.7	28	26.3
Creative and physical	9.2	4	11.1
Gender			
Female	46.9	54.7	44.1
Male	53.1	45.3	55.9
Age			
<25	1.4	1.3	1.4
25–29	14.1	10.5	15.4
30–39	27.6	18.4	30.8
40–49	25.9	26.3	25.7
50–59	24.8	35.5	21
60 or over	6.2	7.9	5.6
Years teaching experience			
0–2	8.2	3.9	9.7
3–5	12.9	13	12.9
6–10	19	14.3	20.7
>10	59.9	68.8	56.7

as, to our knowledge, there were no existing suitable questionnaires. The content of the *CLIL-Q* was developed on the basis of existing research about effective CLIL pedagogies (summarized in Section 3). We strived to translate the insights from previous research into items that were as specific as possible, providing examples to make more abstract approaches easier to interpret.

The *CLIL-Q* contained two parts and a combination of open and closed questions. Part A asked participants for background information (see Table 1 and Appendix 1). 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. CLIL teachers were asked to focus on their lessons in bilingual education only. For each item, a space was provided for teachers to comment on their ratings, helping us to identify whether they, for example, do not apply a pedagogical approach often because they do not see the need for it or because they do not have the resources and/or knowledge to do so. 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.' Coordinators from the invited schools received a reminder email two weeks after their initial invitation to forward to teachers who had not yet completed the questionnaire.

The *CLIL-Q* was piloted twice by groups containing both CLIL and regular teachers and was subsequently adapted based on the feedback received. The main change made to the questionnaire after piloting was that initially the *CLIL-Q* asked teachers to provide two ratings for each item – the importance for their teaching and how satisfied they were with how they applied a particular practice in their teaching. We changed this to just one rating per item because the pilot group indicated that the questionnaire was too lengthy and they found it difficult to distinguish between the aspects of importance and satisfaction. The second pilot group provided us with ideas about how to improve the wording of some items.

5.2.2. Four factors identified

Principle component factor analysis with oblique rotation was conducted on the Likert-scale items of Part B of the *CLIL-Q* to determine the underlying factors. Previously, this led to a factor solution with six factors with an eigen value higher than 1. A decision was made to settle for a four-factor solution because the reliability of a five- or six-factor solution was not high enough. The four-factor solution was reached by removing items that did not load onto one of the four factors and by removing items that did not fit with the main ideas that each of the four factors was identified to stand for. The solution reached contains 28 items and explains 50.1% of the variance.

Appendix 2 shows the rotated factor loadings for each of the four factors. Table 2 reports descriptive statistics for each of the identified factors, including the reliability scores (Cronbach's α). The four factors identified relate to various clusters of pedagogies identified in the literature review (Section 3). Factor 1, 'Literacies', consists of items related to the idea that in CLIL teaching, it is important that students become knowledgeable about the specific language used in particular subject disciplines. Factor 2, 'Language', consists of items related to the idea that it is important that CLIL teaching focuses on developing students' written and spoken ability in the foreign language through which the subject is taught. Factor 3, 'Scaffolding', consists of items related to the idea that it is important that CLIL teachers provide scaffolds to enable learners to better understand both the content and the language to which they are exposed. Factor 4, 'Input', consists of items related to the idea that for CLIL

Table 2. Descriptive statistics and reliability scores per factor.

Factor	No. of items	<i>M</i>	SD	Cronbach's α
Literacies	5	3.04	0.97	.83
Language	9	3.07	0.87	.81
Scaffolding	7	3.58	0.67	.71
Input	7	3.74	0.74	.81

teaching to be effective it is important that teachers provide learners with both creative and diverse input that is tailored to their learners' content and language ability.

5.3. Data analysis

Descriptive statistics, qualitative content analysis and multivariate analysis of covariance (MANCOVA) were used to answer the first research question. MANCOVA was used to seek an answer to the second research question. The MANCOVA to answer the first research question included whether the teacher was a CLIL teacher or a regular teacher as the independent variable, the four types of pedagogical approaches as dependent variables and the background variables listed in Table 1 and Appendix 1 as covariates. The MANCOVA to answer the second research question included subject discipline as the independent variable, the four types of pedagogical approaches as dependent variables and the background variables listed in Table 1 (for all teachers) and Appendix 1 (for CLIL teachers) as covariates. We conducted two separate MANCOVAs to investigate the relationship between the self-reported pedagogies of CLIL teachers and their subject discipline, and of regular teachers and their subject discipline as both groups differed in the number of teachers of particular school subjects.

6. Results

6.1. Characteristics of the self-reported pedagogical practices of CLIL teachers compared to regular teachers

The left column of Table 3 reports descriptive statistics for each of the four pedagogical approaches for CLIL teachers. The mean scores for each approach reveal a clear division in that the *Scaffolding* and *Input* approaches have higher scores than do *Literacies* and *Language*. Paired sample *t*-tests were conducted between each combination of approaches to compare within the group of CLIL teachers for differences between the four approaches. These tests revealed that all mean scores differ significantly (with $\alpha = 0.05$).

The right column of Table 3 reports descriptive statistics for each of the four pedagogical approaches for regular teachers. When comparing for differences in the self-reported pedagogical practices of CLIL teachers and regular teachers, our analysis showed a significant multivariate main effect of type of teacher (CLIL or regular; Wilks' $\lambda = .82$, $F(4, 236) = 13.24$, $p < .001$, $\eta^2 = .18$). Significant univariate effects were obtained for: *Language* ($F(1, 239) = 32.33$; $p < .001$; $\eta^2 = .12$), *Scaffolding* ($F(1, 239) = 3.92$; $p = .049$; $\eta^2 = .02$); and, *Input* ($F(1, 239) = 5.67$; $p = .018$; $\eta^2 = .02$). For these three pedagogical approaches, the CLIL teachers scored higher on average than did the regular teachers. However, for *Literacies*, the difference was not significant.

The results of the open question, which asked teachers who teach both CLIL and regular classes to elaborate on the extent to which the approaches they use in these two contexts differ, provide further evidence of how CLIL teachers characterize their pedagogical practices in CLIL lessons and how unique they consider these practices to be. On the basis of the results, the following picture emerges. Out of 107 teachers who responded to this question, 77 reported a great deal of difference between the approaches they use in CLIL compared to their regular lessons. However, 11 did not give

Table 3. Descriptive statistics per pedagogical approach for CLIL and regular teachers.

	CLIL teachers (N = 218)		Regular teachers (N = 78)	
	M	(SD)	M	(SD)
Literacies	2.97	(0.99)	3.23	(0.89)
Language	3.18	(0.77)	2.76	(1.05)
Scaffolding	3.65	(0.63)	3.40	(0.72)
Input	3.80	(0.72)	3.60	(0.77)

a reason, or gave a reason unclear to us. Of the 66 who gave a reason, these were spread across the four categories of pedagogical approaches, with two main categories of differences being *Language* and *Scaffolding*. Within these two categories, there was considerable variation in teachers' responses. Of the 30 teachers who identified no or hardly any difference in the pedagogies they use in CLIL and regular classes, 15 provided a clear reason. In the following section, we synthesize and discuss all of the teachers' responses. It should be noted that the percentages of teachers who made specific comments are generally small because their responses were spread across the different categories and also within the categories there was a lot of variation in how teachers reported their CLIL teaching differed.

The most frequently reported difference by the 77 teachers who mentioned there was a difference between teaching CLIL classes and regular classes relates to *Language* (26%). They identified more focus on communication in their CLIL classes, that is, encouraging students to produce spoken output, such as through interactions between students in the foreign language. Mostly, this was reported in terms of more opportunities for oral communication. For example, one teacher explained:

I teach biology and there are no differences in the teaching approaches when we do practical work, while in theory lessons there are. In regular lessons I give a short lecture. In the CLIL lessons I try to find forms where the students need to speak to each other.

Only 8% (of the 26%) of teachers mentioned explicitly that more 'communication' includes more focus also on writing in their CLIL classes. Of the 26% of teachers, 9% added that they focus more on providing specific language instruction in the lower forms than the upper forms. In terms of feedback on communication, interestingly, only 6% of teachers mentioned increased emphasis on correcting students when they make language mistakes in CLIL classes, compared with their regular classes. Exclusive use of English in their CLIL classes was mentioned by 9% of teachers. Of those teachers whose approaches to teaching their regular and CLIL classes do not or hardly differ, 33% emphasized that language is equally important in their regular lessons. As one teacher put it: 'This is important for ALL students ... because a major part of learning is about acquiring language.'

With regard to *Input*, of the 77 teachers who mentioned there was a difference, 12% indicated that their teaching is much more 'method driven' (i.e. textbook-based) in regular classes, compared with their CLIL classes in which they select their own materials and design more assignments themselves. One teacher explained: 'Regular lessons come from the method and are much more structured according to this method. Teaching CLIL classes is much more intuitive than regular lessons.' Especially English teachers emphasized that in their regular lessons they use more Dutch language because the textbooks for regular classes make use of Dutch. One teacher explained: 'I feel I am limited in my teaching strategies. I use less CLIL assignments, because I need to prepare regular students for Dutch-English translation elements (method and department choices).' Focusing on developing the so-called European and International Orientation of students, which is a major goal of Dutch bilingual education, was mentioned by 11% of teachers as an important element of their CLIL lessons. As one teacher stated: 'The link between the content of the lesson and current affairs is much stronger in CLIL classes, where we select our own materials.'

Regarding *Scaffolding*, 29% mentioned that they provide more scaffolding to students in their CLIL classes, compared with their regular classes. Of these, 14% of the teacher responses focused on making glossaries or personal idiom files with students to facilitate their learning of relevant vocabulary. The remaining responses described task-related scaffolds, such as providing more tools to analyze a text or produce a summary, and teaching-related scaffolds, such as using gestures and visual aids and explaining problems a number of different times using different approaches.

Comparatively few teachers (8%) mentioned approaches to *Literacies*. Responses were varied and included getting students to notice the specificities of subject-related text types and how to structure written texts for their subject discipline. Interestingly, 20% of those teachers who indicated there is no difference between their CLIL and regular classes stated that this is because of the nature of the subject they teach, for example: 'Drama is a very CLIL subject' and 'Mathematics is for both the same'.

Teachers also gave responses that were more related to the Dutch CLIL context, than to pedagogical approaches. Of those teachers that mentioned that there was a difference, 12% of teachers indicated that they design their CLIL lessons to focus more on higher level cognitive skills. One teacher explained this as: 'For CLIL students I try to be on the top of Bloom's taxonomy. For regular students I tend to stay in the middle.' Another teacher explained:

In my CLIL classes I encourage the students more to think critically and see things from different perspectives. This has to do with the books that are used, but also with the fact that CLIL students need more challenges to keep them motivated and working.

A further interesting point to note is that, of those teachers who stated there was no or hardly any difference, 40% emphasized that over time they have noticed that they increasingly use the pedagogical approaches from CLIL classes, such as more focus on student interaction, in regular classes as well and find that they work well.

6.2. Relationship between the self-reported pedagogies of CLIL teachers and their subject disciplines compared to regular teachers

Table 4 reports descriptive statistics for CLIL teachers and regular teachers per subject discipline. We did not include the three CLIL teachers of 'Other Languages' nor the three regular teachers of Creative and Physical subjects because these numbers are too low for a meaningful comparison with teachers of other subject disciplines.

The MANCOVA to test the relationship between CLIL teachers and their subject discipline revealed a significant multivariate main effect for subject discipline, (Wilks' $\lambda = .38$, $F(12, 365.41) = 13.66$, $p < .001$, $\eta^2 = .28$). Given the significance of the main test, the univariate effects were examined. Significant univariate effects were obtained for: *Literacies* ($F(3, 141) = 16.70$, $p < .001$, $\eta^2 = .26$); *Language* ($F(3, 141) = 20.44$, $p < .001$, $\eta^2 = .30$); *Scaffolding* ($F(3, 141) = 6.04$, $p = .001$, $\eta^2 = .11$) and *Input* ($F(3, 141) = 7.57$, $p < .001$, $\eta^2 = .14$).

As the variable *subject discipline* contains four subject disciplines for CLIL teachers (English, Mathematics and Sciences, Social Sciences and Creative and Physical subjects), a *post hoc* multiple comparison was run to interpret how they differed. The *post hoc* test by Scheffe revealed that for the *Literacies* approach, English teachers scored significantly higher than teachers from all other disciplines (Scheffe, $p < .05$). Teachers from the Creative and Physical subjects scored significantly lower than teachers from all other disciplines. For the *Language* approach, the *post hoc* test revealed that English teachers scored significantly higher than teachers from all other disciplines (Scheffe, $p < .05$). For the *Scaffolding* approach, the *post hoc* test showed that teachers from the Creative and Physical subjects scored significantly lower than both Social Science teachers and Mathematics and Science teachers (Scheffe, $p < .05$). Interestingly, for this approach English teachers did not score highest. Finally, the *post hoc* test revealed that for the *Input* approach, English teachers and Social

Table 4. Descriptive statistics per subject discipline for CLIL teachers and regular teachers.

	English	Mathematics and sciences	Social sciences	Creative and physical	Other foreign languages
	<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)
CLIL teachers	<i>N</i> = 59	<i>N</i> = 62	<i>N</i> = 52	<i>N</i> = 22	
Literacies	3.69 (0.8)	2.72 (0.81)	2.89 (0.8)	1.75 (0.82)	–
Language	3.94 (0.54)	2.77 (0.56)	2.83 (0.57)	2.94 (0.7)	–
Scaffolding	3.59 (0.64)	3.82 (0.59)	3.74 (0.5)	3.17 (0.7)	–
Input	4.15 (0.6)	3.42 (0.71)	4.02 (0.51)	3.29 (0.77)	–
Regular teachers	<i>N</i> = 15	<i>N</i> = 15	<i>N</i> = 21	–	<i>N</i> = 20
Literacies	3.40 (0.77)	2.73 (0.68)	3.24 (0.88)	–	3.70 (0.81)
Language	3.50 (0.87)	2.19 (0.58)	2.13 (0.92)	–	3.47 (0.85)
Scaffolding	3.29 (0.76)	3.14 (0.67)	3.53 (0.65)	–	3.54 (0.73)
Input	3.51 (0.75)	3.28 (0.83)	3.89 (0.76)	–	3.65 (0.65)

Science teachers scored significantly higher than teachers of Mathematics and Sciences and of Creative and Physical subjects (Scheffe, $p < .05$).

The MANCOVA to test the relationship between regular teachers and their subject disciplines also revealed a significant multivariate main effect for subject discipline (Wilks' $\lambda = .44$, $F(16, 150.335) = 2.9$, $p < .001$, $\eta^2 = .19$). Given the significance of the main test, the univariate effects were examined. In contrast to the CLIL teachers, significant univariate effects were only obtained for: *Language* ($F(4, 52) = 7.8$, $p < .001$, $\eta^2 = .38$). As the variable *subject discipline* contains four subject disciplines (English, Other Foreign Languages, Mathematics and Sciences and Social Sciences), a *post hoc* multiple comparison was also run to interpret how they differed. The *post hoc* test by Scheffe revealed that for the *Language* approach English teachers and Other Foreign Language teachers scored significantly higher than teachers from the other two disciplines (Scheffe, $p < .05$).

7. Discussion

This study focused on investigating the self-reported pedagogical practices of CLIL teachers in the Netherlands. Our first research question focused on determining the main characteristics of CLIL teachers' practices and how these differ from regular teachers. Our findings indicate significant gaps between notions of effective CLIL pedagogy in theory and the pedagogical approaches reported by these CLIL teachers. On the whole, the participating CLIL teachers reported lower scores on the *Literacies* and *Language* approaches than they did on *Scaffolding* and *Input*. The CLIL teachers reported least use of the *Literacies* approach, that underscores concerns raised by recent studies (e.g. Morton 2010; Meyer et al. 2015) about the disciplinary literacies teaching competence of CLIL teachers. The *Literacies* approach was also hardly mentioned in the teacher responses to the open question, which confirms the quantitative results and indicates that, in general, promoting disciplinary literacy of students is not something that is at the forefront of teachers' minds when they consider their pedagogical practices.

An important finding emerging from this study is that CLIL teachers report generally using fewer approaches linked to the *Language* approach compared with *Scaffolding* and *Input*. This sits in contrast with the focus on students' language development that is considered part of what makes CLIL unique (Coyle, Hood, and Marsh 2010), and most theoretical models about effective CLIL teaching are heavily focused on what is necessary for effective language teaching to occur. Interestingly, in the open question, teachers from both CLIL and regular classes most frequently distinguished their CLIL teaching from their regular teaching by mentioning the *Language* approach. Whilst most teachers mentioned stimulating spoken output, few teachers mentioned a focus on language forms, for example by correcting students' language mistakes. This is consistent with the findings of De Graaff et al. (2007) and Koopman, Skeet, and de Graaff (2014) that teachers' focus on language form is limited.

This raises an avenue for further research into this aspect of CLIL teachers' pedagogy. For example, it would be useful to describe in more detail what kind of feedback from subject teachers supports students' language development and how learning about feedback can be effectively supported through pre- and in-service education.

When we compared the self-reported pedagogical practices of CLIL teachers to those of regular teachers, our findings revealed that for all approaches except *Literacies* CLIL teachers scored significantly higher than did the regular teachers. The fact that the difference between CLIL and regular teachers is not significant for *Literacies* may be due to the fact that further developing students' disciplinary literacies is currently considered to be of similar limited importance for all subjects, regardless through which language they are taught (e.g. Meyer et al. 2015). Especially for the *Languages* approach, a high degree of variance was explained by the different teacher groups. This allows us to explain the inconsistency between the quantitative and qualitative results for our first research question: 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. This outcome supports the findings of Koopman, Skeet, and de Graaff (2014) that the approaches to CLIL of teachers in the Netherlands are not limited to the 'language bath' conception of language learning as teachers, for example, place emphasis on stimulating spoken output through student interaction. However, the findings also show that teachers focus less on other relevant aspects of language than they do on providing elaborated and scaffolded input.

The qualitative data from the open question also provided some important insights into the specificities of the Dutch context, particularly that regular lessons are much more textbook-driven compared to CLIL lessons, and that CLIL lessons tend to focus more on higher level cognitive skills. A further important insight relates to a kind of 'transfer effect' of CLIL teaching, that over time several teachers report having incorporated approaches from their CLIL classes into their regular classes because they have found them to be effective. This last point supports the claim made by some researchers that CLIL teaching promotes the adoption of more learner-centered pedagogies (cf. Dalton-Puffer 2011, 189).

Our second research question was concerned with finding out the extent to which differences in the self-reported pedagogical practices of CLIL teachers are related to the subject discipline they teach and how this compares to regular teachers. Our results show that for CLIL teachers, subject disciplines explained a great deal of variance for all four pedagogical approaches. English teachers scored significantly higher than teachers of all other subject-groups for the *Literacies*, *Language* and *Input* approaches. This result can be explained by the fact that the preparation of English teachers includes learning about theories of second language acquisition and related pedagogical approaches that many of the CLIL teaching models are based on. Given that in the CLIL bilingual schools context English teachers have such a unique and different position in comparison with teachers of other school subjects, the question may be raised as to whether future studies should include English teachers as CLIL teachers. The same issue is also relevant for teachers of Other Foreign Languages.

This study also found that CLIL teachers of the Creative and Physical subjects scored lowest on all approaches except for *Language*. A possible explanation for this is that the theoretical models about what constitutes effective CLIL pedagogy are often less relevant for teachers of such subjects as physical education, music and drama, because these subjects are less text based.

Our analysis of differences in the self-reported pedagogical practices of regular teachers related to subject discipline shows that subject discipline significantly influences pedagogical practices. However, contrary to findings from CLIL teachers, subject discipline only explained variance for the pedagogical approach *Language*. For this approach, English teachers and Other Foreign Language teachers scored significantly higher than teachers of Mathematics and Sciences and of Social Sciences.

We consider that our findings about the significance of subject disciplines in explaining differences in the self-reported pedagogical practices of this group of CLIL teachers has an implication for Dutch CLIL teacher education. In the Netherlands, teacher education programs are generally based around teaching student-teachers about general models of effective CLIL pedagogy based largely on theories of second language acquisition, such as Westhoff's (2004) penta-pie model. However, our results indicate that it may be relevant to also include more tailored elements, specifically about how to teach specific subject disciplines through CLIL.

A limitation of this study is that it focuses on the self-reported pedagogical practices of teachers rather than their actual practices. However, as, in line with Trigwell and Prosser (1996), we consider teaching approaches to consist of a combination of a teachers' teaching intentions (why they adopt a particular strategy) and a teachers' teaching strategies (what they do), we think self-report is the most effective way to provide us with an overview of these approaches. A further limitation is that participation in the *CLIL-Q* was voluntary so it could be that our sample of participating teachers is biased in that, for example, teachers who were either very positive or negative about CLIL teaching chose to complete the questionnaire.

8. Conclusion

This aim of this research is to contribute to better understanding the pedagogies of CLIL teachers in the Netherlands by focusing on their reported use of various approaches associated with effective CLIL teaching. The main conclusions from our study can be summarized as follows:

- CLIL teachers in the Netherlands perceive CLIL to be a unique pedagogy and its uniqueness lies to a great degree in the fact that it seeks to integrate content teaching with language teaching.
- There appear to be significant gaps between what is considered effective CLIL pedagogy in theory and the pedagogical approaches reported by these CLIL teachers. Further research should be conducted into the *Language* approach, and also the claims of recent studies (Morton 2010; Meyer et al. 2015) that teaching subject-specific literacies is an aspect that needs more explicit attention in teacher education and teachers' continuing professional development.
- More investigation is needed about how to interpret CLIL through different subject lenses and how to help teachers recognize these elements in their subjects.

These conclusions, we believe can contribute to a wider, more informed discussion about CLIL teachers' classroom pedagogies and consequently serve to further bridge the current gap between theory and practice in CLIL.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix 1. Background variables considered for CLIL teachers only.

Variable	CLIL teachers (%) (N = 218)
Years CLIL teaching experience	
0–2	22.4
3–5	26.8
6–10	28.8
11 or more	22
Hours per week teaching CLIL classes	
1–2	10.8
3–4	16
5–6	19.3
7–8	16
9–10	9
11 or more	28.3
Currently teach regular and CLIL classes?	
Yes	71.2
No	28.8
How became a CLIL teacher?	
Applied for a job	22.9
Asked to teach in the CLIL section	15.4
Invited by school management	52.3
Other	9.3
Completed a university Master CLIL program?	
Yes	15.1
No	84.9
Completed a University of Applied Sciences CLIL program?	
Yes	3.2
No	96.8
Followed CLIL training at school?	
Yes	55
No	45
Followed CLIL training by external institute?	
Yes	46.3
No	53.7
Native English speaker?	
Yes	18.5
No	81.5
Multi-lingual background?	
Yes	17
No	83
Highest formal certified level of English?	
C2 CEFR	44.2
C1 CEFR	15.9
Qualified English teacher	24.5
No formal qualification	15.4
Speaking ability	
Poor	0
Below average	1
Average	14.8
Good	33
Excellent	51.2
Listening ability	
Poor	0
Below average	0
Average	9.1
Good	34
Excellent	56.9
Reading ability	
Poor	0
Below average	1.4
Average	9.7
Good	25.1

(Continued)

Continued.

Variable	CLIL teachers (%) (N = 218)
Excellent	63.8
Writing ability	
Poor	0.5
Below average	4.8
Average	23.6
Good	38.5
Excellent	32.7

Appendix 2. Factor loadings of the pattern matrix based on principal component analysis with oblique rotation for 28 items of the *CLIL-Q* (N = 296).

Item	Literacies	Language	Scaffolding	Input
1. Helping students to recognize common <i>text structures</i> relevant to the subject.	.68			
2. Providing students with tasks in which they learn to apply reading strategies.	.68			
3. Helping students to recognize <i>text features</i> specific to a subject.	.61			
4. Providing students with tools that help direct their attention to what is important in information sources.	.60			
5. Helping students to notice the purpose for which subject-specific <i>text types</i> are written.	.60			
6. Providing students with feedback about the fluency of their language.		-.76		
7. Providing students with feedback to produce more accurate forms of spoken language.		-.71		
8. Encouraging students to provide feedback about <i>language</i> on their own and others' work.		-.70		
9. Formulating <i>language</i> goals when planning lessons.		-.69		
10. Activating students' prior language knowledge about a topic.		-.60		
11. Grading students' language use in oral assignments.		-.58		
12. Providing students with speaking scaffolds when setting speaking tasks.		-.58		
13. Urging students to only use the language of instruction in class.		-.54		
14. Working together with English teachers when preparing lessons.		-.49		
15. Asking students to explain their reasoning.			.74	
16. Using different kinds of questioning to help students understand content.			.60	
17. Providing students with tools that help them to organize, understand and record what they observe.			.52	
18. Activating students' prior <i>content</i> knowledge about a topic.			.50	
19. Making use of body language while teaching to enhance student understanding.			.48	
20. Providing students with tasks that help them to use subject-specific terms that are key for a lesson.			.48	
21. Asking students to change content from one form into another.			.40	
22. Selecting authentic materials for my lessons.				.73
23. Creating my own lesson materials.				.72
24. Providing students with different kinds of content.				.71
25. Using different types of assessments.				.63
26. Drawing links between study content and local and global issues.				.53
27. Using visual aids while teaching.			.38	.53
28. Providing students with input from a range of perspectives.				.53

Note: Factor loading <.3 are not shown.