

A Scoping Review of Content-and-Language Integrated Learning

Yongling Zhou

School of Foreign Language, China West Normal University, Nanchong 637002, China

Abstract

As plurilingualism highlights the need for greater attention to foreign and second language learning, it gives rise to CLIL development. Using scoping review methodology, this paper aims to elaborate the pedagogy by providing an overview of the contexts, theoretical basis, two focus areas of CLIL research, and evaluation of CLIL. The findings highlight that learners can gain a range of benefits in CLIL classroom like cognitive development, improvement of language knowledge and skills, and increased learning motivation, while CLIL posed challenges to CLIL teachers, learners, and teaching materials. Therefore, teachers should enhance their knowledge and skills to choose and decide suitable teaching materials and to help learners gain language and content knowledge in CLIL class.

Keywords

CLIL; Theoretical Basis; Research Fields; Evaluation.

1. Introduction

In educational practice, language teachers have been looking for the way which would be most fruitful towards their students and their self-satisfaction. In the second half of the 1990s, a new approach called CLIL (Content and Language Integrated Learning) emerged in Europe. It was also promoted by the plurilingualism movement in the European Union and covered in the Council of Europe when students should attain two foreign languages in their education. Dalton-Puffer [1] points that CLIL can be described as an educational approach where curricular content is taught through the medium of a foreign language, typically to students participating in some form of mainstream education at the primary, secondary, or tertiary level. "C" in CLIL stands for meaningful intellectual content including many disciplines and fields, such as history, geography, biology, physics, sports, etc. The first "L" in CLIL is meant to the target language that learners need to master in addition to their mother tongue [2]. In practice it means that students use English medium to study subjects such as geography, history, arts, or mathematics that were originally taught in the native language. CLIL is ideal for employing the foreign language even in a content-subject lesson, so the students are exposed to the foreign language outside of language education. Adding the content to the language is also a great combination considering the language of professionals or academic field and improving the chances to study or work abroad, getting more information within the field of interest.

2. Literature Review

2.1. Theoretical Basis

2.1.1. Second Language Acquisition Theory

Some research argues that learning and acquisition is different. Learning means that language is intentionally learned through explicit instruction, while acquisition, an incidental language learning behavior, emphasizes that language is acquired naturally in the process of learning [3]. CLIL classrooms are an environment for naturalistic language learning, implying that the best kind of language learning proceeds painlessly, without formal instruction. Many researchers

hold that second language learning can follow the path of first language acquisition and that it can be better achieved by learning other content in a relatively natural environment [4]. Foreign language teaching guided by the concept of content language integration learning enables learners of all ages to learn and develop their own language in a relatively natural environment.

It is also accepted that input and output provides CLIL with crucial theoretical support. Second language acquisition requires sufficient input that is slightly above the learner's current language ability, and it emphasizes that 'i+1' input is comprehensible, relevant and sequential [5]. Comprehensibility of input means that learners should focus on understanding the meaning of the language, not simply on the form of the language. The relevance and sequence of input emphasizes the systematic input, that is, foreign language teachers are required to gradually and specifically conduct language input of a specific topic or subject content. CLIL pays attention to the differences in students' abilities and provides different inputs according to their language and knowledge levels, ensuring comprehensibility of content and language inputs.

Another important theoretical influence has been Swain's output hypothesis and its claim that only the self-regulated production of utterances that encode learners' intended meanings forces them to actively process morphosyntactic aspects of the foreign language, thereby expanding their active linguistic repertoire and achieving deeper entrenchment of what they already know [6]. In the CLIL context the implications of the output hypothesis have frequently served as a foil for those observed language behaviors in classrooms that appear conditioned by pedagogical practices restricting the active linguistic engagement of learners both in speech and writing.

2.1.2. Linguistic Theory

A further development has been focus on form, that is, paying attention at specific moments during the learning process to formal, lexicogrammatical aspects of language as carriers of meaning [7]. Content and language integration does not simply mean that students learn subject content simply by replacing their mother tongue with another language. In the contract, it emphasizes the integration of content and foreign language learning, so that two aspects can be mutually reinforced and the overall learning can be greatest in effect. An immersion-specific version of this has been formulated in Lyster's [8] counterbalanced approach, which advocates giving equal weight to meaning focus and form focus in immersion education.

2.1.3. Structuralism Theory

Constructivism believes that knowledge is constructed by the mind of people [9]. People construct different knowledge in different situations. And constructivism emphasizes the interaction between people and situations [10]. Communication between people reflects the process of knowledge construction, through which people can achieve knowledge transfer and integration, so as to achieve the same level of knowledge, or construct common knowledge. Moreover, situation offers considerable potential. CLIL classrooms share a great deal more with traditional language lessons than a partisan look would make one believe and that CLIL cannot therefore be expected to prepare learners for other situational contexts in any direct way. CLIL lessons are part of the learners' everyday experience of school. They take place within the same local, institutional, personal, and cultural context as all the other school lessons that CLIL learners experience. The lessons are thus well-embedded in the matrix culture of the L1 and possess a high degree of familiarity for the learners. The learners know the discourse of the classroom, and this well-established knowledge provides them with a mental schema or discourse domain for dealing with particular situations.

2.2. Review of CLIL Practice Research

2.2.1. CLIL Instructing Practice Research

The analysis of teachers' discourse in CLIL classroom has attracted many researchers' attention. They have conducted a range of studies on discourse features of teacher-student instructions and the negotiation of meaning in CLIL classroom interaction from a variety of classroom discourse analysis perspectives. Firstly, according to interaction analysis it is found that CLIL teachers' discourse is characterized by more sustained speech and less minimal speech, and that most questions are referential and a few are demonstrative. Secondly, from Initiate Respond Feedback (IRF) perspective, the feedback in the IRF proves an important part of CLIL teachers' discourse control, and teachers should use it to elaborate knowledge and elicit students to form a virtuous circle in CLIL classroom [11]. Thirdly, from pragmatic perspective, research of CLIL classroom instructions finds that instructions show more directness that echoes with CLIL pragmatic principles [12].

Another important conceptual vantage point in studies of CLIL classroom instruction has been CLIL models that focus on pedagogical strategies. Lorenzo argues that task-based teaching should be integrated into CLIL in order to avoid petrification phenomenon, L2 grammar simplification and poor output skills of CLIL so as to create a framework for CLIL that includes a pre-task phase (presenting new language and content information, stimulating mental pictures), a mid-task phase (communicatively eliciting language use) and a post-task phase (reflecting on the language problems). Empirical research has demonstrated that this CLIL model involving task-based teaching, is more effective [13].

In summary, there are also other contextual factors that influence instruction in CLIL classroom including the purpose of the instruction, the classroom register, types of classroom activities, the age of the students and the culture of the context. Moreover, research on CLIL pedagogical strategies has focused on grasping learners' attention to language form. From the perspective of systematical functional linguistic analysis, task-based teaching or form-centered teaching, the essence of teaching is to combine form and meaning of language, and to increase learners' awareness to language form in the context of language analysis and use.

2.2.2. CLIL Instructor Development Research

It has also been noted that CLIL teachers have strong impact on the effect of CLIL class and students' development. Researchers nowadays have mainly studied CLIL teacher development in two ways: firstly, they have proposed theoretical frameworks for CLIL teacher development and verified its effectiveness through empirical research; secondly, they have studied the relationship between CLIL teachers' beliefs and actual teaching.

Some countries have proposed their own frameworks of CLIL teacher development. The SIOP (Sheltered Instruction Observation Protocol) model in the United States has evolved over the past seven years (1996-2003) from an observation form used to evaluate the implementation of sheltered instruction to a framework for the development and implementation of sheltered lesson plans that includes eight components: preparation, background and meaning construction, comprehensibility of instruction, specific teaching strategies, teacher-student interaction, knowledge application, implementation process, checking and evaluation. The European EFCT (The European Framework for CLIL Teacher Education) model consists of professional competences and professional development. The former includes six competences for CLIL teachers: personal reflection, mastery of CLIL characteristics, content and language awareness, CLIL pedagogy and assessment, classroom management, and development of learners' self-directed learning, while the latter describes the specific stages and steps for implementing CLIL. Coyle proposes 4Cs teaching and learning framework for CLIL, namely Content, Communication, Cognition and Culture. The 4Cs framework inform content teachers and language teachers of basic elements of CLIL [14].

Arkoudis [15] notes that instructors tend to define their teaching knowledge according to their own disciplinary knowledge, which can lead language teachers and content teachers to play their own roles respectively in terms of their own disciplinary beliefs, thus preventing them from integrating systematically language and content. The fact echoes to research of Tan [16]. Their founding further shows that the different attitudes of CLIL subject teachers towards language have a significant impact on their teaching practice. Teachers' different beliefs about CLIL mainly show in four aspects: teacher role, the concept of content language integration, content and content teaching, and language and language teaching.

3. Reflections on CLIL

3.1. Benefits of CLIL

CLIL, as a novel pedagogic strategy, is worth implementing into the school curricula. Besides the opportunity of being exposed to the target language at least for one extra lesson, which is not a complete language lesson, there are other advantages of CLIL.

CLIL provides so many benefits to the students. Firstly, as students become proficient in two languages, they gain cognitive advantages development. Studies have shown that bilingual people are, on the whole, more flexible, better problem solvers, and better communicators. In addition, learning a second language can improve a person's memory and even protect against the effects of aging on the brain. Also, CLIL can improve students' critical thinking ability. CLIL creates virtuous conditions for the synergistic development of language and thinking: CLIL provides more linguistic resources for language knowledge internalization and linguistic environment for complex meaning negotiation. Other benefits include a deeper understanding of the target language and mastery of a subject. CLIL refers to using foreign language as a medium to learn content knowledge in the context of language use. Language and content learning are mutually reinforcing, so that the overall learning effect is more significant than that of learning the language or content alone. Furthermore, CLIL can increase students' motivation and learning desire and enhance the development of language skills. Traditional foreign language teaching mainly focuses on linguistic knowledge like words and grammar. This kind of continuous and monotonous learning pattern can make students lose enthusiasm and interest for learning. CLIL model creates an emotionally driven language environment that provides positive emotional support for the integration of content knowledge and language skill development. It also has a positive effect on the longitudinal development of knowledge learning, and discursive oral and written expression. Fifthly, other advantages include communicative skill development, preparation for future studies and working life, more methods and forms of classroom practice, individual learning strategies development, increased learning confidence and interest.

3.2. Constraints of CLIL

Undoubtedly, there are certain difficulties which prevent teachers from achieving this ideal strategy. Firstly, CLIL will challenge content teachers and subject teachers when it is actually conducted. CLIL teachers are required more energy, knowledge and skills. CLIL courses can take time and energy to prepare and carry out. A good CLIL teacher is someone who is committed to the approach and is hard-working, dedicated, and passionate about his or her students. In addition, a CLIL teacher should be skilled at communication and flexible because cooperating with the subject-area teacher is essential. Secondly, the subject content is actually required. While almost any subject can be taught through a CLIL approach, the most suited are ones that involve student cooperation and have a cultural aspect to them. Some examples are the social sciences, the arts, many trades, and some sciences such as biology and chemistry. One study finds that math and physics are less suited to a CLIL approach because of their technical

nature. Thirdly, CLIL approach rely heavily on second language knowledge and skills, but language is not taught systematically in CLIL classroom. Students use second language as a medium to learn another subject. Students of lower language competence tend to fail easily in learning subject because they cannot acquire the subject knowledge successfully due to the lack of sufficient L2 language knowledge.

4. Conclusion

This research reviewed the background, relevant theories, two main research fields, and evaluation of CLIL. As plurilingualism highlights the need for greater attention to foreign and second language learning, it gives rise to CLIL development. CLIL is firmly supported by L2 acquisition theory, language theory, and structuralism theory. The review sought to provide an overview of two main relevant research fields in CLIL research that had been conducted. Most researchers focus on CLIL teaching practice (analysis of teachers' discourse and teaching pedagogy development) and CLIL teacher development (models of teachers' development and teachers' belief). According to the review, it revealed that students could gain a range of benefits in CLIL classroom like cognitive development, improvement of language knowledge and skills, and increased learning motivation, while CLIL posed challenges to CLIL teachers, learners, and teaching materials. Although there are many difficulties in the process of carrying CLIL, it is also necessary to try and conduct it.

References

- [1] Dalton-Puffer, C: Content-and-Language Integrated Learning: From Practice to Principles, Annual Review of Applied Linguistics, Vol. 48(2011) No. 31, p.182-204.
- [2] Junyao Chang and Zhaohao Liu: Theoretical Supports for the Approach/Philosophy of CLI, Foreign Languages and Their Teaching, Vol. 21 (2020) No. 6, p. 85-95+150.
- [3] Krashen, S: Principles and Practice in Second Language Acquisition (Pergamon, UK 1982).
- [4] Snow M: A conceptual framework for integration of language and content in second/foreign language instruction, TESOL Quarterly, Vol. 31(1989) No.2, p. 201-217.
- [5] Krashen, S: The input hypothesis. Issues and implications (Longman, UK 1985).
- [6] Swain, M: Principle and practice in applied linguistics (Oxford University Press, UK 1995).
- [7] Doughty, C & Williams, J: Focus on form in classroom second language acquisition (Cambridge University Press, UK 1998).
- [8] Lyster, R: Learning and Teaching Languages Through Content: A Counterbalanced Approach (John Benjamins, Netherlands 2007).
- [9] Simpson, T: Dare I oppose constructivist theory, The Educational Forum, Vol. 59 (2002) No.4, p. 347-354.
- [10] Cobb, P.& J. Bowers: Cognitive and situated learning perspectives in theory and practice. Educational Researcher, Vol.24 (1999) No. 2, p. 4-15.
- [11] Kong, S and Hoare P, and Yanping C: Immersion education in China: Teachers' perspectives, Frontiers of Education in China, Vol. 6 (2011) No.1, p. 68-91.
- [12] Dalton-Puffer, C: Discourse in CLIL classrooms (John Benjamins, Netherlands 2007).
- [13] Lingley, D: A Task-based Approach to Teaching a Content-based Canadian Studies Course in EFL Context, Asian EFL Journal, Vol. 16 (2006) No. 3, p. 58-64.
- [14] Coyle, D: Content and Language Integrated Learning: Towards a Connected Research Agenda for CLIL Pedagogies, International Journal of Bilingual Education and Bilingualism, Vol. 4 (2007) No. 5, p. 543-562.
- [15] Arkoudis, S: Fusing pedagogic horizons: Language and content teaching in the mainstream, Linguistics and Education, Vol11 (2005) No. 16, p. 173-187.

- [16] Tan, M: Mathematics and science teachers' beliefs and practices regarding the teaching of language in content learning, *Language Teaching Research*, Vol. 5 (2011) No. 3, p. 325-342.