

How Pre-service Teachers in Norway Embrace Multilingualism as a Resource in Content-Based Approaches to Language Education: Metacognition and Metalinguistic Awareness

Anna Krulatz¹ and MaryAnn Christison²

Obwohl sie als effektiv anerkannt werden, zeichnen sich CLIL- Ansätze (*Content and Language Integrated Learning*) für den Sprachunterricht traditionell dadurch aus, dass sie ausschließlich auf die Zielsprache ausgerichtet sind und sich nur in begrenztem Maße explizit auf sprachliche Fähigkeiten jenseits der Wortschatzentwicklung konzentrieren (vgl. Regalla 2012; Moore & Nikula 2016). Die Forschung legt nahe, dass die Nutzung der vorhandenen sprachlichen Ressourcen der Lernenden und die Fokussierung auf metakognitive und metasprachliche Fähigkeiten gute Prädiktoren für den Erfolg beim Sprachenlernen sind (vgl. Cenoz 2013; Ohtani & Hisasaka 2018). In diesem Beitrag wird untersucht, wie angehende Lehrkräfte für *English as an additional language* (EAL), die mit mehrsprachigen Lernenden in der Mittelstufe in Norwegen arbeiten, pädagogische Praktiken angewandt haben, die die Entwicklung von Metakognition und metalinguistischem Bewusstsein unterstützen. 35 EAL-Stundenplanungen wurden im Hinblick auf einen der sieben Indikatoren des *Multilingual Approach to Diversity in Education* (MADE) analysiert: 'Metakognition und metasprachliches Bewusstsein'. Die Ergebnisse zeigen, dass die angehenden Lehrkräfte die pädagogischen Praktiken 'Aktivieren von Hintergrundwissen' und 'Lehr- und Gerüststrategien' bevorzugten, während die übrigen weniger häufig waren. Der Beitrag schließt mit Folgerungen für die Lehramtsausbildung.

1. Introduction

The practice of integrating language and content in language education has been prominent in language programs for more than four decades (see Cantoni-Harvey 1987; Snow & Brinton 2017). It appears under different names and in various iterations in the literature: 'Content and Language Integrated Learning' (CLIL), 'Content-based Instruction' (CBI), 'Content-based Language Teaching' (CBLT), and 'English-medium instruction' (EMI). These variants have been embraced as promising and innovative approaches to language education (Lorenzo, Casal & Moore 2010; Hüttner & Smit 2013; de Boer & Leontjev 2020). While there is no established orthodoxy governing the implementation of these approaches, the

1 Correspondence address: Anna Krulatz, Professor, Norwegian University of Science and Technology, Department of Teacher Education, Lysholmbygget, BR.2.018, Kalvskinnet, anna.m.krulatz@ntnu.no

2 Correspondence address: MaryAnn Christison, Distinguished Professor, University of Utah, Department of Linguistics, 255 S. Central Campus Dr. #2300 Salt Lake City, ma.christison@utah.edu

main premise on which they are based is that "an additional language is used for the learning and teaching of both content and language" (Coyle, Hood & Marsh 2010: 1).

Teaching and research in content-based approaches have traditionally been characterized by a monolingual orientation, with a primary focus on the development of language skills in a target language (Moore & Nikula 2016), which is most often English. Recent research on additional language acquisition has been problematizing the ideology of a monolingual norm and emphasizing the value of multilingualism. There has been a call for approaches to language education that capitalize on multilingualism as a valuable resource for learning. We recognize that scholars define multilingualism in different ways (Skutnabb-Kangas & McCarty 2008; Wei 2008; Cook & Bassetti 2011) and that some scholars differentiate between bi- and multilingualism (Cenoz, Hufeisen & Jessner 2001; Hammarberg 2001; Hufeisen 2005). However, for the purposes of the current research, we define 'multilingualism' as the ability to use two or more languages for communicative purposes at varied levels of proficiency. In fact, in the context where the present study was conducted (i.e. Norway), it has been argued that all learners are multilingual (Tiurikova, Haukås & Sorto 2021; Haukås 2022). This is because they are able to understand numerous dialects of Norwegian, they study two official written varieties of Norwegian, *Bokmål* and *Nynorsk*, they learn English from Grade 1, and they may also be able to understand other Scandinavian languages (e.g., Swedish or Danish). In addition, many students have a migration background, and as a result, speak one or more additional languages at home.

In some educational contexts such as those in which the 'Sheltered Instruction Observation Protocol' (SIOP; Echevarría, Vogt & Short 2016) is used, the main rationale for the implementation of programs that integrate language and content continues to stress the development of English language skills. In other contexts (e.g., CLIL teaching in Europe), the focus has shifted away from 'English-only' to supporting the development of multilingualism (Ruiz de Zarobe & Jiménez Catalán 2009; Merino & Lasagabaster 2018). Various studies have examined the language gains of learners enrolled in content-based programs, including the impact of content-based approaches on the development of language skills in learners' second and third languages (e.g., Ruiz de Zarobe 2008; Sylvé 2010). However, research on the implementation of teaching practices that promote and draw on multilingualism as a resource in content-based programs is scarce.

Researchers have postulated that qualitative and quantitative differences exist between monolinguals and multilinguals (Cenoz et al. 2001). For instance, as multilinguals have extensive experience with language learning and an ability to draw on previously acquired languages for communication and additional language development, they have richer linguistic resources than monolinguals,

heightened 'metacognition', which refers to "an awareness of and reflections about one's knowledge, experiences, emotions, and learning" (Haukås, Bjørke & Dypedahl 2018: 1) and 'multilingual competence', which is characterized by complex cross-linguistic interactions among different languages in a multilingual individual's linguistic repertoire. As a result of access to these resources, multilinguals are frequently better at discovering language patterns, assigning words into categories, employing learning and communication strategies, and deciding whether a sentence is grammatically correct (*ibid.*; Jessner 2018). Teachers working with multilingual learners (henceforth MLs) in content-based contexts can draw on these unique strengths of multilinguals to support both language and content learning.

To date, only a few studies have examined how teachers work with 'Metacognition and Metalinguistic Awareness' in content-based classrooms that serve MLs and the degree to which they do it (Oxford & Pawlak 2018; Ruiz de Zarobe & Smala 2020). This paper aims to address this gap by examining (a) how pre-service teachers implement pedagogical practices that promote metacognition and metalinguistic awareness (henceforth PPMM) and (b) how the PPMMs draw on the unique strengths of multilinguals in lesson plans designed for content-based instruction of English as an additional language (henceforth EAL) in multilingual classrooms in middle school grades in Norway.³

2. Theoretical Background

In this section, theoretical support for content-based approaches to language education, metacognition, and metalinguistic awareness is provided. The seven indicators of MADE and the features for the MADE indicator 'Metacognition and Metalinguistic Awareness' are also introduced and defined.

2.1 Content-Based Approaches to Language Education

The practice of integrating language and content in language teaching has become commonplace in many global contexts. In the United States, for example, the practice is referred to as CBI (Snow & Brinton 2017), and in Europe, it is most often CLIL (Dalton-Puffer 2011). It is also known as dual language immersion in bilingual education (both two-way immersion and one-way foreign language immersion) and EMI in English-medium university contexts. Regardless of what the

3 This project was supported by the Research Council of Norway under grant no. 273406.

models are called and even though both practitioners and researchers agree that models can vary greatly relative to the degree to which they focus on language development, the common feature among them is the promise of their dual commitment to the achievement of both language and content objectives (Coyle 2007; Lyster 2008). The original impetus for implementing CLIL in Europe was to foster the spread of multilingualism; however, in the majority of contexts, the predominant language under investigation has been English (Merino & Lasagabaster 2018). The desire to reinforce multilingualism coupled with the growth of English has driven CLIL to expand rapidly across a wide range of programs from primary school through university and to many contexts in both Asia and South America (Christison, Crandall & Christian 2022; Lindahl, Kroeff, Schmitz Gibk & Avila de Campos Rocha 2022). Yet, the overwhelming presence of English has meant that in most CLIL contexts, the development of foreign languages other than English, students' additional languages, as well as the preparation of teachers for working in these contexts have received less attention.

A central challenge in many content-based language programs has been the provision of appropriate language support for learners (Fortune, Tedick & Walker 2008; Regalla 2012). Findings from research suggest that due to teachers lacking an understanding of language functions, there are gaps in metalinguistic knowledge and difficulty identifying learners' language needs, while the focus on language is often limited to learning academic vocabulary (Bigelow 2010; Cammarata 2010; Gottlieb & Ernst-Slavit 2014). While learning content-specific vocabulary and phrases is also important for language development and learning of content knowledge, learners need to develop other types of linguistic knowledge, such as morphological and syntactic knowledge, knowledge of writing conventions and genre, ability to identify context clues and text features, and familiarity with metalinguistic terminology to experience academic success (Regalla 2012; Lindahl & Watkins 2014). Likewise, there have been calls for integrating a more explicit focus on metacognitive skills in content-based language programs (Ruiz de Zarobe & Smala 2020). In fact, it has been postulated that content-based educational contexts are perfect sites to foster learners' metacognitive skills because they provide "a cognitively enriched experience which has the potential to sustain thinking of a higher order and boost metacognitive awareness" (Hawker 2013: 159).

2.2 Metacognition and Metalinguistic Awareness

One of the advantages of multilingualism is strong metacognitive and metalinguistic skills, which in turn can support the learning of additional languages

(Bialystok & Barac 2012; De Bot & Jaensch 2013). Learners can apply metacognitive skills to plan and organize learning, activate background knowledge, select appropriate learning strategies, and monitor strategy use and their own progress (Anderson 2002; Chamot 2005). It has been postulated that metacognitive skills are among the most decisive factors responsible for academic learning (Tarricone 2011; Ohtani & Hisasaka 2018). Likewise, strong metacognitive skills can enhance the process of learning additional languages (Haukås et al. 2018).

In language learning contexts, metalinguistic awareness is a crucial part of metacognition and refers to "[c]onsciousness of and sensitivity to interrelationships of different language systems in a multilingual speakers' repertoire and the ability to focus on language as an object of study and to verbalize this knowledge using metalanguage" (Krulatz & Christison 2023: 152). Metalinguistic awareness embraces a range of skills, abilities, and knowledge, including phonological awareness, conceptual and abstract knowledge about language, the ability to identify similarities and differences between languages systems, knowledge of specific language terminology, and the ability to switch between different languages (Jessner 2018; Roehr-Brackin 2018; Hopp, Jakisch, Sturm, Becker & Thoma 2020). Strong metalinguistic skills are a predictor of success in language learning (Jessner 2008).

On average, multilinguals develop metacognitive and metalinguistic skills to a greater degree than monolinguals (Bialystok & Barak 2012), and multilingual language systems have been postulated to include 'multilingual awareness', which comprises both metacognitive and metalinguistic awareness (Jessner 2006; Jessner & Allgäuer-Hackl 2022). These enhanced metacognitive and metalinguistic skills in multilinguals can in turn contribute to accelerating the process of learning further languages, improving monitoring skills during language use, and supporting literacy skills in all languages known by a multilingual individual. Nevertheless, it has been argued that language learners in multilingual contexts can benefit from explicit instructional focus on metacognition and metalinguistic awareness (Cenoz 2013; Jessner & Allgäuer-Hackl 2022). Many content-based language classrooms have traditionally been characterized by a monolingual bias that postulates a strict separation of languages (Gogolin 2021). This practice has hindered teachers from explicitly focusing on the development of PPMs and fostering approaches to teaching that help learners draw on all languages in their linguistic repertoires (Moore & Nikula 2016; Jessner & Allgäuer-Hackl 2022). With the emergence of multilingual approaches to language teaching, there has been a gradual shift in instructional practices and a call to include an explicit focus on metacognition and metalinguistic awareness in all educational contexts that serve MLs (Cenoz 2013; Haukås et al. 2018; Jessner & Allgäuer-Hackl 2022).

Several multilingual approaches that include explicit focus on metacognition and metalinguistic awareness have been employed and tested in a range of language programs in recent years (Dahm 2015; Hofer 2015; Allgäuer-Hackl 2017; Tellier & Roehr-Brackin 2017; Hopp et al. 2020; Jessner & Allgäuer-Hackl 2022). For instance, Dahm (2015) suggested that explicit instruction can enhance the transfer of learning strategies. Hofer (2015) concluded that adding as little as one training session on multilingual awareness per week can contribute to a significant increase in language skills and multilingual awareness. Allgäuer-Hackl (2017) found that explicit instruction on learning strategies and activities that raise multilingual awareness contribute to enhancing metacognition and metalinguistic awareness and improving language proficiency in all the languages of MLs. Similar positive effects of explicit instructional focus on metacognition and metalinguistic awareness have also been found by Hopp et al. (2020) and Tellier & Roehr-Brackin (2017). Thus, it can be concluded that instruction that promotes metacognition and metalinguistic awareness should be a component of any successful (language) program (Jessner 2008, 2018; Donker, de Boer, Kostons, van Ewijk, Dignath & van der Werf 2014).

2.3 Multilingual Approach to Diversity in Education

One approach that aims to support MLs and that can be employed to deliver instruction that integrates language and content in multilingual settings, and which promotes an explicit focus on metacognition and metalinguistic awareness, is the 'Multilingual Approach to Diversity in Education' (MADE) (Krulatz & Christison 2023). MADE consists of seven indicators, each with a set of three to six features that help teachers plan and deliver lessons. The seven indicators are: (a) Classrooms and Schools as Multilingual Spaces – offering innovative ways to map linguistic diversity (Sayer 2010) in schools and classrooms; (b) Developing and Using Teaching Materials – providing general considerations that teachers need to take into account when deciding on which materials to use in their classrooms with MLs; (c) Interaction and Grouping Configurations – affording guidance in encouraging MLs to work together and in structuring interaction; (d) Language and Culture Attitudes – specifying how teachers can support the development of multilingual identities, foster intercultural competence, and create opportunities for MLs to draw upon their linguistically and culturally diverse funds of knowledge; (e) Metacognition and Metalinguistic Awareness – concentrating on how an awareness of learning processes and using learning strategies contributes to learning additional languages; (f) Multiliteracy – justifying the importance of multiliteracies and providing learning activities and materials that prompt learners

to use literacy skills in different languages; and (g) Teacher and Learner Language Use – advocating for flexible, bi- and multilingual language practices and balancing these practices with practices associated with the strict separation of languages such as meaningful and comprehensible input and opportunities for interaction. MADE is based on current research on language learning and multilingualism and offers a holistic, extensive, and easy to implement instructional model that can be adapted to a wide range of settings.

The MADE indicator 'Metacognition and Metalinguistic Awareness' enables teachers to support the development of learners' abilities explicitly as they learn to control and evaluate their learning consciously through the application and monitoring of learning strategies. The indicator aims to encourage learners to reflect on language as an object of study, to facilitate cross-linguistic comparisons, and to transfer knowledge and skills between different languages in their linguistic repertoires. The indicator consists of the following five features that give teachers specific suggestions for implementing the indicator in classroom contexts (Krulatz & Christison 2023: 153f.). These features have been operationalized into teaching practices (i.e., PPMs) that promote metacognition and metalinguistic awareness in multilingual contexts and provide opportunities for EAL teachers to draw on the multilinguistic backgrounds of their ML learners:

- Students are given opportunities to prepare and plan for learning (e.g., students have opportunities to reflect on what they need or want to accomplish and on what they can do to attain their learning goals).
- Learners' background knowledge is activated (Cenoz & Gorter 2021) to establish explicit connections with new material (e.g., "Yesterday we surveyed and tallied favorite foods, and today we will turn those tallies into bar graphs.>").
- The teacher models, scaffolds, and encourages the use of different types of learning strategies: (a) metacognitive such as planning a project and employing text features to include section headers, figures, and captions; (b) cognitive such as the use of two-column notes, summarizing, problem solving, and clarifying, and (c) socio-affective such as reciprocal teaching, clarifying, and problem-solving in groups (O'Malley & Chamot 1990). Teachers scaffold learning strategies when they teach learners how to pause when speaking to others, ask questions of others, review concepts, and use visual aids to enhance mastery of new language and content. When learning strategies are scaffolded, learners can become self-regulated and independent.
- Students are explicitly taught how to monitor strategy use (e.g., they can ask themselves questions about their strategy choices, and how well these strategies work).

- The teacher explicitly promotes metalinguistic awareness by focusing learners' attention on language as an object of study, by encouraging reflection and the evaluation of language, and by making references to 'home languages' – defined as first languages or other languages used for important interactions within communities – to include the use of cognates, false friends (i.e., words that look like cognates but that have different meanings) and prompting learners to draw on their home language(s) and other languages to support language development.

As previously mentioned, research has found multilinguals to have stronger metacognitive and metalinguistic skills as compared to monolinguals. Research also suggests that all language learners can benefit from explicit instruction in metacognitive and metalinguistic strategies (Cenoz 2013; Jessner & Allgäuer-Hackl 2022). The MADE indicator 'Metacognition and Metalinguistic Awareness' provides a pedagogical tool for teachers to help multilinguals in content and language integrated classrooms develop and hone these skills.

2.4 Research Questions

The study was guided by the following research question: How do pre-service EAL teachers operationalize the MADE indicator 'Metacognition and Metalinguistic Awareness' in content-based lesson plans for multilingual classrooms in middle school grades in Norway? The next section describes the research methods, including data collection and analysis procedures, that were employed to answer the research question.

3. Methodology

The research design for the current study is mixed methods as data were subjected to both qualitative and quantitative analyses (Greene 2005). To answer the research question and determine how teachers operationalized MADE, lesson plans submitted by pre-service EAL teachers were analyzed quantitatively to determine the frequency with which PPMMs based on the five features of the MADE indicator 'Metacognition and Metalinguistic Awareness' were included in the lessons. The data were analyzed qualitatively to develop a deeper understanding of how teachers conceptualized the features of the indicator in terms of their practice and what challenges they faced in implementing each one. The research design was also exploratory in nature as the study was intended to discover how MADE

would be used by teachers in their lesson plans after a semester-long course that covered the model in depth.

3.1 Research Participants, Materials, and Context

The research project reported here aimed to examine how pre-service EAL teachers implemented PPMs in their lesson plans. The participants in this study were 35 pre-service teachers enrolled in a five-year integrated master's program (teacher education) at a large public university in Norway in academic years 2021-2022 and 2022-2023. There were seven male and 28 female teacher trainees.

The participants had previously taken a required course on CBLT, which focused on the main premises of integrating content and language, recent research on the effectiveness of content-based approaches, and content-based instructional design principles for a range of academic subjects, including English language teaching. The fifth-year course in which the data were collected consisted of 16 four-hour sessions (64 contact hours in total; 15 European Credit Transfer and Accumulation System (ECTS)) and focused on PPMs. The course gave an overview of the instructional practices that promote multilingualism as a core resource, using MADE (Krulatz & Christison 2022, 2023) as a model. Two sessions were devoted to the MADE indicator 'Metacognition and Metalinguistic Awareness'. In the sessions, key theoretical concepts and relevant research were first introduced, followed by various activities that gave the pre-service teachers opportunities to engage in discussions of key issues, personal reflections, and model activities that promote the development of metacognition and metalinguistic awareness.

3.2 Data Collection

Data collection commenced when teachers' obligatory course assignment was submitted at the end of the semester. The assignment required the pre-service teachers to apply the knowledge and skills they developed to create a 90-minute, content-based EAL lesson plan for MLs. The students were required to design a sequence of three to six activities with clear links to one another that were centered around a specific content topic and guided by specific learning objectives. The students were encouraged to follow the 'into', 'through', and 'beyond' framework for content-based lesson planning (Brinton & Holten 1997), a three-stage design in which learners first activate background knowledge ('into'), then encounter new content and language ('through'), and finally creatively apply newly

learned content and language ('beyond'). The pre-service teachers were also required to include at least one feature of each of the seven MADE indicators in their lesson plans. The obligatory assignments were submitted electronically via the university's online submission system Inspira, which automatically anonymizes submissions. All submissions were subsequently downloaded as pdf files and submitted for analysis.

3.3 Data Analysis

In this paper, we report on the analysis of the PPMs the teachers included in their lesson plans to support the multilingual assets of their learners by drawing on the features of the MADE indicator 'Metacognition and Metalinguistic Awareness'. The five PPMs were associated with the five features of the indicator and were each assigned a deductive code: 'Preparing and Planning for Learning', 'Activating Background Knowledge', 'Teaching and Scaffolding Strategies', 'Monitoring Strategies', and 'Promoting Metalinguistic Awareness'. The deductive codes used for data analysis are summarized in Table 1.

Table 1: Codes used in the data analysis

Code	Code description
Preparing and Planning for Learning	Students are given opportunities to prepare and plan for learning (e.g., students have opportunities to reflect on what they need or want to accomplish and on what they can do to attain their learning goals).
Activating Background Knowledge	Learners' background knowledge is activated to establish explicit connections with new material (e.g., previous content knowledge, learners' knowledge of home languages, and funds of knowledge).
Teaching and Scaffolding Strategies	The teacher models and encourages the use of learning strategies (e.g., graphic organizers; note-taking; text features such as headings, figures, and captions; annotating; paraphrasing, etc.) and scaffolding strategies (e.g., pausing, asking questions, reviewing, using visuals) to enhance mastery of new language and content and help students become self-regulated and independent learners.
Monitoring Strategies	Students are explicitly taught how to monitor strategy use (e.g., asking themselves questions about their strategy choices and determining strategy effectiveness).

Promoting Metalinguistic Awareness	The teacher promotes metalinguistic awareness by focusing learners' attention on language as an object of study, encouraging reflection upon language and evaluating it, making references to home languages (e.g., cognates, false friends, i.e., words that look like cognates but that have different meanings) and prompting learners to draw on their home language(s) and other languages to support language development.
---	--

All submissions were analyzed using the deductive codes to identify the corresponding PPMMs in the lesson plans. Each submission was coded twice by two raters for inter-rater reliability. As the submitted lesson plans consisted of several activities (i.e. three to six as specified in the assignment guidelines), several PPMMs were identified in each submission. During the first round, an initial code was assigned to each PPMM, and the coded data were entered into a grid along with a corresponding excerpt. PPMMs that corresponded to more than one feature received several codes. For instance, a PPMM in which students were introduced to comparison and contrast as a learning strategy through examples of similarities and differences between two languages was coded as both 'Teaching and Scaffolding Strategies' and 'Promoting Metalinguistic Awareness'. During the second round, the initial coding decisions were checked against the grid and, if necessary, modified. In the final round, the coded entries were grouped together by the code number and checked once again to ensure consistency within the categories.

4. Results

The study aimed to examine how pre-service EAL teachers in Norway operationalized the MADE indicator 'Metacognition and Metalinguistic Awareness' in content-based lesson plans for MLs in middle school grades. Five categories of PPMMs were distinguished in the process of data analysis: 'Preparing and Planning for Learning', 'Activating Background Knowledge', 'Teaching and Scaffolding Strategies', 'Monitoring Strategies', and 'Promoting Metalinguistic Awareness' (see Table 1). This section provides a summary of the results, followed by a detailed overview of the results for each of the five features of the indicator 'Metacognition and Metalinguistic Awareness'.

4.1 Summary of Results

The assignment guidelines specified that each lesson plan should include at least one feature of the indicator 'Metacognition and Metalinguistic Awareness', so the lesson plans varied with respect to the number of PPMMs that fulfilled this criterion, ranging from one to five ($M = 2.2$). A total of 76 PPMMs were identified in the data. The distribution of the five categories is shown in Figure 1.

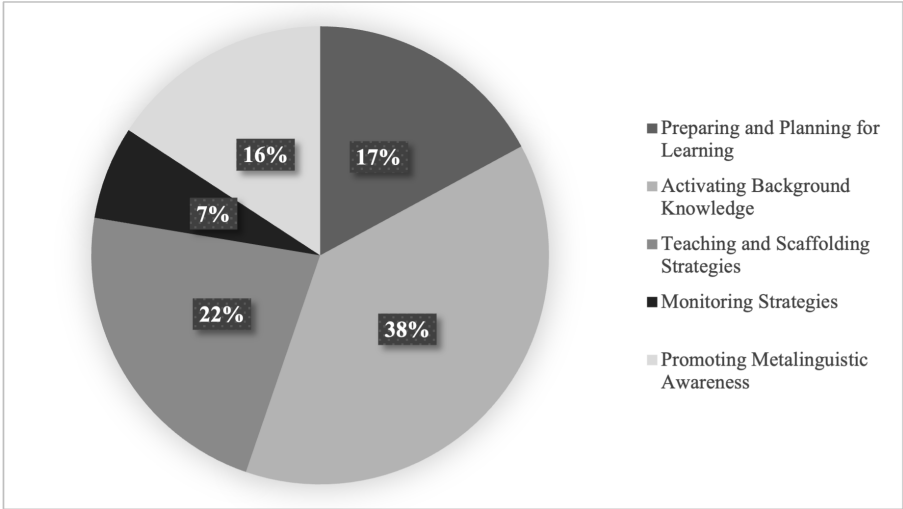


Figure 1: The Distribution of the five PPMM categories in the data

The most common PPMM was 'Activating Background Knowledge' (38 %) followed by 'Teaching and Scaffolding Strategies' (22 %). The PPMM 'Preparing and Planning for Learning' constituted 17 % of the identified strategies, while 'Promoting Metalinguistic Awareness' represented 16 % of the PPMMs for the indicator 'Metacognition and Metalinguistic Awareness' identified in the data. The least common PPMM present in the lesson plans was 'Monitoring Strategies' (7 %). In the sections that follow, each of the PPMM categories is discussed in detail and illustrated with specific examples from the data set.

4.2 Preparing and Planning for Learning

The PPMM 'Preparing and Planning for Learning' included activities in which MLs were given opportunities to prepare and plan for their learning, reflect on what they needed or wanted to accomplish, and decide how to attain the lesson's

objectives. In the analyzed lesson plans, these PPMs included checking homework assignments for specific information, using learning objectives to help learners direct the focus of their work, and providing opportunities for learners to prepare for and determine how to solve a problem or complete a task individually or in groups. When providing opportunities for MLs to plan for their own learning, the inclusion of step-by-step instructions is essential as MLs have varied levels of proficiency in the target language and need extralinguistic support and additional time to be able to plan or contribute to group planning. In addition, displaying the instructions visually provides multimodal support and allows MLs to return to the instructions during the activity if needed (Gardner 1985). Example 1 illustrates a PPM in which the teacher included instructions for how to plan a group activity. By providing simple, step-by-step instructions, the teacher was able to scaffold the organization of the group task and help learners develop the metacognitive skill of planning and monitoring their own learning. Written group work guidelines would continue to be displayed on the whiteboard or a classroom wall throughout the task to provide support for MLs. As the next step, the teacher can gradually release the responsibility for organizing and monitoring group work to the learners.

Example 1

The teacher displays a plan for the main group activity using a projector. The slide includes supporting visuals. Instructions:

Distribute tasks within your group: Who is doing what?

Collect and open the resources for your group.

Complete the handout.

Create your video.

Add subtitles to the video.

Present your video to the whole class.

4.3 Activating Background Knowledge

'Activating Background Knowledge' comprised PPMs that aimed to activate MLs' previous knowledge to establish explicit links with new material. 'Activating Background Knowledge' emphasizes two key processes: identifying what

learners already know and building the background knowledge necessary for accessing content (Vogt 2005; Fisher, Frey & Lapp 2012). Before introducing new content, teachers need to find out what students know based on previous learning in the classroom or based on their unique and diverse life experiences. Tapping into prior knowledge helps MLs close the gap between what they know and what teachers want them to know relative to the goals and objectives set forth in a lesson or course (Vogt 2005; Cenoz & Gorter 2021). It is easier to learn something new when this knowledge is connected to what one already knows (Leder, Liu, Keinath & Popov 2016), and MLs' rich linguistic and cultural resources offer a rich repertoire of existing knowledge that can be harnessed to foster new learning (González, Moll & Amanti 2005; Jessner 2008, 2018; Cenoz & Gorter 2021).

In this study, the PPMs that were coded, 'Activating Background Knowledge' included practices such as group brainstorming, which took place prior to the main activity during the through stage of the lesson. These activities were intended to provide MLs opportunities to draw on their own experiences. Other activities in the lesson plans concentrated on generating relevant vocabulary, providing quick reviews of key concepts from the previous lesson, or finding target language equivalents for words known in learners' home language(s). Example 2 illustrates a task in which the teacher activated both the content knowledge relevant to the lesson's topic (i.e., environmental awareness) and language knowledge (i.e., important vocabulary). The key terms were written on the board, which provided MLs with a multimodal support. In addition, by asking the students to translate the key terms into other languages they know, the teacher activated the learners' full linguistic repertoires.

Example 2

The teacher asks the students what they remember from the previous session on environmental awareness. To make clear links between past learning and new concepts, the teacher says, "On Tuesday we learned about recycling. Can anyone remember the three R's? Correct! Reduce, reuse, and recycle. Today we are going to learn more about this and the ways we humans can impact the environment." Then, the teacher writes down key words on the blackboard and makes sure everyone understands them, asking students to translate into their home languages, if necessary.

4.4 Teaching and Scaffolding Strategies

The coding category 'Teaching and Scaffolding Strategies' pertained to pedagogical practices in which the teacher modeled and encouraged MLs to use learning strategies, for instance, reciprocal teaching, notes sheets, charts and diagrams, mnemonic devices, identifying keywords, or previewing a text before reading, as well as a variety of scaffolding strategies, for example, pausing, asking questions, modeling, and using visuals. The goal of these practices is to enhance mastery of new language and content and help students become independent and self-regulated learners. MLs often come from different educational backgrounds that employ various learning and teaching practices. In some educational contexts, independent learning is not commonly practiced, and all learning is centered around the teacher. For MLs coming from such contexts, explicit focus on learning strategies is of particular value. However, even learners who already exhibit heightened levels of metacognition can benefit from opportunities for its further development (Jessner 2008, 2018; Donker et al. 2014). Example 3 illustrates the process of creating a sentence bank for a task. In this case, questions and phrases asked for directions or services and to meet new people. The sentence bank was presented to the learners in form of a handout, which the learners can refer to throughout the lesson. Initially, sentence banks can be provided by the teacher. As learners become more independent, they can generate phrases and sentences with a group, and later individually. A multilingual component can easily be integrated by asking MLs to list equivalents in other languages they know. A discussion prompting MLs to reflect on the similarities and differences among the phrases in different languages in their linguistic repertoires can strengthen MLs' metalinguistic awareness.

Example 3

To provide scaffolding, the teacher goes over some examples of questions and phrases that learners can ask before letting the learners work in groups. The examples of sentences related to the topics of traveling are listed on a handout distributed among the students and include the following:

- Asking for directions
- Asking for services
- Meeting new people

4.5 Monitoring Strategies

'Monitoring Strategies' include explicit pedagogical practices that support learners in developing skills to monitor their own strategy use to ensure they stay on track to meet the learning objectives. For example, once MLs select a reading strategy, they can pause periodically to check whether the strategy is helpful or not. If the strategy is effective, they proceed, whereas if it is not, they select a different strategy. Similar to learning strategies, strategies for monitoring should be modeled and explicitly taught to MLs as they encourage MLs to assess the degree to which learning strategies support their own learning or whether different strategies need to be selected to attain the learning objectives (Anderson 2002). The 'Monitoring Strategies' identified in the data prompted MLs to analyze and reflect on their linguistic performance, select the best strategies to compensate for gaps in linguistic knowledge, and evaluate whether a particular strategy was useful or not. In Example 4, the teacher provided students with a list of strategies from which to choose when they encountered an unknown word. If strategy 1 did not work, the students moved down to the next strategy on the list until they found one that was helpful. This task was intended to help learners raise awareness of a linguistic gap, and it provided them with a range of different options to amend it so that communication could proceed seamlessly. Encouraging MLs to rely on other languages they know (i.e., "6. Use your other languages") helps them become more cognizant of the rich linguistic resources that they possess.

Example 4

What do we do if we don't know an English word?

1. Ask someone who speaks the same language as you!
2. Draw it!
3. Ask the teacher!
4. Look it up online!
5. Use your body language! – Act out the thing you are trying to name.
6. Use your other languages!

4.6 Promoting Metalinguistic Awareness

The final PPMM in the dataset, 'Promoting Metalinguistic Awareness', comprised activities that aimed to focus learners' attention on language as an object of study. This feature included describing how language works using metalinguistic terms, analyzing linguistic data, making comparisons across different languages (e.g., identifying cognates and false friends), and drawing on different languages in learners' linguistic repertoires to support further language development. Examples 5 and 6 illustrate practices that activate and promote learners' metalinguistic awareness. In Example 5, MLs are instructed to identify cognates in English, Norwegian, and other languages they know, which is a pedagogical strategy that helps soften boundaries among languages (Cenoz & Gorter 2017), facilitates comprehension, and promotes cross-linguistic awareness (Jessner 2018). In the activity in Example 6, MLs engage in partial or full translation of the text originally written in English into another language, and the goal of this activity is production of multilingual texts. It is important to note that the teacher allows the MLs to decide if they want to translate the whole text or just parts of it, which promotes translanguaging, a common practice among multilinguals to draw on all languages in their linguistic repertoires for meaning-making (Moore & Nikula 2016; Cenoz & Gorter 2017). Both translation and translanguaging are considered metalinguistic skills that can be applied to facilitate additional language learning (Jessner 2017).

Example 5

To make comparisons between English and other languages they might know, the learners are asked to examine each of the circled English words and provide equivalents in other languages they know. The teacher guides the learners in identifying similarities and differences in spelling and pronunciation. Example: 'snow' (English) – 'snø' (Norwegian) – 'Schnee' (German).

Example 6

After learners have written their blog entry, they are asked to translate it into another language. They have to consider if sentences can be translated directly, word-for-word, keeping the grammatical structure, or if they have to change the word order for the text to make sense in the other language. They might also have to consider if all words can be translated or if they want to keep some words in the original language so that the original meaning remains unchanged.

5. Summary and Implications

Research has shown that even teachers who view multilingualism positively and see it as a resource still find it difficult to implement PPMMs effectively in their teaching practices (Calafato 2021). MADE was designed as a tool to guide teachers in planning for appropriate PPMMs and implementing them in their own teaching practices. When pre-service teachers learn how to plan carefully for the inclusion of PPMMs in lesson planning during their teacher education program, the likelihood that they will implement PPMMs effectively in their classrooms once they start working in schools is greatly enhanced (Crandall & Christison 2016). The current study with pre-service teachers focused on specific PPMMs designed to promote the MADE indicator, 'Metacognition and Metalinguistic Awareness'. The examination of pre-service teachers' ability to plan for the use of these PPMMs in their lessons provides a glimpse into how successful they will be in the implementation of these PPMMs in their own practice.

The most common PPMM in the lesson plans submitted by the pre-service teachers in the current study was 'Activating Background Knowledge'. This finding is not surprising as activating background or prior knowledge is a common feature of most teacher education programs and is a foundational concept in teaching reading. As a result, it is likely that teachers in this project had been introduced to this practice prior to enrolling in the course in which they were introduced to MADE and that the practice had been recycled and reintroduced across multiple courses. In terms of learning new content, activating schemata is viewed as an important strategy (Vogt 2005). Activating previous knowledge allows MLs to make connections between prior learning and new content concepts (Cenoz & Gorter 2021). Making connections is particularly important for MLs as they come from diverse linguistic and cultural backgrounds with different experiences and ways of knowing. These unique experiences need to be recognized and valued in the classroom. As a PPMM, 'Activating Background Knowledge' encourages teachers to find ways to draw on the full range of learners' experiences, including their linguistic repertoires, to activate multilingualism as a resource.

The coding categories 'Preparing and Planning for Learning' and 'Promoting Metalinguistic Awareness' were similarly represented in the data with 16 and 17 percent of the PPMMs falling into these two categories. 'Preparing and Planning for Learning' is intended to further the development of metacognitive skills and encourage learners to reflect on their own learning. Language development is a central component in content-based approaches to language teaching; therefore, developing metalinguistic awareness is an essential PPMM and is key to encouraging learners to see multilingualism as a resource. It also helps learners make

use of languages in their linguistic repertoires for the purposes of advancing language(s) and essential content, for example, grade-level content in primary and secondary schools and disciplinary content in university-level courses.

The least common PPMM for the MADE indicator 'Metacognition and Metalinguistic Awareness' was 'Monitoring Strategies'. This finding is also not surprising as strategy instruction for pre-service teachers more frequently targets how to teach and scaffold strategies for language learners and less often how to monitor strategies, namely to ask questions about strategies being used, to determine own level of expertise, and to make a plan for self-improvement (Anderson 2002). The observation about strategy instruction is also borne out in these data as 'Teaching and Scaffolding Strategies' is the second most frequently occurring PPMM in the lesson plans. Based on data from the lesson plans using MADE, it seems the pre-service teachers were indeed planning for how to teach and scaffold metacognitive skills, but they included many fewer opportunities for learners to monitor strategies in their lesson plans. Being able to monitor one's own strategy use requires that each learner develop skills for thinking about their own learning and for monitoring strategy use when working individually or in groups with other learners. Like all skills, the development of metacognitive skills requires that strategies be taught and practiced. If learners are to be successful in using metacognitive strategies during autonomous and independent learning, they must be actively taught how to monitor the strategies they use not only in their own learning but also in their interactions with other learners. Being able to work successfully in groups requires the ability to monitor strategy use during interactions with others.

Pre-service teachers may find it difficult to plan for and implement activities that support the development of learners' metacognitive and metalinguistic awareness if they do not possess high levels of metacognitive and metalinguistic skills themselves, such as the ability to draw cross-linguistic comparisons among languages in learners' linguistic repertoires. Language teacher educators who opt to use MADE with pre-service teachers must recognize that the key to successfully using MADE to plan for and guide instruction is a consideration of how to support teachers in advancing their own metacognitive and metalinguistic awareness to create a cadre of teachers who are confident and able to demonstrate self-efficacy.

6. Conclusion

This study examined how pre-service middle school EAL teachers implement activities that support the development of MLs' metacognitive and metalinguistic skills. Five deductive categories based on the MADE indicator 'Metacognition

and Metalinguistic Awareness' were employed to analyze 35 content-based EAL lesson plans. The distribution of the PPMs was as follows: 'Preparing and Planning for Learning' – 17 %, 'Activating Background Knowledge' – 38 %, 'Teaching and Scaffolding Strategies' – 22 %, 'Monitoring Strategies' – 7 %, and 'Promoting Metalinguistic Awareness' – 16 %.

A focus on metacognitive and metalinguistic skills is considered crucial in content-based language programs that serve MLs because content-based curricula tend to place high cognitive demands on learners and because explicit attention to language as an object of study can promote further language development (Jessner 2008; Hawker 2013). Although MLs have strong metacognitive and metalinguistic skills compared with their monolingual peers (Bialystok & Barac 2012; De Bot & Jaensch 2013), research suggests that explicit instruction that fosters metacognitive and metalinguistic awareness has several benefits including an enhanced development of language skills and an increased attainment of proficiency (Dahm 2015; Hofer 2015; Allgäuer-Hackl 2017; Tellier & Roehr-Brackin 2017; Hopp et al. 2020; Jessner & Allgäuer-Hackl 2022). It is, therefore, crucial for teachers working in content-based language programs that serve MLs to develop the pedagogical knowledge and skills needed to support the development of learners' metacognitive and metalinguistic awareness as they draw on MLs' diverse backgrounds and linguistic repertoires.

This research project illustrated how MADE (Krulatz & Christison 2023) can be employed as a tool for systematic instruction relative to the implementation of PPMs in pre-service teacher education. However, the findings also indicate that pre-service teachers might need more support to develop their knowledge and skills in the area of strategy monitoring. Finally, additional research is needed to examine the long-term effects of pre-service education courses that aim to prepare teachers to implement PPMs. It is also important to determine additional suitable forms of teacher professional development that reinforce and further develop pre-service teachers' abilities to promote metacognition and metalinguistic awareness.

Eingang des revidierten Manuskripts 11.06.2024

References

- Allgäuer-Hackl, Elisabeth (2017): *The development of metalinguistic awareness in multilingual learners. How effective is multilingual training in the classroom?* [Unpublished doctoral dissertation]. Innsbruck: University of Innsbruck.

- Anderson, Neil J. (2002): *The role of metacognition in second language teaching and learning*. ERIC Digest. Washington, DC: ERIC Clearinghouse on Languages and Linguistics.
- Bialystok, Ellen & Barac, Raluca (2012): Emerging bilingualism: Dissociating advantages for metalinguistic awareness and executive control. *Cognition* 122: 1, 67-73.
- Bigelow, Martha (2010): Learning to plan for a focus on form in CBI: The role of teacher knowledge and teaching context. In: Davies, Jacqueline F. (ed.): *World language teacher education: Transitions and challenges in the twenty-first century*. Charlotte, NC: Information Age Publishing, 40-58.
- Brinton, Donna M. & Holten, Christine (1997): Into, through, and beyond. *English Teaching Forum* 35: 4, 11-23.
- Calafato, Raees (2021): Teachers' reported implementation of multilingual teaching practices in foreign language classrooms in Norway and Russia. *Teaching and Teacher Education*, 105 [DOI 10.1016/j.tate.2021.103401].
- Cammarata, Laurent (2010): Foreign language teachers' struggle to learn content-based instruction. *L2 Journal* 2: 1, 89-118.
- Cantoni-Harvey, Gina (1987): *Content-area language instruction. Approaches and strategies*. White Plains: Pearson.
- Cenoz, Jasone (2013): The influence of bilingualism on third language acquisition: Focus on multilingualism. *Language Teaching* 46: 1, 71-98.
- Cenoz, Jasone & Gorter, Durk (2017): Translanguaging as a pedagogical tool in multilingual education. In: Cenoz, Jasone; Gorter, Durk & May, Stephen (eds.): *Language awareness and multilingualism*. Cham: Springer, 309-322.
- Cenoz, Jasone & Gorter, Durk (2021): *Pedagogical translanguaging*. Cambridge: Cambridge University Press.
- Cenoz, Jasone; Hufeisen, Britta & Jessner, Ulrike (eds.) (2001): *Cross-linguistic influence in third language acquisition: Psychological perspectives*. Clevedon, UK: Multilingual Matters.
- Chamot, Anna U. (2005): Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics* 25, 112-130.
- Christison, MaryAnn; Crandall, JoAnn & Christian, Donna (eds.) (2022): *Research in integrating language and content in diverse contexts*. New York: Routledge.
- Cook, Vivian & Bassetti, Benedetta (eds.) (2011): *Language and bilingual cognition*. New York: Psychology Press.
- Coyle, Do (2007): Content and language integrated learning: Towards a connected research agenda for CLIL pedagogies. *International Journal of Bilingual Education and Bilingualism* 10: 5, 543-562.
- Coyle, Do; Hood, Philip & Marsh, David (2010): *CLIL: Content and language integrated learning*. Cambridge: Cambridge University Press.
- Crandall, JoAnn & Christison, MaryAnn (2016): An overview of research in English language teacher education and professional development. In: Crandall, JoAnn & Christison, MaryAnn (eds.): *Global research on teacher education and professional development in TESOL*. New York: Routledge, 3-34.

- Dahm, Rebecca (2015): Developing cognitive strategies through pluralistic approaches. In: De Angelis, Gessica; Jessner, Ulrike & Kresic, Marijana (eds.): *Crosslinguistic influence and crosslinguistic interaction in multilingual language learning*. London: Bloomsbury, 43-70.
- Dalton-Puffer, Christiane (2011): Content-and-language integrated learning: From practice to principles? *Annual Review of Applied Linguistics* 31, 182-204.
- De Bot, Kees & Jaensch, Carol (2013): What is special about L3 processing. *Bilingualism: Language and Cognition* 18: 2, 130-144.
- De Boer, Mark & Leontjev, Dimitri (2020): *Assessment and learning in content and language integrated learning (CLIL): Approaches and conceptualizations*. Cham: Springer.
- Donker, Anouk; de Boer, Hester; Kostons, Danny; van Ewijk; Dignath, Charlotte & van der Werf, Margaretha (2014): Effectiveness of learning strategy instruction on academic performance: A meta-analysis. *Educational Research Review* 11, 1-26 [DOI 10.1016/j.edurev.2013.11.002].
- Echevarría, Jana; Vogt, MaryAllen E., & Short, Deborah J. (2016): *Making content comprehensible for English learners: The SIOP Model* (5th edition). London: Pearson.
- Fisher, Douglas; Frey, Nancy & Lapp, Diane (2012): Building and activating students' background knowledge: It's what they already know that counts. *Middle School Journal* June 2021, 22-31.
- Fortune, Tara W.; Tedick, Diane J. & Walker, Constance, L. (2008): Integrated Language and Content Teaching: Insights from the Language Immersion Classroom. In: Fortune, Tara W. & Tedick, Diane J. (eds): *Pathways to multilingualism: Evolving perspectives on immersion education*. Clevedon, UK: Multilingual Matters, 71-96.
- Gardner, Howard (1985): *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Gogolin, Ingrid (2021): Multilingualism: A threat to public education or a resource in public education? – European histories and realities. *European Educational Research Journal* 20: 3, 297-310.
- González, Norma; Moll, Louis C., & Amanti, Cathy (eds.) (2005): *Funds of knowledge: Theorizing practices in households, communities and classrooms*. Mahwah, NJ: Erlbaum.
- Gottlieb, Margo & Ernst-Slavit, Gisela (2014): *Academic language in diverse classrooms: Definitions and contexts*. Thousand Oaks, CA: Corwin.
- Greene, Jennifer C. (2005): The generative potential of mixed methods inquiry. *International Journal of Research & Method in Education* 28: 2, 207-211.
- Hammarberg, Björn (2001): Roles of L1 and L2 in L3 production and acquisition. In: Jasone Cenoz; Britta Hufeisen & Ulrike Jessner (eds.): *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives*. Clevedon, UK: Multilingual Matters, 21-41.
- Haukås, Åsta (2022): Who are the multilinguals? Pupils' definitions, self-perceptions and the public debate. In: Ayres-Bennett, Wendy & Fisher, Linda (eds.): *Multilingualism and identity: Interdisciplinary perspectives*. Cambridge: Cambridge University Press, 281-298.

- Haukås, Åsta; Bjørke, Camilla & Dypedahl, Magne (eds.) (2018): *Metacognition in language learning and teaching*. New York: Routledge.
- Hawker, Irina A. (2013): The CLIL learning experience: Strategies and underlying knowledge employed by limited English primary school students during conceptual and linguistic comprehension. In: Breidbach, Stephan & Viebrock, Britta (eds): *Content and language integrated learning (CLIL) in Europe: Research perspectives and policy practice*. Bristol: Peter Lang, 159-179.
- Hofer, Barbara (2015): *On the dynamics of early multilingualism. A psycholinguistic study*. Berlin: Mouton de Gruyter.
- Hopp, Holger; Jakisch, Jenny; Sturm, Sarah; Becker, Carmen & Thoma, Dieter (2020): Integrating multilingualism into the early foreign language classroom: Empirical and teaching perspectives. *International Multilingual Research Journal* 14: 2, 146-162.
- Hufeisen, Britta (2005): Multilingualism: Linguistic models and related issues. In: Hufeisen, Britta & Fouser, Robert J. (eds.): *Introductory readings in L3*. Tübingen: Stauffenberg Verlag, 31-45.
- Hüttner, Julia & Smit, Ute (2013): CLIL (content and language integrated learning): The bigger picture. A response to A. Bruton. 2013. CLIL: Of the reasons why... and why not. *System* 41, 587-597.
- Jessner, Ulrike (2006): *Linguistic awareness in multilinguals: English as a third language*. Edinburgh: Edinburgh University Press.
- Jessner, Ulrike (2008): A DST model of multilingualism and the role of metalinguistic awareness. *The Modern Language Journal* 92: 2, 270-283.
- Jessner, Ulrike (2017): Language awareness in multilinguals: Theoretical trends. In: Cenoz, Jasone; Gorter, Durk & May, Stephen (eds.): *Language awareness and multilingualism*. Cham: Springer, 19-30.
- Jessner, Ulrike (2018): Metacognition in multilingual learning: A DMM perspective. In: Haukås, Åsta; Bjørke, Camilla & Dypedahl, Magne (eds.): *Metacognition in language learning and teaching*. New York: Routledge, 31-47.
- Jessner, Ulrike & Allgäuer-Hackl, Elisabeth (2022): Metacognition in multilingual learning and teaching. Multilingual awareness as a central subcomponent of metacognition in research and practice. *AILA Review* 35: 1, 12-37.
- Krulatz, Anna & Christison, MaryAnn (2022): Working towards a multilingual paradigm in content-based English language teaching: Implications for teacher education. In: Christison, MaryAnn; Crandall, JoAnn & Christian, Donna (eds.): *Research in integrating language and content in diverse contexts*. New York: Routledge, 3-20.
- Krulatz, Anna, & Christison, MaryAnn (2023): *Multilingual Approach to Diversity in Education (MADE): A methodology for linguistically and culturally diverse classrooms*. Cham: Palgrave Macmillan.
- Leder, Lynn M.; Liu, Xiaonon. L.; Keinath, A. & Popov, Vencislav (2016): Building knowledge requires bricks not sand: The critical role of familiar constituents in learning. *Psychonomic Bulletin* 23, 271-277.

- Lindahl, Kristen; Kroeff Schmitz Gibk, Cristina & Avila de Campos Rocha, Tatiana (2022): *Collaboration, identity, and internationalization: Professional development for CLIL in Brazil*. New York: Routledge.
- Lindahl, Kristen & Watkins, Naomi (2014): What's on the 'LO' menu? Supporting academic language objective development. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 87: 5, 197-203.
- Lorenzo, Francisco; Casal, Sonia & Moore, Pat (2010): The effects of content and language integrated learning in European education: Key findings from the Andalusian bilingual sections evaluation project. *Applied Linguistics* 31: 3, 418-442.
- Lyster, Roy (2008): *Learning and teaching languages through content: A counterbalanced approach*. Amsterdam: John Benjamins.
- Merino, Jon Ander & Lasagabaster, David (2018): CLIL as a way to multilingualism. *International Journal of Bilingual Education and Bilingualism* 21: 1, 79-92.
- Moore, Pat & Nikula, Tarja (2016): Translanguaging in CLIL classrooms. In: Nikula, Tarja; Dafouz, Emma; Moore, Pat & Smit, Ute (eds.): *Conceptualising Integration in CLIL and Multilingual Education*. Bristol: Multilingual Matters, 211-234.
- Ohtani, Kazuhiro & Hisasaka, Tetsuya (2018): Beyond intelligence: A meta-analytic review of the relationship among metacognition, intelligence, and academic performance. *Metacognition and Learning* 13: 2, 179-212.
- O'Malley, J. Michael, & Chamot, Anna Uhl (1990): *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.
- Oxford, Rebecca L. & Pawlak, Mirosław (2018): Conclusion: The future of research into language learning strategies. *Studies in Second Language Learning and Teaching* 8: 2, 525-535.
- Regalla, Michele (2012): Language objectives: More than just vocabulary. *TESOL Journal* 3: 2, 210-230.
- Roehr-Brackin, Karen (2018): *Metalinguistic awareness and second language acquisition*. New York: Routledge.
- Ruiz de Zarobe, Yolanda (2008): CLIL and foreign language learning: A longitudinal study in the Basque country. *International CLIL Research Journal* 1: 1, 60-73.
- Ruiz de Zarobe, Yolanda & Jiménez Catalán, Rosa M. (2009): *Content and language integrated learning: Evidence from research in Europe*. Bristol, Buffalo: Multilingual Matters.
- Ruiz de Zarobe, Yolanda & Smala, Simone (2020): Metacognitive awareness in language learning strategies and strategy instruction in CLIL settings. *Journal of the Psychology of Language Learning* 2: 2, 20-35.
- Sayer, Peter (2010): Using linguistic landscape as a pedagogical resource. *ELT Journal* 64: 2, 143-154.
- SIOP = *Sheltered Instruction Observation Protocol* [Online: <https://www.cal.org/siop/services/>, 15.05.2024].
- Skutnabb-Kangas, Tove & McCarty, Teresa (2008): Key concepts in bilingual education: Ideological, historical, epistemological, and empirical foundations. In: Cummins, Jim &

- Hornberger, Nancy (eds.): *Encyclopedia of language and education*. New York, NY: Springer, 3-17.
- Snow, Marguerite Ann & Brinton, Donna D. (eds.) (2017): *The Content-based Classroom. New Perspectives on Integrating Language and Content* (2nd edition). Ann Arbor, MI: The University of Michigan Press.
- Sylvén, Liss Kerstin (2010): *Teaching in English or English teaching? On the effects of content and language integrated learning on Swedish learners' incidental vocabulary acquisition*. *Gothenburg Studies in English* 97. Gothenburg: University of Gothenburg.
- Tarricone, Pina (2011): *The taxonomy of metacognition*. New York: Psychology Press.
- Tellier, Angela & Roehr-Brackin, Karen (2017): Raising children's metalinguistic awareness to enhance classroom second language learning. In: Garcia Mayo, Maria d. P. (ed.): *Learning foreign languages in primary school: Research insights*. Bristol: Multilingual Matters, 22-48.
- Tiurikova, Irina; Haukås, Asta & Sorto, André (2021): The link between multilingualism, language learning and open-mindedness in secondary school students in Norway. *Nordic Journal of Language Teaching and Learning* 9: 2, 1-24 [DOI 10.46364/njltl.v9i2.945].
- Vogt, MaryEllen (2005): Improving achievement for ELLs through sheltered instruction. *Language Learner* 1: 1, 22-25.
- Wei, Li (2008): Research perspectives on bilingualism and multilingualism. In: Wei, Li & Moyer, Melissa G. (eds.): *The Blackwell handbook of research methods on bilingualism and multilingualism*. Malden, MA: Blackwell, 3-17.