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Chapter 9

Assessing (for) Understanding in the CLIL Classroom

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Abstract In this chapter, we conceptualise CLIL assessment as a dialogic activity in which teachers and learners share the responsibility for building learners' understanding of subject-specific issues. We illustrate such a conceptualisation by first studying how secondary school CLIL teachers perceive classroom assessment in interviews collected in Finland and Austria. Then, by examining video data from a CLIL lesson, we show how opportunities for assessing to support learning can emerge in routine instructional interaction, and how a teacher can attend to learner talk both to develop his or her own understanding of the learner's abilities and to promote these same abilities. Our data suggest that, when interviewed, CLIL teachers may not see their practices for supporting learners' understanding from the perspective of assessment. Yet, our classroom interaction data shows that assessment is an inherent part of the interaction. We, therefore, propose teachers' awareness should be raised in that the purpose of assessment they do in the latter case is *assessment for understanding*. This will underscore the importance of developing learners' understanding of the concepts/phenomena under study and teachers' understanding of their learners. We conclude by reflecting on the benefits of this awareness.

9.1 Introduction

With the social-constructivist turn in 1970s, the notion of educational assessment expanded from summative measures of learning outcomes to include a different purpose—promoting

learners' abilities. Our conceptual starting point was Black and Wiliam's (1998a, pp. 7–8) definition of assessment *for* learning (A*f*L) as "all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged." This definition views assessment as a key part of instructional practices expanding the understanding of what constitutes assessment (see Chap. 1, this volume, for a detailed discussion). As Wyner (2014) notes, that every teacher employs assessment *for* learning in some sense in order to promote their learners' abilities. The question still remains whether teachers always employ these consciously and build on these to adjust teaching and learning, making them thus a part of the classroom assessment cycle (Davison 2008; see Chap. 1, this volume).

From the practical point of view, this study started from our realisation that all teachers are equally capable of using different kinds of assessment instruments and approaches. The kinds of challenges that assessment in CLIL contexts involves was discussed in Chap. 1 of this volume. Here, we want to emphasise that a lack of shared assessment criteria and goals can result in incidental, unsystematic, and impressionistic classroom assessment practices. In addition, lack of awareness of assessment opportunities is likely to prevent teachers from using these opportunities systematically. Hence, for example, Wewer (2014a, p. 150) has argued that assessment in CLIL is not an established practice, at least in Finland, in primary education, and with regard to assessing language.

As CLIL involves the learning of content and language, student development in both areas should be assessed. The exact way assessment can be organised depends on the way content and language are integrated in the particular CLIL classroom or classroom activities (Leung & Morton 2016; see also Chap. 1, this volume). That said, while the central idea of CLIL is that it is about integration of content and language, this does not mean that a particular assessment episode or procedure cannot have a focus on either the language or the content. We emphasise that, for example, teachers' content-orientation can result in that the focus on language can become incidental and as a 'side effect' of content teaching, with teachers being unsure about how to address learners' linguistic problems (Leung & Morton 2016; Wewer 2014a). The reverse is true, as well. Thus, promoting teacher understanding of how assessment can be a tool informing teaching and learning of both content and language is necessary.

In this chapter, we explore how assessment and its challenges are part of Black and Wiliam's (1998a, pp. 7–8) "activities undertaken by teachers" that aim at promoting students' understanding, which can be seen as a prerequisite for learning. We do this by studying first

how secondary school CLIL teachers report on their classroom assessment practices in interviews collected in Finland and Austria. We then examine an extended episode of classroom interaction in a primary school CLIL physics class from a socioculturally informed Conversation Analytic (CA) perspective (for prior similar work, see, e.g. van Compernolle 2013; 2017) to illustrate the occasioned and context-embedded work of assessing and promoting a student's subject-specific understanding. One reason for studying classroom interaction is that teacher interviews sketch but a part of the picture of teachers' practices. Moreover, research into how practices are actually implemented in the classroom can expand insights gained from interviewing teachers (see, e.g. Tsagari & Vogt 2017, for a similar argument). Zooming in on micro-level interactional detail shows how the teacher can attend to a student's talk for what kind of conceptual understanding and knowledge it implies and attempt to advance that understanding as the interaction proceeds. Before the analysis, we will introduce the notion of teacher assessment literacy, suggest why it is an important part of assessment *for* learning, and outline a theoretical basis for viewing assessment as an integral part of the classroom interaction.

9.1.1 Teacher Assessment Literacy

Applying assessment for learning in the classroom contexts requires teachers to expand their understanding of the role and purposes of assessment in the classroom. With the shift of focus from assessment *of* learning to assessment *for* learning culture (see Davison & Leung 2009; Chap. 1, this volume, for a discussion), the understanding of assessment literacy has expanded to include knowledge of assessment processes and the ability to evaluate the impact of assessment (Fulcher 2012; see Chap. 1, this volume). Many teachers, however, admit that they are not prepared to meet these demands, and often their assessment practices are limited to those with which they feel the most comfortable, i.e., assessment *of* learning (e.g. Tsagari & Vogt 2017). One challenge is that the expansion of what constitutes assessment leads to teachers having to reconceptualise their understanding of assessment (Scarino 2017), which can be difficult. Hence, teacher training that involves mere knowledge transmission may not result in tangible changes unless teacher beliefs and understandings are also taken into account and engaged (Livingston & Hutchinson 2017). This suggests that a mere awareness of different kinds of assessment tools and approaches beyond more traditional tests and essays is not enough for teachers to make these a part of their practices.

Teacher assessment literacy can be raised in different ways. Pascual Peña (2017) found that CLIL teachers who were trained in assessment *for* learning (A*f*L) strategies and techniques used significantly more guiding questions and feedback than those who had no such training, thereby attending to assessment opportunities in a more systematic way (see also Chap. 8, this volume). Even when no formal training is available to teachers, directing teachers' understanding of assessment is important in the process of developing teacher assessment literacy. Hill (2017a) argues that a crucial aspect in developing one's assessment literacy is to realise that classroom interaction makes opportunities for spontaneous assessment available. She further describes a framework that can help teachers act upon such interactional assessment opportunities and make them a part of one's classroom practice. This involves considering such self-reflective questions as *What do you do in classroom-based assessment*? *What do you look for*? *What beliefs and understandings do you have*? and *How does the context shape your assessment practices*?

In the present chapter, we aim at raising teacher awareness to recognise that interaction happening in the classroom affords opportunities for assessment *for* learning by illustrating how this kind of assessment can unfold. Namely, we will explore how assessment is embedded in interaction between a teacher and a learner in the CLIL classroom, thus demonstrating how exactly such assessment serves the two purposes delineated above—aiding teachers' understanding of their learners' abilities and promoting these abilities. The need for this exploration emerged not only from the previous research, as will be outlined in the following section, but also from a teacher interview study that is also discussed in this chapter and which informed our exploration of assessment as a part of classroom interaction.

9.1.2 Social Interaction and Assessment Practices

Assessment *for* learning can be organised and conducted in numerous ways (as is evidenced by the present volume). In this chapter, we focus on unplanned assessment occurring as a part of classroom interaction. Unlike previous research (e.g. Pascual Peña 2017), we are not aiming here at proposing an inventory of specific strategies teachers can utilise when making use of these assessment opportunities. Rather, we will study the centrifugal process of interaction (see Chap. 1, this volume) in which teachers are sensitive to and build upon learners' contributions in such interaction in order to both make insights about learners' mediated abilities and to promote these same abilities. To elaborate, building on Hill (2017a),

we argue that classroom interaction affords opportunities for assessing what learners can do / know, what lacks in their understanding, knowledge, or performance, and how learners' performance can be developed. It, therefore, becomes important for teachers to recognise these assessment opportunities and systematically apply what they have learned about learners in subsequent instruction and assessment. In the present paper, we focus on the process in which assessment and teaching are integral and indivisible parts.

Social interaction can be seen as both a context of and a tool for classroom-based assessment activities. Even when teachers assess students by merely observing their work in the classroom, such work typically involves interaction with others. On the other hand, routine instructional practices have an evaluative/assessing dimension, which is clearly visible in what the interactional literature refers to as 'known information questions' (e.g. Mehan 1979). Commonplace in many educational contexts, these refer to questions whose correctness the teacher assesses in so called initiation-response-feedback/evaluation (IRF/E) sequences, not only to make students' existing knowledge visible but also to co-produce new knowledge (e.g. Koole 2010; Nystrand 1997; Rusk, Sahlström, & Pörn 2017).

In L2 contexts, the close relationship between assessment, instruction, and interaction has been theoretically perhaps most elaborately developed within research informed by the sociocultural theory (SCT). The SCT understanding of learning as a mediated process that emerges in interaction underscores the importance of talk between the teacher and learners (and among learners). Interaction is a resource that can yield insights into learners' abilities and their areas of struggle, as well as help learners overcome them, provided that teachers notice and act upon such opportunities for assessment.

The notions of reciprocity and transcendence (e.g. Feuerstein, Feuerstein, & Falik, 2010) often inform assessment conducted within the sociocultural paradigm, allowing for structuring assessment as a dialogical and contingent process. *Reciprocity* has to do with how the learner responds when particular forms of support are available (see also Lidz 1991, p.100). The notion builds on the understanding that a mediator's (teacher or peer) support both constrains and creates a number of possibilities for a learner to respond. The mediator's insights obtained about learners' abilities, knowledge, or understanding help structure the following assistance. This is not to say that guiding learners is not already a part of teaching practices. However, seeing this guidance as assessment shifts the focus from completing the task and considering learners' responses in a binary way ('correct' or 'incorrect') to learning what learners are capable of and promoting learners' abilities.

Transcendence refers to how learners and teachers apply the prior knowledge and understanding that emerge while they together work on a similar, though not the same, task. For the learner, transcendence is about the extent that she/he is able to recontextualise the knowledge, abilities, and understandings to new contexts. From the perspective of the teacher, transcendence refers to the teacher building on what is learned about the learner previously, allowing for checking to what extent the learner is able to apply the previous knowledge in a new situation. In other words, achieving transcendence presupposes that teachers are systematic in tracing how learners connect prior insights to new contexts.

Reciprocity and transcendence compel us to conceptualise classroom assessment and instruction not just as complementing one another but as parts of the same process in which the teacher (or any other mediator) cooperates with the learner. This joint functioning then directs the learner's future independent performance. That is, as other contributors to the present volume also discuss (Chap. 8 and 10, this volume), assessment as a part of classroom interaction becomes inseparable from teaching and learning.

9.2 Research Questions, Data, and Method

In this chapter, we set out to answer the following research questions:

1) How do CLIL teachers describe their practices for assessing and supporting students' understanding?
2) How is assessment involved in instructional activities in CLIL classroom interaction?

The second research question emerged from the data analysis we conducted to answer the first research question (as elaborated below). That is, the insights that we gained into teacher's assessment practices and behaviours, led us to explore how assessment is actually a part of classroom interaction and how this assessment can address some issues that were raised by the interviewed teachers.

To address the first research question, we draw on interviews of CLIL teachers from lower secondary schools which are part of larger datasets collected between 2013 and 2016 as part of two different research projects. The first set of interviews, conducted in Austria, Finland and Spain, focused on the role of language in language and content integration and the second one investigated teachers' beliefs on the new language-related curriculum issues

in Finland. All of the interviews were analysed, but for the purposes of this study, parts of interviews from four teachers will be employed. Interviews conducted in Finnish have been translated for the present chapter. In Table 9.1 below, we briefly introduce the four teacher participants whose reports we analyse in the present chapter.

Table 9.1 Teachers in the interview excerpts

Teacher code	**Description**
T1	Austria, Physics content teacher
T2	Finland, Biology and Geography content teacher
T3	Finland, Physics content teacher
T4	Finland, Physics and Chemistry content teacher

The classroom interaction data, used to respond to the second research question, comes from a 6th grade physics and chemistry lesson taught in English, recorded in 2016 as part of a larger research project in a Finnish school where CLIL instruction was a relatively recent development. The class was co-taught by two teachers (neither of whom participated in the interviews), a Finnish-speaking class teacher (CoT) and a native English-speaking content teacher (T). The lesson involved a group-based learning activity during which teachers mostly interacted with individual students and groups. In the analysis, we focus on one interactional episode between the content teacher and a student. The aim was to illustrate how assessment can take place through interaction between the teacher and a learner.

We began the interview data analysis by studying themes that emerged with regard to initially *assessment* and related terms as the keywords, and, as our data-driven understanding developed, also *(mis-)understanding*. We then scrutinised the interview data in order to find out how assessment was involved in teacher classroom practices as reported by the teachers themselves. In other words, we did not limit our analysis to cases in which teachers explicitly talked about assessing their learners, e.g. using words such as *assessment* or *evaluation*.

In order to examine the classroom data, we draw on the analytical perspective of conversation analysis, CA (for an introduction, see, e.g. Gardner 2004). In very broad terms, this means investigating (inter)action in its sequential context and analysing things like knowing, understanding, and learning as publicly observable phenomena (e.g. Maynard 2006; Kasper 2009). The analysis of what turns-at-talk ‘mean’ builds on the participants’ *emic*

perspective, i.e., on how they observably and publicly treat each other's turns and conduct. Moreover, along the lines of the sociocultural paradigm, we also view learner knowledge and understanding as not only displayed in the context of interaction but also directed and (potentially) promoted by that interaction. That is, in our analysis to follow, we consider that the way that the learner responds to the teacher's queries is developed by these same queries. Within the CA literature, there is at the moment no uniform stance on what actually counts as 'learning' or whether it can even be investigated without a specific learning theory such as the SCT (see, e.g. Hauser 2011; Jakonen 2018). Here, we do not wish to take a definitive stance on these matters but we aim to bring together the sociocultural theory and the micro-analytical perspective of CA (for prior similar work, see, e.g. van Compernolle 2013; 2017) in order to illuminate how assessment takes place procedurally via specific interactional practices. Specifically, we will, by way of sequential analysis, trace how teacher and learner turns in the interaction occasion and create a context for one another.

We note that the transcript of the teacher interviews is less detailed than that of the classroom interaction. The reason for this is that the purposes of the analyses were different. While the analysis of the former aimed at gaining insights into teachers' self-reported practices so we did not need to look into such details as changes in intonation, gestures, etc., in the latter we aimed at understanding how knowledge was co-constructed, so these became an essential part of our analysis.

9.3 Analysis and results

9.3.1 Teacher interviews

Considering that the interview data were collected for a different purpose (see Sect. 2) than discussing how teachers perceive assessment, we did not expect to find many instances of teachers explicitly discussing assessing their learners. Explicitly, the word *assessment* emerged rarely in the interviews, but when it did, the participants talked about assessment *of* learning, such as grading or exams. Excerpt (1) illustrates how T1 reacts when the topic of assessment was raised by one (I1) of two interviewers.

(1) Understanding assessment.

1	I1:	is the assessment of CLIL students that of course needs some cooperation so
2		would you say that you need to work hard on that?

3 T1: d'you mean the grading of?
4 I1: I mean grading, assessment
5 T1: the students who are already in our school or?
6 I1: yes those who are in your school
7 T1: mm well this is the thing with the grading is, is kinda complicated because
8 I mean officially I'm not allowed to like grade their English, of course not
9 I even don't want that and for example if there's a like physics test or quiz and
10 there are questions in English, if they answer in German I'm fine

It is also notable that T1 understood assessment as the product of learning. This is expected considering the discussion of teacher assessment literacy in Chap. 1 of this volume, especially that teachers, often are more comfortable in using assessment *of* learning. Furthermore, they do not necessarily consider other types of assessment as assessment, be it assessment of content, language, or both. In line 3, it transpires that the teacher in her response limits assessment to grading, and although the interviewer's reaction rather sounds as enumeration, the teacher continues to talk about grading her learners. There seems to be a clear separation of responsibilities between the CLIL teacher and the language teachers in the school. It is interesting that the separation is also maintained/reinforced by the teacher's 'want' to steer clear from language assessment and her procedures to make sure that language troubles do not get in the way of assessing learner understanding by allowing the use of German in tests.

In addition to explicit assessment talk, the teachers talked about assessment-relevant issues when discussing *understanding*. Many teachers in the interview corpus raised the problem of interpreting how well their students understand a topic when they are copying the teacher's words or definitions from the course book. One example of this is provided in the following Excerpt (2), in which T2 responds to the interviewer's question about structures typical to texts that learners produce in assessment situations. Specifically, she is telling how she makes sure learners' understanding of difficult concepts transpires in their texts.

(2) Learners' understanding in essays.

1 T2: it would become in a way scientific kind of writing a scientific (.) answer or a text
2 how to start and use the concepts of that field and open them up and what is meant
3 by what and that (.) you answer in a logical and consistent manner opening up the
4 concepts […] I don't want any textbook answers how something has been explained in
5 the textbook but you should always (.) it's enough for me, or I want that it's explained

6 to me like she would explain to her best friend who doesn’t know something or
7 doesn’t understand.

T2’s response implies that she finds it problematic that learners use somebody else's words, such as definitions from the textbook, without displaying understanding of the concepts. Specifically, she requires learners to open these up (line 2). In other words, she wants learners to use everyday language rather than scientific terms. Yet, she does not state how she enables the use of easier language in her classroom, for example teaching learners such everyday language to explain concepts.

To be clear, teachers do not necessarily have an inventory of teaching practices for making sure that learners understand and are able to express their understanding. In the following two excerpts, teachers T3 and T4 tell how they make sure that learners understand complex definitions and concepts. These practices, we argue, are based on their experiences of what learners’ needs are, in other words, on assessment of their learners, even if incidental and implicit. In Excerpt 3, T3 is asked to opine how scientific language is different from everyday language and share whether and how he teaches his learners to write scientifically. This leads T3 to describe his classroom practices and explain how he habitually deals with situations of non-understanding in the classroom.

(3) Teacher practices: making definitions understandable.

1 T3: I often talk about that if there are some definitions for, or some phenomena or quantities,
2 the definition might, might be very long and hard to understand and I'm trying to explain that,
3 that this is the way it has to be said because if it's said in a shorter way or in a somehow easier way
4 it might change the point or the meaning, but after we have written down that the, the
5 definition, then I'm trying to sort of make the definition to be more understandable so
6 that they will understand the definition when they, when they understand the phenomenon
7 I2: yeah, and does that that happen in, both the Finnish and the
8 T3: Yes
9 I2: in English
10 T3: both I think

In lines 1–2, the teacher reports his talk in the classroom from which it transpires that he can sense which topics can present problems to his students. In spite of initially assessing these situations as problematic for his students, he does not want to compromise the exactness of

science (lines 3–4). He knows, however, that explanations have to follow, so he makes sure that these definitions and phenomena they describe are understandable. The teacher goes on to say that for this purpose, he uses both English and Finnish.

In Excerpt 4 below, T4 was asked to explain what the language of physics is like and how she explains concepts to learners and whether she uses everyday language for this. T4 responds that she aids understanding and memorising in her lessons with everyday language and then proceeds to more academic language. According to her, understanding is hampered already in the beginning if the students do not understand what they are asked, so she tries to scaffold their understanding already in the beginning when introducing a new topic.

(4) Scaffolding learner understanding.

1 T4: in science the text is very, like we try to say everything in a clear and short way […] a text
2 may be really short, but every sentence has like a great meaning […], for
3 example when you talk about how atoms bind ((a scientific term in Finnish)) to each other, this kind
4 of things, then often the kind of fun or even funny examples from everyday language aid
5 understanding and memorising it's very hard to remember something that is difficult
6 that, for example electrons attract protons, but if you formulate it in another way,
7 you say that opposites are drawn to each other then it's much easier to memorise […]

This teacher describes how she predicts when learner non-understanding can arise in classroom situations and responds to it by using catchy and fun examples in everyday language (lines 4–5) and further explanations (lines 6–7).

Taken together, Excerpts 3 and 4 suggest that these teachers have procedures to help learners understand scientific phenomena and better remember them. These teachers' practices also suggest that they should have at least an implicit understanding of their learners' abilities, which, we assume they base on their teaching experience accumulated in the interaction with their learners. Clearly, the teachers reported on their practices based on experiences rather than on actions that emerge in the immediate interactions with the learners. These practices are based on inferences that accumulated over time. However, these inferences are still based on learner assessment, even if implicit, which, we assume, were recurrent to the extent that they became generalisable for the teacher to base their teaching practices upon. That said, how exactly these practices emerged and how the interactions leading to developing these practices happened is not reflected in the teachers' reports nor it

is to be expected, as teachers often report making assessment-related decisions in the classrooms based on their gut feeling (Wewer 2014a). This necessitates an exploration of how teachers' assessment happens as a part of their interaction with learners.

Although the two examples above illustrate that teachers can, to some extent, predict and detect their learners' problems, this is not to imply that they always know how to address them. In Excerpt 5, T1 responds to the interviewer's question "So what do you think integration is? Is it like you said … you teach passive along teaching physics?" She reveals that she considers it important to know where her learners' problems lie even though she thinks these are problematic to address. This is interesting as the same teacher earlier claimed that she did not assess/grade learner language (Excerpt 1).

(5) Merging content and language.

1	T1:	I mean I think that's kind of a utopic thing to do, that would be the best thing ever
2		if you really, you know, if you would be able to pick that up if there's a certain
3		problem and then go into the language part and then go back to the science part
4		that would be really perfect, I tried to do it a little bit but there are definitely much
5		more opportunities to implement that…

Here, T1, having earlier in the interview strongly positioned herself not as a language teacher, reports that she finds it problematic to pick up where her learners' problems lie and is not sure how to address these problems. What is less clear based on what she reported earlier is whether here she refers to only learners' problems with the language or both the content and the language problems, but it appears that she finds it difficult to address learner problems in language and content separately. The way she formulates the response still suggests that it is both. Namely, perhaps, owing to her insecurity about her ability to teach the language, she finds it difficult to see exactly where her learners' problems lie, i.e., whether they are due to the lack of linguistic proficiency or misunderstanding of the content or both, and then address it respectively. It is, however, clear that she finds it highly problematic due to the choice of words ('utopic' and 'the best thing ever'; line 1), and this uncertainty comes from her own experience (line 4), and her report suggests that this kind of assessment was not an established practice for her at the time of the interview.

9.3.2 Classroom analysis

As we mentioned earlier, the interviews that we studied led us to explore how teachers' understanding of their learners can develop in classroom interaction. In this section, we illustrate how teacher-learner interaction in a co-taught CLIL classroom provides assessment opportunities which allow a teacher (T) to both build his understanding of a learner's (Simo) abilities and simultaneously promote those abilities. We investigate one nearly three-minute episode of desk interaction (Excerpts 6–8) where the teacher is observably 'cluing' a learner, i.e. "leading [him] to correct answers by small steps" (McHoul 1990, p. 355) as a way to promote self-discovery (Waring 2015) instead of providing direct instruction. The overall interactional organisation of the episode resembles a chain of IRE/F sequences so that instead of closing down a sequence in the 'evaluation move' with an explicit positive assessment (Waring 2008), the teacher repeatedly reframes his question in different ways and, sometimes, acknowledges partial correctness of the student's prior answer at the same time. From a sociocultural point of view, this gradually gives the learner responsibility for his own performance (even though this performance is still regulated by the teacher) and goes beyond leading to correct answers to promoting the learner's abilities. In essence, it is not just the learner's performance or the teacher's direction of this performance, but a joint construction of the learner's understanding, which also allows the teacher to understand this learner's abilities in greater detail.

The interaction takes place as the teacher circulates in the classroom during a task in which small groups summarise previously studied textbook chapters on a poster. The groups move from one poster/desk to the next, so that by the end of the task, all groups are meant to have covered all chapters, and each poster should include one summary per chapter. However, because of a task-organisational mishap, the focal group of four learners is supposed to summarise a chapter (about energy saving) which they have already done at a previous stage. Despite this, the teacher still asks them to re-summarise the chapter—perhaps in order not to complicate the task organisation any further. Instead of moving to another group, he remains by the learners' desk and begins to probe their understanding of the topic. In the course of doing this, he gradually directs their attention to the role of thermal insulation, a topic that the Finnish-language physics textbook did not address in much detail. We enter the exchange as the teacher (T) presents his first question to Simo.

(6) Working with a learner's everyday experiences.

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1  T        we spoke about that the last day what's the ↑easiest way to
2           save energy, (.) in a house for example?
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3 (1.3)
4 Simo ( )
5 (0.6)
6 T say aga- ↑no:: (0.5) I mean that saves some energy
7 but how would you save energy in a house better °than°
8 (1.0)
9 T where do you <lose> most of the energy in a house
10 (0.5)
11 Salla in the °(toilet)° ((SMILES AND FACES AWAY FROM TEACHER))
12 (1.6)
13 T no
14 (1.7)
15 Simo for me it's actually in my room
16 T in your room where in your room °(do) you lose a lot of energy°
17 Simo °(on the)° computer
18 T 'kay so you have all your computers plugged in an' stuff on
19 standby? (0.3) yes
20 (2.1)
21 Simo actually:: (.) not
22 T not (.) so you (un)plug them (over) at night (0.6) everything
23 Simo no
24 (0.8)
25 T no so you're using some energy there. (0.7)

The framing of the question in lines 1–2 connects the topic to a previous lesson and conveys that the teacher is asking the learners to produce knowledge that they should already have. While Simo's response is not audible on the recording, the teacher treats it as only a partially correct answer by first rejecting it but then softening the evaluation (line 6). He then reformulates the question by specifying that he is after an efficient energy saving method instead of the 'easiest'. As no learner response is forthcoming, the teacher reformulates the question yet again (line 9), so that it now hints on a strategy that learners can use to answer it: the easiest way to save energy can be identified by thinking where it is lost the most. This signifies a momentary shift of emphasis from probing the learner's understanding to mediating the learner's thinking. Here, the teacher segments the question so that the learner is first invited to identify a place or a device instead of offering immediately what could require a lengthy explanation of how to save energy. However, the expectation is that the response will then be used to address the 'main problem' of what are most efficient ways to save

energy. As we shall see, this becomes the focus of the whole three-minute interactional episode.

Following a short side sequence where the teacher deals with a jokey interruption (lines 11–13), Simo's response (line 15) suggests most of the energy is lost in his own room. As an answer, such a personal account is not only a way to avoid giving an 'objective' response in the form of averages, percentages, or the like, but it also displays an understanding that the most significant part of the energy consumption of a house depends on individual habits. As Simo, prompted by the teacher, specifies that his energy use is down to the 'computer' (line 17), the teacher provides a candidate understanding of what kind of energy use habit Simo's answer would mean (lines 18–19). Having 'all computers' plugged in is an extreme scenario (see Pomerantz 1986), which, here, hints to the learner that there is essentially one possibility—to say no. Simo does just that (line 21), and the teacher responds with an opposite candidate understanding that Simo unplugs 'everything' (line 22). Explicating such contrasting digital appliance use habits allows the teacher to convey a sense that the electricity taken by personal appliances does not represent a significant part of total consumption, that appliances only eat 'some energy' (line 25). Such an understanding then forwards the main interactional project of identifying how one can best save energy in a house.

From the perspective of gaining insights into what Simo knows about saving energy in the house, this implies that he still lacks understanding of how energy in a house can be saved. Thus, he has to be directed rather explicitly by the teacher, as will also transpire in the following interaction. It is, perhaps, because of this understanding that the teacher begins to steer the attention away from electrical appliances and individual variation in their use to less visible, yet more significant, forms of energy consumption (Excerpt 7).

(7) Hinting at insulation.

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25 T         no so you're using some energy there. (0.7)
26           what are the things in a- (.) house that (0.3)
27           take the most energy that consume °the most energy°
28 Simo      fridge and [freezer    ]
29 Anneli               [but we had-] (0.4) <done> °this°=
30 T         =I <know,> (0.3) now you [have to use] your brains to dig
             deeper=
31 Simo                               [(   )      ] ((TO ANNELI))
32 T         =where else could you save energy in a house
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33 (2.0)
34 Simo (depends for) the people in
35 (13.0) ((T WALKS TO THE WINDOWS, KNOCKS ON ONE OF THEM. ON THE WAY BACK, HE STOPS, POINTS AT THE CEILING AND FLOOR, AND THEN RETURNS TO THE GROUP))
36 T what would you put there, ((POINTS AT THE CEILING))
37 (1.0) ((POINTS AT THE WINDOWS))
38 why are those windows like that,
39 (1.5)
40 T why do we not just have one- one (0.4) sheet of glass (0.4) ((MOVES HAND DOWNWARDS SEVERAL TIMES))
41 why do they have three sheets of glass? ((BOTH HANDS PARALLEL))
42 (1.3)
43 T what's (happening)
44 (2.5) ((CROUCHES IN FRONT OF SIMO))
45 T what's happening there
46 (1.2)
47 Simo ( ) they use some ( ) (additional) light source (0.5) ( )
48 T oka:y so you could be doing that (and) I have seen very many
49 houses new houses with <big> glass (fronts on them) (0.5)
50 so you're right they're trying to get in (0.4) extra heat there
51 (1.6) but why else do you need three (0.6) sheets of glass
52 (0.9)
53 Simo it keeps out the cold (more)
54 T keeps out the cold ↑more (.) so you don't have to do what
55 (2.0)
56 Simo use heat
57 T (okay) good (0.3) so- (0.7) on the (paper) ((WALKS AWAY))

Here, we focus our observations on what Simo's turn in line 34—that ways of saving energy 'depend' on people—signals for the teacher in the current task context, and how it occasions a change in the teacher's instructional strategy. Before that, we briefly note that already the teacher's prior question in lines 26–27 is formulated so as to avoid the possibility of receiving a personal account, unlike the questions in Excerpt 6 (e.g. lines 6–9). First, the grammatical structure no longer employs the generic you, which is vulnerable to being interpreted as specific to its recipient (as Simo's earlier response in line 15 showed). Second, by asking for 'the things' that consume 'the most energy', the teacher conveys that such things are commonly found in many houses and thus invites a generalised or an 'objective' answer.

‘Things’ is a somewhat ambiguous reference term, but Simo’s response—‘fridge and freezer’ (line 28)—shows that he continues to search for significant energy consumers among electrical appliances.

Line 34 responds to yet another question reformulation (lines 30, 32), which addresses another learner’s complaint about the repetitive nature of the task (line 29). Simo’s turn is a nonconforming response (Raymond, 2003) in the sense that it does not specify a location, device, or activity with an energy-saving potential in response to the teacher’s ‘where’ question, and from the way the teacher treats Simo’s turn it is clear that it represents an inadequate answer in this context. Thus, instead of ratifying (even a part of) the answer, the teacher decides to change his strategy. Namely, a long silence ensues during which the teacher walks to the side of the classroom, knocks on windows, and points at the ceiling and the floor. These embodied actions serve to highlight parts of building as significant for the answer (and thereby for energy saving). They and the series of two questions in lines 36–38 direct attention to structural elements that insulate buildings against cold weather (double or triple glazing; roof structure), which are particularly important in climates such as that of Finland.

Simo’s answer, due in line 39, does not arrive, and the teacher specifies the question about windows in lines 40–41, depicting the multiple glazing with a gesture. As Simo does not take a turn even then (line 42), the teacher rephrases the question once more (line 43) and pursues an answer (line 45) before Simo finally responds. While the response (line 47) is partly inaudible, the way the teacher builds upon it is visible in the structure of his turn in lines 48–51: he acknowledges the relevance of Simo’s answer and accepts it as partially correct (“you could be doing that”) and elaborates on it by way of a real-life example (“I have seen many houses”). This, again, is an example of the teacher’s assistance building on the learner’s responsiveness to previous assistance. The teacher acknowledges that one function of big windows is to save energy and only then readjusts the question (“why else”), also eliciting the word ‘heat’ and inquiring once again about the function of three sheets of glass in windows. Such guidance enables Simo to produce an explanation for triple glazing (“keeps out the cold”, line 53). The teacher ratifies the answer by repeating it and links the answer to energy saving with a designedly incomplete question (Koshik 2002) that explicitly directs Simo to complete the teacher’s utterance and thereby use the terminology (‘heat’) introduced by the teacher.

It is not known what the teacher’s intention was in leading Simo’s thinking from the idea of ‘keeping out the cold’ to ‘using heat’ instead of accepting Simo’s response. Still, the

preceding interaction resulted in that Simo produced a scientific, rather than an everyday, explanation, which also contributed to the main interactional project of the exchange—ways of saving energy in the house. That is to say, Simo's knowledge was co-constructed together with the teacher allowing the former to eventually verbalise in a scientifically appropriate way how energy can be saved by using triple-glazed windows and why. As Simo does this (line 56), the teacher accepts the answer and leaves the group. Note that Simo's talk in the whole of this exchange is only minimal, and he requires substantial directing in order to produce this response. Nevertheless, it is Simo in the end who produces the response albeit with explicit support from the teacher. Should the teacher have not used the opportunity to assess the learner's understanding and instead have resorted to directly telling the learner that 'triple-glazed windows help us use less heat', these insights into the learner's abilities would not have been available. Furthermore, it is likely that Simo's understanding of the phenomenon of insulation would not have been developed with explicit support as it was with gradual directing to the idea of saving heat by having several sheets of glass in windows.

Excerpt 8 shows how the teacher walks back to the group within a matter of seconds to continue discussion. His question (line 60) invites Simo to make sense of the teacher's earlier pointing at the ceiling (lines 35–36 of Excerpt 7) and seems to project talk about different physical materials and their insulation properties. In other words, even though this happens immediately after the previous episode, this can be regarded as transcendence. The teacher attempts, building on the insights that he obtained about what the learner knows, to help the learner to connect his emerging understanding of saving the energy to the roof, assisting thus the learner in reconstructing his knowledge to use in a new context.

(8) Coming back for elaboration.

58	T	AND SIMO
59		(0.9)
60		why would I be pointing to the ↑ceiling ((POINTS AND WALKS BACK))
61		(2.4)
62	T	where do you think most of the energy (0.3) is lost in a house
63		(1.8)
64	Simo	if there is no ( ) (1.2) solar panels °(on the roof)°
65	T	↑no::: I wouldn't say tha:t (.) ((SHAKES HEAD))
66		(1.4) what stops the heat getting out (0.3)
67		what keeps the heat in your (↑room)
68	Simo:	(the) roof
69		(1.3)

70	T	the roof okay (.) and if I just put up a roof made <of> (0.5)
71		straw, (1.5) will that house be warm
72	Simo	no
73		(0.8) ((T SHAKES HEAD))
74	T	↓no:: (0.3) so what would I need to ↑do (0.5) to my roof to keep
75		the heat in? ((KALLE RAISES HAND))
76		(0.8) ((T POINTS AT KALLE))
77	Kalle	(wood) (.) maybe?
78		(3.9)
79	Simo	(to buy) (0.7) very very soft ( ) ((KNOCKS ON THE DESK))
80	T	okay s- (1.2) no::?= ((LOOKS AT CO-TEACHER))
81	CoT	=okay ti:me
82		(2.2) ((CO-TEACHER'S TIMER BEEPS))
83	T	I'm gonna follow you to the next table and >we('ll) do it< o↑KAY
		((TEACHER ANNOUNCES CHANGE OF DESKS))

A 'why' question such as that in line 60 makes relevant a subject-specific explanation for the teacher's action. From the perspective of assessment, the function of this would be to find out whether the learner is able to extend the understanding of how windows can save energy to how it is achieved in other parts of the house, such as the ceiling/roof. Simo's answer to line 60 is delayed, and the teacher's follow-up question in line 62 is hearable as a hint for finding the answer to the 'why' question; at the same time, line 60 also offers a resource for answering the 'where' question in line 62. While these relevancies are visible in Simo's answer in the sense that 'solar panels' (line 64) are indeed in the pointed direction, the discovery that he makes is not the one that is being elicited from him in this situation. It fails to perceive that the teacher is inviting an explanation (for *ceiling*) that is similar to what was 'happening' with triple-glazed windows, something that links these two structural elements and energy saving.[1]

After rejecting Simo's answer, the teacher offers a new hint in lines 66–67, directing him to find the relevant response in energy that is lost by heat transfer as opposed to energy

[1] It is worth pointing out that in everyday Finnish language usage, one word ('katto') can refer to both the roof and the ceiling. Given this, Simo is also facing the (linguistic) task of distinguishing between these two structures as he is being instructed by the teacher, in addition to the subject-content task that deals with insulation. This may also explain, at least partly, why he responds to a question about the ceiling by mentioning solar panels.

that one can gain from solar panels. At the same time, it reinforces a more scientific conceptualisation of insulation (compare: “keeps out the cold” in Excerpt 7 with “stops the heat getting out”). The teacher affirms and builds on Simo’s answer (line 68) by asking another leading yes/no question, in which the word ‘just’ makes quite clear that ‘no’ is the invited answer (lines 70–71): as such, it serves as explicit mediation of Simo’s thinking, as the teacher’s formulation does not leave room for any other response from the learner. Furthermore, now that a negative response has been produced by Simo, an opportunity to ask further guiding questions is created for the teacher.

The teacher affirms Simo’s answer by shaking his head and repeating the answer. His follow-up question (lines 74–75) builds on Simo’s response (by way of the turn-initial *so*) and makes relevant an explanation of what needs to be ‘done’. Kalle, another student in the group who bids for (line 75) and is given a turn (line 76) does not provide such an explanation but instead suggests in a hedged manner that a different material could be used (line 77). The teacher does not seem to respond to Kalle in any way (although his facial expressions are not entirely visible on the camera at this moment) during the ensuing silence. Simo’s subsequent turn (line 79) is more sensitive towards the teacher’s question in that it appears to describe what one needs to do (*buy*). Parts of the turn are inaudible, but turn-design features such as the intra-turn silence, description of an object, and knocking on the desk suggest that a word search is underway. “Very very soft” (material) could refer to thermal insulation wool, which would be a content-wise relevant answer in this context. That is, it could be that Simo’s problem is a linguistic rather than a conceptual one at this point. Perhaps due to the somewhat ambiguous formulation, the teacher does not treat it as a (fully) correct answer but as one that still needs work (line 80). However, at the same time, the co-teacher announces a change of desks, and the focal teacher tells Simo that he will resume the discussion in the next stage (though he does not do it during the lesson). Above all, such a closing remark conveys that Simo has not yet displayed sufficient understanding of insulation, a topic that as such has not been named but only alluded to during the exchange.

Unfortunately, the following lessons were not recorded. Thus, we cannot trace whether and to what extent there was transcendence in terms of Simo’s internalisation of the knowledge/understanding that emerged in the interaction and was co-constructed together with the teacher. However, what we are able to trace in this interactional episode is the practical work that a teacher does to gain insights into the learner’s abilities and to simultaneously direct the learner’s understanding through the use of guiding questions and other mediational means, such as gestures. To summarise, by formulating his questions in

different ways, the teacher is able to both open up opportunities for Simo to display and elaborate on his understanding (e.g. as in line 54) and limit this range by way of yes/no questions (e.g. lines 71–72). We still wish to underscore that it was not the grammatical structure of the questions per se that mattered but how these questions manifested an attempt to calibrate assistance on the basis of the learner's responsiveness to previous assistance and in turn, to direct the learner's responsiveness and emerging understanding.

From the point of view of simultaneously teaching assessing, it transpires that Simo was still other-regulated regarding his understanding of the concept of insulation, meaning that even though learners wrote down the key information from the unit onto the poster, he still struggled to understand the material without external assistance. We also learn that with enough guidance, Simo was able to understand this concept (even if the word itself did not emerge once in the interaction)—insulation is there so that heat, that is energy, is not lost. However, Simo was probably not yet able to transfer this knowledge to other contexts.

We argue that it is namely this assistance-reciprocity cycle that yielded insights into the learner's abilities, helping the teacher to build his understanding of what Simo knew about insulation and promoting Simo's understanding of the concept of insulation. In the discussion, we will return to these two functions of assessment as a part of classroom interaction: assessment and instruction, connecting them to the insights that we gained from teacher interviews.

9.4 Discussion

In the present chapter, we aimed at gaining insights into how CLIL teachers understand assessment and how it is involved in their practices. Our major goal was to raise awareness about assessment as a dialogical process in which the teacher's and the learner's understandings are jointly constructed.

Considering that gaining teachers' perspectives is an important first step in developing their assessment practices (Livingston & Hutchinson 2017). Overall, several observations can be made based on our analysis of the interview data. Bearing in mind that due to the nature of the data, these cannot be generalised, we summarise these in following:

- CLIL teachers may associate assessment with assessing learning outcomes more readily than with assessing their learners as a part of their classroom interaction (Tsagari & Vogt 2017; Chap. 1, this volume);
- when assessing content-related knowledge in assessment of learning, CLIL teachers have ways to minimise the role that learners' language skills/competence plays in the assessment; this can happen by allowing the use of learners' L1 or asking learners to explain concepts and definitions in everyday language (as transpired in the interviews we analysed); or by scaffolding the language in assessment activities (Lin 2016);
- teacher's concern for learners showing understanding in assessment of learning outcomes often emerged in the interviews;
- with regards to assessment other than that of the product, teachers tend to refer to it as understanding of their learners' abilities;
- some teachers' reports on their instructional practices imply that they have implicit understanding of what learners can do, what they find difficult, and how to make sure that learners understand; other teachers can find it problematic to find whether the source for learner problems is language or content and how to address these problems.

All in all, these observations led us to study how teachers' understanding of their learners and their learners' understanding can develop during classroom assessment when assessment opportunities in classroom interaction (Hill 2017a) are recognised and utilised by the teacher.

The interaction that we analysed exemplified how instructional decisions can be made during the assessment process and immediately after it. Namely, as the result of the assessment, the teacher decided to follow the learner in order to guide him further. It is interactions like this that can give teachers insights into what presents a difficulty to learners and thereby inform teacher practices, e.g. opening up complex definitions for learners, such as those described by T3 and T4. They can provide a foundation for continuing instruction with the same learner at some later time (with reference to the notion of transcendence) as well as for teaching the whole cohort. In the case of the activity during which the teacher-learner interaction we studied took place, this could involve checking learners' understanding of the concept of insulation while they present their posters, for example, asking guiding questions as those in the classroom interaction we analysed.

Both the interview and the classroom interaction data show that teachers strive to find out if there is understanding behind learner responses in assessment, be it a test, an essay, or an interactional turn. In T2's interview, it transpires that she pushes learners to express their understanding using everyday language even though, as is seen in the classroom interaction episode, learners can be directed towards using scientific language. However, it is then not surprising that learners use this language in their writing and subject-specific discussions. Furthermore, if learners are allowed to use their L1 or everyday language, do they always possess the required resources to do so? As Dalton-Puffer (2017) argues, teachers should make content, including scientific vocabulary, accessible to learners. Indeed, as far as T3 and T4 practices are concerned, we can see that some teachers have procedures for making sure that learners understand the content. The classroom interaction data that we analysed is then an example for how practices such as using everyday language to explain complex concepts (T4) can happen procedurally. In fact, we cautiously propose that teachers' use of the knowledge about what learners understand accumulated through A*f*L can help them recognise if there is understanding behind scientific definitions and explanations of phenomena in learners' essays or tests. This speaks in favour of using Leung and Morton's (2016) integration matrix as a way to inform classroom-based assessment cycle (see Chap. 1, this volume), that is, to understand the types of knowledge elicited by different assessment activities and ways that the following teaching, learning, and assessment can be informed based on the insights emerging in assessment.

We emphasise that in this process, both assessment and instruction are important, as it is when both are analysed together that one can gain insights into what the learner knows and understands and how to build upon this understanding. We certainly admit it that as teachers interact with their learners, they may not have the luxury of analysing the data as we did, having access to the video and the transcript and being able to trace in minute detail how the interaction unfolded. Despite this, the interactional episode shows the teacher being sensitive to Simo's emerging understanding and continuously assessing his performance as the interaction unfolds. Neither is it always possible to follow one learner for an extended amount of time in the classroom, as was the case in our data, too. Acknowledging all this, we nevertheless argue that being aware of assessment opportunities and how these assessments could be arranged can be the first step for teachers to develop both assessment practices that work for *them* and understanding what their learners can do, sources for their problems, and how to address these problems, be these language-related, content-related, or both.

We also want to underscore that language and content *were* integrated in the interactional episode that we studied, even if the integration was not planned and did not involve using pre-designed procedures focusing on language (explicit language pedagogy) or content (content pedagogy). Instead, the nature of integration was more situated and 'centrifugal' (see Leung & Morton 2016; see Chap. 1, this volume) and emerged as the teacher and the learner developed their understanding through the teacher's continuous assessment of what the learner could and could not do and the subsequent guidance. This guidance included questioning, gestures, and confirmations from the teacher leading the learner to demonstrate his knowledge through language including shifting to using scientific rather than everyday language. In a way, the integration of content and language as we propose it here is contrary to how T1 (Excerpt 5) attempted to address merging language and content (going first to the linguistic part and then, the content part). Rather, in this perspective on integration, the purpose of assessment is not to focus on either the language or content separately, but to dynamically build learner understanding in interaction. We propose such assessments can be organised with reference to the notion of reciprocity (Feuerstein, Feuerstein, & Falik 2010), meaning that the following assistance should build on the way that the learner reacts to the preceding assistance.

We would like to draw the reader's attention to the fact that the teacher in the interactional episode we analysed did not focus straight-away on learning, but aimed at promoting Simo's understanding. Certainly, the ultimate aim of any instruction is to promote learning. However, in order to assess whether Simo learned from the interaction, a further assessment would be required, perhaps, during the following lesson, informed by the other concept we mentioned at the beginning of the chapter—transcendence. In other words, the teacher would need to assess whether and to what extent Simo could apply the understanding that emerged in the previous interaction in a different context, similarly to how the teacher attempted to guide Simo in applying the understanding of the function of triple-glazed windows to saving energy. In order to maintain a continuous assessment cycle, the teacher would have to build his subsequent teaching and assessment on what he learned about Simo's understanding of insulation in these extracts. We note that the teacher at least promised that this would be the case. We also note that the teachers in our interview data, too, talked about understanding their learners and ways of ensuring learners' understanding, which is not surprising, as understanding is an important part of education and, therefore, is also the object of a body of research (see, e.g. Lindwall & Lymer 2011, for a discussion).

Considering the value of raising teacher awareness in developing teacher assessment literacy and bearing in mind all of the above, we propose that the purpose of assessment as described in this chapter is promoting learners' and teachers' understanding and by doing so effectively introduce a term—*assessment for understanding*. We argue that the idea of *assessment for understanding* can be useful, at least in teacher training, as teachers are informed of what the gains of such assessment are and then, hopefully make it a part of their practice to serve these two purposes: to understand their learners and to promote their learners' understanding. Above all, 'understanding' in these two meanings emerged in the teacher interviews we analysed when teachers talked about assessment, explicitly or indirectly. Furthermore, understanding aligns with the concept of assessment *for* learning and the classroom assessment cycle discussed in Chap. 1 of the volume. That is, in order to give learners feedback that tells them where they are in relation to the goals, where they are likely to move next in their development, and how to get there, teachers should first themselves understand it where the learners are and how to push their development. For CLIL, both content and language goals are needed to be considered together and in relation to one another, though the focus on one or the other can vary (see Chap. 1, this volume). With regard to promoting learner understanding, the present chapter, informed by sociocultural theory, discussed one way this can happen in practice, building the argument for teachers not only using assessment opportunities as they arise in classroom interaction but consciously seeing them as such, which allows for building on them in subsequent teaching and assessment (see the classroom-based assessment cycle in Chap. 1). The classroom data illustrated that understanding in the classroom data is a social and interactional phenomenon that teachers make visible through their practice. In a way, this is similar to our interview data, where we did not observe learner understanding directly but through teachers making it social by talking about it.

Having said that, we underscore that, at present, *assessment for understanding* is a practical rather than theoretical concept. Our goal is, to repeat, to raise teachers' awareness about what and how to assess. As teachers talk about understanding, the discussion and changing teacher assessment practices should build on it, revolving around how they assess (*for*) understanding. To sum up our argument, learning to understand and learning with understanding is "linking ideas one to another in a rich intricate web; applying what we learn to answer new questions; reflecting on knowledge; and expressing ideas in creative ways. With understanding, learning becomes personal." (NCISLA 2005, qtd. in Wilson & Peterson 2006, p. 9). By all means, though, more conceptual and empirical work is required for

making the term usable, such as establishing above all, the relationship between *understanding* and *learning*. We tentatively propose that this relation is reciprocal, as one needs to understand to learn, which opens up possibilities for further development of understanding. Furthermore, a conceptual relationship between *assessment for understanding* and *assessment for learning* should then be established. Only then can the term be used to its full potential, be it in (CLIL) teacher education or elsewhere. For example, as we suggested, understanding can be presented as the purpose of one assessment event (such as the classroom interaction episode in this chapter) in the classroom assessment cycle. These events together can be conceptualised as a contingent continuous process having the purpose of promoting learning, assessment *for* understanding being thus a part of assessment *for* learning.

We admit that further conceptualisation of the term is required. We also acknowledge it that the introduction of yet another term into a field that has seen a proliferation or terms (see Chap. 1, this volume) can potentially create confusion rather than resolve it. We, however, hope we have sketched some of the directions for the development of conceptualising assessment *for* learning with a practical goal of raising teacher awareness of assessment and its role in CLIL classrooms.

Further Reading

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APPENDIX A

Transcription symbols

wo::rd	prolonged sound
(.)	silence less than 0.2 seconds
(2.0)	duration of a silence
(word)	uncertain transcription
( )	unintelligible talk
wo-	cut-off
[ ]	overlapping talk
((POINTS))	embodied action
<word>	slower pace than in surrounding talk
>word<	faster pace than in surrounding talk
word	emphasised talk
.hh	an audible inbreath
hh	outbreath
=	latched utterances
°word°	quieter than surrounding talk
,	continuing intonation

?	rising intonation at the end of a prosodic entity
↑ ↓	change in pitch height
italics	English translation of a Finnish turn constructional unit