56 Qualitative Approaches to Classroom Research on English-Medium Instruction

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Abstract

This chapter provides an overview of recent qualitative research in classrooms examining language learning and use in educational contexts where English is a medium of instruction (EMI). After describing the typical features of qualitative research, we identify the kinds of issues that are best addressed

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through the collection and analysis of qualitative data and provide a list of key principles to guide the design of a qualitative study. We also discuss some of the caveats or challenges to keep in mind, particularly for classroom-based research projects. Three exemplary classroom-based EMI studies are then presented to illustrate how qualitative research has been used in recent research. Using discourse analysis of classroom interaction and other methods, the studies offer insightful contributions to our understanding of the types of tasks, pedagogical approaches, or interactions (between peers or between students and teachers) that are conducive to language development. The chapter concludes with directions for future research.

Keywords
English-medium instruction (EMI) · Content and language integrated learning (CLIL) · Classroom research · Qualitative research · Qualitative classroom research · Research paradigms · Triangulation · Classroom interaction

Introduction

Since the publication of Duff's (2007) chapter on qualitative approaches to classroom research in an earlier edition of this handbook, the number and range of qualitative studies on English language education has continued to grow. Textbooks devoted to qualitative research methods in education, including those directly relevant to language and literacy education, have also expanded considerably in both number and breadth of coverage (Denzin and Lincoln 2018; Merriam and Tisdell 2015). Qualitative classroom research is now commonly published in mainstream high-impact journals in our field such as the *TESOL Quarterly*, as well as in stand-alone monographs and edited volumes. One reason for the increase in such publications, and indeed in the expansion of theoretical orientations to language teaching and learning, is that scholars now recognize that a deep understanding of the diverse contexts and contingencies in language education, and in the lives of teachers and learners within their institutions and communities, is critical to interpreting participants' beliefs, behaviors, and trajectories. Qualitative research is particularly well suited to this work.

The aim of this chapter is to provide an overview of qualitative classroom research examining language learning and use in educational contexts where English is a medium of instruction (EMI). After describing the typical features of qualitative research, we identify the kinds of issues that are best addressed through the collection and analysis of qualitative data and provide a list of principles to guide the design of a qualitative study. We also discuss some of the caveats or challenges to keep in mind, particularly for classroom-based research projects. Three exemplary classroom-based EMI studies are then presented to illustrate how qualitative research has been used in recent research. Using discourse analysis of classroom interaction and other methods, the studies offer insightful contributions to our understanding of the types of tasks, pedagogical

approaches, or interactions (between peers or between students and teachers) that are conducive to language development. The chapter concludes with directions for future research.

Qualitative Classroom Research: Foundations and Issues

In this section, we briefly consider the following topics:

- What counts as qualitative classroom research (QCR) and why it is important
- Ongoing research paradigm debates in research methodology
- Triangulation of perspectives, methods, and data sources
- Inclusion of macro- and microanalytical interface
- Principles for designing and conducting QCR studies, including advice on how to avoid common pitfalls

What Is Qualitative Classroom Research and Why Is It Important?

Qualitative research is not a single approach but a cluster or continuum of approaches that generally seek contextualized, naturalistic, holistic understandings and interpretations of phenomena that occur in particular types of contexts. Despite some common misunderstandings of it, qualitative research is normally theory driven; it complements rather than competes with quantitative research; it is concerned with social practices as well as people's experiences; and it should be designed, conducted, and reported rigorously (Silverman 2016). The term *classroom*, in turn, is typically understood to include the physical and interactional space where "teachers and learners are gathered for instructional purposes" (Nunan 2005, p. 225). While this does not exclude virtual, online, blended, or flipped classrooms, traditional QCR by default is associated with face-to-face experiences of instruction and learning, although many of the issues surrounding participation, inclusion, interaction patterns, and feedback apply to other learning spaces as well.

A distinction can also be made between classroom-*based* and classroom-*oriented* research: the first type refers to investigations carried out in the classroom and which, according to Nunan (2005), are designed as empirical studies, whereas the second type is conducted outside the classroom per se, "in the laboratory, simulated or naturalistic settings, but which make claims for their relevance of their outcomes for the classroom" (p. 226). A further distinction has also been made by Ellis (2012) between "formal" and "practitioner" classroom research. *Formal* research refers to investigations carried out by an external researcher, typically with the aim of addressing theoretical issues and contributing to both theory and practice beyond that context. In contrast, *practitioner* research is conducted by practitioners (typically teachers) in their own classrooms and is usually framed as action research or exploratory practice (see Ellis 2012, for further elaboration). Practitioner

research is motivated by teachers' own questions about their practice and about student learning (McKay 2006). Evidence of the growing recognition of the significance of practitioner research is found in such journals as *Language Teaching Research* and the *Journal of English for Academic Purposes*, both of which recently added sections to feature practitioner-led inquiries.

Classroom research focusing on language also normally offers pedagogical implications for (second) language teachers, thereby establishing closer links between theory and practice (Ellis 2012; Harbon and Shen 2015; Lightbown 2000; McKay 2006; Nunan and Bailey 2009). However, this pedagogical commitment is contested by Ur (2014), who proposes that we instead view research-based insights as opportunities to enrich the practitioner's knowledge base. With its decade-long history in English language education and applied linguistics, QCR is now a well-established approach to research that fulfills the important mandate of shedding light on a range of topics and issues that can best be examined with the primary data gathered in situ or, if not collected exclusively within the walls of classrooms, then from members of the class (e.g., via out-of-class interviews and journals) regarding their classroom experiences. (For more comprehensive overviews of second language classroom research approaches and topics, see, e.g., Chaudron (1988); Ellis (2012); McKay (2006); Nunan and Bailey (2009); and van Lier (1988).) The scope and methods of QCR have continued to expand over time. They now include, for instance, a focus on instructional styles and strategies, patterns of student behavior, patterns among teacher and student interaction (e.g., initiation-response-evaluation routines), elements of peer-to-peer interaction and socialization, types of tasks or activities and their effect on interactions and learning, teaching/learning processes and outcomes associated with different types of language and literacy activities, and, more recently, issues related to students' identities, motivation, affect, and use of multiple language repertoires in the classroom. In addition, language ideologies and policies governing language choice within classrooms (e.g., "English-only" vs. "translanguaging") have become a prominent focus in contemporary QCR (Duff 2019; Lin and He 2017), as have exclusionary forms of discourse and interaction that create or exacerbate the marginalization of minority students.

Ongoing Research Paradigm Debates in Research Methodology

A research paradigm can be defined as "a way of looking at or researching phenomena, a world view, a view of what counts as accepted or correct scientific knowledge" (Cohen et al. 2018, p. 8), with its corresponding set of underlying assumptions and methodologies (Rossman and Rallis 2011). Two main views have informed educational research: the "scientific" (objectivist) view and the interpretivist view. The quantitative paradigm, rooted in the so-called scientific view, rests on the assumption that there is an observable, objective reality that can be discovered and explained using natural science methods. In contrast, most qualitative research embraces an interpretivist view and is based on the assumption that multiple realities coexist and that the "truths" are negotiated between the

participants and the researcher(s) (Cohen et al. 2018). These two paradigms have historically been presented in opposition, leading to heated debates in the field about what counts as acceptable, robust research in education, applied linguistics, and the social sciences. Space does not allow for a full discussion of paradigms, which are discussed at length in several research method textbooks and manuals (e.g., Cohen et al. 2018; Creswell and Creswell 2017; Merriam and Tisdell 2015; Rossman and Rallis 2011; Silverman 2016; Paltridge and Phakiti 2015; see also Lukenchuk's (2013) discussion of research paradigms). In the meantime, mixed-methods research in second language education, including in classrooms, has increased in recent years to bridge the traditional dichotomy of qualitative/quantitative paradigms and offers various complementary perspectives and research designs (e.g., Riazi 2017).

Over the last two decades or so, qualitative research in applied linguistics has been deemed a key, legitimate, and – depending on the research question – fundamental approach to inquiry. The growth of qualitative research was spurred by a call for a more "emic" perspective (discussed below) in second language acquisition research and an acknowledgment that the researcher's ideologies are necessarily embedded in (and part of) the meanings co-constructed with research participants (Talmy 2010). This recognition, coupled with the growing impact of social/sociocultural, anthropological, and ethnomethodological theoretical perspectives in education and second language acquisition (Douglas Fir Group 2016), has resulted in a surge in qualitative research and, to a much lesser extent, mixed-methods studies. Another important realization has been that it often takes time ("prolonged engagement") in research sites to make sense of observed teaching/learning practices, not to mention participants' trajectories or transformations. This principle may require a commitment to longitudinal research where the research is of sufficient duration to truly understand the complex factors, processes, dynamics, and outcomes associated with educational practices. Other approaches to research, however (e.g., conversation analysis), may focus on just micro-interactions within a particular activity setting without necessitating either macro-social or (other) scalar perspectives or longitudinal engagement in the research site. Thus, there are many valid research approaches, not all of which subscribe to the same principles of research design, contextualization, analysis, and interpretation.

Given this diversity of approaches to QCR, together with its increasing prevalence, it is not surprising that novice researchers in graduate programs now have more access to training in a variety of qualitative methods, particularly within graduate schools of education and applied linguistics. In this way, they are able to avail themselves of specialized training in a wide range of qualitative research methods courses (e.g., ethnography, case study, discourse analysis, conversation analysis, qualitative data analysis, narrative inquiry, action research), which then is another indicator of the changing status of qualitative research in the field. In the case of QCR specifically, after an extensive review, Ellis (2012) concluded that:

> Second language classroom research has been greatly enriched by a line of enquiry that did not figure at all in Chaudron's [1988] review – namely, research based on sociocultural theory. This has provided rich and rigorous descriptions of classroom interaction by drawing on the techniques of microgenetic analysis and conversational analysis. (p. 338)

Nevertheless, issues concerning the quality of qualitative research design, the robustness of analyses, the reliability or trustworthiness of findings and interpretations, and the effectiveness of reporting, among others, can still be a concern. Indeed, critiques of some qualitative classroom research may be warranted when the studies do not demonstrate a theoretically grounded, systematic, methodical, in-depth, or original analysis or appear to simply contain a few anecdotes or vignettes with little indication of their representativeness or salience or reasons underlying their selection. To avoid or at least mitigate such issues, qualitative classroom researchers are encouraged to follow a principled approach to the design, implementation, and reporting of their studies (see, e.g., Ellis 2012; Nunan and Bailey 2009). In what follows, we highlight – and then exemplify in three studies – some of these principles.

Triangulation of Multiple Perspectives, Methods, and Data Sources

Generally, qualitative research includes the triangulation of perspectives of "insiders" (the "emic" perspectives of participants), such as students, teachers, and program administrators, and those of outsiders (the "etic" perspectives of analysts), such as university researchers. However, the methods used also depend on the type of qualitative research being conducted, the accepted conventions associated with that approach, and the research questions being addressed. In classroom research examining the experiences of English language learners, for example, the following elements might be involved: observations and narrative accounts of what students and teachers are doing during a particular type of activity and what behaviors, knowledge, and oral or written products or artifacts resulting from that activity (Zappa-Hollman and Duff 2017). Ideally, the observations are videotaped or audiotaped, so that researchers can easily review the activities and transcribe and analyze – often now with the aid of qualitative analysis software – portions of the discourse in activities of greatest interest or relevance to the questions investigated. These data might also be supplemented by interviews with the participants about their perceptions of what transpired.

Because researchers may bring to bear their own emic and etic perspectives, particularly if they are closely affiliated with groups or social practices being studied, it is important to understand their *positionality* (also referred to as *reflexivity* or *subjectivity*) in conducting research. Generally, this disclosure takes the form of an explicit account by researchers of their own role or history in a project and apparent influences (both intended and unintended) over the participants, interactions/observations, and findings. The intent is not for researchers to apologize for "contaminating" research sites by their presence but to recognize that researchers are themselves participants or instruments as well as learners in projects who should not pretend to be dispassionate, arms-length, impersonal, ahistorical, and invisible research agents. This view of research sees data as produced or generated by the researcher together with participants, for example, during interviews (Talmy 2010), and not simply the uncovering of external

realities or unquestioned facts or "truths." That being the case, it is incumbent on researchers to provide candid accounts of their own role in selecting research topics, sites, and participants and in framing observations, interview questions, activities, and debriefing sessions. They must also take care in how they report on participants' accounts.

Combining Macro- and Microanalyses

Some classroom research incorporates both macro- and microlevels of analysis in studies of classroom discourse, and, indeed, there is a call for more research that looks across multiple temporal and spatial scales (Douglas Fir Group 2016). Obtaining a macroscopic perspective requires studying the broader social, cultural, and historical contexts for communicative events and uncovering (among other things) attitudes, ideologies, policies, and behavioral patterns within schools and communities. This approach is often found within ethnographies of communication (Saville-Troike 2003) or what is now more commonly referred to as linguistic ethnography (Snell et al. 2016). Studies combined with interactional sociolinguistics or critical theory framed as linguistic ethnography may address issues connected with ideologies of school reform, individualism, bilingualism, multiculturalism, (im)migration, racism, and unequal power relations (Snell et al. 2016). In addition, some of the multiscalar research draws on post-structuralism and critical theory to explore the multiple and sometimes contested identities, perspectives, values, and practices of individuals and groups, the discourses and tensions associated with observed practices, and the sociohistorical factors that gave rise to them and their consequences for (language) learning, social integration, and overall well-being. Thus, a wide range of studies aim to bring together the macro- and microanalyses, noting the larger socio-educational and sociopolitical contexts, discourses, and issues surrounding language education and use, on the one hand, and academic achievement, dimensions of social participation or interaction, senses of "self," and language learning performance, on the other. They may also analyze how the macro is constituted in or by micro exchanges and how points of tension between native and imported (or local vs. newcomer) orientations to schooling are manifested.

However, bringing together these multiple scales of analysis as well as etic and emic perspectives can be very challenging logistically, in terms of data collection, analysis, and concise reporting, particularly in journal articles. As in all empirical research, data reduction as well as exemplification is necessary, often achieved by the principled selection of a limited number of representative or otherwise noteworthy activities, discourse excerpts, and a small number of focal research participants from a larger study, sometimes in combination with a quantification of general patterns across the data set and more macroscopic contextualization. It is then necessary to explain to readers how and why these cases or exemplars have been selected.

Often in educational research, focal teaching/learning activities (sometimes referred to as tasks or projects as well) are selected for close analysis, particularly

as these are seen to constitute a key aspect of (social-) constructivist learning. This focus contrasts with much earlier research that largely examined either teacher talk or teacher-student interaction through iconic question-response patterns. Examples of activities examined in English L2 classroom research using a combination of ethnographic approaches and discourse analysis and framed as academic discourse socialization include oral academic presentations in graduate school seminars, class discussions, and literacy activities in various academic fields (see, e.g., studies reviewed in Kobayashi et al. 2017). Choosing a common but instructionally important activity also allows for comparison across time and contexts.

Principles for Designing and Conducting Qualitative Classroom Research

Here we list a set of principles to be considered when designing and conducting QCR (see also Zappa-Hollman and Duff 2017).

Choosing the Appropriate Design to Answer the Research Questions

As mentioned earlier, the type of research design and methods used need to be driven by the types of questions the researcher intends to address, questions that should be closely aligned with current theoretical and practical issues in the field. The questions then need to be operationalized in a way that suits the aims of the proposed research and are likely to contribute new knowledge to the field. QCR often includes questions related to "why" and "how," for example, why teachers or students do what they do, or how they enact a particular activity, and to what ends. Therefore, the underlying theories and methods should be compatible. If seeking answers to "why?", it is natural that participants will be asked for their own perspectives on their classroom-related behaviors or views and not only inferences drawn from the researcher regarding participants' behaviors. If seeking answers to "how," the observation and analysis of the social and linguistic intricacies of interaction among members of a classroom community would be highly relevant. In short, obtaining rich, "thick" data pertinent to the research questions allows researchers to describe and interpret situations in depth and, in many cases, to include multiple perspectives on observed phenomena.

Providing Sufficient Information About Choices Made and Rationale

Another important aspect in sound qualitative research is that there is transparency in reporting on-site and participant selection, the meanings and operationalization of key constructs, contextualization of observations, researcher reflexivity (as noted earlier), clear explanations about how and when (and for how long) data were collected as well as how the data were analyzed, and justification for particular choices, decisions, and inferences. Sometimes these elements may be so familiar to the researchers, or space in

publications may be so limited that they omit discussion of them. In other cases, because care must be taken not to disclose information that might reveal the identity of participants or sites (which is normally not recommended by research ethics boards), some of this information may be intentionally omitted or changed. However, including sufficient contextual and procedural information helps readers follow the chain of reasoning undergirding the study and instilling confidence in the methods and interpretations, allowing readers to also draw their own conclusions.

Ethical Considerations

Permission to conduct observations in classroom research (whether recorded or not) and to interview participants and examine other kinds of oral/written performance is normally required not only from participants themselves but also from their institutions, according to many widely accepted national and university guidelines for undertaking ethical research (De Costa 2016). However, these permissions may be difficult to obtain from all parties because of the perceived invasiveness of such practices or reluctance to draw attention to participants' abilities, challenges, dispositions, and actions. Furthermore, individuals (and in the case of minors, their parents/guardians) considered most "at risk" (e.g., immigrant or international students struggling with limited L2 proficiency and/or other issues) may be reluctant to provide permissions to participate in studies because they already feel vulnerable (Duff 2002). Longitudinal research may also pose challenges due to attrition or withdrawal from studies for these and other reasons, connected to student mobility, for example. It is therefore often difficult to negotiate and obtain permissions for some types of classroom research from university ethical review boards and from educational institutions and stakeholders for a variety of reasons (Duff and Abdi 2016).

Gaining Access to Research Sites, Mitigating Limitations, and Avoiding Certain Pitfalls

Certain steps can be taken to increase the likelihood of locating research sites and participants and obtaining necessary permissions to proceed with research (per ethical guidelines described above). One factor that can facilitate QCR is to have some history or familiarity with the research site in question, or expertise in the subject matter, possibly from having worked or volunteered there, because of a shared (ethnolinguistic or educational) background with some of the participants or through other personal connections (e.g., acquaintance with particular teachers). Because entering into research agreements requires trust and good faith on the part of researchers and their hosts/participants, as well as sufficient information about research objectives and methods, gaining access to research sites may necessitate providing evidence that the work is valuable and that the researcher is credible and well qualified to undertake the work and that any risks to participants will be managed very carefully and will be offset by the expected benefits (a core principle in research ethics). Naturally, if the research questions come from the stakeholders themselves (e.g., trying to understand why certain instructional

practices are or are not working well, or why certain students might be excelling while others may struggle), there will be greater receptiveness to research proposing to address these very issues. That is, the research needs to be viewed as relevant and meaningful to participants and not just to researchers. In addition, if some form of reciprocity is offered by researchers (e.g., to assist participants in some way, to offer workshops to staff, or to compensate them for their time), there may be a greater willingness to take part in studies.

Some studies (especially dissertations) offer candid reflections on factors that facilitated or impeded qualitative classroom research. These reflections are often cast as limitations, but they can also be important, albeit unexpected, findings as well. Baker and Lee (2011), for example, described a number of issues they encountered in the process of collecting observational data and conducting stimulated recall interviews (SRIs) for the respective doctoral projects in the United States on “the classroom practices and thought processes of English as a second language (ESL) teachers” (p. 1435). While acknowledging that their novice research status at the time might have been one of the reasons for some of the pitfalls encountered (from their perspectives), they also argued that they would have benefited from classroom research studies and methodology texts that provided more detail and guidance about typical situations that can negatively impact the data collection process. Their advice for classroom observations included clearly communicating to the classroom teacher (research participant) the nonparticipatory role of the researcher and employing a series of techniques, such as avoiding eye contact with the teacher and/or actively taking notes, in order to minimize the chances of unintended (and obtrusive) interaction during the lesson observed. For SRIs, among other suggestions, they recommended being aware of the impact that the nature of questions might have on participants in order to avoid, or at least minimize, unintended feelings such as the sense that teachers or students were being interrogated or judged; a strategy they recommended was commencing the interview or SRI session with “what” questions before moving to “why.”

In more ethnographic research, where the researcher aims to take up a more participatory role (e.g., as participant observer), clear lines of communication must also be established as to what that role will entail. Otherwise, to give a hypothetical example, cooperating teachers or administrators might expect researchers to address and help ameliorate perceived problems in classrooms or assist students with their work, when in fact it may be the researchers’ primary goal to understand the complex interactions that give rise to such problems before suggesting how to remedy them. Thus, it is necessary to establish clear channels of communication about roles, timelines, procedures, and reporting, in the process of building and maintaining trusting, collegial relationships and allaying fears of unwanted judgment or critique.

Examples of Qualitative Classroom Research in EMI Contexts

To illustrate some of the principles discussed above concerning the design and implementation of qualitative classroom research, we first summarize and then discuss three recently published studies. All three were conducted by

established scholars with an extensive publication record of research on the learning of English language students in EMI educational settings that use (or aspire to use) integrated language and content instruction. Given the sustained growth of EMI and content and language integrated learning (CLIL), mostly in Asian and European settings, a focus on this topic is timely and also illustrates research developments in the field. Just a decade ago, there were relatively few publications on qualitative classroom-based research in EFL (or EMI) contexts (Duff 2007), so this trend toward EMI research internationally is very promising. (It is, however, beyond the scope of this chapter to address or critique some of the larger neoliberal issues and imperatives surrounding implementation of EMI globally.)

Topics recently examined in research on the integration of language and content include matters of definition and characteristics of the different pedagogical models available and how these are implemented (often with adjustments that fit the situational contexts), the underlying linguistic ideologies and concomitant language policies (e.g., policies on medium of instruction [MoI]) typically driven by larger political agendas; evaluations of the learning outcomes of CLIL (usually English-medium) instruction, and, more recently, the nature of classroom discourse and its potential to scaffold language learning. The kind of questions typically asked in relation to this last topic (e.g., what types of classroom interaction characterize the CLIL classroom and how do they support students' learning of language and content objectives?) is best addressed via the collection and analysis of rich qualitative data gathered in situ (i.e., in the classroom context), as the following examples show.

After describing the three studies in this section, we then revisit in the Discussion section the principles just reviewed for designing and conducting qualitative research.

Study 1: Subject-Specific Language Learning Through Hands-On Tasks in CLIL Secondary Science

The first reviewed article was authored by Nikula (2015), a scholar in Finland, who has carried out multiple investigations examining the nature of discourse in the CLIL classroom (e.g., Nikula 2010, 2012; Moore and Nikula 2016). Her 2015 study was primarily concerned with examining the opportunities for subject-specific language use and learning that CLIL secondary science classrooms afford to L2 students specifically through their engagement in hands-on tasks. As the author notes, previous research shows that each disciplinary area uses unique genres and registers to construct meaning (e.g., Coffin 2006; Schleppegrell 2004). The CLIL classroom, then, is assumed to provide a potentially rich context for both content knowledge and subject-specific language development (e.g., Llinares et al. 2012; Nikula 2010). However, since most CLIL instruction in Europe is done by content teachers who believe that focusing on language teaching is not part of their role (Bovellan 2014), this belief results in mostly content-driven examples of CLIL implementation (Dalton-Puffer 2011). Echoing Cammarata and Teddick (Cammarata and Tedick 2012), Nikula highlights the need to help

these content teachers reimagine their identities to view themselves as language teachers also. The study is therefore an attempt to not only describe and analyze the nature of the classroom interactions as students engage in task-based learning but also to potentially identify and examine opportunities that the content teachers create to support their students' subject-specific language development.

The study was carried out in two Finnish secondary schools. The participants included a chemistry teacher and a physics teacher from 2 different schools that offer a CLIL (English) strand and their students (13 in the chemistry lesson and 6 in the physics lesson), all Finnish first language (L1) speakers except for 1 chemistry student. The data, derived from a corpus for a larger study, consist of six 45-min audio-recorded grade 7 chemistry and physics lessons. Nikula used discourse analysis to identify and describe instances when either the teachers or the students used subject-specific language.

The main section of the article is devoted to the reporting of data analysis. This is divided into three sections, each corresponding to the three phases of task-based instruction (and thus showcasing an example of research that uses on an activity as the focus of analysis). A total of 20 excerpts of the transcribed lesson observations are included, with a similar number of excerpts coming from each class: 9 from the chemistry class and 11 from the physics class. All excerpts are prefaced by contextual explanations and interpretations, which are further elaborated on in discussions linked to relevant theory and literature.

The findings of this study revealed differences in the nature of classroom discourse, particularly in relation to how the teachers oriented students to subject-specific language use in each of the task phases. In the case of the chemistry class, the pre-task phase was used to explain the task procedures as well as to introduce key specialized concepts. This was done using a combination of general academic language (e.g., *centiliters*, *temperature*, *dissolve*, *crystals*) and subject-specific terminology (e.g., *copper sulfate*). During this phase, the teacher also socialized students to subject culture or disciplinary practices (e.g., reminding them to keep notes of their observations). In the case of physics, it was the post-task phase that afforded most opportunities for students to become socialized to the physics subject language. In this phase, the teacher linked theoretical concepts and terminology to the hands-on task. This typically involved extended discussion sequences between the teacher and students, with opportunities to introduce and clarify concepts/terminology (e.g., "the important thing here was (.) that – getting to know these concepts of (.) wave length and (.) frequency (.) (and) which I hope you know at this point" (p. 24)). In both classes, the hands-on task (i.e., students working on practical experiments) itself served as a chance for practicing "acting" science: the student discourse in this stage was characterized by highly indexical (i.e., dependent on details of the hands-on task and the action of peers) as well as economic language use, something also found in previous work on task-based language (e.g., Seedhouse 1999). Overall, however, the classroom interactions throughout all task phases were characterized as mostly colloquial. Yet, far from viewing these as restricted language practice situations, Nikula reminds readers about the primary focus of the chemistry and physics

lessons: to meet the learning outcomes of the respective subjects. And in this regard, the tasks provided a rich learning context.

In sum, the findings suggest that the pre- and post-task phases complemented the hands-on task phase by providing opportunities for engaging with subject-specific language, with teachers using a variety of strategies to introduce disciplinary terminology. The findings also show that while the teachers and students are oriented to language matters during the tasks, "these are rarely brought into explicit focus, learning subject-specific language thus remaining a matter of socialisation rather than explicit teaching" (p. 25). Nikula concludes that there could be a more explicit focus on language instruction, yet for subject area teachers to do so effectively would require a reconceptualization of their understanding of the relationship between language and content, as well as training on recognizing the typical genre and register features of their respective subjects.

Study 2: Translanguaging as Pedagogical Scaffolding in EMI Secondary Science Classrooms

The second study, by Lin and He (2017), focuses on the practices of translanguaging in a multilingual classroom in Hong Kong. Since García's (2009) seminal publication, the conceptualization of translanguaging as the complex, fluid discursive practices of bi-/multilingual speakers has been extended to also refer to translanguaging as a "pedagogical strategy" (García and Li 2015), a view that Lin and He also share. The study draws on the notion of *trans-semiotizing* as well (Lin 2015), which takes into account the strategic use of other semiotic systems (images, sounds, gestures) by bi-/multilingual speakers alongside their translanguaging practices. Rejecting the traditional view of bi-/multicultural practices as involving two (or more) discrete language systems, the authors find in Lemke's (2016) conceptualization of "dynamic flows" a powerful theoretical lens to analyze translingual, trans-semiotic practices as "unfolding speech/action events across multiple materials, media, and time scales" (Lin and He 2017, p. 237), thus adding spatial, material, and historical dimensions to their analysis of interactions in the CLIL classroom.

The research reported on in this article took place in a grade 9 biology class in a secondary school in Hong Kong that uses English as the MoI. The 14 (all female) student participants were of South Asian background (all L1 Urdu speakers from either Pakistan or India). The participating teacher, in turn, was a Cantonese L1 speaker and thus did not share the same language background as her students. English was also an additional language for her. The main type of data consist of ethnographic naturalistic observations of thirteen 70-min lessons from the focal biology class. The lessons were videotaped by the second author, who fulfilled the dual role of researcher as well as consultant for a school-university collaboration project on CLIL, thus spending significant time in the school (3 days a week) throughout a full academic year. In addition to the recorded lessons, the data set includes observations of interactions between teachers and students from other

classrooms during class time and during recess (and even in some cases outside in the community), plus a collection of examples of student work (e.g., assignments, posters, worksheets). As they analyzed the data, the researchers interviewed two student participants who translated portions of selected translanguaging scenarios from Urdu to English, as well as provided researchers with a helpful English glossary of Urdu words and phrases featured in the scenarios.

The data were analyzed by searching for "translanguaging scenarios," i.e., instances in which the participants used multiple languages while engaged in teaching/learning activities. As reported by the authors, three main themes emerged from their interpretivist analysis. Under the first theme, "translanguaging as pedagogical scaffolding," the authors reported on some of the challenges that teaching and learning through English posed in the classroom; yet these challenges were mediated by the rich multilingual and multicultural resources of students and teacher. Two detailed and highly contextualized lesson excerpts with sequences of translanguaging and trans-semiotizing – described as "translingual chains of meaning" – were included to illustrate how skillfully all interactants mediated teaching/learning by drawing on their respective multilingual/multicultural repertoires. For instance, during a lesson on the digestive system, instead of using examples of local food, the teacher used "samosa," which was more familiar and appealing to the students. This example was used right after one of the students had volunteered a translation of "digest" in Urdu, which the teacher did not dismiss but rather used to prompt further elaboration. While the authors reported that the teacher could have prompted even more instances of translanguaging, the data reveals that her openness to accepting (and, indeed, sometimes inviting) responses in a language she did not speak allowed the students to "affirm their identities" (Cummins 2015). This point is further elaborated on as a second key theme, illustrated through another lesson extract in which the teacher solicits examples of herbivores from students. When they suggest "camel," she acknowledges her ignorance as to whether or not this animal falls under the herbivore category. What follows is another instance of translanguaging, where five students contribute to the discussion (using Urdu as well as English in strategic ways) to confirm that camels only eat grass. Several other rich illustrations of instances of translanguaging, often in combination with trans-semiotizing (as in when the teacher used gestures and/or made drawings to explain shapes or students used their posters to showcase their drawing abilities), were included and were presented as evidence of how translanguaging is also used as a peer learning strategy.

In the conclusion, through a detailed analysis of language-rich scenarios, the authors restate their reconceptualization of translanguaging as a dynamic chain of "speech/action events" (p. 242) where participants make use of their multilingual/multicultural/multisemiotic resources to jointly make meaning. This, in turn, suggests that multilingual CLIL classrooms that reject the traditional monolingual policy in favor of a translingual approach generate more opportunities to create rich learning contexts where learners can authenticate and affirm their multilingual/multicultural identities.

Study 3: A Comparison of Interactional Patterns in Two Different EMI Secondary School Settings

The third study, by Lo and Macaro (2015), was also conducted in Hong Kong, where changes in language policy resulted when the former British-governed territory became a Special Administrative Region of China in 1997. While most schools now use a variety of Chinese as the MoI, schools have the option to switch to English-medium instruction (EMI) in grade 10. Yet, about one fourth of the secondary schools were allowed to retain EMI from grade 7, meaning that some students start EMI instruction in grade 7 whereas most begin 3 years later (i.e., in grade 10). The purpose of this study was to compare the interaction patterns in both types of setting (referred to as "EMI" and "MoI switching," respectively) in order to determine any differences that might impact language learning.

This project was designed as a mixed-methods observational study, and a cross-sectional design was used to compare the two types of setting. The classrooms observed came from one MoI-switching school (school A) and two EMI schools (schools B and C). Eight grade 10 content teachers (two from school A and six from schools B and C) and a total of 320 students participated. The data set includes fifteen 35–40-min video and/or audio-recorded lessons of 11 observations, as well as field notes taken by the first author (Lo).

The quantitative analysis of the transcribed lessons involved three types of analysis: classifying the interactions by speaker (teacher vs. student) to calculate the proportion of talk in each case; identifying the functions of teacher and student talk using Tsui's (1985) analytical framework of 17 function types (e.g., elicitation, information, etc.) and counting the number of initiation-response-feedback (IRF) sequences; and calculating turn distribution. The qualitative analysis was then performed to yield detailed examinations of the discourse patterns and the elicitation techniques used by teachers.

The descriptive statistical analysis, reported in tables and brief data commentaries of main patterns, revealed that teachers in the three schools did most of the talking (over 90%). The MoI classroom, however, was slightly more teacher-centered than its EMI counterparts. The analysis of talk functions showed that most of the interactions across settings fulfilled the function of informing (via teacher lecturing), yet EMI schools included more instances of student talk. That is, MoI classrooms were slightly more teacher-dominant than EMI classrooms, where students had more opportunities to contribute through extended responses. Turn analysis, which involved counting spoken syllables, also showed that students in EMI classrooms produced longer and richer verbal exchanges.

The nature of discourse patterns was examined using Mortimer and Scott's (2003) classification of I-R-E/F (initiation-response-evaluation/feedback) and I-R-F-R-F (initiation-response-feedback-response-feedback). The qualitative findings showed that interaction in EMI schools was characterized by more instances of teacher elicitation and student responses (i.e., more instances of I-R-F-R-F than simple IRF sequences) than in the MoI-switching schools (for reasons discussed below). Additionally, teachers in EMI schools were found to use a wider range of elicitation

techniques beyond repetition (e.g., paraphrasing, expanding, or further specifying questions), which was seen as likely contributing to the richer and more extended student responses observed in those schools. Linking these results to previous research demonstrating that a lack of pedagogical skills in the L2 led to poor/limited classroom interaction in classrooms that used CLIL approaches (Mortimer and Scott 2003; Nikula 2007), the authors speculate that the difference in teachers' elicitation techniques was likely attributable to inexperience with the new instructional approaches on the part of the MoI teachers and students. Teachers and students in EMI schools, on the other hand, would have had 3 more years of instruction in the L2, which might account for the more extended and richer (and slightly less teacher-dominated) interactional patterns. Additionally, drawing on findings of previous research that showed grade 9 teachers in Chinese MoI schools did use elicitation techniques effectively (Lo and Macaro 2012), the authors further speculate that one of the reasons MoI teachers in school A did not use effective questioning techniques might relate to the teachers' (mis)assessment of students' L2 language proficiency as insufficient.

In their summary of findings and implications, the authors point to the lack of negotiation of meaning (Long 1983) and pushed output (Swain 1995) that characterized the nature of the classroom discourse across all schools. There were differences, however, that surfaced as a result of their detailed examinations of interactional patterns and which revealed that overall, the teachers in EMI schools were better equipped to scaffold learner interactions. The authors thus argue that successful implementation of CLIL depends on teachers having the requisite toolkit of strategies and skills conducive to rich verbal exchanges and that this takes time to accumulate.

Discussion

The three studies reviewed above were, as noted earlier, all conducted by well-regarded language education researchers with established programs of research exploring related issues. Thus, they provide a kind of "raw data" for an inductive exploration of exemplary qualitative classroom research on EMI. In what follows, we discuss some of the commonalities among the preceding studies and highlight some of the aspects in either their design, implementation, or reporting that make them noteworthy. We also identify some differences across the studies as well as what might be considered shortcomings or limitations, points sometimes raised by the researchers themselves.

Shared across the studies is a focus on EFL secondary school contexts in Europe and Asia, where English is not the language of the wider community but rather is the MoI of choice. Taken together, these studies illuminate our understanding of the nature of classroom interaction in EMI contexts that draw on CLIL approaches. As mentioned earlier, the choice of topic is timely given the international expansion of CLIL and EMI over the last decade or so (Dalton-Puffer and Smit 2013; Lo and Macaro 2015) and also responds to a shift in CLIL and EMI research from a

concern with descriptions of program types and evaluation of outcomes to a focus on classroom interaction and classroom pedagogy – what Lo and Macaro (2015) describe as a shift from product-oriented to process-oriented research. As pointed out by Dalton-Puffer and Smit (2013), the ideal context for such investigations is the classroom, something the three exemplars of classroom-based research clearly demonstrate.

The studies examined important issues either not fully addressed or brought up by previous related research, and they all include important suggestions for pedagogy that are meant to guide future implementations of CLIL in EMI contexts. Nikula's (2015) study highlights the opportunities hands-on tasks provide for introducing and using subject-specific language and practices, with an acknowledgment of the need for better training of content teachers so that they can recognize their potential to scaffold language learning in the content class through a combination of explicit and implicit focus on language. Lin and He's (2017) investigation underscores the pedagogical value of translanguaging practices in highly multilingual/multicultural classrooms even (or especially) when teachers and students do not share the same linguistic and cultural repertoire. Their study also illustrates the powerful role translanguaging can play as a scaffolding strategy for teaching and learning at the disposal of both teachers and students and that translanguaging practices contribute to affirming students' identities (whereas monolingual classroom policies can have the opposite effect). Lo and Macaro's (2015) study warns about the problems that may arise when CLIL is implemented without proper training, particularly in relation to elicitation strategies (i.e., when teachers seek responses from students). Rich learning opportunities – of both language and content – are missed when teachers fail to use a wide range of techniques to promote verbal exchanges, and this is particularly exacerbated when the students' language proficiency in the MoI is perceived as lacking.

None of the above insights, however, would have been obtained without the careful, detailed, systematic examination of the respective teachers' and students' interactions in situ and through the collection of rich information skillfully analyzed *qualitatively*. The studies are characterized by robust datasets collected over a relatively extended period of time (from several weeks, it appears, up to a full school year). All three studies gathered recordings (audio and/or video) of classroom observations as focal raw data. The multiple observations in the same classrooms and/or school settings, for instance, allowed researchers to confirm/disconfirm patterns identified (e.g., descriptions on what constitutes "typical" elicitation strategies or "typical" student language use in the classrooms observed, such as the highly indexical nature of language use in the hands-on phase of the physics and chemistry classes observed by Nikula). In all cases, researchers clearly identified the unit of analysis (the three phases of the tasks, translanguaging scenarios, and teacher questioning techniques, respectively), and their use of discourse analysis strategies, conducted at various levels of delicacy across the studies, made it possible to uncover insights that could only be revealed through using fine-grained analytical tools. Two of the studies used some form of microlevel

analysis: Nikula's consists of in-depth analyses of use of indexical language and identification of discipline-specific vocabulary. The lesson excerpts included in her article followed detailed transcription conventions capturing overlapping speech, pauses, intonation, etc., and this information was highlighted in the analysis when it helped account for interpretations that linguistic data alone would not make visible. Lin and He's detailed lesson excerpts were transcribed noting particular instances of pronunciation and intonation features that significantly contributed to meaning-making in the respective interactions. In their case, the descriptions of gestures accompanying the recorded interactions (e.g., "pointing to her abdomen," "fingers pointing to her canines"), together with the photographs of artifacts (e.g., student posters), provided key contextual information that the researchers used in their interpretation of findings and thus were recognized as fundamental for inclusion in the report.

The studies, while conducted in somewhat different educational contexts, thus, had a number of similarities showing effective implementation of qualitative research in EMI: careful contextualization and description of demographics and participation/site selection criteria (acknowledging some limitations in this regard), definitions of constructs and categories used and their relationship to relevant theoretical frameworks; comparative elements (across content areas or schools), inclusion of content teachers primarily (and thus not English language specialists, which then requires careful interpretation of findings and pedagogical implications), and inclusion of multiple carefully transcribed excerpts of lessons observed, prefaced, and/or followed by descriptive and interpretive data commentaries. Some of these shared elements are shown in Table 1. Differences included the number of schools chosen (one vs. multiple schools), qualitative only versus mixed-methods design, inclusion of interviews versus no (or minimal) interviews, and analysis of artifacts versus analysis of recorded lessons only. With respect to the inclusion of interviews (or not), these three studies contrasted with studies reviewed by Duff (2007) in which interviews were more prominent. It is likely the case that studies that focus more on linguistic or discursive patterns of classroom interaction tend not to focus as much on participants' accounts and perspectives of those interactions, whereas studies that focus more on learners' sense of identity or agency, for example, or feelings of marginalization versus inclusion place a greater emphasis on participants' own accounts of their behaviors and perceptions. Ideally, both types of analysis would be combined, yet it can be challenging to do so within a single study, and especially in high schools, where it can be difficult to interview students due to schedules and other constraints (Duff 2002). Since we judged all three studies to be strong, these varying design features (i.e., in terms of length of observations, number of participants or sites, triangulation of data, and approaches to data analysis) demonstrate the variability that may exist across rigorous studies examining similar phenomena. In addition, the authors themselves (e.g., Lo and Macaro 2015; Nikula 2015) were careful to note some of the limitations of their studies, such as the small number of teachers, subjects/courses, and activities sampled and thus concerns about generalizability.

Table 1 Features of three exemplary qualitative EMI studies

	Nikula (2015)	Lin and He (2017)	Lo and Macaro (2015)
Focus	Subject-specific language use in science tasks	Translanguaging and trans-semiotic practices in the EMI classroom	Comparison of classroom interaction on early and late EMI settings
Contextualization	Detailed	Detailed	Detailed
Observation timeframe	Not stated (likely a few weeks)	1 academic year	11 school visits (specific timeframe not stated)
Design	Qualitative observations	Qualitative ethnographic observations	Mixed methods (quantitative + qualitative)
Dataset	Six 45-min lessons (taught as three 90-min double lessons) in physics and chemistry Data come from larger study (CLIL classroom corpus)	Thirteen 70-min lessons of the focal class; conversations with cultural informants (other South Asian teachers in the school); student artifacts (assignments, worksheets, posters) Data come from larger study	Fifteen 35- to 40-min lessons of three content classes
Research site(s)	Two schools in Finland	One school in Hong Kong	Three schools in Hong Kong
Participants	Two grade 7 teachers of either chemistry or physics 19 students	One focal grade 9 biology teacher 14 focal students	Eight teachers of grade 10 content classes (history, physics, geography, biology) 320 students
Comparative design features	Chemistry vs. physics classes	Not applicable	EMI vs. MoI-switching schools
Discourse analysis	Subject-specific language	Translanguaging; trans-semiosis	Interactional patterns (IRF sequences); teacher elicitation strategies
Interviews and/or member checking	No	Yes, member checking with two student participants (out of 14) in focal classroom	No
Artifacts analyzed	No	Student assignments, worksheets, posters	No
Discussion of limitations	Yes	No	Yes
Discussion of research ethics	No, but steps were taken to mask the	No, but use of pseudonym for focal teacher was explicitly	No, but steps were taken to mask the

(*continued*)

Table 1 (continued)

	Nikula (2015)	Lin and He (2017)	Lo and Macaro (2015)
	identity of schools and participants	stated, and steps were taken to mask the identity of the school and participants	identity of schools and participants
Possible ways of strengthening study	Discussion or measurement of participants' English proficiency levels; Inclusion of participants' (emic) perspectives; Specification of study timeframe; Discussion of ethical considerations; Researcher reflexivity	Discussion of English proficiency levels; Interviews with all (or more) participants	Inclusion of teachers' English proficiency levels; Specification of study timeframe; Discussion of ethical considerations

Conclusion

Qualitative classroom research takes many forms and includes a variety of possible designs, research questions, and approaches to data collection and analysis. For example, researchers may limit the number of participants to just one or a small number of focal participants (whether teachers or students) or may limit the analysis to particular types of focal activities or interactions (e.g., academic tasks, question-response interaction sequences) or linguistic (monolingual vs. multilingual) and multimodal practices. One primary site (e.g., classroom, subject area, or school) may be chosen, or, in a comparative study, additional sites may profitably be included. A variety of theories can also frame classroom research in EMI and other contexts, ranging from the ways in which linguistic or generic aspects of content knowledge develop through scaffolding to socialization within and across particular social practices and to the formation, expression, or contestation of identity through classroom discourse, among other possible themes. This multiplicity of approaches and foci is healthy in a field as broad and complex as English language education and EMI internationally.

This chapter has demonstrated the extent to which QCR has increased in our field and now encompasses more research in EMI than ever before. We have distilled key elements or principles in much contemporary QCR and exemplified these principles by describing in detail three recent studies of EMI classroom discourse. These studies provided high levels of contextualization and operationalization of constructs and units of analysis and provided analytic rigor and explanations. They also had clear pedagogical significance. In providing this review, we hope to offer readers guidance for analyzing existing studies and for

conducting future classroom research in EMI and other English language contexts. Because the three studies examined in detail came from just two regional contexts, in Finland and Hong Kong, where English has a distinct historical and contemporary role in education and society, additional QCR on similar phenomena across a wider range of EFL, English lingua franca, or postcolonial contexts would shed further light on some of the issues associated with EMI in distinct parts of the world. The studies, furthermore, were conducted in secondary schools, in science classes primarily, and thus research at different levels (from elementary to postsecondary) and across a wider range of disciplines would add to the growing body of QCR in EMI. In addition, complementary approaches to QCR drawing on both observation and participants' perspectives tracking English/content learning trajectories over time would be another potentially fruitful direction for future research.

Cross-References

- ▶ Action Research in English Language Teaching: Contributions and Recent Developments
- ▶ Autoethnography and Ethnography in English Language Teaching
- ▶ Content and Language Integrated Learning in Hong Kong
- ▶ Critical Research in English Language Teaching
- ▶ Mediating L2 Learning Through Classroom Interaction
- ▶ "Research by Design": Forms of Heuristic Research in English Language Teaching
- ▶ The *What* and *How* of English Language Teaching: Conversation Analysis Perspectives

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