

Content and Language Integrated Learning (CLIL):

**A case study of lecturers' experiences of professional learning for Engineering and
English Integrated Learning Program within Vietnamese Higher Education**

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Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledge in the tex. I hereby declare that I have not submitted this material, either in full or in past, for a degree at this or any other institution.



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Abbreviations and Acronyms

CLIL	Content and Language Integrated Learning
COP	Community of Practice
EFL	English as a Foreign Language
ELT	English Language Teaching
EMI	English as a Medium of Instruction
ESL	English as a Second Language
ESP	English for Special Purposes
FL	Foreign Language
L1	First Language
L2	Second Language
NA	Ni Anh
NAUTE	Ni Anh University of Technology Education
PD	Professional Development
TESOL	Teaching English to Speakers of Other Languages
ZDP	Zone of Proximal Development

Abstract

This research explores Vietnamese lecturers' experiences of professional learning for Content and Language Integrated Learning (CLIL) programs (Engineering and English Integrated Learning) within Vietnamese Higher Education. These university lecturers were required to change their textbook-based English language programs to CLIL with an expectation from university management that curriculum changes and development would occur seamlessly without support or training. This research investigates and documents how these lecturers rose to the challenges set by these significant changes to their responsibilities; how they undertook professional learning; how they experienced and practiced their teaching in the newly developed CLIL programs, and which other factors may have influenced their practice (for example, cultural, linguistic, social factors) in the Vietnamese context.

This research used a case study design focusing on a group of CLIL lecturers in one Vietnamese University. Data was collected from these participants through interviews, classroom observations and the analysis of curriculum documents they developed.

This study used Vygotsky's social cultural theory of learning and teaching to examine CLIL University teachers' pedagogies and professional development, including how these may have been influenced by local language, culture and social activities. Mascolo's person-environment coactive scaffolding theory, Lave and Wenger's community of practice and Coyle's Content, Cognition, Communication, Culture framework were applied as analytical tools for the data analysis.

The study has identified three key findings. Firstly, the lecturers at Ni Anh University of Technology Education (NAUTE) lacked appropriate understanding and knowledge of CLIL at the very early stages of the program. As a result, their theoretical conceptualisation of CLIL remained discordant and inconsistent throughout the period, even as their teaching and curriculum development responsibilities evolved.

Secondly, the lecturers empowered themselves through interaction, co-construction, and collaboration with CLIL colleagues, subject lecturers, and students within the university environment. Thereby, the lecturers co-constructed engineering subject knowledge to fill their

lacuna and optimise their CLIL teaching within the community of practice at NAUTE through three main methods, identified as self-learning, peering learning and mentoring.

Thirdly, findings reveal that despite their experience teaching English employing discipline (engineering subject) based methods, the lecturer participants still struggled with teaching CLIL due to their lack of knowledge of CLIL pedagogy. Without any training or theoretical framework, they found teaching language and subject content together in an integrated curriculum confusing and problematic. This was due to many factors influencing the actual CLIL classroom teaching and learning at NAUTE, as well as the lecturers' lack of preparation.

Findings of this study highlight the necessity for the development of CLIL-specific pedagogy and methodology, as well as programs of proper professional development for CLIL lecturers. CLIL or bilingual education cannot be seen as another version of foreign language teaching, requiring those language lecturers to teach another subject unfamiliar to them. If we want to successfully implement CLIL programs, we need to look at CLIL from a holistic pedagogical perspective and provide lecturers with training in both accepted standards of CLIL teaching and in the subject content.

The study contributes to the existing body of knowledge in the field of CLIL, the impact of which has the potential to inform policy makers responsible for the professional development of future CLIL lecturers

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

“Teachers, I believe, are the most responsible and important members of society because their professional efforts affect the fate of the earth.”

-Helen Caldicott.

This famous quote by Helen Caldicott, an Australian physician and author (McNeece, 2016), underscores the important role of teachers in any educational system in any society (London, 2011). In Vietnamese culture, teaching is considered to be the most noble job, one that strongly impacts the development and changes of different generations (London, 2011; Le, 2017). Nowadays, with the development of new technologies for teaching, the role of the teacher remains vital. Among other factors, the competence of teachers can be the deciding factor in the success of an educational program (Le and Nguyen, 2017). Therefore, the preparation for teachers prior to the implementation of any new educational programs, as well as the ongoing professional development of teachers, must always be prioritised (Le, 2014; Tran, 2013; Pérez Cañado, 2016; Banegas, 2019; MOET, 2014).

The growing trend towards globalisation and the importance of foreign language communication skills has highlighted the necessity for learning and teaching English as a foreign or second language in many countries around the world (Crystal, 2006). Among different methods developed for English language education, Content and Language Integrated Learning (CLIL) (Coyle, 2005) is one that has experienced some success in a variety of sociopolitical contexts (Aurydice, 2006; Banegas, 2017; Cenoz, Genesee and Gorter, 2014). However, its implementation still presents some challenges and difficulties for stakeholders, especially for new CLIL teachers and their preparations for CLIL teaching (Pavón Vázquez & Ellison, 2013; Pérez Cañado, 2016a, 2017; Fernández & Halbach, 2011; Pérez Cañado; Kewara and Prabjandee, 2018; Urmeneta, 2013).

In Vietnam, English language education has been prioritised in the country's educational policies for the past ten years (Vietnam Government 2008, MOET 2014, Tran, 2018; Le 2017). Teachers in Vietnam face more challenges in teaching CLIL than those in European countries, with more resources and languages closer to English. Thus, the professional development of teachers must be more intensively considered in the planning of language education initiatives (Bui and Nguyen 2016, Tran 2018, Le and Nguyen 2017).

Vietnamese 2020 National Foreign Language project (Vietnam Government, 2008) has failed since the evaluation in 2017 (Le, Nguyen, 2017). One of the reasons identified for the failure was the insufficient and inflexible training provided for teachers at different levels of education, including lecturers in higher education. These lecturers were assigned to teach new and different programs without any ongoing professional learning support to prepare them for teaching (Tran et al, 2019). Thus, the professional learning offered to CLIL lecturers in different universities should be investigated to identify the key factors affecting the development of foreign language education in Vietnam, especially as they relate to preparing teachers to transition to a CLIL program.

In view of the issues raised by previous researchers (e.g Pavón Vázquez & Ellison, 2013; Pérez Cañado, 2016a, 2017; Fernández & Halbach, 2011; Pérez Cañado; Kewara and Prabjandee, 2018; Urmeneta, 2013; Benegas; 2019; Yin, 2019) in the field about CLIL teaching in different contexts, this research explores lecturers' professional learning experiences with Content and Language Integrated Learning (CLIL) (Cenoz, 2013) programs in higher education in Vietnam, as encapsulated in a cohort at Ni Anh university of technology education. This chapter provides an overview of the study, focusing on its conceptualisation, the development of the research problems, the overarching and supplementary research questions, the research context of the study, and the aims and significance of this research. The researcher's experience is also included to provide a sense of how the research question was developed.

1.1 THE STATEMENT

Accessing professional learning, and especially ongoing professional training, has been challenging for lecturers in Vietnamese higher education in the last few decades (Le, 2017). In an official evaluation organised by The Ministry of Education and Training (MOET) (MOET,

2014), a number of factors were identified that were believed to be contributing to unsatisfactory levels of achievement in Vietnamese higher education (Nguyen, 2019, p.9):

Poor quality training; inadequate educational/training scale; inappropriate systems and institutional structures; limited resources; rigid/inflexible training programmes; lack of lecturers and managers in terms of both quantity and qualification; heavily subsidised, bureaucratic, and controlled macro management; and inefficient national investment due to the lack of a national strategic plan for higher education development.

Two of the factors listed here as contributing to the problems in higher education in Vietnam - “rigid/inflexible training programmes” and “lack of lecturers and managers in terms of both quantity and qualification” (Nguyen, 2019, p.9) are clearly related. The development of new initiatives in higher education requires rigorous training for lecturers to solve the problem of insufficient human resources, which and these needs are not met by the current “rigid” or “inflexible” programs (Le, 2017; Tran et. al., 2019;Nguyen,2019). However, it is of pivotal importance to locate where exactly the problems are rooted in the system so that best solutions can be found.

The next section provides an overview of the education system in Vietnam, and the structure of language education in the system. It also delineates the issues and challenges facing Vietnamese lecturers professional learning for language education programs, thus states the rationale for this study.

1.1.1 The education system in Vietnam

The education system in Vietnam has four levels of training: early childhood education, general education, vocational training, and tertiary education (UNICEF & MOET, 2013; MOET, 2014). The Vietnamese national education system is illustrated in Figure 1.1.

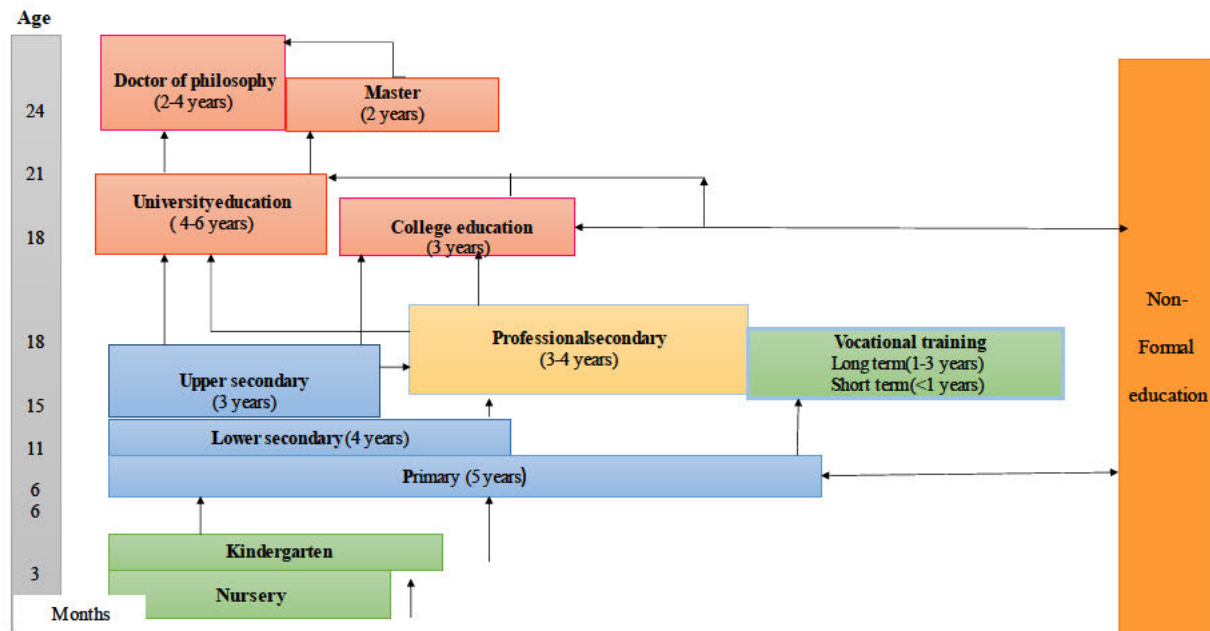


Figure 1.1: The education system in Vietnam

(Source: MOET, 2014)

Schooling in Vietnam starts with early childhood education in nursery school and kindergarten. General education includes three separate levels of schooling: Primary schools, including grades 1 to 5; lower secondary school, including grades 6 to 9; and upper secondary schools, including grades 10 to 12. These steps are for students in three age groups: 6 to 10 years old, 11 to 14 years old and 15 to 17 years old, respectively. There are also vocational or professional training schools as an option for students at same level as upper secondary schools. If students choose to go to those schools, they can obtain a vocational certificate that qualifies them for a job after graduation. Tertiary education includes college, bachelor's, masters and doctoral degrees (UNICEF & MOET, 2013; MOET 2014).

In Vietnam's education system, there are 50 universities and colleges under the management of The Ministry of Education and Training (MOET) (UNESCO, 2012). There are other universities and colleges which are under the management of specific Ministries e.g., the Diplomatic Academy of Vietnam is an administrative unit under the management of the Ministry of Foreign Affairs.

1.1.2 The Ministry of Labour, Invalids and Social Affairs (MOLISA) in Vietnam

Vietnam's Ministry of Labour, Invalids and Social Affairs (MOLISA) performs state management functions in the areas of labour, employment, occupational safety, social insurance and vocational training; as well as policies for war invalids, martyrs and people who have made special contributions to the country, social protection and the prevention of social evils, childcare and gender equality (Government, 2017). There are 23 supporting units in MOLISA, of which the Directorate of Vocational Education controls five universities of technology education and four vocational colleges. NA University of Technology Education, where this research study was conducted, is one of the five universities of technology education under the management of MOLISA.

1.1.3 Language education in contemporary Vietnam

English is a compulsory school subject across educational levels, as well as the main foreign language for both undergraduates and graduates in higher education (T. M. H. Nguyen, 2017). English proficiency for communicative goals has become an essential passport for better employment opportunities. In order to meet the needs of English learners, increasing numbers of English language centres and English departments with programs for English as a foreign language (EFL) instruction have emerged in Vietnamese universities, including programs using the integrated English and Content learning approach (Dang, Nguyen and Le 2013). There has been a corresponding increase in programs for English language teacher education (Etelapelto, Vahasantanen, Hokka, & Paloniemi, 2013). It is estimated that there were approximately 22 million English language learners at all educational levels and types of institutions in 2013, based on statistics from MOET (MOET, 2013a, 2013b). The annual number of students enrolling in English language teacher programs has also rapidly increased. During the decade after 1996, English language use and learning "has developed with an unprecedented speed in

Vietnam” (Do, 2006, p. 8) and is regarded as the most popular foreign language in the Vietnamese educational system (T. M. H. Nguyen, 2017).

The efficacy of teaching and learning EFL, as the key to the globalisation and internationalisation of higher education, is a subject of both interest and concern among policy makers, administrators, teachers and students. As in the majority of Asian countries, English is a compulsory subject in Vietnam, taught in foreign language classes from primary school to tertiary institutions. In 2008, the Ministry of Education and Training (MOET)’s proposal for a project entitled “Teaching and learning foreign languages in the national education system in the period of 2008-2020” (hereafter referred to as the NFL 2020 project, or NFL2020) was approved by the Vietnamese Prime Minister Nguyễn Tấn Dũng (Government of Vietnam, 2008a). The project outlined a foreign language education policy to be implemented across the national education system from primary to tertiary educational levels. The policy’s goal was to make Vietnamese university graduates proficient in a foreign language (the English language) by 2020, to a level that they could communicate fluently with English speakers, and effectively use foreign language for higher education and job opportunities in integrative, multilingual and multicultural contexts (Government of Vietnam, 2008a). This foreign language policy adopted the Common European Framework for Reference (CEFR) for languages (Council of Europe, 2001) for the design of a foreign language curriculum to include the development of course materials and syllabuses, language proficiency standards, teaching and learning plans, student outcome assessment guidelines, and criteria for the evaluation of the compatibility of different stages of foreign language education across the national educational system (Government of Vietnam, 2008b). The NFL 2020 project emphasised language learners’ needs “in the process of becoming a language user” (Council of Europe, 2001, p. 43) and the development of their communicative competence through their experience of languages in various cultural contexts.

The NFL 2020 policy set five core objectives to achieve by 2020:

(1) establish a proficiency framework compatible with the Common European Framework of Reference (CEFR),

(2) implement compulsory English language education from Grade 3,

(3) institute English as Method of Instruction (MOI) for math and science in upper secondary schools,

(4) improve English teachers' English language proficiency (ELP) and understanding of language pedagogy and language acquisition. and

(5) deliver programs in English at selected universities.

1.1.4 Content and Language Integrated Learning (CLIL)

CLIL refers to any educational activity in which “an additional language is used for the learning and teaching of both content and language” (Mehisto, Marsh, and Frigols, 2008, p.9) Specifically, “CLIL integrates acquisition of subject knowledge with language learning, either a second or foreign language” (Tsuchiya and Murillo, 2015, p.1). According to Coyle (2007), the dual focus on both content and language aspects has been proven to help learners acquire new subject knowledge and skills, as well as developing their target language. The strategy has been successful because the learning context is relevant to students' needs and experiences. Therefore, one important benefit of CLIL programs is the potential for great performance and potential input of the target language, within realistic contexts where language learning can occur more naturally. CLIL's major principles involve developing learners' cognitive, communicative and intercultural awareness through a flexible and meaningful approach. In European countries, this approach has been widely officially implemented due to its compatibility with the European ideology of languages – valuing economic and cultural and ethnic diversity (Aurydice, 2006; Coyle, Hood and Marsh, 2010).

For many countries in South America, CLIL has been a cost-effective option to help teach languages to large classes, and also as a means of enhancing social and ethnic equality (Mehisto, 2008). In Asia and other parts of the world, however, CLIL is at a very early stage of implementation as an innovative approach to promote foreign language education (Murillo and Tsuchiya, 2015; Yang, 2015).

The focus of this research is on English CLIL in Higher Education in Vietnam, which falls under the 5th goal of the NFL2020. The NFL2020 encouraged Vietnamese universities to implement and deliver CLIL programs to improve students' English language proficiency. The

policy of introducing courses taught in English in Vietnamese universities had already commenced as a priority by the early 1990s, exemplified by the increasing number of collaborative programs between Vietnamese and foreign universities for postgraduate education. For example, the first Vietnamese tertiary program taught in English was a Master of Business Administration course launched in 1992. This program was a collaboration between Hanoi National Economics University and universities in France (Vu, 2016). Ten years later, CLIL started being adopted as a teaching pedagogy for bachelor programs in some universities. In 2002, Hanoi University of Science and Technology was the first university in Vietnam to launch a bachelor-level CLIL program in Information Technology in cooperation with Australia's La Trobe University.

Still considered a relatively 'new' university pedagogy (similar to other countries in Asia), the application of CLIL as a program to promote foreign language learning and teaching in Vietnam faces a range of challenges which need more consideration and research (Nguyen, 2016; Nhan, 2013; Tsuchiya and Murillo, 2015; Wenhsien, 2014). There have not been any systematic procedures or frameworks developed for the ongoing implementation of CLIL in the majority of Vietnamese universities. Likewise, programs for teachers' professional development in CLIL are rare. It does need to be acknowledged that most universities in Vietnam are already offering English as a Medium of Instruction (EMI) or English for Specific Purposes (ESP), which focus on content outcomes or English proficiency, respectively, rather than both at once (Dearden, 2014; Nguyen, Hamid and Moni, 2016; Ramírez, 2015).

The standards of CLIL practice in Vietnamese universities are called into question when it's revealed that in-service English lecturers without targeted training are assigned to conduct CLIL programs. In this circumstance, lecturers are likely to encounter numerous difficulties related to pedagogical competence, content knowledge and other skills involved in CLIL curriculum development and assessment, compromising standards and educational outcomes. These issues flag the need for improved policy and strategies to promote the proficiency of CLIL lecturers in the Vietnamese higher education system, as well as for teachers in other levels of schooling.

1.1.5 Issues of lecturers' readiness and ongoing professional development for teaching CLIL

Developing teachers' proficiency is of paramount importance to the successful implementation of a CLIL program (Dalton-Puffer and Nikula, 2014). After years of executing the NFL2020 project (Government of Vietnam, 2008), Vietnamese tertiary lecturers still encounter a range of challenges with regards to their ability to teach different English programs, including CLIL programs (Nguyen, 2016; Nhan, 2013; Tsuchiya and Murillo, 2015; Wenhsien, 2014).

Traditional language education policy in the "examination-oriented education system" in Vietnam is recognized as an obstruction to quality language teaching and learning (Nguyen, Fehring and Warren, 2015, p. 32). The "mismatch between testing and teaching" is one of the problems preventing teachers from implementing collaborative activities (Hoang, 2009, p. 16). Also, a lecturer's competence in CLIL teaching may be partly influenced by 'traditional' English language teaching methods where learning language is not generally linked to a context of meaningful language use, but is rather textbook and grammar based (Le, 2011; To, 2000).

Thus, in order to ensure a professional cohort of CLIL lecturers capable of conducting quality CLIL programs, it is vital to consider lecturers' personal experience, and the range of pedagogical practices and perceptions of CLIL curriculum development. It is also necessary to identify factors associated with culture, environment and the socio-political context which may impact a teachers' professional practices in CLIL. So far there has been limited acknowledgement of, or research around, the above-mentioned issues, which is stalling the expansion and improvement of CLIL practice in Vietnamese higher education.

This assessment of the current situation implies there is a strong need for the further development of CLIL lecturers for the tertiary education sector in Vietnam. This research explores how lecturers already engaged in CLIL programs in Vietnam are experiencing English language teaching and learning using this approach; what barriers and issues impact their teaching and learning, and how they have professionally developed themselves to become successful CLIL lecturers. In a context of no official policy for professional development in CLIL, another question to consider is how have these lecturers managed to develop themselves? These identified concerns have informed the researcher's basic ideas for the need to conduct this research.

1.2 RESEARCHER'S NARRATIVE

Coming from a background as an English as a Foreign Language (EFL) lecturer, a CLIL lecturer, a CLIL program developer and a researcher in the area of foreign language education in Vietnam, the above-mentioned issues have been my ongoing concerns. In 1986, the nation's economic reform policy resulted in the so-called "English language fever" (Le, 2011, p. 20). The number of students' enrolling in English classes increased rapidly due to its emergence as the most essential foreign language (Le, 2007). After training to become an English lecturer, I commenced working for a university in Vietnam immediately after graduation. My strategies for teaching English as a foreign language were typical of many EFL teachers who taught English to non-English majors in Vietnamese universities at the time. The widespread and accepted pedagogy was to teach grammar, vocabulary, reading, writing, and speaking and listening skills with an available textbook written for EFL learners of various backgrounds. However, my university, a technological university, educated students to become engineers or teachers of technology. From 2006, the university required English teachers/lecturers to develop CLIL programs – to develop an English and subject content integrated curriculum. My colleagues and I found this task overwhelmingly challenging given that my background was English language teaching, and not subject-specific to mechanical or electronic engineering, or computer science, which was the required content knowledge. I did not have any idea what CLIL was, how to teach CLIL lessons or how to develop a curriculum that integrated subject content and language.

The challenges commenced immediately – on the first day – when I was assigned to conduct a mechanical engineering class without any training in CLIL, that is, how to teach English integrated with the content knowledge of mechanical engineering. Those initial days were extremely stressful. The new CLIL lecturers, including myself, had to cope with a variety of challenges with little support from above. I had to seek assistance from different sources, such as the engineering subject teachers, the internet and even from my students who were majors in mechanical engineering. My colleagues in the CLIL program shared the same feelings of stress due to lack of resources, knowledge and support. During my four years of undergraduate study at university, I was not trained in curriculum development. Without the necessary prior knowledge, or enough assistance from policy or administrators, developing a workable CLIL curriculum was extremely difficult. This was compounded by the need to simultaneously learn new methodologies to deliver CLIL lessons.

At that time, CLIL was in the early stages of evolution in Vietnam and other Asian countries. There were no formal guidelines for teacher training; no documents or research that could be drawn on to better understand the significance of cultural, societal, and environmental factors in CLIL practice, and the University policy for CLIL programs was brief, with no strategic plan. The only real option to take to surmount these obstacles was to take the initiative for my own professional development. I needed to, and have become, a self-trained mechanical engineer. I can repair a car! This triggered my interest in conducting research into other CLIL teachers' experiences in order to map a way forward for CLIL in Vietnamese Higher Education. There is little existing research about teachers' experiences of the integration of English and subject content in English language programs in Vietnamese Higher Education.

My research aims to construct knowledge about how Vietnamese tertiary lecturers perceive CLIL programs; how Vietnamese tertiary lecturers have experienced developing and teaching CLIL curriculum, and what challenges and issues teachers have had to confront during the implementation of CLIL programs. This research will benefit policymaking for CLIL implementation in universities, CLIL professional development programs and CLIL teachers and lecturers.

1.3 AIMS OF THIS RESEARCH

From its inception, the overall aim of this project has been to identify the professional learning experiences (including content knowledge learning, pedagogical practices, and curriculum development) of tertiary lecturers in CLIL programs, in order to understand how to more successfully promote a seamless practice teaching both subject knowledge content and English language. The project will explore current CLIL practice in Vietnamese higher education. Specifically, it aims to:

- identify lecturers' experiences and perceptions of their current integrated subject knowledge and English learning program.
- clarify the nature of CLIL lecturers' roles in Vietnamese higher education.
- identify factors which may impact and assist with scaffolding CLIL lecturers' professional development.

- identify the pedagogical skills and strategies lecturers employ to conduct successful learning and teaching in CLIL programs.

1.4 THE RESEARCH QUESTIONS

The research questions of the study were developed by identifying the challenges facing CLIL lecturers in Vietnamese Higher Education, and by addressing the research literature focusing on these issues. The central research question is:

How have lecturers experienced professional learning when developing and implementing a Content and Language Integrated Learning (CLIL) program in a Vietnamese University where pre-service training, policy and professional development opportunities are lacking?

The supporting research questions are:

- What were English lecturers' understanding of Content and Language Integrated Learning at conceptual level?
- How did these lecturers engage in independent professional learning in order to optimise the quality of their CLIL program?
- What pedagogical strategies do these lecturers employ to deliver CLIL lessons?

1.5 OUTCOMES OF THIS RESEARCH

The outcomes of the research are:

- documentation of CLIL lecturers' experiences, including pedagogical CLIL practice and professional development in Vietnamese universities,
- an identification of factors which impact the implementation of CLIL programs in Vietnamese tertiary education in term of teachers' professional development, and
- a suggested guideline for CLIL teachers' professional development for Vietnamese higher education in the future.

1.6 SIGNIFICANCE OF THIS RESEARCH

This research is expected to contribute to the field of CLIL in foreign language teaching in Vietnamese higher education in terms of lecturers' professional development, which currently requires improvement and promotion. It is also expected to assist CLIL stakeholders' understanding of the social, cultural and environmental challenges and issues influencing the development and implementation of quality CLIL programs. By concentrating specifically on lecturers' perceptions and experiences of CLIL programs in tertiary education in Vietnam, this study is a reference point for more effective implementation of evidence based CLIL practices in this socio-political context. The trend of internationalisation in Vietnamese tertiary education is driving increased pressure to rapidly improve and expand English language programs for all age groups to prepare for a global workplace. Accomplishing that ambitious objective will require an innovative educational approach (Nhan, 2013; Wilkinson and Walsh, 2014).

This research contributes to the theoretical debates around the conceptual development of CLIL as a field of study. The CLIL approach to integrating language teaching is still need of further research to provide theoretical frameworks that can be adapted to diverse practice contexts. For example, whether CLIL is an educational approach or specifically an approach for language education is an ongoing debate (Cenoz, 2013; Wiesemes, 2009). The essential features of CLIL pedagogy can be construed in various ways and this research will attempt to document these within the Vietnamese context. These features of CLIL teaching include balancing the integration of language and subject content, the characteristics of the language learning engaged in, instructional aims and objectives, drawing on student-centred practices, and pedagogical possibilities for integrating language and content instruction. It is necessary to examine CLIL in different contexts so that this approach can evolve and improve systematically for the benefit of CLIL stakeholders (Cenoz, 2013; Smit and Dalton-Puffer, 2012; Williams and Doughty, 1998).

1.7 OUTLINE OF THE THESIS

My thesis includes 9 chapters. The following section describes the content to be presented in each chapter of the thesis.

Chapter 1 provides the context of the research, including an overview of CLIL practice both beyond and within Vietnamese higher education, and a personal narrative encapsulating my own experience as a CLIL lecturer. Both have significantly contributed to the development of the research focus in this study. Chapter 1 also lays out the research questions, aims and outcomes, as well as the significance of this research.

Chapter 2 provides a review of literature in the field of CLIL for the starting point of the research. This chapter presents the literature review pertaining to the development of CLIL, issues challenging the implementation of CLIL in different social cultural contexts. It provides an overview which covers the current debates over CLIL at a conceptual level and the problems and achievements reported in the empirical research.

Chapter 3 presents a review Vygotsky's (1986) Social Constructivist theory, Mascolo's (2005) coactive person-environment approach, Lave's Community of Practice (CoPs) and Coyle's (2005) 4C framework. The concepts described in Chapter 3 provide a guideline for analysing the data of my thesis to investigate how the CLIL lecturers engaged themselves in professional development in their specific social and cultural environments.

Chapter 4 describes the research methodology and the research design, the procedures for data collection and data analysis, the research principles and ethical consideration which help the researcher to possibly answer the research question: How have English teachers experienced professional learning when developing and implementing a Content and Language Integrated Learning (CLIL) program in a Vietnamese University where pre-service training, policy and professional development opportunities are lacking?

Chapter 5 presents findings on lecturer participants' understanding of CLIL at the conceptual level, different factors influencing the implementation of the CLIL program, the development of the lecturers' understanding of CLIL and its impact on the lecturers' CLIL professional learning. Findings presented in this chapter answer the first contributory research question: What are the lecturers' understanding of CLIL and its impact on the lecturers' CLIL professional learning?

Chapter 6 analyses data which address lecturer participants' ongoing professional development in detail. The presentation of the findings answers the second contributory research question of

this research: How did these lecturers engage themselves in professional learning in order to optimise the quality of their CLIL program?

Chapter 7 presents findings on the lecturers' methods of teaching in the CLIL program at NAUTE, and the different social-cultural factors that impacted their learning and practising of CLIL pedagogy. The presentation of data and evidence analysis answers the third contributory research question of the study: What pedagogical strategies do these lecturers employ to deliver CLIL lessons?

Chapter 8 discusses in detail important issues emerging in the research findings in Chapter 5, Chapter 6 and Chapter 7 of the present study. The discussion covers three main themes related to the lecturer participants' professional development including the lecturers' understanding of CLIL, co-construction of subject knowledge, and pedagogical practice.

Chapter 9 presents a summary of the key findings of the research, the theoretical and practical contribution of the study, and the implications and limitations of the research. Finally, the researcher shares the personal intellectual growth and development of research skills through the PhD journey.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

The CLIL approach to language teaching has spread widely throughout the world. However, there has been little research conducted on different issues that arise when adapting the approach to different contexts (Coyle, 2007). This chapter outlines the review of literature pertaining to the development of CLIL. It provides an overview of issues and achievements in the implementation of CLIL in different countries in the world reported in the empirical research. The key themes for my research are presented in Table 2.1

Table 2.1 Key themes for literature review

Key theme matrix for research

CLIL conceptualisation	CLIL professional development	CLIL pedagogical practice
The inception and development of CLIL	CLIL professional learning	The integration of content and language in teaching CLIL
Models of CLIL	CLIL lecturers' competence	The use of L1 in teaching CLIL
Issues in the implementation of CLIL in different contexts	Subject knowledge co - construction for CLIL teaching	The balance between content and language in teaching CLIL
Lecturers' understanding of CLIL	Challenges of professional learning for language lecturers to teach CLIL	CLIL teaching methodologies

My research covers three core themes in the field of CLIL: CLIL conceptualisation, CLIL knowledge co-construction for language lecturers who teach CLIL, and CLIL lecturers' pedagogical practices of the lecturers which will have three main themes: the integration of content and language in teaching CLIL, the issues of the balance between content and language

in teaching CLIL, and the use of L1 in CLIL teaching. The following sections present arguments made by researchers in previous research in the field of CLIL, and discussion of those arguments, which will also be used in the discussion of the findings of this research.

2.1 CONCEPTUALISATION OF CLIL

The term ‘Content and Language Integrated Learning’ (CLIL) is not new. It originated prior to the 1970s in Canada and North America (Pérez-Cañado,2012). The predecessors of CLIL were the experimental programs of French immersion teaching in Canada, and the bilingual language education programs in North America (Aurydice, 2006). In Europe, the concept of CLIL emerged in the 1990s. The term was firstly used in 1996 by UNICOM, the University of Jyväskylä in Finland and the European Platform for Dutch education (Fortanet-Go´mez and Ruiz-Garrido 2009; Marsh 2006 cited in Pérez-Cañado,2012). Over the past decade, CLIL has been widely used as an educational and foreign language learning approach (Coyle et al., 2010). The Aurydice Project (2006) reviewed thirty CLIL programs in European countries. However, despite the intensive reports provided by the Aurydice project, there is still continued debate as to whether CLIL is truly a best- practice pedagogy for second language learning. Furthermore, the CLIL approach can be interpreted differently in different contexts. Various iterations of CLIL have emerged in response to diverse local and global factors, some of which are discussed in the following sections.

2.1.1 CLIL as an umbrella term for different approaches to language education

CLIL as a term has been interpreted in different ways depending on the context and philosophical stance behind its development. Generally, it is considered to be an umbrella term under which a number of approaches have evolved. These include content-based language instruction, English as a medium of instruction (EMI), English for specific purposes (ESP), and language immersion education (Aurydice, 2006; Cenoz, 2013; Cenoz et al., 2014; Coyle et al., 2010; Dalton-Puffer and Nikula, 2014). There are many definitions of CLIL, however Coyle et al (2010, p. 1) proposes a succinct definition that highlights specific CLIL features: “Content and Language Integrated Learning (CLIL) is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language”. According to this definition, CLIL can be situated in any subject area, as long as the teaching is via the medium of a second or foreign language and not the students’ mother tongue.

Similarly, integral to CLIL is that both “language and the subject have a joint role” (Marsh, 2002, p. 58). In the words of neuroscientist Yen-Ling Teresa Ting, “CLIL advocates a 50:50/Content: Language CLIL-equilibrium” (2010, p. 3). In practice however, research conducted in real CLIL classrooms has not found a distinctive and definite balance between content and language teaching (Dalton-Puffer, 2007; Mehisto, 2008; Pe'rez-vidal and Juan-Garau, 2010). Coyle et al's (2010) definition refers to CLIL as an ‘educational approach’ rather than a ‘language teaching approach’ (Cenoz et al., 2014). This view is advocated by scholars and CLIL practitioners who assume that CLIL has merit when it is considered as an educational program covering the whole curriculum (Cenoz, 2013).

2.1.2 The application of CLIL in language education

The actual instructional techniques and practices used in CLIL classrooms to enhance L2/foreign language (FL) learning have also been explored by researchers (Ball and Lindsay, 2010; Dalton-Puffer, 2007; Hüttner and Rieder-Bünemann, 2010). In addition, the conceptualization of CLIL as “an innovative methodological approach” (Aurydice, 2006, p. 7), “essentially methodological” (Marsh, 2008, p. 244; Coyle 2002, p. 27), or “a pedagogic tool” (Coyle, 2007) has added to the overall understanding of CLIL as an educational practice with merit. CLIL also encapsulates curricular and theoretical terms. CLIL has also been taught as having a foundation in constructivism and second language acquisition (Coyle et al., 2010; Halbach, 2014; Marsh, Pavón Vazquez, and Frigols, 2013; Navés and Victori, 2010).

Although CLIL is usually linked to educational contexts, Mehisto, Marsh, and Frigols (2008) contend that CLIL could be readily adapted to camps, student exchanges, local projects, international projects, family stays, and study abroad modules. The possibilities of taking CLIL into other educational spaces depends on the teachers and students involved. In other examples, such as Cenoz (2013), the case for distinguishing between CLIL as a purely language teaching approach rather than a broader educational approach, in non-school environments, would seem to unnecessarily confine CLIL. Cenoz, Genesee, and Gorter (2013) further suggest it is still difficult to distinguish CLIL learning environments from what should be termed ‘non-CLIL learning environments,’ and that this is causing confusion around having a clear identity for CLIL (for example, how it differs from immersion programs).

It is therefore urgent to develop a clear definition of CLIL and to devise a taxonomy of its major forms (Cenoz, 2013). Cenoz (2013). In addition, there is also a need for continuing advancement of theoretical and empirical research that will contribute to quality language and content teaching across various second languages, not just English, in Europe and elsewhere. Finally, future studies to assess the impact of CLIL will be necessary to substantiate the position of CLIL as a recognised educational approach.

In summary, the varying conceptualisations of CLIL endorse its generality, with the result that it lacks practical and theoretical harmony. For instance, Cenoz et al (2014) argue that it is not possible to create practical pedagogical tools or a theoretical framework that would apply to all expressions of CLIL as an educational approach to language and content learning. The unique core features of CLIL are still in need of further research to establish a clear picture of the field's scope.

2.2 THE IMPLEMENTATION OF CLIL IN DIFFERENT CONTEXTS

CLIL as an educational practice and field of study is at different stages of implementation in Europe and Asia. Comparatively, CLIL development in European countries is more advanced, whereas in Asian countries, such as Vietnam, China and Japan, it is currently gaining momentum.

2.2.1 CLIL in European countries

CLIL has been widely implemented in educational systems in Europe since the mid-1990s (Martin et al., 2007, p. 35), as it aligned with the expansion of the European Union's multilingual education policies at that time. The push to intensify foreign language learning was one of the main outcomes of this policy. CLIL integrates the acquisition of subject knowledge with language learning, either a second or foreign language. CLIL programs in Europe were implemented sooner than in other parts of the world. Thus, there is more research available that seeks to assess the theoretical foundation and implementation of CLIL across different sectors of education and in different European countries.

Success stories from Europe, where CLIL has been developing for over thirty years, caught the attention of the rest of the world as other countries became more interested in expanding L2

teaching and the development of bilingual education (Pérez-Cañado, 2012). According to Pérez-Cañado (2012), CLIL has generated large-scale discussion in European countries through publications related to the topic. CLIL research has engendered several key figures, namely Coyle in the UK, Marsh in Finland, Mehisto in Estonia, Wolff in Germany, Dalton-Puffer in Austria and Lange in Italy. These and other thinkers have developed extensive theories on CLIL, including principles and models, methodologies, linguistic and pedagogical theories, as well as summaries of research conducted.

María Luisa Pérez Cañado contends that outcomes for content learning from CLIL programs she studied equalled those for language learning, even rivalling L1 learning: “CLIL learners possess the same amount of content knowledge as peers taught in the L1, sometimes even outstripping them,” and “the positive effect is felt on global communicative competence [and] on receptive skills” (2012, p.4). She also concluded that students with average FL talents and moderate interest in learning a second language have also been shown to benefit from CLIL instruction. Based on this research finding, it could be argued that CLIL programs can make language learning more accessible to a diverse range of learners.

Research has also been conducted in Nordic countries to investigate the important factors involved in planning and implementing CLIL programs. Liss Kerstin Sylvén’s (2013, p. 6) research identified several key factors that contribute to the successful CLIL programs, namely:

- policy framework and research
- teacher pre and in-service education
- age of the CLIL program (how many years it has been running), and
- the amount of CLIL exposure within the overall language program.

Sylvén’s research (2013) research found that in order to achieve successful student outcomes in L2 learning (and in this instance, English proficiency), the above-mentioned factors need to be taken into account when planning and implementing CLIL programs.

Furthermore, she found that having national and local language policies in place to guide the development of CLIL programs resulted in clear and well-developed programs that have

contributed to the success of bilingual education in Nordic countries (Sylvén, 2013). One of the most important factors contributing to the success of CLIL programs, according to Sylvén's (2013) findings, is the quality and capability of the teachers. Pre- and in-service education for teachers' professional learning around CLIL is invaluable.

It could be argued that these factors could be generalised to most countries around the world. However, the findings of this research by Sylvén (2013) contrast sharply with the situation faced by the NAUTE lecturer participants in this study when developing the university's first CLIL program (see Chapter 1 section 1.2). For them, there were no policies, no teacher training and no previous CLIL program with which to compare their work. The NAUTE lecturers were also required to use CLIL for the whole L2 program. This literature by Sylvén (2013) has implications for the data collection methods used in this study.

One final comment concludes this section on CLIL in European countries. The relative success of the CLIL programs in Europe may be a reflection of the fact that for most, the L2 is English. English and most European languages all belong to the same Indo-European language family, if not the same branch, and hence the genetic and linguistic distance between L1 and L2 is not as great as between English and Asian languages (Arabaski and Wojtaszek, 2015). The next section will discuss CLIL development in Asian countries.

2.2.2 CLIL in Asia

CLIL is now taking hold in Asian countries in response to globalisation. English is considered a tool for communication with the rest of the world and within Asia itself. Yang (2014) contends that Asian globalisation has an important role to play in the world in the 21st century.

In Asia, CLIL is in its infancy as an innovative language teaching approach (Yang,2014, 2015). The application of CLIL methodology in Asia will necessarily take different forms than in European countries (Yang, 2015). For example, in Thailand:

The CLIL approach represents the most up-to-date teaching approach that has yet been tried in Thailand; it has been less than a decade since CLIL and its complex principles began to be trialled in the country, where there are as yet few CLIL experts (Suwannoppharat and Chinokul, 2015, p.2).

Teachers in Thailand experience challenges teaching CLIL due to lack of preparation and professional training for CLIL as well as English proficiency (Suwannoppharat and Chinokul 2011). Previous research conducted in China by Hu (2007), in Indonesia by Hadisantosa (2010) and in Philippines by Miciano (2008) also reported that most CLIL teachers were subject teachers who were also not confident with their English knowledge to teach CLIL program.

Similarly, CLIL with English as an L2 has been introduced in higher education in Japan, although its implementation is still at an early stage (Tsuchiya and Murillo, 2015). This corresponds with the Japanese government's strategic action plan, released in 2003 to improve English language proficiency in order to generate a human resources pool with English proficiency, which is regarded as necessary to sustain Japan's economy (Tsuchiya and Murillo, 2015). Thus, in Japan, the introduction of CLIL, as in other countries, has been 'reactive' (Coyle, Hood, and Marsh, 2010), responding to the criticism of previous English teaching and learning programs, and increasing pressure to create a globalised economy (Tsuchiya & Murillo, 2015).

2.2.3 CLIL in Vietnam

In reviewing the literature, I was able to uncover little specific research focusing on CLIL in Vietnam. However, some studies have been conducted around programs of English as a Medium of Instruction (EMI) and English for Special Purposes (ESP).

Although the development of CLIL has been slow in Vietnam, the need for FL learning is high on the national agenda. Decision No.1400/QD-TTg on the National Foreign Language 2020 Project was issued by the Prime Minister in 2008. This document lays out an ambitious plan for 'Teaching and Learning Foreign Languages in the National Education System, period 2008 to 2020.' The project, known as NFL2020, set the goal that Vietnamese students should be able to use a foreign language confidently in their daily communication, study and work within an integrated multicultural and multilingual environment by 2020. It further stated that this goal for FL learning would contribute to the country's industrialisation and modernisation (MOET, 2008).

In Vietnam, as in some neighbouring countries, the advance of CLIL practice across the educational sectors has not been widespread (Nhan, 2013). Some pilot implementation has been

conducted in high schools for the gifted. The promotion of CLIL in gifted schools was in response to low quality outcomes by students instructed through traditional language education methods. As Nguyen (2011), the executive manager of the National Foreign Languages 2020 Project, remarked,

98% of Vietnamese students study English for 7 years but are unable to use it in basic communication. On average, only those who major in the language can score 5 out of 10 in the National English Entrance Exams to university. After entering university, most have to restart at beginner level and face lots of difficulties undertaking English-for-Specific-Purposes courses (Nhan, 2013, p. 2).

The use of CLIL as an innovative and efficient form of FL learning in Vietnamese classrooms will remain an objective of the country's L2 teaching and learning policies.

To date, there has been limited research undertaken on CLIL practice in Vietnam. Tran (2015) conducted research on the use of a CLIL approach to design an English course book for police investigators at the People's Police University in Vietnam. However, he documented his own attempt to design an English course book for the police rather than represent the intentions of CLIL.

2.3 ISSUES OF PROFESSIONAL DEVELOPMENT FOR CLIL TEACHERS

Educators tasked with implementing CLIL-based foreign language programs often face numerous challenges. These might include the level of teachers' professional capabilities both in the subject content and language proficiency, students' language competence, or the policies of government and local entities. Research by Benagas (2012), Di Martino and Di Sabato (2012), Coyle (2011) indicates that similar challenges are threatening the successful implementation of CLIL programs in many countries around the world.

Professional development (PD) for lecturers should be strongly prioritised by institutions of higher education, especially for those in charge of developing important new programs. Lecturers need to be equipped with the update knowledge and methodology of that program as well as the newest trends in education. However, PD is also handled differently in different

sociocultural contexts. Thus, PD for CLIL lecturers can be even more challenging and problematic, considering the diverse background that needs to be covered (Frigols-Martin, 2011; Vilkancienė & Rozgienė, 2017). The following section will outline the main problems faced by stakeholders in CLIL professional development.

2.3.1 CLIL teachers' competences

One of the most important issues in conducting CLIL programs is the proficiency of CLIL teachers. The most challenging issue for them is often a lack of training in applying the CLIL approach when previously their method of teaching would have been textbook based. In addition, developing new CLIL-based courses to replace 'traditional' units is a difficult task (Suwannoppharat and Chinokul, 2015). The following issues concerning CLIL teachers are the most important to be considered in relation to this research.

To achieve successful outcomes when implementing a CLIL program, teachers must be academically well-equipped with both subject content knowledge and L2 language proficiency. It is also necessary that they have a clear comprehension of CLIL pedagogy, as has been demonstrated by CLIL success stories from European countries (Pérez Cañado, 2016). Pérez Cañado (2016) contends that CLIL teachers tend to have advanced skills in linguistics and intercultural competencies, but often lack understanding of the theoretical underpinnings of CLIL. Marta Aguilar (2015) noted that some subject teachers assigned to conduct CLIL programs identify their own language limitations through English proficiency self-assessment tests. Thus, they would be short on the necessary capabilities and confidence to integrate English language teaching into the subject-specific course content in their field of expertise. Aguilar (2015) goes as far as to say that these subject specialist teachers did not want to teach or assess English within their own subjects and considered glossaries and oral presentations as adequate methods of integrating language.

In most programs, CLIL teachers are either subject content experts who rarely have language qualifications (Nikula, Dalton-Puffer, & García, 2013), or language professionals who have been required to teach content subjects (e.g., math or science geography) without any expertise in the subject area. English language specialists struggle to understand the concepts required for the subject specific content and have rarely been educated in the theoretical underpinnings of CLIL (Fernandez and Halbach, 2011; Pérez Cañado, 2016). Given the difficulties already

presented by either scenario, the importance of teachers' professional development and professional learning is clear. Investment in CLIL teachers' language proficiency and CLIL teaching competences before the implementation of a CLIL program should be taken as mandatory (Frigols-Martin, 2011; Pérez-Cañado, 2016).

Previous studies have repeatedly highlighted that CLIL teachers are insecure in their roles, as either their language skills or content subject knowledge are usually insufficient for successful CLIL teaching and curriculum planning (Bruton, 2011). According to the European Commission (2013), the key competences in the teaching profession are those that enable teachers "to meet complex demands, by mobilising psycho-social resources in context, deploying them in a coherent way" (10). Different proposals have been made to create a precise CLIL teacher profile (Pérez-Cañado 2018b), one of them being the CLIL Teacher Competences Grid (Bertaux et al. 2010). This framework is organised into two main pillars: the target professional competences and the professional development modules. The competences (Table 2.2) are organised according to 14 categories and described along several indicators of competence. Despite the invaluable and detailed encapsulation of CLIL teacher requirements contained in this grid, researchers seem to have overlooked it.

Table 2.2: CLIL teacher competences

(Adapted from Bertaux et al. 2010).

Areas of competence	Competences
Programme parameters	Defining CLIL
CLIL policy	Adopting an approach to CLIL
Target language competences for teaching CLIL	Adapting CLIL to the local context
Implementation	Integrating CLIL into the curriculum
Language Acquisition (SLA)	Linking CLIL programme with school ethos
Course development	Articulating quality measures for CLIL
Taking into account the affective side of learning	Using language of teaching
Making the CLIL language process efficient	Working with others to enhance student learning
Learner focus in the CLIL environment	Merging content, language and learning skills into an integrated approach. Lesson planning
Applying interactive methodology	Building constructive relationship with students
Learning skill focus in CLIL	Translating plans into actions
Learning assessment and evaluation in CLIL	Fostering outcome attainment
Knowing about and applying assessment and evaluation procedures and tools	Second language attainment levels
Life-long learning and Innovative teaching and learning approaches	Interculturality Promoting oral awareness and Interculturality
	Learning environment management
	Taking into account the affective side of learning
	Making the CLIL language process efficient
	Applying interactive methodology
	Learning skill focus in CLIL
	Having knowledge and awareness of cognition and metacognition in the CLIL environment
	Learning assessment and evaluation in CLIL
	Knowing about and applying assessment and evaluation procedures and
	Keeping up with new developments Using ICT as a teaching resource

Mandrid and Pérez Cañado, experts on CLIL and teacher training, has also suggested a list of CLIL teacher competences with categories including linguistic, methodological, scientific knowledge, organisational, interpersonal and collaborative, and reflective and developmental skills (2018, p.3). The authors add that, among other potential solutions for CLIL teacher development, institutions should offer tailor-made courses for in-service teachers based on a careful analysis of the needs and identified variables for their context.

1. Linguistic Competence: which also includes intercultural, curricular, and proficiency in BICS (Basic Interpersonal Communication Skills) and CALPS (Cognitive Academic Language Proficiency), as also expressed by Cummins (1999).
2. Methodological Competence: which implies focusing on a student-centred approach, new resources, and introducing ICT.
3. Scientific Knowledge: based on a broad knowledge of the teacher's own subject, but also of CLIL theory.
4. Organisational Competence: management and control of the class through new organisational modalities and groups.
5. Interpersonal Competence: social and affective skills that contribute to creating a good working atmosphere, meeting students' personal needs and establishing a rapport between teachers and students.
6. Collaborative Competence: that in Bilingual Contexts has increased through teamwork and coordination with co-workers. The ability to effectively collaborate with co-workers and promote teamwork.
7. Competence in adaptability and development: the dedication to maintain lifelong learning and engage with new teaching methods.

2.3.2 Professional development for CLIL teachers

Professional development is premised on a constant learning process for teachers and practitioners alike (Borko, 2007; Freeman, Reynolds, Toledo, & Abu-Tineh, 2016). There are formal and informal professional development (PD) plans for language professionals and content teachers providing training solutions for different situations of PD. Research has examined PD for educators from different angles, such as strategies, formal and informal training programs, workshops, and diverse educational activities, just to name a few. Whatever

their focus, CLIL professional development programs must take into consideration the teacher as learner, their context, language, and content expertise (McDougald, 2020).

In European countries, CLIL is supported by government policy. Accordingly, all the European countries that have implemented CLIL have training and professional development programs for teachers at all levels (Escobar Urmeneta, 2013; Marsh, D., Mehisto, Wolff, and Frigols, 2012). According to Frigols (2011, p.2), “teachers who intend to undertake a professional development program in CLIL may lack training in teaching either a language or a content subject”. In Europe, there is a framework for CLIL teachers’ professional development which provides a set of principles and ideas for designing CLIL curricula. However, Marsh, Mehisto and Frigols (2012) also state that CLIL programs vary widely from nation to nation in “their organization, content, intensity and choice of languages” (Frigols, 2011, p.2), and consequently, there are differences in the teachers’ professional development.

CLIL teaching methodology has drawn concern to the professional development for CLIL lecturer (Cenoz, 2013). Many experts argue that training for CLIL teachers still faces serious problems (Barrios & Milla Lara, 2018; Fernandez & Halbach, 2011; Pérez-Cañado, 2016; Van Kampen, 2018). Evelyn Van Kampen’s research on CLIL teacher education in a Netherland context (2018), found that CLIL teachers had no access to national training programs. She also found that the training that was available to CLIL teachers were all short courses. Similarly, Marta Pérez-Cañado reported that in her case study of 241 participants from mainly European countries, the interviewees did not have accredited CLIL qualifications.

Two Spanish studies illustrate one consistent finding in studies of CLIL teacher development that inadequate professional training has a negative impact on teacher confidence, which in turn impacts learner motivation and outcomes. In Elvira Barrios and María Milla Lara’s 2018 study in Andalucía, lecturers claimed that they never felt confident that they were competent to teach CLIL appropriately, and that they did not trust themselves to do so. The primary teachers who took part in Pladevall-Ballester’s (2015) research conducted in Catalonia had completed an official training course and follow-up workshops. However, they reported that they still did not feel confident, and that the course they took was insufficient. This highlights the need for ongoing and contextualised professional learning for CLIL teachers, regardless of their initial training. Pladevall-Ballester (2015, p.55) also suggested that teachers would benefit from “a

CLIL support platform where they could meet and talk to other teachers and experts and receive monitoring and advice”.

In his case study on professional development for language-driven CLIL in Argentina, Dario Luis Banegas (2019) claims that authenticity, rather than perfect language-content integration, is the most essential feature of language-driven CLIL, in which subject content serves as ‘a conduit for meaningful and motivating’ language learning. ‘Authenticity’ for the purposes of CLIL can be defined as language teaching that genuinely advances students’ (Banegas,2019, p.10) learning goals within the context of the broader curriculum, using authentic subject content and materials that are accessible at students’ level of English proficiency without being over-simplified. Banegas (Pinner 2013, Banegas, 2019) also found that learners’ language proficiency – and therefore their capacity to understand ‘authentic’ course materials on their subject in L2 - was key to achieving success in the CLIL classroom. The Banegas case study, which followed a single CLIL teacher, also shows how teacher reflection helps construct and develop teacher identity, which is a part of the eco-system of professional development. This is also described as a ‘Bottom-Up’ approach to professional development (Le, 2017, p.1).

Professional development must stay at the forefront of academic debates about CLIL areas that exist between the teacher, student, curricula and institutional demands are clearly brought to the surface. Consistent implementation of PD programs will help to ensure that quality remains a priority in the classroom. As there are an array of possibilities for PD, both formal and informal, using either a top-down or bottom-up approach, practitioners and decision/policymakers need to keep the channel of communication open and direct, so that the training that is planned and conducted makes a difference inside the classroom.

While CLIL literature has consistently highlighted key concepts such as cognitive skills, scaffolding language learning and curriculum development (Ball et al., 2015; Coyle, Hood, & Marsh, 2010; Llinares & Morton, 2017), there has been little discussion of the need to provide CLIL teachers with profound and contextualising programs of ongoing professional development to achieve those key concepts (Pérez-Cañado, 2018c).

According to Orit Avidou-Ungar (2016), professional development can derive from either intrinsic motivation or extrinsic motivation (2016). The process of professional development is successful when it helps teachers expand and develop their knowledge and skills based on their

previous and current experiences; shapes learning that benefits students, and updates knowledge and skills through individual or cooperative work (Cirocki & Farrell, 2017; de Vries, Jansen, & van de Grift, 2013). Coyle, Hood and Marsh (2010) argue strongly that broad, deep and continuing professional development to improve teaching quality is vital to the success of a CLIL program:

Without serious attention being paid to implementing strategies for training the professional workforce, which include longer-term plans for skilling multilingual teachers, then quality CLIL is not sustainable. Indeed, it could be said that poor-quality CLIL could contribute to a “lost generation” of young people’s learning [...]. Teacher education in CLIL at both pre- and in-service levels needs to involve a range of programmes which address a wide range of CLIL training needs. (pp. 161–162)

Coyle et al (2010) suggest that professional development for CLIL teachers should be part of the implementation of CLIL program, as well as the development of CLIL curriculum. This course is also advocated by Ball et al (2015), who outline five bases for CLIL teacher development:

1. Professional development for CLIL should be planned well to meet the contextual demands of CLIL teaching
2. The scope of CLIL teacher professional development should be descriptive or prescriptive
3. The improvement of teachers’ English language proficiency
4. The enhancement of pedagogical skills, not only for language teaching but also for content teaching.
5. The development of informed pedagogies to provide teachers with the proper methodology to teach CLIL.

Teacher education should not cease after graduation, however in specialist areas such as CLIL, there is often a gap in what is available for teachers/lecturers in terms of professional development. There is scant literature covering this area. It is often the case that although there have been calls for professional development across the board (Pérez Cañado, 2016), the majority of training occurs at the pre-service level and is designed by teacher trainers/educators.

This is especially the case in foreign language teaching courses where linguistic and intercultural competence, pedagogical approaches and materials methodology, fulfil a harmony of needs identified by teacher educators and preferred by pre-service teachers. However, with ongoing professional development, in-service language teachers and teacher educators are two cohorts who do not share the same needs. This study explores and documents CLIL teachers' professional learning within the context of a Vietnamese university. It will contribute to efforts to fill the void in the literature describing the challenges experienced by emerging CLIL teachers/lecturers as curriculum developers and implementers.

2.4 CHALLENGES FACING CLIL PEDAGOGICAL PRACTICES

2.4.1 The dual-focus teaching strategies and the balance between content and language integrated in CLIL teaching

The integrating of content and language is the defining trait of CLIL pedagogy, and therefore an important focus of CLIL literature (Dafouz, et al., 2016). Nikula, Dalton-Puffer, et al.(2016) state that integrating content and language in learning activities to develop learners' subject knowledge at the same time as their language skills is the goal of CLIL teaching methodology. This is also supported by researchers Dalton-Puffer (2016); Lin, (2016); Llinares et al, (2012).

CLIL is a dual-focused approach in which both subject specific content and a foreign language are learnt side by side (Coyle et al., 2010). CLIL students would expect to achieve improvement in both content and language understanding. However, some students may attach less importance to the foreign language, whilst others may find the content more demanding (Aintzane and Lasagabaster, 2015, p. 196; Coyle et al., 2010; David Marsh and Langé, 2000). If students cease to attach importance to the language component, the full potential of the CLIL classes may not be realised (Lasagabaster and Doiz, 2016). There is a balance between both focuses that needs to be acknowledged by students and their lecturers.

In order to secure successful student outcomes for L2 learning, CLIL teachers/lecturers need to take account of their students specific learning goals, and the need for language classes to be well-structured, meaningful and interactive to optimise outcomes in both areas. If teachers can achieve this, students' engagement, and motivation for studying a foreign language will improve drastically (Halbach, 2014). However, Halbach (2014) also cautions that students need

a good knowledge of the L2 to be able to follow their content lessons and participate in them successfully. Students themselves may become frustrated if there is a mismatch between their language competence and the level of proficiency required to learn their content knowledge in L2.

Most CLIL teachers do not know how to deliver “CLIL-orientated” dual-focus classes since they are often not aware that they require different teaching methods, or that teaching practices have changed since they were initially licensed (Tatzl, 2011; Vázquez & Ellison, 2013). Consequently, CLIL teachers’ lack of understanding of content and language integration practice has often put them in the spotlight, criticised for their shortcomings in the classroom. This leads to the conclusion that comprehensive training in CLIL’s dual-focus method of teaching is essential anywhere that CLIL is practiced across all levels of education to give practitioners the chance to master the technique.

2.4.2 The use of L1 in CLIL teaching

One of the areas that also draws special attention when researching CLIL is the use of the first language (L1) in teaching CLIL (Escobar Urmeneta, 2013). The role of L1 in foreign language education in general is still debated, and in CLIL teaching in particular (Cook 2001; Macaro 2001). This issue has become particularly contentious among researchers and CLIL practitioners. Some researchers, such as Moore, Nussbaum, and Borrá (2012), contend that the use of L1 in CLIL classrooms helps speed up the lessons for students, especially in more content-driven classrooms, and thus the use of L1 is productive and valid (Escobar Urmeneta,2013). Others have also stated that using L1 judiciously helps students overcome the difficulties presented by a poor command of L2, allowing them to pick up subject knowledge quicker (Escobar Urmeneta,2013).

Using L1 in teaching CLIL can also be problematic because it affects students L2 acquisition to some extent, and also because it is difficult for teachers to limit their use of L1. Finally, it has also been argued that it may be helpful to reconsider CLIL teaching philosophy so that more than one language can be learnt (Doiz and Lasagabaster,2017).

2.5 SUMMARY

This chapter has reviewed a selection of literature highlighting the successes and failures of CLIL L2 teaching in Europe and pointed out the sparseness of literature about CLIL practice in Asia. The discussion now turns to the possibilities and directions for future implementation and research into CLIL. Further, this chapter discussed arguments among scholars about the need for professional development for CLIL, views about issues in CLIL policy and the implementation of CLIL, as well as factors impacting CLIL pedagogical practices, and challenges that CLIL lecturers face when teaching CLIL. This current body of literature has guided, to some extent, the focus of this study on Vietnamese teachers' professional learning and pedagogical development for CLIL practice.

The next chapters will describe the theoretical framework, research design and methods used in this research, followed by the data analysis, discussion, and conclusion chapters.

CHAPTER 3

THEORETICAL FRAMEWORK

3.0 INTRODUCTION

Content and Language Integrated Learning (CLIL) is becoming more widespread as a meaningful approach to English language teaching and learning in European countries and throughout the world (Marsh, 2008). As noted in Chapter 2, the Literature Review, CLIL programs have encountered problems related to: teachers' and students' language proficiency (Pérez Cañado, 2016, Aguilar, 2015; Fernandez and Halbach, 2011; Halbach, 2014), the range of possible teaching pedagogies, and the balance between the target language and subject specific content in the programs developed (Aurydice, 2006; Cenoz, 2013; Cenoz et al., 2014; Coyle et al., 2010; Dalton-Puffer and Nikula, 2014). Theoretical studies of CLIL have been very limited, especially those concerned with how CLIL programs' development and implementation in Europe, Asia and elsewhere have been affected by their local social and cultural environments. My thinking around the theoretical development of content and language integrated learning informed by my study of sociocultural theories. I sensed such theories could shed light on my research.

In this chapter, a review of Vygotsky's (1986) Social Constructivist theory, Mascolo's (2005) coactive person-environment approach, Wave's Community of Practice (CoPs) and Coyle's (2005) 4C framework is provided. The concepts covered in this chapter provide a starting point for the development of the analytical toolbox that guides this research. However, it is anticipated that there will be continued theoretical review and exploration in the field of CLIL as research unfolds. Using three theories might cause some concern. Yin (2009) acknowledged theory triangulation (using two or more theories) is a valid way to test one's data and research against existing theories and frameworks. The following sections present a review of key concepts of Social Constructivist Theory, the Coactive Person-environment Approach and the 4Cs (Content, Cognition, Communication, Culture) Framework.

3.1 VYGOTSKY'S SOCIOCULTURAL THEORY OF LEARNING

Social cultural theory has its origin in the work of Soviet psychologist Lev Vygotsky (1896-1934) in which he identifies the importance of social context in the learning and interactions process. In his sociocultural theory of learning, Vygotsky suggests that learning can not take place without sociocultural interactions. There are different tools that humans can use to acquire knowledge e.g., language, psychology, and culture. Among those, language is assumed to be the most efficient tool for humans to learn and develop their cognition. According to Vygotsky, theoretical and social learning occur within a Zone of Proximal Development (ZPD). ZPD is defined as the gap between the learners' present level of development and the potential developmental level which could be attained through interaction with a more knowledgeable individual (Vygotsky, 1986). Hence, learning is a process in which a more competent person assists the less competent using scaffold to raise the existing level of understanding or knowledge to a higher level.

Vygotsky's (1987) sociocultural theory of learning has been, and continues to be, widely applied in educational research, which focuses on the development of learners' cognitive skills within their individual sociocultural contexts. Similarly, for Daniels (2017, p. 4), learning "is diverse and must be seen in their own cultural context," and occurs through processes of "political, social and historical filtering, selection, transformation and assimilation."

These concepts have implications for this research, which is localised in terms of the lecturers' experiences and perceptions of the CLIL programs and their professional development within the sociocultural context of one Vietnamese university. There is a need to carefully consider the cultural context of this research, which is likely to be influenced and/or challenged by the local political, social and historical factors.

3.1.1 Knowledge co-constructivism

The '**joint construction of knowledge**' in Vygotskian theory is a useful concept for educational research which explores learning and teaching activities. As mentioned above, Vygotsky developed the concept of the zone of proximal development (ZPD), that is, the distance between "independent problem solving" and drawing on others, such as "collaboration with more capable peers" (Vygotsky, 1978, p. 86). Through "joint construction of knowledge" or

interacting with people in the environment and in cooperation with expert peers, internal developmental processes can be awakened (Vygotsky, 1987, p. 89).

Vygotsky's 'joint construction of knowledge' can be used as a model to interpret the CLIL lecturers' learning and construction of knowledge. It needs to be noted that in this research, CLIL teachers started as lecturers of English as a foreign language. They had the opportunity to work with subject lecturers (for example, in mechanical engineering) while developing the Content and Language Integrated Learning programs.

3.1.2 Interactionism

Vygotsky's interactionism is another concept that might be useful for data analysis. His interaction concept involves *interaction with people, interaction in the environment and interaction in cooperation with peers (cite)*. In this research, interaction with people refers to the CLIL lecturers interacting with the subject lecturers. These subject teachers could be seen as 'the initiators of 'problem-solving' approaches to CLIL teachers' content knowledge development (Vygotsky, 1978, p. 86). Interaction in the environment, for the purposes of this research, specifies that learning takes place in a CLIL classroom in the context of Vietnamese Higher Education. The environment under investigation is the CLIL teachers' classrooms, which provide them with a platform for testing their curriculum work and professional learning as the CLIL program is implemented. It also includes the university environment, where various forms of support might or might not have been provided to CLIL curriculum development. The educational culture the university created for the CLIL lecturers' development will also be a factor to consider. Interaction in cooperation with peers specifies the third component in the CLIL teachers' development/professional learning. This sub-concept will foreshadow the investigation around how interaction occurred (for example, cooperation or lack thereof) between CLIL lecturers, subject specialists, and head teachers, and how these interactions informed their practice and their professional development.

3.2 MASCOLO (2005)-PERSON-ENVIRONMENT COACTIVE SCAFFOLDING

From a slightly different angle, Mascolo's (2005) coactive person-environment scaffolding framework provides another lens through which to view the data collected in this research. Scaffolding is a notion that was first proposed by Wood, Bruner, and Ross (1976) and is

referenced by Vygotsky (1978) in the development of socio-cultural theory in learning. Mascolo's framework therefore shares conceptual antecedents with Vygotsky's socio-cultural theory. In the coactive systems approach, Mascolo (2005) emphasises the person-environment system and the scaffolding of activities within that system to support learning development. Mascolo's coactive scaffolding approach will be considered as an analytical tool when interpreting the data in this research.

Mascolo (2005) criticises the traditional understanding of the concept of scaffolding. He argues that learning development is a social process and not merely the structuring of actions/activities by an expert. Coactive scaffolding questions whether traditional scaffolding theory pays sufficient attention to the individual learners' contribution to their own learning (cite). A second issue he raises concerns the processes by which scaffolding leads to development. One of the sub-concepts, internalisation, explains one stage of learning development through scaffolding but does not adequately explain what learners must do to benefit through interactions with others. This view of scaffolding can be seen to be incomplete as it denies the social mechanisms involved in learning. Further, in terms of expert-novice constructive activity, Mascolo (2005) argues that the traditional understanding of scaffolding provides a fixed and pre-defined endpoint in learning development. However, such externally directed learning does not clearly explain the dynamic, emergent and open-ended nature of internal development. For these reasons, Mascolo (2005) suggests a more coactive conception of scaffolding students' learning. Mascolo proposes *three broad categories* of coactive scaffolding. These include *social scaffolding*, *ecological scaffolding*, and *self-scaffolding*.

3.2.1 Social scaffolding

“Social scaffolding refers to the processes by which co-regulated exchanges with another person direct development in novel directions” (Mascolo, 2005, p. 192).

Coactive interaction and support occur through social exchanges. Within a learning context, one social partner provides scaffolding, or different degrees of support, to another, thereby influencing their cognitive development. In this research, social scaffolding can be seen to occur when the CLIL lecturers are supported through coactive interactions with the subject lecturers, who impart engineering knowledge to the language teachers. The 'novel' direction was then

the development of a new CLIL curriculum. This illustrates the important scaffolding element of one social partner supporting another.

3.2.2 Ecological scaffolding

“Ecological scaffolding refers to the ways in which one’s relation to or position within the broader physical and social ecology moves action toward novel forms (Mascolo, 2005, p. 192).

For example, the CLIL lecturers’ practices and professional learning development may be affected by different factors related to the interpersonal culture, and broader societal and environmental culture in Vietnam. Not specifically relevant to this research, is *naturalistic scaffolding*, which involves “the use of naturally occurring environmental features in their unaltered state to aid in acting” (Mascolo, 2005, p. 192).

Another sub-concept is *positional scaffolding*, described as:

...the ways in which an individual’s physical position or orientation in relation to a task, object or social context functions to organize, direct, or make an action easier to perform. Posture and physical proximity to elements of a task operate as central yet unacknowledged facets of task performance (Mascolo, 2005, p. 192).

These CLIL lecturers were positioned in a context where they had to perform the task of CLIL curriculum development without pre-existing skills or formal professional development. During the classroom observations and interviews in this research, the impact of positional scaffolding as acknowledged or unacknowledged will be investigated.

Ecological scaffolding may also involve *task/object-scaffolding*: “the ways in which the task itself or the objects of action structure the construction of novel ways of acting and thinking” (Fischer, 1980 and Mascolo, 2004, cited in Mascolo, 2005, p. 193).

3.2.3 Self scaffolding

Self-scaffolding refers to the ways in which products of the individual's own actions create conditions that direct and support the production of novel forms of action and meaning. In self-scaffolding, individuals change their environments or representation of the environment in such a way as to direct further problem solving and the construction of novel meanings (Mascolo, 2005, p. 193).

Two of the relevant sub-concepts proposed by Mascolo (2005) within self-scaffolding are cognitive self-scaffolding and bridging.

Cognitive self-scaffolding occurs when deliberate actions are taken by an individual, which ultimately change the environment/circumstances in terms of outcomes and new meanings. The actions taken may have direct or indirect outcomes.

Bridging, referenced by Mascolo (2005) to Granott, Fischer and Parziale, (2002), refers to the process whereby an individual may draw on partial, or 'old' knowledge to bridge the gap to 'new' knowledge. "Bridging arises from the capacity to function simultaneously at two developmental levels in one skill domain. In so doing, a partially constructed representation of the goal state functions as a shell for creating new knowledge" (Mascolo, 2005, p. 193)

Self-scaffolding is a concept that would appear to have direct relevance to this research. These CLIL lecturers, in the context of their work-related requirement to develop CLIL curriculums, needed to rely on self-learning and self-development. What this involved and how the CLIL lecturers perceived the process, is the central focus of this research. The real-life, moment-by-moment coactions between CLIL teachers and their working environment will be tested using this analytical tool provided by Mascolo.

3.3 Peer- scaffolding

Peer-scaffolding can occur within contexts where lecturer learners can use their peers as lecturer-to-lecturer scaffolding. In other words, lecturers can learn by interacting with each other, because peer scaffolding helps learners share knowledge and enhance problem-solving abilities (Scardamalia and Bereiter,1996).

Many authors highlight the importance of peer scaffolding (e.g., Werchadlo and Wollman Bonilla, 1999; Lee and Choi, 2006). Those researchers argue that peer-scaffolding was effective for promoting successful problem-solving. Lecturers in this study acted like peer groups by organising to observe each others' teaching. Thereby, peer scaffolds helped the lecturer learners identify problems in teaching practice to address challenges all of them were facing in the CLIL classroom (McKenzie, 1999 in Turuk, 2008, p.252). Scaffolding was also a useful tool to help the lecturers create active learning activities to co-construct subject knowledge and teaching methodology for CLIL, especially when the lecturers began to better understand CLIL at conceptual level (Peters, 2012). These activities helped motivate the CLIL lecturers and made them more comfortable with their process of professional learning within their community of practice (Peters, 2012).

3.4 COYLE'S 4CS (CONTENT, COGNITION, COMMUNICATION, CULTURE) CONCEPTUAL FRAMEWORK

Coyle's 4Cs model is one theoretical framework identified in the CLIL field of study. Coyle identified four key concepts in CLIL studies: content, cognition, communication and culture. The 4C framework is useful because it complements Vygotsky's theory and Mascolo's framework which have been chosen to conceptualise the CLIL teachers' professional learning and development in this research. The 4Cs model enables researchers to identify and test these four key concepts against the data collected. Figure 3.1 below explains the 4Cs framework through a diagrammatical representation.

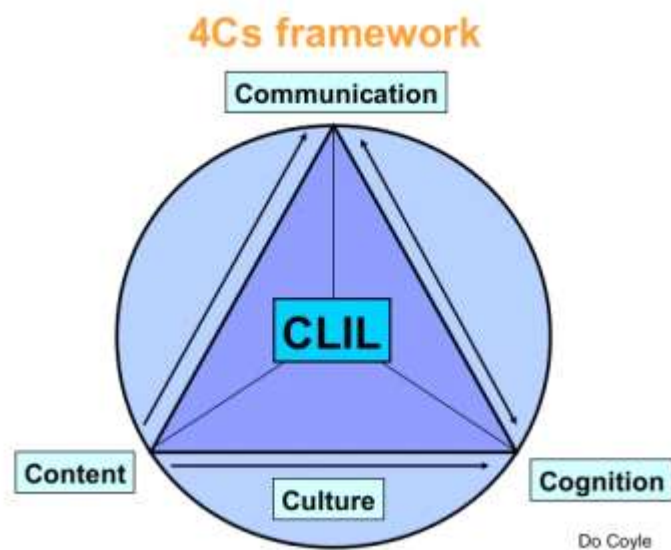


Figure 3.1: Representation of the 4C framework

Coyle (2006, p. 13-14) describes the four Cs conceptual framework as follows: (cited in Coyle 2007)

3.3.1 Content

Content in Coyle’s framework refers to the subject specific knowledge to be learnt by students. However, the content is taught through a second or foreign language (L2/FL), rather than in the students’ native language. Thus, it is necessary for the teacher to find different methodologies to teach subject content in CLIL programs, in comparison with the methodologies used when they teach only language or subject content. This, if successful, motivates the engagement and interaction between teachers and learners (Coyle, 2006 cited in de Zarobe and Jimenez Catalan, 2009, p. 49).

3.3.2 Communication

Communication skills are integral to teaching and learning. Communication must be at the level of the students’ understanding. This is very important when the language of instruction is

L2/FL. Communicating knowledge of a subject in a different language requires additional attention by CLIL lecturers to ensure communication is aimed at the students' level of understanding. Coyle clearly expresses that she sets language as a primary tool for communication in motivating students to learn within meaningful contexts. By learning both content and language, the learners will be engaging in activities to develop a variety of skills to enhance their proficiency in both, as well as their motivation to learn. (Coyle, 2006 cited in de Zarobe and Jimenez Catalan, 2009, p. 50). This cannot be achieved unless lecturers and students are communicating efficiently.

3.3.3 Cognition

Cognition is one of the four important concepts in the 4C framework. It relates to learners' ability to comprehend, or understand, what is being taught. This is a requirement for the development of skills to help learners achieve "basic interpersonal communication skills" (BICS) and "cognitive-academic language proficiency" (CALP) (Coyle, 2006 cited in de Zarobe and Jimenez Catalan, 2009, p. 50)

3.3.4 Culture

Culture is "probably the most difficult and the most vague element in Coyle's model" (de Zarobe and Jimenez Catalan, 2009, p. 50). The diversity of cultures within any learning context will influence student outcomes. (Coyle, 2006 cited in de Zarobe and Jimenez Catalan, 2009, p. 50).

3.3.5 Critique of CLIL and applicability to this research

Content relates to the non-language subject matter, such as mechanical engineering and technology. Cognition refers to the development of learning and thinking in the subject context during the lessons, contributing to the linking of new knowledge and skills with existing understanding. Communication acknowledges the importance of language use in the CLIL classroom, where students might not be totally proficient in the L2 language of instruction. Culture reflects the benefits of social interaction to the learning experience, both in terms of the

meanings underpinning the subject knowledge, and identity and cultural tolerance of learning another language

CLIL teachers' learning thus takes the integration of subject knowledge and language development as central. Through the 4Cs, content, cognition, communication and culture, CLIL teachers have a framework within which to construct their own knowledge and skills, and reflect on their own identity as CLIL lecturers, as their cultural teaching and learning context is shaped by (at least) two languages. However, pedagogy should be added into this model as an important aspect to develop for CLIL lecturers. This aspect would suggest the most effective strategies to teach CLIL.

Coyle developed the 4Cs framework specifically to provide a model for CLIL pedagogy. It enables teachers to acknowledge the language of learning, language for learning and language through learning. The language of learning has to be considered in order for the required knowledge and the content, to be understood. Language for learning includes the grammar and rule-based knowledge of language, and awareness of effective strategies, which learners need to communicate and learn in a foreign language environment. Language through learning emphasizes the active involvement of learners in the learning process.

If Vygotsky's sociocultural theory and Mascolo's coactive scaffolding framework can provide insight into the relationship between learning and the human and non-human environments, then Coyle's 4Cs model is likely to provide a guide for analysing the content of the professional learning for CLIL lecturers. However, it is difficult to measure the cognitive development of the learners in their professional learning for CLIL. Thus, this framework should be built on more practical principal.

3.5 COMMUNITY OF PRACTICE (CoPs)

The concept of community of practice is used to describe the contexts where the learners have opportunities to share knowledge, experiences, values and interests with professional colleagues. Using the concept of CoP helped me to get more insight into the participants' experiences of pursuing professional development for teaching CLIL at their university. It was a valuable tool for me to collect the data from the lecturer participants.

3.4.1 What is community of practice?

The concept of CoP was developed by Lave and Wenger in 1991 (Buckley et al., 2019), who were investigating how novices co-construct knowledge in ‘naturally occurring established communities of experts’ (Buckley et al., 2019, p.1). The theory of CoP describes the learning process as intrinsic to an individual’s participation in a social community, rather than cognitive development occurring in isolation in the mind (Buckley et al, 2019). The theory of CoP has been, over time, developed from a concept to describe the *in situ* (Buckley et al, 2019) learning process, to one that encompasses an ‘instrumental’ focus as an intentional tool for knowledge development and management. As a result, the instrumental concept of community of practice has been deliberately included in formal plans for teacher professional development.

3.4.2 Community of practice for professional learning at NAUTE

This theory sparked the idea of a hypothesis for this researcher, that the NAUTE language lecturers had to some extent compensated for the disadvantages resulting from the lack of formal professional development programs by creating a strong CoP to support their independent learning. Lecturers at NAUTE could collaborate with CLIL colleagues and engineering teachers within their CoP to increase their subject knowledge and develop their interpretation of CLIL pedagogy and practice. Thereby, the lecturers could empower themselves and solve the problems arising from inadequate preparation for teaching CLIL. In this cooperative learning and teaching environment, the lecturers would also be able to identify sociocultural factors that may be affecting CLIL teaching in their CoP, as well as other professional challenges and difficulties particular to their context.

It is not uncommon for university lecturers to create communities of practice where there is a need to acquire knowledge to teach a new program when they have not been provided with proper professional training prior to its implementation. Cooperation and assistance from peers, mentors and students within their community of learning can boost lecturers’ confidence and help them develop professional skills and standards more quickly. In the process of co-constructing knowledge of CLIL within their CoP, lecturers can engage more deeply in CLIL theory, which also motivates them to improve their practice.

In this research, I would test the hypothesis that their CoP would help NAUTE lecturers establish effective learning environments when they were planning and developing curriculum for the new CLIL program. Communities of practice provided the opportunity for lecturers to obtain knowledge from each other and from other community members in the very early stages, as well as a venue to express their challenges and difficulties, assess their understanding of CLIL engineering knowledge; and to work together to optimise CLIL teaching methodologies (Rhodes & Beneicke, 2002). Based on this hypothesis, I was able to design interview questions and obtain evidence from classroom observations to see how the lecturers conceptualised CLIL, how they constructed subject content knowledge and how they performed their CLIL teaching.

The discussions with the lecturers who are the members of their CoPs helped me understand how they managed their professional learning so well within their community of practice, especially in terms of subject knowledge co-construction and pedagogy.

In addition, I used CoP theory as an instrument to see how the university supported its lecturers during the reform of their CLIL program and curriculum. It is therefore possible that the findings of this research will help influence policy makers to invest more in CLIL teacher preparation.

3.6 SUMMARY

This section has provided a discussion of the key concepts of Vygotsky's social constructivist theory of learning, Mascolo's coactive person-environment approach to learning and Coyle's 4Cs framework, Lave and Wenger's CoP. An explanation of these concepts and how they might be used as analytical tools for this research has been presented. These concepts are the tools intended to be used to analyse the participant CLIL teachers' perceptions, experiences and professional development in the current CLIL programs at NAUTE, although others may also be applied. The next chapter will cover the research methodology and research design for this study.

CHAPTER 4

METHODOLOGY

4.0 INTRODUCTION

This chapter outlines the research methodology and research design used for this qualitative study addressing the research question: How do English teachers experience professional learning when developing and implementing a Content and Language Integrated Learning (CLIL) program at a Vietnamese university where pre-service training, policy and professional development opportunities were lacking? It will also detail the procedures used for data collection and data analysis, and the research principles and ethical considerations applied during the study.

4.1 RESEARCH METHODOLOGY-QUALITATIVE RESEARCH

This research is a qualitative study, most often employed for exploring and understanding the meaning individuals or groups ascribe to a social or human condition, context and/or problem. The process of qualitative research itself may involve emerging questions and procedures as the research unfolds, data typically collected in the participant's setting, data analysis inductively building from particular to general themes, and the researcher making interpretations of the meaning of the data (Creswell, 2007).

By conducting qualitative research, individuals develop subjective meanings of their experiences focussed on certain contexts, ideas and situations. These meanings can be varied and multiple, leading the researcher to portray a complex range of views rather than narrowing findings into a few categories or ideas. The goal of qualitative research is to rely as much as possible on the participants' views of the situation being studied (Creswell, 2007).

As this study explores the CLIL teachers' experiences and views of their current CLIL program, a qualitative research approach provides the most suitable methodology as it allows the

interpretations to also take account of the researcher's own experiences and background (Crotty, 1998).

Qualitative methodology also allows the researcher to seek to understand the context or setting of the participants through on-site visitations and gathering information personally. This aspect aligns with the data collection in this research. Some would argue that due to the researcher's personal interpretations of events, contexts, participants and the data gathered, there would inevitably be researcher bias. Attempting to generalise findings to a large population (when participant numbers may be small) is also a warning to be heeded (Creswell & Plano Clark, 2011). Johnson and Christensen (2008) also point out the limitations of generalising findings, not only to a broader population, but also to any other setting.

A case study was the best choice to enable a thorough investigation at one site in order to answer the central and supporting research questions of my study. The strengths of case studies as a research design have been identified by Robert Yin (2009:25):

- They cope with technically distinctive situations comprising more variables of interest than simply data points., and as one results.
- They rely on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result.
- They benefit from the prior development of theoretical propositions to guide data collection and analysis.

This study investigated two groups of CLIL lecturers and engineering lecturers in a university in Vietnam. The case study model allowed me to explore distinctive phenomena (Merriam, 2009) affecting the lecturers' contextualised experience of professional learning at NAUTE, and to identify specific sociocultural factors impacting their professional learning process. In addition, a case study approach was appropriate for this study because it was better able to accommodate both an exploration of CLIL practice in an Asian country, and an examination of the co-construction of subject content knowledge by language lecturers who teach CLIL which required more precise and contextualised research. Thus, by analysing the lecturer participants' experiences of professional learning within their university, I could provide an evidence-based analysis of professional development for those CLIL lecturers, which has similarities and differences from what might occur in other contexts (Yin, 2009).

For example, when I analysed the interview data from the CLIL lecturers, I could identify the different elements of their conceptualisation of CLIL, and how that impacted their pedagogical practice. It also helped me understand how the context of their university influenced their professional learning challenges in comparison with lecturers in different contexts.

Although case studies are commonly used by educational researchers, they have some flaws that may cause obstacles in conducting research. For example, if the study is one single case study, it is assumed to not have sufficient statistics to generalise scientific conclusions, or if the study contains multiple cases, it has the potential to contain more biases, and therefore less guarantee of accuracy (Zainal, 2007). Furthermore, Yin's (2007) criticism is that case studies sometimes consume too much of researchers' time in documenting findings.

4.2 THE CASE AND PARTICIPANTS

This research was conducted in a Vietnamese university which specialises in technology education and educating undergraduate students to be technicians or engineers. This university is one of the most prestigious technological universities in Vietnam. The CLIL curriculum at this university offers 6 months of subject learning in the chosen faculty (mechanical, electrical, information technology (IT) or electronics engineering) integrated with English language learning. These courses account for credit points ranging from 4 to 8. These programs are intended to prepare engineering students to be professional engineers who are proficient in English and have expertise in their disciplinary area.

4.2.1 The case location

This research is a single site case study (Kemmis, 2002) at a university of technology education located in the village of Hung Dung, Vinh City, Nghe Province, Vietnam. The university is under the administration of the Ministry of Labour, Invalids and Social Affairs (MOLISA). In May 1973, the university was named Ni Anh Vocational Teachers' Training College. It became Ni Anh University of Technology Education (NAUTE) in 2006, serving as one of the centres for technology and vocational education and training across the country.

The university has eleven faculties. It offers four major studies at master's degree level; fifteen majors at tertiary level; twelve majors at college level and nineteen vocational level majors, in

the fields of: Mechanical Technology, Automotive Technology, Information Technology, Electrical, Electronics, Industrial Engineering, and Economics. The training majors include technical subjects, namely machining, automotive, IT, electronics, electricity, economics and vocational training.

There are twelve lecturers who are involved with the CLIL programs, and ten subject lecturers who are also assigned to take part in the curriculum development and implementation of the CLIL program, as well as providing ongoing mentoring for the CLIL lecturers. The CLIL teaching and learning materials, curriculum and program were developed by those English lecturers in collaboration with the subject specific teachers.

Currently there are 7,000+plus students at NAUTE studying different courses. In the first and the second year, students study general English for four semesters. Subsequently in their third year, all students take CLIL courses, which account for three credits in total. In any one year, there would be approximately 500 third-year students studying the CLIL courses.

The CLIL program was implemented at this university without a curriculum for the CLIL lecturers to refer to. The CLIL curriculum development was undertaken by English language lecturers with no subject-specific content knowledge or any training in curriculum design and development, or in CLIL theory and pedagogy. They had to find different sources of information about the subject areas from the engineering teachers and the internet, among others. The curriculum was then evaluated and revised three times based on changes in the university's training goals over the period. The CLIL curriculum development project has been an assignment between the lecturers and the university for each curriculum revision. The lecturers were divided into groups relevant to the subjects they are teaching and left to their own devices to develop their CLIL programs. It generally took two years for each group to finish their project. The project of updating and revising the curricula took more than a year.

4.2.2 The participants

The participants in this research were lecturers at NAUTE. All the English lecturers from the CLIL program, and subject lecturers from different disciplines (mechanical engineering, electrical engineering, IT and electronics engineering) were included. Students enrolled in the

CLIL program were participants only in terms of their reactions and responses during the observed CLIL classes.

CLIL lecturers: There are twelve CLIL lecturers in the program, and among them there are four head CLIL lecturers of the four divisions (mechanical engineering, electrical engineering, IT, automatic engineering). These lecturers were involved with CLIL curriculum development and classroom implementation for each of these disciplines (for example, developing English and mechanical engineering integrated learning). The head CLIL lecturers also took leadership roles in conducting and implementing content and language practices in classrooms.

Subject lecturers: There are ten subject lecturers from different disciplines (mechanical engineering, electrical engineering, IT, electronics engineering) who were involved with CLIL curriculum development and ongoing mentoring of the CLIL teachers throughout their semester's teaching practice.

CLIL students: There were ten CLIL classes assigned to the ten CLIL lecturers. The classes of the CLIL lecturers who agreed to participate were observed, and students' responses noted. However, given that the observation focus was the CLIL teachers, the students were engaged only as part of their normal course lectures and activities. They did not constitute a separate participant group from which data was collected.

4.3 DATA COLLECTION

Collecting data from different perspectives enhanced the trustworthiness of the research. According to Yin (2009), there are four perspectives of triangulation that can be used in a case study. They are data triangulation, methodological triangulation, investigator triangulation, and theory triangulation (Yin, 2009). In this research, data triangulation was utilised by including different data sources, namely: interviews with CLIL teachers, classroom observations and the curriculum documents (from the developed CLIL curricula and teachers' lesson plans). The theoretical triangulation is described in the theoretical framework outlined in Chapter 3 and developed from different theories. These include Vygotsky's sociocultural theory (1987), Mascolo's co-active scaffolding framework (2005), and Coyle's Four C model (2006).

Figure 4.1 illustrates the triangle of the data collection methods I used for my research.

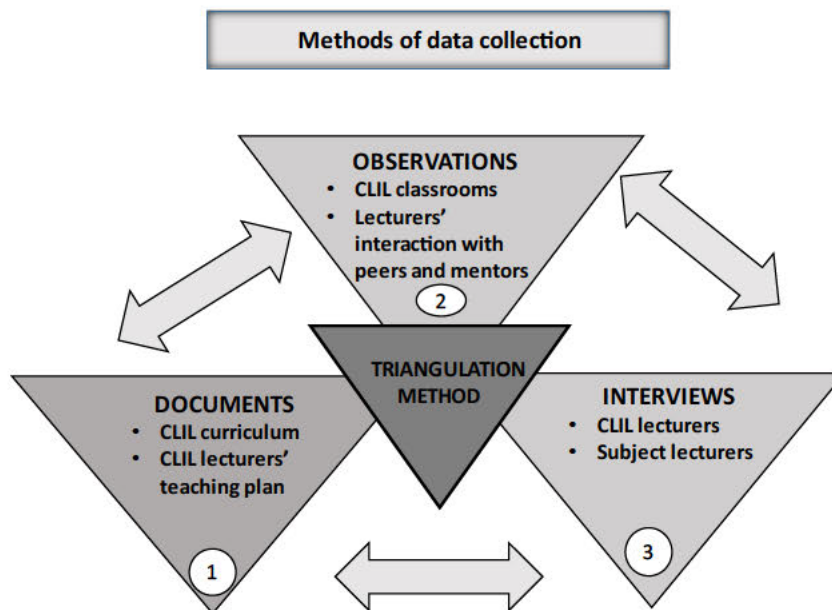


Figure 4.1: Triangle of data collection methods

(Source: Yin, 2009)

4.3.1 Documents

The collection and analysis of relevant curriculum and lesson plan documents comprised the first phase of fieldwork in this case study. Documentation is one of the primary sources of evidence in case studies, to deepen understanding of the phenomenon under study. Documentation can be used to corroborate and augment evidence from other sources (Yin, 2014). Documents as a data source are stable, unobtrusive, exact and can give broad coverage (Yin, 2009). Documentation critical to this project was the current curriculum and lesson plans for the NAUTE CLIL program, available at the time of the fieldwork. These documents were collected to explore how CLIL lecturers and subject specialist lecturers designed and developed their CLIL learning modules. The analysis of the documents provided some insight into the CLIL teachers' professional development (e.g. their experience of and with content and language integrated learning and their pedagogical knowledge of CLIL). I analysed four curricula, one from each discipline area. Within each curriculum, there were multiple modules and lesson plans. As described in figure 4.1, data analysis supported the analysis of classroom observations and interviews. The three methods intertwined with each other to help me determine the lecturers' pathway of CLIL professional development at NAUTE, and thus

answer the study's research questions. In addition to documents from the curricula and lecturers' teaching plans, I also collected the documents that lecturers used in the classroom when they organised learning activities for students, such as photos or notes for games or speaking exercises.

4.3.2 Observation

Observation for the purposes of this study can be defined as “the watching of behavioural patterns of people in certain situations to obtain information about the phenomenon of interest,” (Johnson and Christensen, 2008, p. 211). Observation which “involves observing all relevant phenomena and taking extensive field notes” (Johnson & Christensen, 2008, p. 212) was a second data collection method used in this research.

Classroom observations were conducted across the four divisions of the CLIL program:

- English and Mechanical Engineering Integrated Learning,
- English and Electrical Engineering Integrated Learning,
- English and Information Technology Integrated Learning, and
- English and Economics Integrated Learning.

By observing the lecturers' delivery of the CLIL lessons, data was gathered to pinpoint how they conducted the integration of the subject-specific content with the English language components in their lessons. Observations also focused on how the CLIL curriculum as a whole was being applied by the lecturers in the classroom.

I conducted four hours per week of observations across the four subjects (one hour per specialist area/division) over a period of ten weeks, making a total of 40 hours of observations between February and May 2018. Recording was also employed when conducting observations to provide context for the interviews. The observations were planned in accordance with the lecturers' timetables.

The observation focus was on the CLIL lecturers. However, their students' responses and performance in the CLIL classes also revealed how, or whether, the CLIL lecturers' pedagogy was working for students. Field notes on students' reactions were recorded, but as already mentioned, students were not a specific participant group.

4.3.3 Individual semi-structured interviews

Interviewing is a method to access the relevant experiences of people in and around a particular topic (Charmaz, 2006). Interviews were selected as a data collecting method in this research, as this enabled the CLIL lecturers to have a voice concerning both their experiences of professional learning in relation to CLIL, and their current teaching practices (Crotty 1998). In-depth semi-structured interviews, where guiding questions provide a loose framework for the discussions, are considered an effective data collection method in qualitative research (Merriam, 2016; Neuman, 2011). Through interviewing, the researcher can get "closer to an individual's perspective" (Kayrooz, 2006, p. 10). Traditional quantitative research cannot obtain such a deep level of evidence (Fleming-May and Yuro, 2009).

In this research, individual semi-structured interviews were conducted with:

- CLIL lecturer participants (Appendix 1A)
- the CLIL head teachers who were involved in the university's CLIL curriculum development across the four divisions (Appendix 1B), and
- the subject lecturers whose classes were observed (Appendix 1C).

There were 24 interviews conducted for a maximum of one hour. Although Appendices 1A, B and C list the interview questions that were originally proposed, the results of the initial analysis of curriculum documents and observation data also affected the final interview questions. The interviews were audio-recorded and transcribed (Strauss and Corbin, 1998) prior to analysis. I included my CLIL teaching experience as a source of data.

4.4 DATA ANALYSIS

Analysing qualitative data is “a process of continuous search for patterns and explication of their meaning, through progressive focusing, reflexive iteration and grounded interpretation which aims to generate rich accounts of the phenomena studied (and link them to literature)” (Punch and Oancea, 2014, p.219). Inductive data analysis was used to analyse the dataset which ultimately formed the codes and themes to shape the topics, outlines and content of the findings of the research.

This research implemented the common approaches to analysing qualitative data of developing codes and categories. General categories (or themes) were developed from the data, which were then broken into more explicit codes. In addition, line-by-line analysis of transcripts were used to develop codes which were then built up into categories/themes (Miles, Huberman and Saldana, 2013).

The analysis of the data was divided into stages. For example, in stage one, notes were made after each interview about the topics discussed in that interview. Those topics related to CLIL lecturers’ experiences, their professional learning, and challenges and barriers that they encountered. In stage two, the transcripts were read and allocated general themes. In stage three, all the contents were labelled according to the system of headings or categories which then accounted for all the interview data. This is the stage of open coding (Berg 1989 cited in Miles, Huberman and Saldana, 2013).

Data analysis was directly aimed at finding evidence to understand the process of professional learning the CLIL lecturers underwent at NAUTE, and to identify how the social cultural environment influenced their development. Based on the types of data sources, the analysis of data was divided into three main procedures as described in the following sections.

4.4.1 Document analysis

Two types of documents were collected, including CLIL curriculum materials for 4 disciplines (electronics, mechanical engineering, information technology, and electrical engineering) were examined and coded to understand how the lecturers developed the structure and content of the curriculum, and how they determined the proportion of the subject and English language

content integrated into the curriculum, and in the lecturers' teaching plans (Strauss & Corbin, 1998). The content of the curriculum was categorised and the degrees of focus on the subject and English language content were compared to determine whether they had equal weight in the CLIL lessons. This is documented in Chapter 6 in a grid of the lessons and language focus, which also highlights the importance of the cooperation between the CLIL lecturers and the subject lecturers in developing curriculum and co-constructing subject knowledge.

4.4.2 Analysis of observation data

Data from classroom observation was put through the same process as the interview data analysis. Analysis of observation data helped me to see how the lecturers employed different methods in teaching CLIL and identify sociocultural factors impacting the lecturers' teaching and learning in the CLIL classroom. The observation is an addition to the interview data where the lecturers had opportunities to express and discuss their pedagogical strategies and methods that they used to teach CLIL, challenges and difficulties that they confronted when teaching CLIL.

All of the interviews and classroom observations were audio recorded. All the recordings were transcribed and then translated into English word for word so that the expression of the interviewees could be accurately interpreted. The raw translated interview and observation data were then coded and categorised from general to specific codes. After that I used NVivo software (Wood et al., 2016) to help me organise the categories and subcategories within the framework that I created with the software. With the assistance of NVivo, I only had to manually open code for one lecturer. All the other lecturers' interview coding was generated by NVivo. For example, in figure 4.3, when I imported all the data from lecturer Tran's interview, NVivo generated a matrix to show how many similar codes could be found in his interview and counted the percentage of the codes existing in the whole interview by all the lecturer participants. I could then rely on the percentage of appearance of the codes to group them into categories which covered the content related to the research questions. For example, in the interview with lecturer Tran, some codes of the identified included: self-learning, confusing, problematic, inappropriate understanding of CLIL, pressure. These codes were plotted on the matrix generated by NVivo for future reference

4.4.3 Analysis of interview data

Data collected from the individual semi-structured interviews was analysed using the grounded theory (Strauss & Corbin, 1998). The analysis of the interviews started with the coding process to break up and conceptualise data into analytical codes (Glaser & Strauss, 1967). After the initial coding of documents, additional open coding of qualitative data from the individual semi-structured interviews was conducted using the microanalysis technique (Strauss & Corbin, 1998) to develop more new initial codes from the qualitative data. Microanalysis, also known as “line-by-line analysis,” was used throughout the analysis of the interview data to “generate initial categories”, “uncover new concepts” and “develop the relationship among concepts” (Strauss & Corbin, 1998, p. 57). This technique consists of “open and axial coding” and gets involved in “very careful, often minute examination and interpretation of data” (Strauss & Corbin, 1998, p. 58). Main codes generated from the interviews that were similar were labelled with a tentative theme representing the common features of those codes. This step of the coding process is axial coding, in which the most salient of the initial codes emerge to create dominant new themes best summarising those codes (Strauss & Corbin, 1998). In the selective coding phase, those key themes were integrated and organised to evolve the central categories which “represent the main theme of the research” (Strauss & Corbin, 1998, p. 146). These major categories serve as the dimensions for explicating how the lecturers’ conceptualised CLIL, co-constructed subject content knowledge and practiced CLIL pedagogy, as well as the different sociocultural factors that impacted their professional learning process.

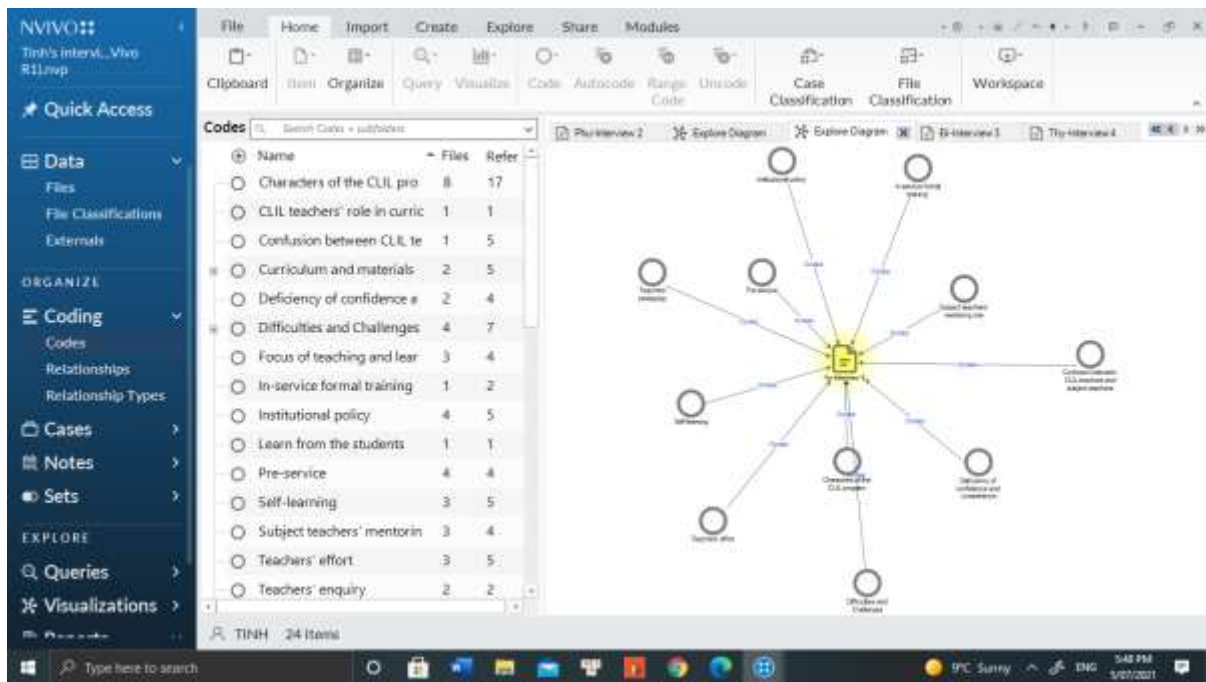


Figure 4.2: Sample of a code matrix generated by NVivo

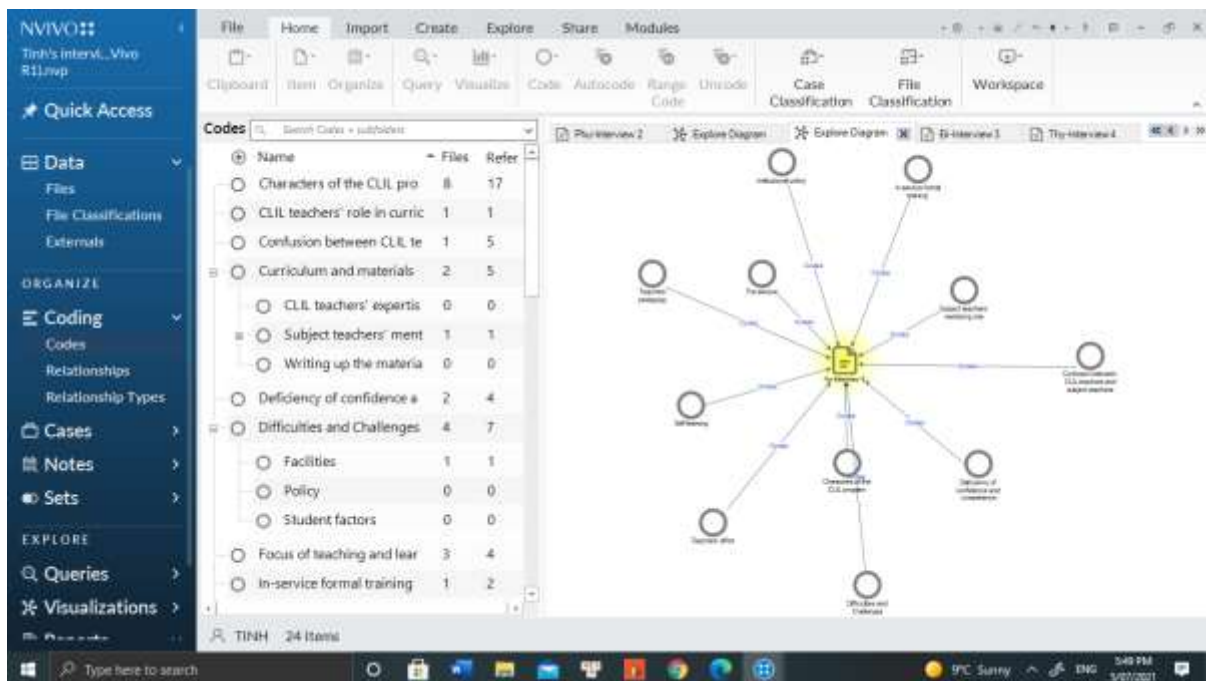


Figure 4.3: The framework of open codes by NVivo

However, NVivo does not provide an easy method to comprehend how the different categories of code connected together to form a whole. It was therefore necessary to combine NVivo's data tools with manual coding and analysis to finalise the themes in my data coding and analysis process.

4.5 RESEARCH PRINCIPLES

This research was conducted according to the procedures submitted for approval to the Western Sydney University's Human Research Ethics Committee. All the relevant information was provided to the research participants (that is, the purpose of the research was articulated; participation was fully explained as voluntary; details of what participation would entail were specified; the participants' anonymity was ensured, and participants were informed that there would be no expectation of any risk or harm by participating. Participants who volunteered signed a consent form.

Regarding the issue of anonymity, Yin (2009) suggests that disclosure of the research site and participant demographics enables the reader to better understand the study by comparing it with previous similar studies. In addition, a published study allows readers to review, check, and scrutinise the evidence generated by the researcher. The accountability and credibility of the study is thus enhanced. However, since the research investigates participants' practice of CLIL teaching, their identities were anonymised to protect their privacy. It was made clear that the participants had the right to withdraw at any time without giving any reason and without incurring any consequence.

4.6 SUMMARY

This chapter has outlined this research's grounding in the qualitative methodology paradigm. The research design is a single-site case study with all fieldwork undertaken in a Vietnamese university (NAUTE). Data sources are document analysis, classroom observation and semi-structured interviews.

The rationale for the methodology, design and methods of data collection and analysis was justified in terms of providing the most suitable approach to answer the research questions. The relevant principals of ethical research were considered carefully to protect the research participants.

The timeline for this study and the cost of the research was mentioned to demonstrate that all the component parts of this research have been managed across the candidature years and financially funded by Western Sydney University's School of Education.

CHAPTER 5

LECTURERS' UNDERSTANDING OF CLIL AT CONCEPTUAL LEVEL AND THE INCEPTION OF CLIL PROFESSIONAL LEARNING

5.0 INTRODUCTION

This chapter presents findings on CLIL-based program implementation as experienced by the lecturers at Vinh University of Technology Education (NAUTE). Data is analysed to answer the contributory research question: What are the lecturers' understanding of CLIL and its impact on the lecturers' CLIL professional learning? Presentation of the findings will cover lecturer participants' understanding of CLIL at conceptual level, different factors influencing the implementation of the CLIL-based program, the development of the lecturers' understanding of CLIL and its impact on the lecturers' CLIL professional learning.

5.1 LECTURERS' INITIAL UNDESTANDING OF CLIL

In 2006, NAUTE was upgraded from a vocational college to a University of Technology Education. This year, at the institutional level, the lecturers at NAUTE were required to develop and teach a new CLIL-based program for graduate students. The professionals who are involved in this reform are in-service English lecturers at the university. At the beginning there were three lecturers who used to teach English for specific purposes for vocational students with the available books and teaching materials adapted and borrowed from other universities or colleges. These lecturers had more experiences with teaching content subject knowledge integrated with English than the lecturers who came to teach at the NAUTE later. In those previous programs for vocational students, there was no requirement for curriculum development nor for high-level of subject content knowledge. However, in 2006, the university instructed the lecturers to develop a new CLIL-based program and curriculum for tertiary-level university engineering students in four different disciplines. These disciplines included:

- English integrated with electrical engineering.
- English integrated with information technology.
- English integrated with mechanical engineering.
- English integrated with economics.

Later in 2015, the curriculum and teachings materials for these disciplines were renovated again by these lecturers.

5.1.1 Lack of knowledge of CLIL

The interview data reveal that there was a lack of knowledge about CLIL amongst these Vietnamese CLIL lecturers before they started their CLIL teaching for undergraduate engineering students. According to Lecturer Tran, Lecturer Phuong and Lecturer Van, who were the very first three lecturers to teach CLIL at NAUTE, the university did not prepare them for the fact that the program would require competence in language and content subject knowledge. These lecturers described the situation as feeling like they were being “thrown into the sea”, without knowing how to swim.

We were a little bit shocked. We were new to the teaching of CLIL at tertiary level and there was limited time to prepare for the program. We did not know where to start or how to manage learning about CLIL before we started teaching. We were very confused. We even had to go to other universities to borrow their curriculum materials and learn from them. We had zero knowledge about the subject content of the disciplines that we were asked to teach. We had to learn the subject content, but we thought we would just teach English (Lecturer Tran).

From the quote above, it is apparent that the term “CLIL” was not familiar to the NAUTE lecturers. They did not approach CLIL teaching with the identifying characteristics of “a dual-focused educational approach in which an additional language is used for the learning and teaching both content and language” (Coyle et al, 2010, p. 1). Data from the interviews suggests that at the very beginning of conducting the CLIL program at NAUTE, the lecturer participants were not aware of the dual focus required to teach CLIL. However, they were aware that they would need to learn the content subject knowledge.

Lecturer Tran’s statement that the lecturers had to go to other universities to seek help and CLIL resources illustrates their belief that they could conduct the CLIL program by “teaching English

for engineering students with some explanation of technical terms and expression,” as explained by lecturer Phuong and echoed by most of the other lecturers. This indicates that the lecturers were being asked to conduct the programs well beyond their own understanding, to the extent that they thought it was acceptable to be teaching the program in a way that is not in line with CLIL principles, or adequate to the high demands of the engineering curriculum. This reflects the lecturers fundamental lack of understanding of the core goal of CLIL, which is to focus on teaching English and subject content at the same time to achieve dual learning outcomes. The misunderstanding of CLIL at conceptual level led the lecturers to see CLIL as teaching English through a content subject knowledge, but their understanding of CLIL changed over the course of their teaching. Findings show that these lecturers, with no understanding of either CLIL theory or the content subject knowledge, were forced to start their professional learning at the same time as preparing for the program. They had to develop new curriculum, they had to learn content subject knowledge and how to teach the content subject knowledge integrated with English teaching, which they found very challenging.

Lecturer Phuong expressed her initial understanding of the term CLIL in the following quote and it represents the same feelings described by all the other participants asked about their first perceptions of CLIL.

We were assigned to teach English for specific purposes to engineering students at the beginning and the dual achievements expected of the students after attending the course were not really our concern. We tried to downplay the engineering subject content, as we knew that we would mainly focus on English language achievement for our students (Lecturer Phuong).

The quote above reflects the common report that the CLIL lecturers had little understanding of or preparation for CLIL at the beginning. This is at the very pre-professional learning stage of the CLIL lecturers at the NAUTE. Words like “confused”, “not trained”, “know nothing” expressed the position of the lecturers when they were preparing to teach CLIL. This stage shows the most difficult stage of their professional learning process where the lecturers had to struggle themselves with the new program. The quote also indicates the pressure the lecturer participants were under at the beginning of the program.

Because they had so little understanding of CLIL methodology or subject content, the lecturers seemed inclined to deny their responsibility for teaching the engineering subject content in the early stages of the CLIL program.

5.1.2 Confusion with the focus of the CLIL program

The participants also had little understanding of why CLIL had become so important for the development of Vietnamese education in general and foreign language education in particular. They did not understand that the implementation of CLIL programs was part of an innovative approach at a time of economic internationalization and globalization. Graduates are increasingly expected to be able to work in an international environment where they not only need to be competent in their area of expertise but also have sufficient English language skills to communicate with people from different countries. The government developed a good policy for English and content integrated learning (Government of Vietnam, 2008), but they never created proper training programs to upskill the lecturers expected to implement the CLIL programs. As a result, lecturers were forced to find ways to teach themselves, and were not equipped with a good framework for both professional learning and good strategies and methodologies to teach CLIL effectively.

Only two lecturers admitted that content subject knowledge was one of the two main foci of the CLIL program, and that lecturers needed to be competent in CLIL knowledge in order to conduct the program successfully.

I understand that at my university, students study some disciplines like mechanical, engineering, we really want to focus on the two: subject and language. Because these two are both important for students. Our goal is that. So, we focus both on subject and language (Lecturer Sa).

These two participants indicated that they had knowledge of the subject content and understood that it was the responsibility of the lecturers to help students achieve both language and content knowledge goals within the CLIL program. In addition to lecturer Sa's idea, lecturer Minh also stated her view of the importance of content subject knowledge which was different from the other lecturers. In her interview about this problem, she stated:

In my opinion, CLIL provides students with subject terminology that they will need to understand in books and documents related to their job in the future. Students will be able to work in a global workplace. I understood students come to my university to study disciplines like mechanical engineering, electricity, information technology, etc.... Therefore, our goal must be to focus on the two elements: both subject content and language, because both are essential for students (Lecturer Minh).

It is apparent that lecturer Minh had a significantly different approach from other lecturer participants at the start of the CLIL program. Her point of view was informed by what she observed of her students' attitude towards learning CLIL, as she later mentioned in the interview. She seemed to grasp the essential role of the dual focus when teaching content and language to students in a CLIL format. The quote above describes the clear goal for the CLIL program of lecturers enabling students to become "global" workers in their future careers, by providing them with quality instruction in both English language and content. This evidence implies that the other lecturers should also have had this understanding of CLIL from the beginning. However, lack of guidance and training at the early stages led them to approach CLIL in a different way, in line with their training and experience as English lecturers and deny their responsibility for the content knowledge focus at an equal level with language knowledge.

Data from these interviews also evidences the conflict between what the lecturers understood about CLIL as analysed above, and what they would have to struggle with when they started to conduct the CLIL program later. Many lecturers said they felt that students were very interested in and excited about the content knowledge of the lessons. It made them question what they were really doing and whether their understanding of their role in the initial stages was correct. This confusion posed big challenges for them and for the CLIL program. The pressure the lecturers were under to achieve results in dual content and language teaching drove their intense interest in acquiring the content subject knowledge as students, while also upskilling their CLIL teaching strategies and methodologies. It is important to note that the lecturers then understood CLIL as the very different model known as "weak form" CLIL (Cummins, 1992 cited in Banegas, 2014, p.4). This is considered to involve lower instruction in the subject content within the CLIL program.

This section has stated the initial understanding of the lecturer participants of CLIL. The interview evidence shows the important finding that the lecturers had a limited and inaccurate understanding of CLIL at the very beginning of the program at NAUTE. This misunderstanding and lack of preparation resulted in confusion and conflict and delayed their process of professional development to learn the relevant content subject knowledge and take responsibility for designing and implementing a successful CLIL program in a Vietnamese university.

In contrast, a review of the literature in this area shows that in many countries, lecturers were well prepared to teach CLIL courses. Research conducted in European countries where governments had good policies in place to support CLIL program development found that the CLIL teachers had a higher level of training and professional development in the initial stages (Escobar Urmeneta, 2013; Marsh, D., Mehisto, Wolff, and Frigols 2012).

However, this research reveals that lecturers in Vietnam even now require a lot more professional development and training in order for the CLIL educational approach to be successfully implemented to global standards. The introduction of CLIL as an innovative and efficient form of education (Cenoz et al., 2014) should start with providing the lecturers with a solid grounding in CLIL theory and methodology. Lecturers need ongoing professional training to reinforce their understanding of CLIL as defined by Coyle et al (2010, p. 1): “Content and Language Integrated Learning (CLIL) is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language”.

In this section, the lecturers initial understanding of CLIL is located beyond the zone of proximal development (ZPD) developed by Vygotsky (1978). The lecturers’ gradual development as they learned more about CLIL can be considered their initial “independent problem solving”. “Joint construction of Knowledge” in Vygotskian theory can also be illustrated clearly and evidenced in the CLIL professional learning and teaching activities the lecturers undertook. The difficulties they experienced at the starting point of their CLIL program informed their pathway of profession development in CLIL teaching and curriculum design. These concepts and the link to the findings of this research will be discussed more in Chapter 8.

5.2 LECTURERS’ CHANGES IN THEIR UNDESTADING FOR CLIL AND THE INCEPTION FOR CLIL PROFESSSIONAL LEARNING

Data reveals that they were confident that their initial understanding of CLIL as equivalent to English for Specific purposes was correct. However, this research also shows that the participants realised as they started to write their CLIL curriculum based on materials

borrowed from other universities that the equal weighting of subject content and language instruction was vitally important to the program. All of the lecturer participants said that they then used many different resources to teach themselves the content subject knowledge, as well as compatible methodologies to teach it to their students in English.

5.2.1 Lecturers' changes in their understanding for CLIL

It is apparent from the evidence that the lecturers made significant changes in cognition and their understanding of CLIL as soon as they were assigned to conduct this program. Although, as lecturer Ha expresses in her interview, they did not have a profound understanding of the subject content knowledge, they started learning it and gave it the same importance and equal focus as language in their curricula. The majority of the lecturer participants described the same pattern as Lecturer Ha. This development in the lecturers' understanding and their efforts to acquire content knowledge can be identified as the starting point for the "joint of construction of knowledge" in their professional development for CLIL learning and teaching, and it also represents "independent problem solving" in their professional learning.

A subject lecturer participant who played a mentoring role for the language lecturer in their professional learning emphasized the process as follows:

Foreign language teachers need basic professional training to teach the subject. They have half the knowledge to teach CLIL in a foreign language, but teaching foreign languages is different from teaching CLIL so they must have knowledge of the subject. Because the combination of the two is not easy, they should have deep knowledge of the engineering subject content (Subject lecturer Hien).

It is interesting to compare the understanding and ideas of the subject content lecturer participants with those of the language lecturers who teach the CLIL program at VUTE. All the subject lecturer participants agreed with Lecturer Hien's perception of the important role of CLIL as expressed in her quote. They are supposed to raise the equal important role of language and content knowledge in teaching CLIL and suggest the obvious goal of CLIL is a dual-focused program. These interviews also revealed the attention and enthusiasm the subject lecturers gave to their work assisting the language lecturers in obtaining content subject knowledge.

Lecturer Duy said in his interview that:

The school assigned me two teaching tasks. The first was to teach English integrated with electrical engineering and the second was to teach English integrated with IT. I found documents about IT and electrical engineering to read to understand the basic concepts and terminology. I had to learn and study the lessons by myself before teaching the students. I sometimes had to ask the subject teachers for help because there were some technical terms I had never known before which had different meanings in a general English context. I also had to find subject dictionaries to understand not only the meanings, but the concepts of the words (Lecturer Duy).

Lecturer Xuan added to the idea:

Of course, we all had responsibility for all the content we taught, including both language and subject knowledge. I understood that we needed to teach both English and subject content but as we were only trained to be language teachers, we were not able to cover all the subject knowledge in our teaching. So, I think the choice of lecturers to teach CLIL is very important and still controversial in many forums and even in the academic seminars. I think teachers who teach content through language should be degree qualified in the subject, and their competency in the target language must be good enough (Lecturer Xuan).

Lecturer Xuan shows her understanding and responsibility of teaching both content and language at the same time. She has changed her understanding of content and language integrated learning concepts, despite her initial lack of awareness for the subject content knowledge integration in their CLIL teaching. Consequently, she started to claim that language lecturers who teach CLIL need to be equipped with relevant and sufficient training courses of subject content knowledge so that they can feel confident in teaching CLIL.

It is obvious that this lecturer has thorough understanding of content and language integrated learning concepts, despite her lack of experience in the beginning. From never having heard of CLIL, she now understands and applies the CLIL fundamentals in their teaching approach. This lecturer evidences the fact that many lecturers who do not initially grasp CLIL at conceptual level are able to improve their knowledge of the bases of the program that they are conducting. This indicates the lecturers' ability to adopt both the theoretical knowledge and the pedagogy for CLIL teaching in the later stages of their professional learning.

From the data analysis, it seems that the participant lecturers made a lot of advances in their understanding of CLIL prior to starting to teaching it, despite knowing nothing about the program beforehand, and became more confident and competent in their CLIL teaching as they acquired more and more subject knowledge. However, after the start of the program, there was

still a conflict of interest with teachers both denying and taking responsibilities for content subject knowledge in CLIL classrooms, even while pursuing professional development. This may be explained by the concept of “independent problem solving” (Vygotsky, 1978) as the lecturers had to overcome their own obstacles in a situation where they did not have a systematically supportive policy. They also experienced other difficulties in their learning for CLIL which would be analysed and presented in the following section.

5.2.2 The inception of professional learning

That the lecturers gradually developed their understanding of CLIL and started to equip themselves with the knowledge to teach CLIL classes marks a significant change in their process of professional development for CLIL teaching. Their initial belief that they were not responsible for teaching the content subject are seen to have changed, and the lecturers worked to compile learning resources for their respective content subject knowledge.

From that moment on, the lecturer participants embarked on a journey of CLIL self-education, almost entirely comprised of “independent actions” (Little, 1991). It was, they reported, a “bittersweet” process that took the lecturers to higher stages of development in their professional practice and cognition. The three above-mentioned lecturers described the same situation at the beginning of the program: that they were only told they would be teaching the CLIL-based program a few months before the commencement of the program. At the time, they believed that teaching CLIL at tertiary level would not be very different from the English for Specific Purposes they taught for vocational students. However, they discovered that CLIL teaching was much more complicated, as it involves more tasks being carried out in an integrated, dual-focus program teaching high level subject knowledge. CLIL teaching for these NAUTE lecturers meant a new self-developed curriculum, a high level of content subject knowledge and the pedagogical practice of content and language integration which requires ongoing professional learning. Lecturer Ha expressed the change in her interview:

At the beginning, we thought that in our role, we were meant to teach English through the content but not teach the content through language. So, we believed that we would focus much more on language rather than content. The goal as we understood it was to teach students to read special texts related to their majors and explain the meaning of the terminology in the context of the written text. However, things changed when we started to access the documents and teaching materials, and especially when we developed curriculum for our students. We strove to focus equally on content and language teaching. It was a very difficult task because we

were not specialists in the subject areas, so we did not properly understand the content of the texts. We started to find different ways to learn the subject content knowledge so that we could be more confident teaching students in the classroom. It was really a burden for us (Lecturer Ha).

A subject lecturer participant who played a mentoring role for the language lecturer in their professional learning emphasized the process as follows:

We were always willing to help language lecturers with subject content knowledge because we know that teaching a subject that was not familiar with them was not easy at all. There must be a balance between teaching the content and the knowledge so that students can achieve two goals at the same time. It is very difficult for the language lecturers because they did not have expertise of engineering (Subject lecturer Tam)

It is interesting to compare the understanding and ideas of the subject content lecturer participants with those of the language lecturers who teach the CLIL program at NAUTE. All the subject lecturer participants agreed with Lecturer Hien's perception of the important role of CLIL as expressed in her quote. They are supposed to raise the equal important role of language and content knowledge in teaching CLIL and suggest the obvious goal of CLIL is a dual-focused program. These interviews also revealed the attention and enthusiasm the subject lecturers gave to their work assisting the language lecturers in obtaining content subject knowledge.

The data analysis evidence that the subject lecturer participants were one of the most potential sources for the language lecturers at NAUTE. Thus, at later stage of teaching CLIL, language lecturers made a lot of changes in their understanding of CLIL with the assistance and cooperation with the subject lecturers. Language lecturers increased their confidence in subject content knowledge by learning in the community of practice (Buckley et al., 2019) at their university despite having constant difficulties and challenges. It was apparent that the language lecturers had advantages when they taught CLIL at a university of technology education where they could have opportunities to access subject lecturers conveniently for discussing the engineering topics. This community of practice was of paramount importance in a situation where the lecturers were not provided with either ongoing professional development program or financial support for individual learning and development for the new programs. Fortunately, they were supported and mentored by the subject lecturers who were experts of the engineering areas.

In summary, the CLIL lecturers who participated in this research started teaching CLIL programs without any understanding of or training in CLIL theory or methodologies. This was the case for both experienced and new lecturers assigned to teach CLIL. All said that they had expected some training prior to commencing teaching but were not sent to any internal or external courses. Neither did they grasp the broader importance of CLIL programs to the government's economic development planning. The only resources the CLIL lecturers were provided with prior to starting in the CLIL program were documents delivered to them by CLIL lecturers who taught CLIL before them. As a result, the lecturers had only a very vague understanding of what and how they were going to teach. The university's lecturer preparation ahead of the launch of their CLIL program was therefore clearly insufficient, which presented great challenges for lecturers.

To overcome the difficulties of teaching the CLIL program with no preparation or support, the lecturers were forced to source materials themselves to advance their understanding. They gradually realised that they in fact needed to teach content and language equally in a dual, integrated curriculum, the core definition of a CLIL program, rather than teaching English through specialised content, as they had believed. They then worked to equip themselves with a reasonable amount of subject content knowledge independently to meet students' needs. The lecturers' initial confusion about their responsibility for content subject knowledge caused them stress and provided strong motivation to acquire further learning, in tandem with their fellow CLIL lecturers, to solve the problems they were facing. Ultimately, this process resulted in a genuine desire to engage in content subject content knowledge once the lecturers were more confident teaching it in the in the classroom. The next sections will discuss the difficulties and challenges the lecturers faced at the very beginning stages of conducting the CLIL program.

5.3 DIFFICULTIES AND CHALLENGES FOR CLIL LECTURERS

Data from interview evidence highlights many difficulties that the participant lecturers had to confront when they embarked on the CLIL program at NAUTE. These difficulties are problems that the lecturers had to find solutions for themselves. The two key findings emerged for the challenges that the lecturers confronted are identified firstly as lack of formal in-service training for the lecturers before they started the CLIL program and the ongoing of the program and secondly is the lack of supportive policy on financial issues for individual learning of the lecturers. The dual focus fundamental to CLIL means that the lecturers had no choice but to

learn the subject content knowledge they were required to teach. All the participants stated that if they had had strong knowledge of the subject content, they would have felt confident in teaching the CLIL classes.

5.3.1 Lack of formal in-service training

The interviews with the CLIL lecturers reveal that the none of the lecturers received specific CLIL methodology and knowledge training. From their initial, very inaccurate understanding of CLIL, to the more sophisticated and informed approach they developed over time, the lecturers claimed that they had to educate themselves in CLIL theory without any support. They said that neither the university nor the government had any policy for training CLIL lecturers prior to commencing CLIL programs.

Lecturer Dinh expresses what all the participants reported in the following quote:

We did not complete any CLIL training at all before we started teaching CLIL. We really needed to be sent to training courses, (maybe even short courses), or workshops related to CLIL teaching methodology, either monthly or annually, to develop our CLIL professional skills. In addition, the university should have invested more funding in CLIL materials and curriculum development, as well as for teaching facilities in order to create better teaching and learning environments and learning outcomes. We had a lot of difficulties, and it was a burden (Lecturer Dinh).

It is evidenced in the quote that not only was training not provided for the CLIL lecturers prior to the program, but no professional development was provided after it started, creating an ongoing burden for the CLIL lecturers to maintain their teaching standards. The lecturers said they wished that they could have had the chance to participate even in small workshops on CLIL to network with other CLIL professionals and improve their teaching efficiency. They said this would have helped them feel more confident and well prepared, rather than experiencing “a lot of difficulties and a burden”.

5.3.2 Lack of policy and financial support for individual learning

The university that is the case study of this research, NAUTE, clearly launched their CLIL program without establishing any training policy for their CLIL lecturers. The literature review shows us that other countries which offered specialised training courses for CLIL lecturers prior to starting the programs experienced much more successful outcomes for examples as in Germany and Finland. In contrast, the opposite was often the case in some of the Asian countries such as Thailand or Taiwan as found in the research conducted by Pérez Cañado (Pérez Cañado, 2016) or by Wenhsien Yang (Yang, 2014, 2015) respectively.

Data from the interviews also reveals that lecturers were urging the university to provide training courses before starting the CLIL programs, but their requests were ignored. Likewise, the lecturers request for the university to organise training for the developing of CLIL materials and curriculum were also denied. Lecturer Pham said that:

First of all, I assumed that the university would organize training courses for CLIL teachers, as well as providing more resources to support CLIL teaching. Secondly, CLIL teachers should have been sent to courses taught by subject teachers. In addition, if they had the chance to experience the reality of the students' future working environments, and the way students would need to use the knowledge from the CLIL curriculum, teachers would be much better prepared to develop effective curriculum and teaching strategies (Lecturer Pham).

Since lecturers' requests for training and materials were denied, they developed their understanding of CLIL by themselves. Moreover, the lecturers' lack of preparation and knowledge impact the implementation of the CLIL program at NAUTE. Thus, this evidence that lecturer training and continuous education was not taken into account as a contributory factor to the success or failure of CLIL teaching by the University managers and policymakers.

Lecturer Pham raises the issue of the need for cooperation between the subject lecturers and language lecturers in conducting CLIL program, as well as the importance that CLIL lecturers understand the working world of their subject content areas. For this to happen, there would be the need to be cooperation between the university and the enterprises where the graduates would be employed, as well as between departments at the university. This is supposed to result in stronger CLIL lecturer training, better CLIL curriculum development and better outcome of CLIL courses. The use of "if" sentences again and again in lecturers' expression

reveals the very different reality for CLIL lecturers at NAUTE. If they had had better support and preparatory training before starting the CLIL program, the lecturers believed they would have had achieved better outcomes sooner and would have been less likely to consider the CLIL program in negative terms as a stressful burden. Lecturer Minh reiterated the lecturers' desire for CLIL training courses in her interview:

I think language lecturers who teach CLIL must be trained in the subject content knowledge by subject content teachers. In addition to their language teaching skills, they must have good knowledge of subject content. CLIL is very difficult to teach without sufficient subject knowledge. If we had been trained by subject teachers beforehand, we would have been more confident. However, so far, we have never been trained officially (Lecturer Minh).

One lecturer added to the above ideas that language lecturers are the ones who teach CLIL at NAUTE. Thus, they really need training for content subject knowledge. She said that:

We are language teachers. Thus, we do need basic professional training to teach the subject content. We had half the knowledge required to teach CLIL as we were competent in a foreign language. But teaching foreign languages is different from teaching CLIL so you also need to have knowledge of the subject. Because the combination of the two is not easy, teachers need knowledge of the subject. We hope that the university will start organising CLIL training courses and workshops for us in the future (Lecturer Xuan).

In most of the countries where CLIL is implemented, especially European countries, the lecturers who teach CLIL are the subject content teachers (Pérez Cañado, 2016). In this case study research, the under-qualified language lecturers chosen to teach CLIL made it work as best they could downplay the teaching of content subject knowledge until they had time to learn the material themselves. Although the lecturers said they were willing to attempt to learn content subject knowledge without adequate support from the university it is also clear that they had no choice after their requests for training and materials were denied. After the program started, the lecturers seemed to accept the reality that no support would be forthcoming from the university director, and there was no point asking or making complaints.

Evidence of the findings shows that at the very beginning of implementing CLIL program, lecturers seemed to accept that there would be no official training course for them on CLIL.

However, later years of teaching CLIL in 2016, there is evidence in the data that the university send some lecturers to some short courses relevant to teaching and developing curriculum for CLIL. One lecturer said that:

Recently, some lecturers were sent to a short course about teaching CLIL and developing the curriculum. I was not included. I have never had an opportunity to do any courses or take part in any workshops related to teaching CLIL and developing CLIL curriculum. I have had to learn everything by myself. (Lecturer Hai)

According to the quote above, the university may be starting to take more account of the lecturers' professional development for CLIL by sending them for short courses and workshops. This may indicate that if the lecturers continue to raise their concerns and push for official CLIL training, the university can make it happen.

It is obvious that university lecturers should have adequate training for any new teaching section or project. As an important program essential to the country's future, CLIL programs should be conducted by well-trained, quality lecturers. These lecturers' competence in both language and content knowledge, as well as the knowledge of CLIL teaching and education, are suggested to be the vital factors to make CLIL successful.

However, the findings of this research reveal that the lecturers were able to adapt to the new program without training over time. This must be because of the socio-cultural factors that may have impacted their academic styles of working and taking charges of the big challenges like that in the teaching and learning career. It is closely related to the "problems solution" concepts of Vygotsky' social cultural theory as it shows the lecturer participants of this research 'The ability to take charge of one's own learning' (Holec, 1981). Additionally, lecturers' thinking, and skills are good enough to make their own decisions, and taking action thereon when appropriate, whilst maintaining a high level of professional standards and advancing one's own learning (Mehisto, 2010).

Overall, the data and analysis above reflect lack of training and systematic support from policymakers, institutes and government for the CLIL lecturers. This chapter evidence important findings of this research highlighting several major flaws in the implementation of the first CLIL program at NAUTE. These lecturer participants were language lecturers required to teach CLIL without any training pre-service or in-service. They did not understand CLIL at

a conceptual level or any of its methodologies when they started teaching. Neither did they grasp the importance of implementing CLIL programs to upskill the Vietnamese workforce.

5.4 CONCLUSION

This chapter details this research's findings answering the research question about the lecturers' initial understanding of CLIL at the conceptual level. The interviews show that the lecturer participants expanded their knowledge of CLIL pedagogy by themselves, as independent learners taking actions as the very first step of their professional learning within the community, without support from the university.

Despite being one of the most important stakeholders of the foreign language teaching program the lecturers had to struggle to access professional learning at the very beginning of the CLIL program. Their pressure to implement the CLIL program and their lack of subject knowledge forced them to develop their CLIL understanding in whatever way they could. This is the consequence of the unclear top-down policy imposed by the government, and the lack of formal needs analysis, and preparation for major shift in the delivery of Vietnamese higher education.

However, the burden of needing to overcome the challenge of inadequate preparation by themselves lead to the development of the lecturers' cognition to a higher level when they were able to successfully deal with the problems in a certain level while in a very vulnerable situation.

The next chapters will analyse and evidence how these lecturers developed professional learning using different methods and scaffolds during their teaching CLIL.

CHAPTER 6

LECTURERS' DEVELOPMENT OF CLIL KNOWLEDGE CO-CONSTRUCTION

6.0 INTRODUCTION

Despite their institutional context, without policy support official training or ongoing professional development for CLIL programs, the lecturers at NAUTE made a “concerted effort” (Banegas,2019) to take any opportunity to fill the lacuna in their engineering content knowledge necessary to teach CLIL. Drawing on how and to what extent the lecturers could engage themselves in ongoing professional learning, this chapter evidences and analyses data to answer the second contributory research question of this study: How did these lecturers engage themselves in professional learning in order to optimise the quality their CLIL program?

The presentation of the findings addresses lecturer participants' continuous professional learning in detail. The different methods various sources the lecturers exploited to improve their CLIL competence and confidence will be revealed. Evidence was sourced, collected and analysed based on the methods explained in Chapter 4 and illustrated throughout this chapter.

6.1 LECTURERS' CONSTRUCTION OF CONTENT SUBJECT KNOWLEDGE THROUGH SELF-LEARNING AS INDEEDENT ACTION.

The CLIL lecturers at NAUTE, who were originally vocational language lecturers, experienced intense hardship in the very early days of teaching CLIL. As discussed in Chapter 5, the lecturers did not have appropriate conceptual understanding of CLIL when the program was announced.

6.1.1 Co-construction of subject knowledge by self searching different sources

Data reveals that the lecturers at NAUTE had to learn engineering subject knowledge by themselves in order to fulfill the dual focus requirement of CLIL. The lecturers' self-learning to construct content subject knowledge was identified in the research as independent learning through the internet, observing engineering operations at university workshops, and self-learning using specific engineering dictionaries and reference texts. The majority of the lecturer participants expressed in the interviews that at first, they had to think of these self-learning activities as their independent actions to acquire engineering knowledge for their CLIL teaching. Learning the engineering content subject knowledge was particularly challenging for the three first lecturers who taught the CLIL program at NAUTE. One of these original CLIL lecturers, Lecturer Tran, said:

I accumulated the engineering knowledge by many years through online learning. The internet is a good channel for study. However, online learning was not as good then as it is now. I read a lot by myself as well. There were even technical terminology and structures that I had to learn by reassembling entire machines. I went to observe engineering processes in the university workshop or even went to the service outside to ask (Lecturer Tran)

According to Lecturer Tran, acquiring engineering content knowledge was very tough. He said that he made his best effort to learn enough content subject knowledge to teach CLIL lessons correctly. Since the curriculum and teaching materials were borrowed from other universities in the first years of the NAUTE CLIL program, the lecturers essentially had to learn the content subject knowledge from the available textbooks and materials while teaching. They endeavoured to do their best to acquire enough engineering knowledge to teach the classes as they went along so as not to disgrace themselves in front of the students. Lecturer Phuong expressed in her interview that:

There were many majors (disciplines), but I personally specialised in electrical engineering. We then borrowed CLIL curriculum and materials from other universities and modified them to suit the context of our university. When the modifications were finished, and we had our own materials. Before each lecture, I consulted with the electrical engineering lecturers. Sometimes I even went to their houses the night before teaching to make sure I understood the engineering content I was about to present. (Lecturer Phuong).

Lecturer Tran's experience with the learning of content subject knowledge was similar to lecturer Phuong's and lecturer Van's, the other two original CLIL lecturers at NAUTE. These

lecturers agreed that in the beginning stages, their methods for learning engineering content subject knowledge and creating useable class materials included:

1. Borrowing resources from other universities or schools
2. Modifying them to make their own materials or curriculum.
3. Receiving materials from the head content lecturers (who decided which texts should be used)
4. Design and write lesson plans.
5. Reading materials and researching engineering content related to the disciplines they were responsible for from different sources.
6. Revising each lesson independently before classes for deeper understanding

6.1.2 The accumulation of subject knowledge through teaching

Lecturers who came to teach CLIL at NAUTE in later years had more opportunity to learn teaching strategies and CLIL content subject knowledge from their more senior colleagues who pioneered the program. According to their reports, they used similar methods of learning content engineering knowledge when they started to teach CLIL as the more experienced lecturers. However, they could also turn to the more experienced CLIL lecturers with questions about engineering content and were not forced to go to engineering lecturers' houses the day before class to make sure they understood the lesson material. Nonetheless, these young lecturers did also struggle to acquire engineering content knowledge and had to make significant efforts to acquire it independently through different avenues.

Lecturer Thuy said:

For me, the CLIL program was very new. I met some difficulties when I started to teach English for mechanical engineering. So, I had to learn the material by myself. I tried to find suitable books or curriculum models to apply in my teaching. I also read a lot and searched for different sources of information. I got no official training at all, even in teaching methodology (Lecturer Thy)

Lecturer Duy added:

It is lucky we were able to use the internet, books, and school resources like the engineering practical workshop to learn. It was very convenient for us that the

university had a system of workshop for students to practice in, so I could go there to observe them working. I learned many things from that. It helped me a lot.
(Lecturer Duy)

The words “lucky” and “convenient” Lecturer Duy used in his interview reveal an expansion on the accounts of the pioneer lecturers to give a clearer picture of how they took any advantage of any available sources at their university to improve their understanding of engineering. This community-based learning is not just a choice but a necessity for the lecturers at NAUTE since they were given no other support. However, according to lecturer Diem and Lecturer Tran, this method of learning through observing the university workshops only took place during the first year of the CLIL program, because the school did not have up to date machines or technology. and they just had the understanding for the required knowledge that they need to teach their students in the classroom which related to the machines and manufacturing at the university workshops. Newer lecturers who arrived at NAUTE later, like lecturer Thuy or lecturer Le, said on the contrary that they never visited the university workshops because if they didn’t understand something in the teaching materials, they could just ask the more experienced CLIL lecturers.

Lecturer Hai, who is one of the youngest lecturers to arrive at the NAUTE CLIL program, expanded on the challenges of self-learning for engineering content knowledge as follows:

All the teachers at the foreign language faculty have the same story. Our profession was teaching English. To be able to teach CLIL, we learnt by ourselves, we discussed the content, and asked for assistance from different sources. Whenever new program was launched, we always had to teach ourselves everything from theoretical to practical content (Lecturer Hai).

It is apparent from the data that the lecturers had come to accept the reality of taking charge of a new program without any preparation as “normal”. This finding reveals that lecturers were expected to overcome the obstacles of being an English lecturer teaching CLIL without a basic knowledge of engineering by themselves. This suggests that cultural factors played a part in the process of the CLIL lecturers’ professional learning and makes the lack of formal professional development more understandable. Consequently, lecturers had a long journey of professional learning to be able to teach CLIL. However, even when this research was conducted in 2017, they still didn’t consider themselves knowledgeable enough in subject

content to be a CLIL lecturer. Lecturer Tran said that so far, he is still not confident, still needs to acquire much more content engineering knowledge, as well as CLIL teaching methodology.

In summary, at the time this research was conducted, 10 years after the program for tertiary students was implemented, the majority of the lecturer participants still felt that they did not have sufficient engineering content subject knowledge for CLIL teaching, and they still wanted to learn more. All the lecturer participants agreed that this learning journey was a burden. They said they wished they had a chance to take part in proper training with content subject lecturers or experts, so they were better prepared to teach engineering content subject knowledge along with English in the CLIL program they were pioneering. Accordingly, when asked what they would recommend to policy makers at the institutional and government level to help CLIL lecturers, an overwhelming number of the participants said they would like the policy makers to take more responsibility for training lecturers to teach CLIL. Paradoxically, so far, this self-learning and independent learning of engineering content subject knowledge was considered as the responsibility of the lecturers at the university.

The lecturers at NAUTE constructed their engineering knowledge through informal methods of continuous independent professional development. Although it was hard and less efficient than learning through official supported training programs, to some extent this informal self learning not only equipped them with opportunities, resources, and approaches from necessity, it also helped them become better qualified, more pro-active professionals. Their innovative self-learning taught them to achieve success by any means available, how to solve problems, overcome obstacles and embrace the challenges that arose in their CLIL teaching at NAUTE with minimal support from the administration.

The CLIL lecturers at NAUTE learnt to acquire new knowledge of engineering, and of curriculum development for CLIL through interaction with their mentors, subject lecturers, other CLIL lecturers, or their own students as peers in their community of practice at NAUTE. The communal journey with their peers helped teachers build a richer knowledge base for CLIL, but also to cope more effectively with the changes. This concept of CoP will be illustrated more clearly in the following sections.

6.2 LECTURERS' CO-CONSTRUCTION OF SUBJECT CONTENT KNOWLEDGE WITH THE ASSISTANCE AND CO-OPERATION WITH THE ENGINEERING LECTURERS AT NAUTE

Interaction and cooperation with peers and mentoring from engineering lecturers gave the NAUTE English language lecturers the chance to learn content engineering knowledge at the same time as they gained the knowledge and skills to develop a dual focussed CLIL curriculum.

6.2.1 Co-operation with the engineering lecturers for CLIL curriculum development

Evidence from the data shows that subject lecturers played an important role during the whole process of developing the new CLIL curriculum. Data from interviews with both CLIL lecturers and subject lecturers reveal that they cooperated with each other to create the CLIL curriculum. Most of the CLIL lecturer participants said that normally, the English lecturers found the reference teaching materials and documents by themselves. However, when the development of curriculum was more formal in later years, there was requirement for the cooperation between CLIL lecturers and subject lecturers for CLIL curriculum development. Lecturer Dinh answered in the interview that:

To complete this set of teaching materials, we accumulated knowledge for many years, referring to a variety of resources, and seeking the opinions of colleagues. We hope that this is a resource that serves CLIL teaching and learning well (Lecturer Dinh).

Findings of this study reveal that the CLIL curricula at NAUTE were developed by CLIL teachers untrained in designing, writing, or developing curriculum. The evidence from the interviews with the CLIL teachers shows that when they were assigned to renew and improve the CLIL curriculum later to redo the one that had been developed at NAUTE before, they did it without any proper guide or support from the university in terms of training. Thus, they had to figure out how to complete the tasks by themselves. Teacher Phuong said:

When assigned to teach this program, the lecturers searched for curriculum materials by themselves. The documents were usually from well known publications. They learned from other universities. Generally speaking, teachers had to find the documents, and the consultants from other schools and then develop suitable methods to teach their students. They also improved on teaching methodology and changed the curriculum regularly to update it and bring it into line

with the reality of teaching and changing learning goals over time (Lecturer Phuong).

The above quote shows that the lecturers first found subject content documents by themselves. These materials were often the books from established publications containing content close to what the CLIL teachers needed. The teachers would select the most relevant content for the subject areas they were teaching, then weave that content into their new curriculum. As teacher Phuong said in the quote above, in the early stages of the CLIL program, the lecturers turned to other universities where CLIL had already been implemented. They used the existing curricula as starting references, which helped them determine:

1. how to organise the curriculum
2. which content to put in
3. the structure of a CLIL lesson, and
4. the focus of the lesson.

They adapted the curricula from other universities, to make it more suitable for their context and the required achievements for their students.

Table 6.1 shows an example of the CLIL modules developed by the English lecturers and the Engineering lecturers. The table contains of the nine modules for Electrical engineering integrated with English. Each module contains a lesson which focuses on an electrical topic and a grammatical pattern and language focus. The format of the curriculum and modules are the same for all four modules:

- English integrated with electrical engineering.
- English integrated with information technology.
- English integrated with mechanical engineering.
- English integrated with economics.

Table 6.1: CLIL modules for Electrical engineering integrated with English

Disciplines	Engineering topics	Language focus
English integrated with electrical engineering.	Unit 1: What is electricity?	Comparative
	Unit 2: Safety at work	Comparison
	Unit 3: Electric circuits	Making definition
	Unit 4: Current conducting materials	Passive voice: The Present Simple
	Unit 5: Electric motors	Describing component parts
	Unit 6: Refrigerator	Relative Clauses
	Unit 7: Electronics in the home	Describing block diagrams
	Unit 8: Radio	Describing function
	Unit 9: Transmission lines	Reduced Time Clauses Short Relative Clauses

Analysis of the excerpt above taken from the curricula for four disciplines at NAUTE reveals the flaws in the lecturers' curriculum design. There are nine modules for each discipline, as laid out in the table above. Each discipline had a different frame for the content engineering knowledge and language focus. It is necessary to mention that this program is also a continuum of the English program that the students followed in their first and second years. However, the language focus of the CLIL program is entirely based on the language usage patterns that appear in the engineering subject content. Thus, it suggests that the content engineering knowledge was the first focus of the curriculum, with language content following and exploited by the subject text.

Analysis of the curricula for the four engineering disciplines reveals a remarkable imbalance between subject knowledge and language content, between important key skills for language acquisition and lecturers' competence. This may be the consequence of the lecturers' lack of comprehension of the theoretical framework for CLIL curriculum development. Designing and developing a curriculum for CLIL in the context of NAUTE would always have been complicated. A useful and adaptable CLIL curriculum must be based on one of the fundamental frameworks for CLIL, such as Coyle's 4Cs framework (2007). This model advises that CLIL

stakeholders must be aware of the paramount importance of the quality and accountability of the curriculum and materials to ensure the success of the program.

Findings of this research reveal that productive language skills, speaking and writing, were not adequately represented in the curriculum and materials. This issue will be described more in Chapter 7, which describes the researcher's observations of CLIL classrooms to see how the students got the chance to practice and learn those productive skills for learning a foreign language. Beyond evidence from the document analysis, it is obvious that the NAUTE English lecturers who designed the curriculum for integrated learning for engineering students concentrated more on the engineering knowledge content than the English language skills. The imbalance between language and engineering content again highlights the lecturers' misunderstanding of CLIL at a conceptual level.

Regardless the drawbacks of the CLIL curriculum first developed by the English language lecturers at NAUTE, the research shows that CLIL lecturers at this university did learn how to develop the curriculum and the content for their situation and social-cultural context. Meaning, they made effort to equip themselves with the CLIL knowledge prior to the implementation of the CLIL at their university.

In addition, data from the interview shows that the curriculum was changed regularly over the years, and it was found to have been repeatedly refreshed in the same period, with different lecturers developing new content for different areas of the CLIL curriculum. Findings of this research also reveal that a framework was never provided for integrating the content and subject knowledge or for the format of the CLIL program. "Changed" and "improved", "not standardized" are three phrases used by lecturer participants that clearly represent the character of the CLIL program at NAUTE.

CLIL programs in our university in particular, and in Vietnamese higher education in general, are not based on any standard norm. It is only the lecturers at the institutions who develop curricula with the assistance of subject lecturers from the engineering faculties. They also search for CLIL documents on the internet by respected publishers such as Oxford, Cambridge and Longman. The documents that we were using to teach CLIL were collected from all different sources. We did not have any one official source (Lecturer Tran).

CLIL is aimed at empowering the learners' mobility and employability through teaching both content and language knowledge (Yang,2018). It achieves this through the balanced

integration of subject content and language learning for optimal results, so cooperation between content and language lecturers should be close when the CLIL teachers do not come from the subject content faculties. Lecturer Pham described how the CLIL lecturers cooperated with subject lecturers to develop curricula:

The subject lecturers first helped me choose the right topic. I would ask them if different topics were relevant to graphic design or not, because they had taught the engineering content in Vietnamese, so they understood it more deeply. We worked together. I asked the subject lecturers to select topics, and then I was the one who directly penned the material to write curricula (Lecturer Pham).

In the above quote, the lecturer uses the words “help”, “choose the right topic”, “work together”; these are typical phrases to express the way the subject lecturers and the language teachers worked together during the time of curriculum development. The role of the subject lecturers at that time was to help the language lecturers choose the right topics to include in the CLIL program’s content. The right topic here means the topics most relevant to the majority of the CLIL students in terms of their specialized areas. The language lecturers would then obtain English language materials on the selected topics from different resources. These sources could include the internet, the subject lecturers’ texts or books from well-known international publishers. It is interesting to note that the subject lecturers only suggested topics in Vietnamese, not in English. So, the English lecturers first had to translate those topics into English before searching for course materials to use in the curriculum. This was also very challenging for the language lecturers who had little engineering knowledge while they were developing CLIL curriculum. It was found that the subject lecturers were the mentors of the language lecturers almost from the first day the CLIL program was announced. However, in the later period, new teachers were also mentored by the original CLIL lecturers, who had accumulated experience and knowledge from practice and study.

The subject lecturers’ mentoring roles were significant because they enabled the subject knowledge (content) to be correctly interwoven into the curriculum to be taught along with language knowledge. The majority of the CLIL lecturers showed consensus on this point, presenting the cooperation of subject lecturers and CLIL lecturers as essential to the development of the first CLIL curriculum at NAUTE. This highlights the importance of subject lecturers’ input not only at the level of lesson preparation and the explanation of fundamental subject knowledge concepts, but also to curriculum development at a macro level. One subject lecturer said:

The lecturers in foreign languages were not equipped with in-depth subject. We had deep expertise. Previously in Vietnam the phenomenon of misunderstanding the nature of a word often caused problems. For example, the same set of machines on the machine, but there are many different understandings. I have helped foreign language teachers better understand technical terms. Also, in the program development, as the General Department of Vocational Training sets the learning objectives for every faculty and specialized lecturers develop the content materials. We only had to help build and refine the subject content to be intertwined with English in modules for CLIL classes (Subject lecturer Tram).

The above quote reveals that the subject lecturers are well equipped with not only subject expertise but also with the professional knowledge to develop programs and curricula. It is found that, in the case of NAUTE university, subject teachers were given more opportunity for professional development than the English language teachers, which is why they were able to help the CLIL teachers so much with curriculum development. The General Department of Vocational Training had better policy support for subject teachers than for CLIL teachers. The quote also indicates that the curriculum for CLIL delivered as a framework by the administrative ministry to the university. Thus, the subject teachers and the CLIL teachers just followed that framework to develop the detailed content for the CLIL curriculum at NAUTE. The mentoring roles of subject lecturers for CLIL lecturers in curriculum development can be broken into the following tasks:

1. Decide on the best topics/modules in Vietnamese.
2. Educate CLIL lecturers in the content of each teaching module.
3. Provide some materials for subject knowledge.
4. Work with CLIL teachers to design the order of the subject content in the curriculum.
5. Check the content.

6.2.2 Coyle's 4cs framework as a reference for curriculum development and subject knowledge co-construction

This research shows that the development and implementation of the CLIL program at the university relied heavily on the subject lecturers' engagement in the design and development of the CLIL curriculum. And this process was organised more systematically in 2015 when the CLIL lecturers were required to update the CLIL curriculum. However, there was no official

format or agenda for the CLIL lecturers and subject lecturers to follow either when they first cooperated on curriculum development and rewriting, or for actually conducting a CLIL program. This had a significant impact on the quality and the success rate of the CLIL program at NAUTE, as well as on staff and student motivation. All the subject lecturers said in their interviews that they knew nothing about Coyle's (1999) framework either.

Documented evidence from the data of this research indicates that in designing the curriculum for the CLIL program, the lecturers never had reference to the 4cs framework of Coyle (2015) which point out four different aspects to focus on in CLIL especially in designing a curriculum. They never know the concept of the 4cs framework which is made of four important elements:

1. Cognition
2. Culture
3. Communication
4. Content

Coyle's (1999) "4Cs framework" concludes a checklist or conceptions for teachers to follow to develop CLIL curriculum or to have successful CLIL teaching methodology. 4Cs framework provides theoretical and methodological basis for planning CLIL curriculum and teachers' professional development. It is formed on the four principles listed above: cognition, culture, communication and content. CLIL educators can use these four tenets as a base to create a customised CLIL curriculum to suit their own objectives and cultural circumstances. However, evidence from this research show that limited understanding and documents have been preventing the CLIL lecturers from creating appropriate CLIL curriculum for teaching with the dual focus on content and language.

Because they had to make up a CLIL curriculum on their own without any theoretical training or exposure to CLIL methodologies, the CLIL teachers at NAUTE could not have confidence that the strategies and curricula they were using were good because their curriculum had never been accredited. This is why the CLIL lecturers tend to withdraw whenever they are asked about their responsibility for the subject knowledge in the program.

In addition, all lecturers were not aware of applying CLIL teaching approach to enhance students' language acquisition and empower the content engineering knowledge for students at

the same time.. Thus, even though the lecturers made an effort to learn content engineering knowledge by themselves, and with the help of their subject lecturer mentors, it is clear from the data that they had no understanding of CLIL teaching from a conceptual perspective.

Even though lecturers made a lot of effort, the program was not as successful as it should have been because the lecturers weren't confident, because they had to learn content at the same time as learning curriculum development, which took too much time and energy, because they didn't make use of the appropriate materials and frameworks.

The mentoring role the content engineering subject lecturers played for the language lecturers as they acquired subject knowledge and developed the CLIL curriculum was part of the community of practice at the university. In the absence of material support from the university and the government, help from the CoP can be one of the most important ways to counter the obstacles faced by CLIL lecturers in this position.

Practice is developed through solving problems, seeking knowledge, observing others' practices, making new use of assets, coordinating and synergising, deliberating over developments, observing others, documenting knowledge and looking for gaps (Lave and Wenger, 1991). In other words, CoP refers to individuals who come together to accomplish mutual goals, which keeps them together. CLIL lecturer participants in this research show all these characters in their practice of learning for CLIL.

6.3 Learning from students and other CLIL lecturers

Data reveal that lecturers at NAUTE learnt, exchanged their subject knowledge with their students and the CLIL colleagues. The learning community (Wave and Weigh, 1991) of NAUTE increased their confidence and comfort to teach CLIL and became more active in their own professional learning for CLIL.

6.3.1 Engineering students as potential subject knowledge experts

An interesting finding of this research is that the CLIL lecturers found learning from their students was an important channel for professional development. They become the learners when they ask their students to explain technical engineering terminology and operational processes. They can discuss the content knowledge with their students when they are in the

classroom. CLIL lecturers noted that their students who had already studied the engineering content knowledge prior to learning the material in a CLIL class can be very good at the content that the CLIL lecturers may not know. When asked, most of the CLIL participants said they did acquire new subject content knowledge from their students. The following quote shows learning from students can be an important part of lecturers taking any opportunity to advance their professional learning. This answer is from Lecturer Thu:

In some classes, students support me a lot. For example, students help me to understand some difficult concepts and terminology. Students may be well versed in these terminologies because they learned them in other engineering classes. For instance, once when I taught a lesson on “logical gates” ... for electrical engineering students...the concept and maths for logical gates were very new to me and I didn’t understand them. But when I called on students to do the exercises, they were able to explain the material and find the maths solution for the logical gate problem. Or students have learnt the lesson on “digital”, so they understand the term better than me. Or when I taught a lesson on fridge electricity, students were able to explain the concept of “horsepower” (Lecturer Thu).

It follows that after teaching specialised classes and learning from their students for a while, the CLIL lecturers accumulated knowledge and made that knowledge for their own, which provides a big boost for their confidence while teaching those subjects.

Yes, because students that have already studied the topics have a profound understanding of the engineering principles. Teachers can learn a lot from senior students. For example, when I covered one-way electrical currents, the class already knew about them and could explain the concepts for teachers. I didn’t understand how horsepower worked either, but students were able to explain it (Lecturer Minh).

Only one lecturer participant said she didn’t feel that she learned very much from students. However, she acknowledged that “in some classes, good students support teachers a lot”. This means high performing students with more understanding of the subject content of their major than the lecturers can support discussion and learning in CLIL classrooms.

6.3.2 Co-construction knowledge with CLIL colleagues as peers

CLIL lecturers learned the content subject knowledge with their colleagues by discussing the content subject knowledge, discussing the content to put in the curriculum, and co-working with them to design and develop CLIL curriculum for the different engineering disciplines. As some

lecturers taught CLIL in two disciplines, it was more flexible for them to work on strategies together. Lecturer Hai said:

In particular, we asked the other CLIL lecturers to share the important issues they encountered related to the subject knowledge. We were very supportive of each other (Lecturer Hai).

More experienced CLIL lecturers offered peer support to new arrivals through sharing the engineering content knowledge they had accumulated. In addition, CLIL lecturers learned through observing each other's teaching. At NAUTE, the CLIL lecturers said they arranged to observe each other's classes once a month. Sometimes just one lecturer observed another class, and sometimes many lecturers observed one lecturer working. The visiting lecturers would take notes of the methodologies the lecturer used to deliver CLIL lessons. They then had a meeting after the lecture to give feedback to their colleagues. This was believed to be an efficient method of professional development for them because they could examine in person how their colleagues made progress with their teaching of content subject knowledge, and also different lesson delivery styles. The lecturers also said they believed this peer activity allowed them to opportunity to share their teaching skills with their colleagues at the same time. This peer-to-peer interaction is also a "communicative activity carried out between learners" (Philp et al., 2014, p. 3) for the CLIL lecturers to practice learning and teaching CLIL within their community of practice. Peer learning was especially essential for the CLIL teachers at NAUTE since they had so little other training, and they found it an effective method for improving content subject knowledge as well. Peers are more likely to understand each other's vocabulary and thinking, challenge each other's ideas, and feel less threatened by corrective feedback (Damon, 1984; King, 1997). This learning phenomenon experienced by the lecturers at NAUTE and evidenced in this data reflects the concept of Community of Practice (CoP), which is derived from social learning theories (Vygotsky, 1978, Lave, 1988). The term refers to a form of social learning wherein people who have a common interest collaborate over extended periods to exchange thoughts, notions and values, as well as beliefs and methods for accomplishing objectives (Wenger, 1998). The participants of communities of practice cooperatively decide on a target, the means to accomplish it and ways of measuring progress (MacDonald and Star, 2008).

In the process, these participants developed and exchanged knowledge, techniques and beliefs of their common meanings. They created a learning society that was driven by the evolving

nature of the mutual causes and objectives in play. Because the lecturers at NAUTE constitute a community of practice, they share mutual educational objectives, cultural values and problem-solving techniques. They formally and informally gather to discuss, evaluate, develop and enhance their teaching techniques and resources. Within the CoP context, old members mentor the newcomers, providing them with legitimate access to proven CLIL teaching strategies in a way that gradually moves them from being peripheral actors to full participants in the program.

6.4 CONCLUSION

The findings this chapter has presented show that the professional learning of CLIL lecturers at NAUTE is a long term, complicated process which requires a lot of effort from the lecturers themselves. There is a combination of different factors that allowed them to progress from untrained, unprepared vocational language teachers to confident CLIL teachers capable of conducting the dual-focussed program successfully. However, the lecturers themselves believe that the process is still in need of better support and official formalisation. As it stands, the lecturers' professional development in CLIL, and the curriculums they created have had no proper expert examination or accreditation by established CLIL bodies.

In the early stages of the program, the NAUTE CLIL lecturers had to struggle to learn the necessary engineering content prior to each lesson. They had to come up with different ways of constructing the content subject knowledge they did understand so that they could have the confidence to teach their engineering students. The general process for the participants when they were assigned to teach CLIL followed several stages:

- Finding materials to teach themselves the subject content for the CLIL curriculum; sources included specific engineering texts, engineering English dictionaries, internet searches for explanations of engineering processes and terms.
- Seeking help and mentoring from engineering subject lecturers in the university, first informally, then in official working groups.
- Observing students at the university workshops to get a better idea of technological terms and processes.
- Learning through interaction with students in the classroom.

The learning of subject content knowledge raised many problems and impacted the way the lecturers taught CLIL in classrooms. However, through these challenges, CLIL lecturers had the opportunity to demonstrate their ability to adapt and develop themselves in challenging situations for which they were completely unprepared through independent professional development. The lecturer participants all said they believed they still did not have sufficient subject content knowledge and want to develop as much as possible. However, so far, the university still has not provided them with a systematic professional development course.

The findings confirm that more targeted training in CLIL competencies is needed in order to guarantee the quality and sustainability of bilingual programs in Vietnam, where the teacher's competence in CLIL has a direct relation to the students' academic results. Banegas (2019) claims, in his case study on professional development in language-driven CLIL in Argentina, that authenticity, as opposed to language-content integration, is an essential feature of language-driven CLIL. Nevertheless, learners' language proficiency helps define success in the CLIL classroom. The case study also highlights how teacher reflection helps in constructing/developing teacher identity, which is a part of the eco-system of professional development, also considered to be a Bottom-Up approach to professional development.

CHAPTER 7

LECTURERS' PEDAGOGICAL LEARNING AND PRACTICE OF CLIL - INFLUENCING FACTORS

7.0 INTRODUCTION

These NAUTE lecturers have undergone through a CLIL learning journey on both conceptual and practical levels, to a point of achieving content engineering knowledge co-construction. Their experience with CLIL pedagogical practice contributed to significant changes in the lecturers' professional development and capacities.

The participants in this research were regarded as having an advantage in teaching CLIL because they were experienced language lecturers at the start of the program at NAUTE. If CLIL, across different models, can be considered an innovative approach (Coyle et al., 2010)

to language education, these participant lecturers were in a position to utilise their experience as language lecturers as a basis for their CLIL teaching.

However, with the core features of CLIL of integrated teaching of subject and language content, lecturers should also be able to comprehend the basic framework required to conduct CLIL lessons to optimize learning in both areas. Nevertheless, it may bring them more challenges and obstacles. This research analyses the variety of factors that influence CLIL teaching in the context of NAUTE university. It is important to know how these lecturers delivered CLIL lessons to the students; how they developed and managed and differentiated their CLIL teaching methodology from their previous language teaching practice to examine the effectiveness of CLIL, as well as to build a framework for CLIL lecturers' future professional development in term of pedagogy.

This chapter analyses data and evidence to answer the third contributory research question of the study: What pedagogical strategies do these lecturers employ to deliver CLIL lessons? It identifies the lecturers' methods of teaching in the CLIL program at NAUTE, and the different social-cultural factors that impacted their learning and practising of CLIL pedagogy.

7.1 DISCIPLINE-BASED PEDAGOGY OR NO GENUINE DIDACTICAL CONCEPT

CLIL pedagogy can be identified by its two-fold focus of teaching integrated subject and language content. According to David Marsh: "CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language" (Marsh 1994). The practice and teaching approaches may differ considerably between types and levels of institution, educational systems, and countries. Thus, CLIL pedagogical theory and practice occur in different ways in actual praxis.

7.1.1 Discipline-based pedagogy or a mix of teaching methodologies

Findings of this research reveal that the lecturer participants at NAUTE did not have an appropriate understanding of CLIL pedagogy at the beginning of the program. These lecturers, along with the difficult task of learning engineering knowledge content to co-construct subject curriculum, had to struggle to learn CLIL theory for teaching. These English lecturers at

NAUTE had no training in or knowledge of formal CLIL pedagogy or didactic concepts. Accordingly, lecturer participants, when asked how they started to learn to teach CLIL, said they didn't think of themselves as teachers of engineering content at the beginning of preparations for the new program. However, this conception changed when they started to teach CLIL in the classroom. They learned that they had to play two roles at the same time, (Coyle, Hood, and Marsh 2010) as language lecturers and engineering lecturers. They needed to ensure that the engineering knowledge they taught was understood by their students through English, building language proficiency in their students as part of the same process.

Data from interviews and observations highlights that lecturers at NAUTE tried to adapt different approaches to teaching engineering content knowledge and English for the engineering students at their university, and their approach changed from year to year in accordance with changing needs and curriculum updates. Given that these lecturers had experience with different methods of teaching English as a foreign language, such as grammar-translation, the communicative approach, etc before taking the CLIL program, they used those skills as a bases for CLIL teaching. Lecturer Duy said in his statement:

Because CLIL is a special subject with its own features and the language background of students was of low level, the lecturers tried to combine different methods while teaching to motivate the students and engage them actively in the lessons (Lecturer Duy).

In addition, when asked about their approach to teaching CLIL, most of the lecturers said that they didn't have any specific strategies different from the ones they used in general teaching. According to them, they found that teaching CLIL was far more complicated than teaching English alone, as they had to be aware of both the content subject knowledge and the English focus. They had to be well versed in both so that they could provide their students with accurate explanations of the engineering subject knowledge and industry-specific language patterns in the target language. However, despite the complexity of the task eleven out of twelve interviewees said that they basically taught CLIL the same way they taught general English, or that there was not much difference in their strategies. The lecturers also reiterated that they did not have any theoretical pedagogical framework for teaching CLIL.

However, one lecturer said that she did use different methods for teaching CLIL in different disciplines:

Each discipline has its own features. For example, teaching engineering students was different from teaching economics students. In Engineering, we mostly provided students with terms related to tools or machine operations. For Economics, it is much more important to be able to read and understand documents and texts. English for engineering was related to communicating, and English for economics was related to deeper comprehension of documents (Lecturer Ha).

Lecturer Ha's statement is very important. According to what she expressed in the quote, teaching CLIL for her was complex and flexible depending on the natures of the different disciplines she was responsible for. Through observations of the lecturers' teaching in the classroom, I found this Lecturer Ha's description to be true for other lecturer participants, regardless of what they said in their interviews. At NAUTE, the lecturers were sometimes required to teach CLIL in two or even three disciplines. However, they did not use the same pedagogy for each discipline. Due to differences of character between the disciplines, the teachers used different methods to ensure they fulfilled the different subject requirements. For example, if it was English integrated with mechanical engineering, they would exploit more communicative activities in the CLIL lessons in the classroom. According to her, these may be based on lessons from the mechanical engineering textbook, which had many stimulus dialogues and workplace situations. Based on the conversations in the textbook, she would organise role play activities for students that may take place in a metal cutting workshop or an automotive workshop, for example. Lecturer Ha used this technique for this discipline between 2006 and 2013. In 2013, the curriculum was completely overhauled. New lesson formats and goals were set for the program, and the new textbook didn't contain dialogues. Consequently, Lecturer Han was not able to create speaking activities for students from the content of the textbook as easily and quickly as before.

Lecturer Ha's account above was reinforced by analysis of documentary evidence (curriculum and syllabuses) developed and designed by the lecturers. The documents they used in teaching CLIL exposed the structures and stages of a lesson, which in turn showed the different techniques and methods they used to teach CLIL for different disciplines. It is interesting to note that each discipline had different lesson formats both before and after the curriculum was updated in 2013. This indicates that the lecturers did not have any standardized framework for CLIL pedagogy although they were working together at the same university on a systemic continuum of curriculum development.

The lecturers' prior learning experience, their working environment and the attitude of the university administration all affected their practice and learning of CLIL pedagogy. Data from interviews and observations, as well as documents in this study, show that the lecturers' practice of CLIL was influenced by their being English lecturers who had learned and applied different methods of teaching English during their education and career. Lecturer Pham listed some basic methods that she used in her CLIL teaching, such as vocabulary-based teaching, reading skills-based teaching, grammar-translation, and communication-based teaching. This range of skills highlights the advantages of being an English language lecturer before going on to teach CLIL. However, this advantage does not make up for the lack of comprehension of CLIL pedagogy and theoretical factors occurring in CLIL pedagogical practice, such as Coyle's content, cognition, communication, and culture (Coyle 1999). This imbalance reflects the lack of training and preparation for CLIL lecturers prior to the implementation of the CLIL program at NAUTE.

7.1.2 Inconsistence of pedagogical principles and the imbalance in integrating content and language

Through curriculum analysis and classroom observation, as well as interviews with lecturers, it was found that the participants were not consistent in how they set targets for their CLIL courses, or in the way they focused on the elements of CLIL teaching. Since there was no external evaluation of the program, there was little incentive to standardise their approach. Accordingly, as expressed in Lecturer Ha's quote above, and echoed by the other lecturers, it was understood that CLIL lecturers initially focused on language (English) teaching in the classroom, rather than on content subject knowledge, although the balance shifted as their competence in the disciplines grew. However, a key goal of the NAUTE CLIL program was to teach students to read materials related to their future jobs; to translate texts and documents in a working environment and to communicate with future colleagues, all of which require understanding of industry knowledge in English. Interestingly, in addressing the above two directions in the classroom, lecturers combined different teaching methodologies they were familiar with such as communication-based, grammar-translation or reading-based, and were able to focus on both engineering content and English language learning. There was an overlap between the content designed and put in the materials and curriculum of the English and mechanical, English and electrical engineering, English and IT English and economics thus this made the programs confusing for the lecturers. They said that if the university policy makers

had given more consideration of how to integrate the two areas of study to make a consistent and continuous curriculum, the CLIL program would have been much stronger and more efficient, as well as more engaging for the students.

When asked how they balanced and integrated the engineering content and the language content in their teaching, the majority of the participants had the same idea as that expressed by lecturer Hai, who said: “Regarding the equality between the language and content subject knowledge, the priority in teaching CLIL is language, not subject knowledge content”. Again, this reinforces the findings already discussed of the imbalance in the CLIL lecturers’ proficiency in CLIL pedagogy. Although their understanding of CLIL pedagogy changed and improved as their CLIL teaching experience grew, the lecturers never really completely understood the importance of the dual focus principle of CLIL, with content and language holding equal importance and completely integrated. If they had ever been exposed to any formal CLIL research, this would not have been the case. In her interview, Lecturer Pham said:

We mainly focused on language. However, the goal of the course was to enable to students to read and translate the subject content related to their expertise and work in the future. They also needed to acquire the ability to communicate and use terminology in their future workplaces (Lecturer Pham).

When I observed the lecturers teaching in the classroom, I saw they successfully employed different methods to intertwine content and language in their CLIL lesson plans and classroom practice to meet that practical goal. Despite this, more than 60 per cent of the lecturers still denied that they were responsible for the engineering knowledge content in the classroom. However, one lecturer was enthusiastic about acquiring subject knowledge:

I was very excited about any professional subject knowledge content in the lessons. I was keen to teach my students engineering knowledge that they hadn’t learned in their Vietnamese classes. I was so proud of myself that, as an English lecturer, I could also teach my students how to cut metal using CNC technology or even how to cut with hydraulic pressure. I explained as much as I could to them as if I were a content subject lecturer. And my students asked me questions related to the subject topics. This was the most important factor that motivated me to learn more and more to develop my subject knowledge as well as CLIL teaching pedagogy (Lecturer Phuong).

The lecturers were motivated to acquire and teach subject knowledge content by the students’ excitement and enjoyment of the lessons. This also reflects the lecturers’ understanding of the importance of subject knowledge content in the classroom and for the culture of learning and

teaching. These factors are key in boosting the lecturers' desire to acquire subject knowledge to be confident in their CLIL teaching. Lecturer Hai, Lecturer Pham and Lecturer Minh described similar experiences of being affected by their learned students' positive attitude about learning, and how the interaction with their own learning help them construct and integrate subject knowledge and language content in the classroom.

Findings show that although in the period before 2016 CLIL lecturers in different disciplines used different techniques to organise classroom learning activities, there was a similar flow that they followed in the way they delivered the lessons to allow interexchange between the engineering knowledge content and the language content. For example, in an English and Information Technology integrated learning class, the lecturers began by introducing the topic of the lesson that day. After that, they provided students with the meaning of the new words (Engineering terminology) and studied the vocabulary. They explained the terminology very carefully to the students. Students were then given time to practice the new words individually and as a whole class. After that, they were then given time to read the text before doing reading comprehension exercises and answering questions about it. Lecturers therefore mainly organised the teaching activities based on the characteristics of the teaching materials. Through my observation, it was obvious that 90 percent of the lecturer participants organised communicative and productive learning activities such as role-plays or writing reports. However, they still employed so many controlled activities such as memorising grammatical rules and drills, which do not provide much more range for student creativity. Thus, the lecturers used the largely teacher-centred techniques and teacher-centred pedagogy with which the lecturers transferred knowledge to their students to prepare for the final examination of the course, and the lack of activities to promote deeper cognitive language acquisition. Given that productive skills such as speaking and writing were not tested at the end of the CLIL course, but engineering knowledge was tested, and also overlapped with the material tested in the students' main exams in Vietnamese, there was little incentive for the lecturers or the students to concentrate more on productive rather than receptive skills.

These lecturers were comfortable with the workable version of CLIL pedagogy they developed based on their own teaching experience and their students' learning requirements. However, when this research was conducted in 2016, they all said they still felt they needed training in how to teach CLIL more appropriately, in line with international CLIL conventions. The lecturers' training and experience informed their ability to adapt different techniques and

knowledge to contextualise their teaching and solve problems. Their achievements showed their positive attitude towards CLIL, as well as their capacity for self-learning and independent professional development. In their interviews, the lecturers said they believed that if they had had a better understanding of formalised CLIL teaching methodology as well as the content subject knowledge from the beginning, the CLIL program at NAUTE would have been more successful and more effective. Ultimately, despite all the efforts the lecturers made, and their avowed enthusiasm for learning CLIL pedagogy and subject content, at the time this research was conducted, the interviewees all said they still felt pressured and confused about how to teach content subject knowledge. They still aren't confident that they know how to integrate content and language in their CLIC teaching, or how to create the proper balance between language and content subject knowledge. Lecturer Tran expressed that opinion in the following quote:

We were not aware of the importance of integrating content and language. We just explained the content knowledge as well as we could. We knew that it was important for students. We really wanted our students to memorize engineering knowledge, but we still didn't really intertwine the engineering and language learning and we didn't assess the students' understanding of engineering at the end of the course (Lecturer Tran).

It is important to note that all the other lecturer participants admitted that they had no idea how to integrate the content and the language according to CLIL theory. However, all the vocabulary and language content that was taught during the lessons were taken from texts covering the relevant subject topics, so that the grammatical and the language activities using subject content made the lesson dual focused. Hence, to some extent, the lecturers did combine language and content teaching in the early years of the CLIL program. As a result, CLIL students at NAUTE were able to achieve the two goals of engineering subject learning and language development at different levels, despite the pedagogical deficiencies.

Some of the lecturers said in the interviews that they chose not to explain too much about the subject knowledge topics, especially early on in the program, because they didn't feel it was their responsibility to cover all the engineering content. These lecturers were the ones who initially believed that they were supposed to teach English through subject content, not subject content through English. It was evidenced through interview and observation in the classroom that these lecturers focused more on the explanation of language patterns in the lessons than on the subject knowledge itself. Therefore, the interaction between the lecturers and the students

was much more intense, with a wider range of activities for language learning, and the classes focussed more on helping the students achieve well rounded language development in English, rather than just the basics required for their chosen vocation.

7.1.3 Engineering subject lecturers as mentors

Data reveals that that the NAUTE subject lecturers acted as mentors to the CLIL lecturers in the areas of lesson planning and subject knowledge learning. In the period between 2006 and 2015, this arrangement was informal, so the CLIL lecturers contacted the subject lecturers whenever they needed help with the engineering content, as discussed previously, and for help with teaching methodology. The subject lecturers would advise which topics to teach and how best to help the students understand that knowledge by teaching the lecturers directly. For example, CLIL lecturers may have asked subject lecturers how to change a spark plug or about the operation of drilling machines. First, the subject lecturers would teach them how to operate the machine so that they could explain the process to the students in English. Lecturer Hien, an IT lecturer, said the subject lecturers helped the CLIL lecturers a lot in the early years of the CLIL program.

Subject lecturer Hien said in her interview:

We helped CLIL lecturers with the methodology for teaching different subject content. Each discipline required a different approach. For example, this lesson must use a model to illustrate the technology or teach this one there must be diagrams (Subject lecturer Hien)

Most of the lecturer participants said that they learned to teach CLIL as an extension of their language teaching practice, rather as a new and separate skill set. They employed their existing teaching skills as English lecturers, with information provided through mentoring from the engineering lecturers added on. As a result, through time, and with the accumulation of knowledge and experience, the lecturers said they became much more confident in their CLIL pedagogical practice than when they first started. However, they also said that they still felt they needed training in proper, accredited CLIL methodology and a theoretical framework for CLIL.

7.2 LITTLE COMMUNICATION AND COGNITION IN PEDAGOGICAL PRACTICE

Due to their inadequate preparation, the NAUTE CLIL lecturers sometimes did not provide the right guidelines for their students, nor did they know how to provide scaffolding in teaching to make students the centre of the learning activities. As a result, they were unable to help their students develop their cognition and communication in the dual-focus areas. Communication in English remained challenging for the CLIL students, who often had only basic understanding of the language when they started. As discussed previously, communicative activities involving speaking, writing and student creative engagement were dependent on the curricular content and the materials available. Only the mechanical engineering materials, and then only in the period between 2006 and 2013, contained conversations and dialogues that could be converted for use in classroom activities. At that time, mechanical engineering CLIL students could be put in pairs or groups to practice conversations. Lecturers in the three other disciplines did not have access to materials with speaking tasks like that. Therefore, students in those disciplines never had much opportunity to practice their speaking.

Students didn't have many chances to learn and practice productive language skills like writing or speaking in these CLIL lessons. This was due to the lack of communicative content in the textbook and curriculum. Consequently, we were limited in how much we could help students develop productive skills in the classroom. We wished we could have organised student-centred learning activities for the classes, but there was limited time. Thus, in our situation we could not satisfy all the aims of the teaching established in the curriculum (Lecturer Minh).

The excerpt above highlights that the objective of learning productive language skills: speaking and writing, was not fulfilled by these lecturers. Lecturer Minh said that she wasn't able to teach productive learning skills because the lessons didn't contain much content that she could use to organise speaking, writing or listening activities. We must remember that it was the language lecturers at NAUTE who designed and developed the CLIL curriculum at their university. Therefore, their failure to include content to encourage productive skills is another example of the lecturers' inadequate understanding of CLIL theory and pedagogy. In other words, the lecturers did not have access to targeted resources to help them design the NAUTE CLIL curriculum. Thus, their curriculum did not include the core features of a CLIL program. This led to failures in the teaching of communicative language skills. Data reveals that the participant lecturers just taught CLIL the same way they taught general English. This practice was not challenged because there was no accreditation at an institutional level for how the

lecturers taught CLIL, or for how students were assessed, and no evaluation of the program's outcomes, or measures set to determine its success.

Most of the lecturers had experience with the communicative approach to language teaching prior to teaching CLIL. They tried to include this approach in their CLIL curriculum but struggled to implement it for several reasons. The most popular and common techniques the lecturers used to organise classroom activities were pair work and groupwork. Pair work and group work in language classes are generally aimed at improving students' communication skills and ability to put phrases together independently. In the NAUTE CLIL classes, these were simulated conversations and dialogues designed to resemble exchanges that might take place in the students' work environment after they graduated. Lecturer Hai said: "We did not have much time or strategies to develop communicative skills for our students". Another obstacle to teaching communication skills was the students' shyness about speaking English and engaging in roleplay in the classroom. Lecturers therefore tended to ignore the need for speaking practice because they wanted to make the lessons smooth and stress-free.

Regarding subject content teaching and the integration with language, students and lecturers also interacted with each other by raising and answering questions in the classroom. Lecturer Hai said, "I like to raise questions for my students because sometimes they come up with profound answers. They also expanded on subject knowledge, so I was able to learn a lot from that". Through interaction with the students, the lecturers developed their content subject knowledge, and pedagogical skills, as well as improving their communication with their students. Their methods also depended on how much English the students had acquired in their earlier studies. Lecturer Phuong felt that the methodology she used to teach CLIL was influenced by students' English levels, as well as the required teaching materials and educational goals. Lecturer Phuong said:

Over my years of teaching CLIL, I found that I changed the way I taught my students. However, the method I used also depended on the language level of the students. (Lecturer Phuong)

This reflects the same ideas expressed by other lecturers. They agreed that they have changed the way they teach CLIL over the period. These changes were also related to changes in the curriculum, which was rewritten in 2013, seven years after the CLIL program was launched in 2006. There was no external guide for the curriculum changes, or any new CLIL pedagogy or

methodology introduced to help the lecturers teach them. Significantly, at this university, the CLIL lecturers were left to develop and review the curriculum by themselves, the instructions and obligation of the timeline and credits for the programs.

Data from interviews, documents, and classroom observations reveals that lecturers at NAUTE used different types of strategies to develop students' cognition through teaching CLIL, although it was difficult to evaluate this most challenging piece of Coyle's 4cs framework. Cognitive development was driven through classroom activities that lecturers organised for their students which could be categorised by the following verbs:

1. Memorizing
2. Understanding
3. Creating
4. Analysing
5. Evaluating

For instance, in the English and mechanical engineering integrated class, the lecturers raised questions for the students in the lesson on "material strength," such as "Can you name the materials used make cast iron?". As a warm-up before the lecture in the next lesson, the lecturers asked the students "Can you name different products made of cast iron in heavy industry?". Lecturers in other disciplines used the same strategies while delivering CLIL lessons in their classroom by formatting different types of questions related to the content they were covering to reinforce the students' cognition development. Thus, their curriculum did not cover the core features of a CLIL program.

The activities that were organised for the CLIL classrooms were intended to target different levels of cognitive development. However, those activities did not take place very regularly, especially activities targeting "analysing" and "creating". In my observations, I found that only lecturer Ha, who received the best lecturer of the year award, consistently created classroom activities to inspire the students to work creatively with the CLIL content. For example, when she taught the students a lesson on electrical currents, she asked students to imagine that they had to design an electrical system for their future house, including all the electrical devices in the house, in English, which made the lesson much more interesting and inspiring for the students.

In turn, the lecturers' cognition of CLIL impacted their delivery of lessons. In order to best enable students to improve their competence to memorise, analyse, create and evaluate both the engineering knowledge content and the English language content, CLIL teachers need a solid understanding of subject knowledge and pedagogy. However, not all lecturers were able to demonstrate this knowledge.

7.3 THE IMPACT OF OTHER SOCIAL-CULTURAL FACTORS ON CLIL PEDGOGICAL PRACTICE

7.3.1 The use of L1 in the CLIL classroom

The evidence from classroom observation and interviews shows that all the participants use L1 (Vietnamese) in their classroom teaching with different frequency. Lecturers said that sometimes they had to explain the subject content items and processes in Vietnamese because that makes it easier for their students to understand the content subject knowledge. The use of L1 in an L2 classroom in different model reflects the teaching culture and level of competence in many classrooms, especially when students' have low levels of English language skills. This practice also suggests that the lecturers did want their students to understand the subject matter more profoundly. Classroom observations showed that lecturers use L1 most often in the following situations:

1. To explain engineering terms in more detail.
2. To explain instructions for exercises in the textbook.
3. To explain language patterns in more detail.
4. To explain engineering content knowledge, particularly manufacturing procedures.

Observations showed that 100% of lecturers used L1 in their CLIL class teaching. After making this observation, I asked the lecturers if they thought they should start using only English to deliver explanations learned to their students in the above situations. They answered that they would like to do that, but that it was difficult because their students did not have a sufficiently high level of English, and they would not understand if lecturers tried to communicate with them entirely in English. Lecturer Tran said:

Sometimes I feel closer to my students when I use L1 in my class, and it makes it easier to instruct them. Both lecturers and students feel less stress when we don't

have to process another language when trying to understand difficult engineering subject content (Lecturer Tran).

In one mechanical engineering class, when the students asked the lecturer about the operation of drilling machines, the lecturer responded partly in Vietnamese. She said after the lesson that it was her habit to explain the most difficult parts of a process in Vietnamese because she thought that would allow students to understand the machining process more profoundly. In another class, when teaching students about CNC (computer numeral cutting), a technique used in metal cutting technology, the lecturer asked whether the students had learned that content subject knowledge in their major professional training. The students said that they had not learned it yet. The lecturer was then very excited to teach them the new material about the metal cutting procedure, and very proud that she had that subject knowledge. So, she used both English and Vietnamese to try to find the best way to explain the process so that the students would understand. Other lecturers had similar stories.

Overall, the lecturers used L1 in different situations in their teaching. Lecturers felt that sometimes it was easier for them to communicate with their students in L1 than in L2. This is a habit of the lecturers in their teaching environment where the students have little speaking skills, and they are hesitated to use English in the classroom to communicate with the lecturers. Using L1 in the CLIL classroom is not uncommon for the language lecturers and it, to some extent, allows the interaction of the lecturers and students in a natural way especially when the lecturers focused on the subject content knowledge. However, using L1 obstructed students' progress in L2 using and practising. The lecturers still feel that it is hard to deny the role and prevent students and lecturers to use L1 in the CLIL classroom. Using L1 in a CLIL classroom is a cultural factor that strongly impact to the learning of L2 language in the case of students and lectures at NAUTE. This should be more considered in the "culture" for 4cs framework which as evidenced by this research does not merely means the culture of the subject learning.

The lecturers' use of L1 in this case study can be considered a scaffold for their CLIL teaching. It is also a method of logical problem solving. The idea of "scaffolding" is closely related to the social constructivist theory of learning (Lin, 2015). By interacting with their students in the classroom in L1, lecturers promoted and enhanced the effectiveness of their teaching by building rapport and optimising comprehension.

7.3.2 Large class sizes

Another issue that emerged during interviews and classroom observations was the large class sizes, especially in the first years of the CLIL program at NAUTE. This challenge made it harder for CLIL lecturers to organise communicative activities for the students in the classroom. As a result, lecturers gradually stopped trying to plan the speaking or writing activities that would have created more active and student-centred classes. Lecturer Duy stated in his interview:

We usually teach in a very large class. I remember in the very early years, I sometimes taught classes with more than 50 students. The scale makes the lessons less efficient than we would like. Students use a lot of L1 in the classroom and they do not communicate in English. I had to speak Vietnamese to them to make the lessons smoother (Lecturer Duy).

The problems created by the big class sizes were part of what led to the calls for CLIL classes at NAUTE to be reformatted. Lecturers said that it was not only difficult for them to organise classroom activities in large classes, but there were other obstacles such as noisiness and students using too much Vietnamese in the classroom. In addition, lecturers said, they didn't have enough time to check every student's work every day. The lecturers said that the CLIL class sizes have improved in recent years, but the student numbers were still problematic.

7.3.3 Students' low motivation

When asked what factors affected the effectiveness of CLIL teaching in the classroom, lecturers said that the students' motivation was low in some classes. Sometimes, there was an overlap in content between their CLIL lessons and the lessons they studied in Vietnamese for their professional majors, so they might either prioritise study for their main Vietnamese classes, which were formally assessed, or lost interest in covering the same material again in English.

Sometimes my students were too clear about the topics we were teaching in the subject knowledge content of the lessons and their English proficiency was not good, so they lost interest in the lessons (Lecturer Pham).

Through observation of the CLIL classes conducted by lecturers in all four disciplines at NAUTE, I found that students were interested and engaged in the CLIL lessons most of the time, and especially in the engineering content. This may be partly due to fact that the lessons

were being observed by other CLIL lecturers. The students' excitement and energy in the classroom were quite different from what Lecturer Pham describes above. However, Lecturers Phuong, Ha and Duy echoed Lecturer Pham's statement that it was difficult for the lecturers to accommodate classes with low levels of motivation. Thus, they said they had to find ways to teach differently to increase engagement, as well as pushing the institutional administrator to review the structure of their CLIL program after conducting it for years.

Findings show that one of the motivations for the students to engage in learning was in order to pass the final exam. Lecturers felt pressure to create exam-oriented lessons to improve their students' chances for good results. They said that this was how they tried to make the program more accountable in terms of the CLIL goal of subject knowledge teaching. Students, however, tended to just memorise the material they needed to pass their exams, rather than working to acquire the profound English language knowledge that would allow them to function in a globalised, international working environment in the future.

7.4 CONCLUSION

This chapter has presented data analysis and answered the research question about what pedagogical strategies the lecturers employed to deliver CLIL lessons at NAUTE.

Findings show that the lecturers did not have special strategies or a synthesized methodology for teaching CLIL, due to their inadequate understanding of CLIL pedagogy. Lecturers in each discipline used different methods of teaching to address different students needs, and based on the different materials that were available. These methods were based on the lecturers' English language teaching experience and training. The lecturers learned how to adapt compatible pedagogical techniques into each discipline, sometimes with the help of the subject lecturers. Thus, in this version of CLIL program at NAUTE, the lecturers developed their own approximation of CLIL pedagogy from their language teaching strategies. This reflects the variations in CLIL pedagogical implementation and models around the world.

Findings show that lecturers managed to focus on both on language and content subject knowledge, despite their lack of subject knowledge and lack of understanding of the importance of dual focus in CLIL. The varying balance of language and content they achieved in their teaching resulted from a combination of self-teaching in CLIL, interaction with colleagues, the

academic demands of the faculties, and collaboration in the classroom. Lecturers also showed their ability to integrate subject content and language in their teaching after many years of independent professional learning and practice.

In addition, there were many social-cultural factors that affected the learning and teaching of CLIL at NAUTE, such as very large classes, student motivation, students' low levels of English language, university forms, etc. The findings of this research show that the lecturer participants did their best to make the program work with the limited resources they had available, as conveniently as possible. The CLIL program at NAUTE did to some extent, enhance students' English language proficiency and their engineering content knowledge.

CHAPTER 8

DISCUSSION

8.0 INTRODUCTION

This section discusses in detail important issues raised in the research findings evidenced by the data analysed in Chapter 5, Chapter 6 and Chapter 7 of the present study. The findings of this research confirm the need for teachers to grasp the theoretical underpinnings of CLIL and have access to ongoing professional development. In this study, the understanding, practice and views of the CLIL lecturers are clearly impacted by the social-cultural factors shaping their professional learning in a Vietnamese context. The lecturers' initial lack of understanding and knowledge of CLIL was overcome over the course of their learning process to some extent, which improved their confidence about teaching CLIL. The lecturers empowered themselves through interaction, co-construction, and collaboration with CLIL colleagues, subject lecturers and students within the university environment. However, the professional learning they managed to achieve in their community of practice occurred slowly and inefficiently due to the CLIL lecturers' initial ignorance of standard CLIL practice and lack of administrative support, so that they had to overcome confusion and challenges by themselves.

8.1 LECTURERS' INAPPROPRIATE UNDERSTANDING OF CLIL AT CONCEPTUAL LEVEL AND TIMECONSUMING PROFESSIONAL LEARNING

The demand for CLIL professionals is strong across the globe, and of the quality of their training, skills development and knowledge are of paramount importance (Pavón and Ellison, 2013). Lecturers' level of theoretical and practical understanding and competence in CLIL prior to the launch of new educational approach are a major determinant of whether a program will be successful (Coyle 2011; Fernández and Halbach 2011; Genesee and Lindholm-Leary 2008; Marsh et al. 1999). The findings in Chapter 5 of this research confirm the need for professional training for CLIL lecturers to enhance their understanding of and commitment to the core features of CLIL teaching. The training CLIL lecturers have would certainly impact their

practice of co-constructing knowledge, applying pedagogy, and creating learning activities for CLIL students.

8.1.1 The need for training CLIL and ongoing professional development; and the impact of social-cultural factors

All the participants in this research said they were in need of more education in CLIL, even ten years after the program started at their university. Sociocultural aspects such as lack of policy support, lecturers' pre-service expertise, and lack of understanding and awareness of CLIL learning and teaching objectives should all have been addressed at the outset to create a strong framework for the CLIL lecturers' professional development. The intercultural factors of the working environment and lecturers' responses to unclear top-down policy, as well as their demand for professional development in pedagogy are all connected. The results indicate that the training needs for CLIL lecturers should be foregrounded not only prior to but throughout a CLIL program.

In previous research conducted by Aiello, Di Martino, & Di Sabato (2015) and Pérez Cañado, (2016a), they also argue that a lack of connection between institutional training plans and personal professional learning plans result in limited or no progress in the teaching-learning process, leading to unsuccessful CLIL-orientated implementations at educational institutions.

The same arguments can also be found in research conducted by Vázquez, Lancaster, Carmen Callejas in 2019, which shows although ongoing teacher training is a regular feature of most bilingual/CLIL programmes, there is often little or no specific training for CLIL provided at university level (i.e. at the initial teacher education stage), which often means that teachers join CLIL programmes without the specific skills required for delivering CLIL (Vázquez, Lancaster, Callejas,2019).

Similarly, as suggested in a number of studies undertaken in Spain (Alcaraz-Mármol 2018; Cabezas Cabello 2010; Delicado and Pavón 2016; Halbach 2010; Salaberri 2010; Sánchez Torres 2014), it seems that the lack of specific training for CLIL in initial training education is having a negative effect on the implementation of CLIL across the country, as teachers need to be trained once they are actually teaching in the schools (Vázquez, Lancaster, Callejas,2019).

In contrast, a review of the literature in this area shows that in some countries, lecturers were well prepared to teach CLIL courses. Research conducted in European countries where governments had good policies in place to support CLIL program development found that the CLIL teachers had a higher level of training and professional development in the initial stages (Escobar Urmeneta,2013; Marsh, D., Mehisto, Wolff, and Frigols 2012).

One study conducted in Thailand by Kewara and Prabjandee in 2018 showed that there was no official ongoing professional development or school support in place to equip subject teachers' language competence. Schools need to provide short professional programs for subject teachers, at the same time they require time, financial support, and tutors. CLIL professional development is a long-term goal that requires active cooperation between stakeholders. For English is not widely used in Thailand, the opportunity to be immersed in an English-speaking environment is rare for both learners and teachers compared to other Asian countries such as Singapore, the Philippines or Malaysia, where English is an official or secondary language. This research again shows that literature of the field of professional development for CLIL teachers mostly focused and raised issues of content teachers who had difficulties due to lack of language skills which are opposite to the focus of my research.

However, research conducted by María Luisa Pérez Cañado in 2016 supported the findings of Fernández and Halbach's 2011 study, and this case study. It found that in-and pre-service teachers – these were in Europe – who had been English teachers previously had higher levels of linguistic and intercultural competence, but that this was insufficient to make up for inadequate training in the theoretical underpinnings of CLIL and did not negate the need for ongoing professional development.

Interestingly, although training deficiencies for other aspects of CLIL teacher professional development are deemed considerable across the continents, content subject knowledge for CLIL lecturers (who are English lecturers is not considered as lacking, as evident in this research and are contrasted by Pérez Cañado's 2016 findings, where language competence was prioritized for intensive training.

Findings of this research give an insight in the areas of CLIL professional learning for the lecturers which need to be contextualised and shaped by different social-cultural factors. Based on the findings of this study, I suggest a framework for CLIL professional learning which intertwines four important foci: i) personalized learning plan, ii) pre-service expertise, iii) bottom-up vs top-down policy, iv) CLIL professional objectives that need to be considered when preparing professional training or learning for CLIL program.

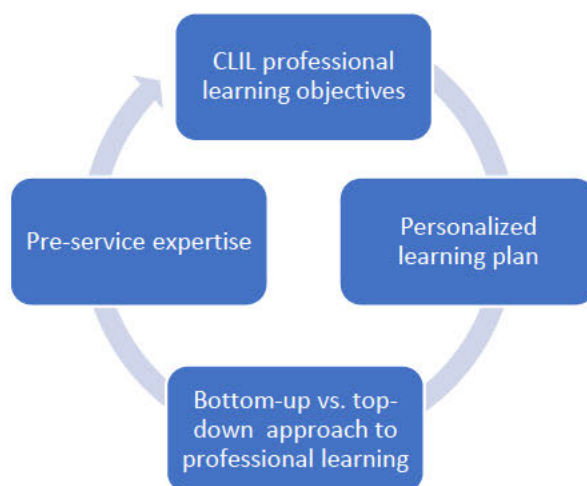


Figure 8.1: Framework for Professional learning for CLIL lecturers

8.1.2 Lecturers’ development of CLIL understanding through community of practice (CoP) as the resolution for situational professional learning for CLIL lecturers (English lecturers who teach CLIL)

The findings of this study of CLIL lecturers at NAUTE show that their initial understanding of CLIL was very limited and was improved over time by their self-learning activities, and that their learning and development was strongly influenced by many socio-cultural factors. The lecturers took responsibility for solving the problems they faced, despite their lack of pre-service or in-service training to help them develop knowledge of CLIL concepts. It shows that the lecturer participants co constructed CLIL knowledge independently., Because they had no training, their conception of CLIL was more of the ‘weak form’ of CLIL, as English for Specific Purposes (ESP). The lecturers’ incorrect conceptualization of CLIL from the beginning affected

the time it took them to develop and understanding of CLIL understanding and how to teach it. It slowed down the development and construction of knowledge for teaching CLIL. Their confusion about CLIL, as well as the need to acquire subject content knowledge rapidly in order to teach it, meant the lecturers struggled to simultaneously teach the CLIL classes and develop their understanding of subject content and CLIL pedagogy. In contrast, previous research studying CLIL teachers or lecturers with formal training for CLIL showed that the CLIL lecturers at the beginning learn and develop their proficiency to teach CLIL by themselves. In point 5.1.1 I argued that:

These lecturers, with no understand of either CLIL theory or the content subject knowledge, had to start their professional learning at the same time as preparing for the program. They had to develop new curriculum, they had to learn content subject knowledge and they had to learn how to teach the content subject knowledge integrated with English teaching, which they found very challenging.

The data from my research shows the same issues that were identified in research conducted by Fernadex and Hallback in 2011 and Pérez Cañado in 2016 that English language teachers had difficulty comprehending the requirement for the conceptual deep? understanding of subject specific content, and that they had rarely been educated in the theoretical underpinnings of CLIL. There has been little research conducted on how language teachers perceive CLIL concepts and the strategies they use to develop their professional understanding of CLIL pedagogy. Results from my research and from Hallback and Perez show the same picture of the challenges faced by language lecturers who teach CLIL in different parts of the world.

The different studies also show similar patterns of professional development assisted by through the community of practice, where the lecturers acquire knowledge from their CLIL colleagues, subject lecturers or even their students. The NAUTE is the community where the CLIL lecturers had opportunity to acquire new knowledge of CLIL by collaborating, discussing their teaching and learning with their peers and mentors, assessing variety of methods of delivering a CLIL lesson and reflecting their own activities and decisions in the classroom (Rhodes & Beneicke, 2002). In addition, the community of practice at NAUTE connect the lecturers from foreign language faculty with the subject lecturers from engineering faculties, so they can solve the problem emerged while learning and teaching CIL. Coolahan, Fantuzzo McDermott and Mendez (2000) advocates that cooperation between participants would help to construct the connectivity among them by constructing the faith and connectivity among the community members. McDermott (2000) observes that candid conversational exchanges over real issues

are what construct trust and connectivity amongst community members. I argue similarly in my data analysis:

The lecturers' initial confusion about their responsibility for content subject knowledge caused them stress and provided strong motivation to acquire further learning, in tandem with their fellow CLIL lecturers, to solve the problems they were facing. Ultimately, this process resulted in a genuine desire to engage in content subject content knowledge once the lecturers were more confident teaching it in the in the classroom.

In addition to the above arguments, on professional development needs, in-service lecturers achieved significantly higher understanding, thereby assuring their view of the necessity for increasing ongoing professionals training across the board. This is especially the situation for content subject competence, and curriculum development and pedagogy, where a great number of participants spoke about the need for deeper preparatory training, and more opportunity for professional development. However, on theoretical aspects as well as literature about ongoing professional learning, little research emerges to have optimistic and insight into this area. More research in this aspect would be profitable for CLIL teachers in persuading policy makers, researchers and other CLIL stakeholders of the importance of broad subject content training for CLIL teachers.

8.2 LECTURERS' CHALLENGES IN CO CONSTRUCTING SUBJECT CONTENT KNOWLEDGE

This section discusses the main findings from the data analysis presented in thesis which identifies three main methods the lecturer participants used to learn engineering content so that they could teach CLIL effectively. The CLIL lecturers at NAUTE co-constructed subject content knowledge through self-learning, mentoring and peer learning. The learning and knowledge acquisition were a means of problem solving to meet the immediate demands of the curriculum, rather than preparation for long-term professional learning and teaching strategies.

8.2.1 Lecturers' effort for co-constructing subject content knowledge

One main finding of this study was that lecturers made an effort to acquire subject knowledge through self-learning as the first step of their professional learning for CLIL. They self scaffolded (Mascolo, 2005) their subject content learning in the context of insufficient support

for ongoing professional development from the university, and the lack of a proper theoretical framework for content subject requirements for CLIL teaching. Therefore, the lecturers at NAUTE learned CLIL curriculum development and the engineering subject knowledge in a specific social-cultural context in response to specific requirements. Because they did not have enough engineering subject knowledge and they did not have the opportunity to acquire any prior to the implementation of CLIL at the university, they were forced to teach themselves as well as they could to cover the lesson content they were already delivering. This self-learning reflects the lecturers' ability to deal with the difficulties through self directed professional learning. The concept of self scaffolding, which is evident by the lecturer participants true to the key concepts that I thought of to collect data of the study in the situation that the lecturers at this university had difficulties in learning CLIL subject knowledge that they did not have prior to the teaching of CLIL program. Self-scaffolding was pivotal for the lecturers' professional learning in the initial stages of the NAUTE CLIL program when they did not have solid understanding of either CLIL pedagogy or engineering content.

In my data analysis in Chapter 6,6.2.1, I argued:

Regardless the drawbacks of the CLIL curriculum first developed by the English language lecturers at NAUTE, the research shows CLIL lecturers at this university did learn how to contextualise the curriculum development and the content for their situation and social-cultural context. Meaning, they contextualised their learning of not only their knowledge lacuna that they did not have the opportunity to learn prior to the implementation of the CLIL at their university.

This argument reflects the lecturers' understanding of their CLIL experience as concomitant with their efforts to self scaffold (Mascolo,2005). However, their level of proficiency in the engineering subject content knowledge for their CLIL classes needs more official evaluation. In the theoretical framework for this study, I used the concept of "self scaffolding" as a tool to collect and analyse data from the participants' responses. A scaffold is a temporary structure erected to help during the construction and modification of other structures. Self-scaffolding in this context can be regarded as the ways in which the individual lecturers supported themselves to gain knowledge and understanding through problem solving and co-construction of the subject content (Mascolo, 2005).

The lecturer participants in this study display the type of self-scaffolding associated with Vygotsky's socio-cultural theory Wood et al. (1976). The CLIL lecturers in this research engage

in self teaching, and they assist each other in joint problem-solving activities. In their vulnerable situation of receiving no official ongoing training or preparation in the academic ‘construction site’ prior to the launch of the CLIL program, the lecturers relied on their self scaffolding of ingenuity and peer support to construct their subject knowledge in different ways. The self scaffolding of the lecturers was then supported by other learning pathways as mentioned in the beginning of this section.

8.2.2 CLIL lecturers’ community of professional learning at NATUTE

Other important findings indicate that one of the best sources of engineering knowledge the lecturers found was co-constructing knowledge with engineering lecturer colleagues, CLIL colleagues and engineering students at their university.

The lecturers reported that engaging subject lecturers as mentors was an effective method of learning CLIL engineering knowledge within their Community of Practice (Wave and Weigh, 1991). It is obvious that subject lecturers were the first “float” that the CLIL lecturers at NAUTE looked for when they were thrown into the sea of teaching CLIL and learning the subject content knowledge for the CLIL program at their university. It was fortunate that the mentoring of the subject lecturers significantly saved the CLIL lecturers’ life and empowered the CLIL lecturers’ confidence. Subject lecturers participated in CLIL lecturers’ professional learning through informal discussion, curriculum development and pedagogical mentoring. This relationship between CLIL lecturers and subject lecturers were meaningful for both of the stakeholders because it helped them to become active learners and helpers and thus created a positive and collaborative community of practice in their university.

Regarding learning subject content knowledge through their students, an interesting finding of this research reveals that lecturers were interested in interacting with their students in the classroom to discuss and exchange engineering knowledge by variation of activities. One of the activities that they constantly intensified when teaching was raising and answering specific questions related to engineering content in the classroom. It is not too surprising that lecturers felt their students were potential engineering experts who could usually come up with profound and expanding answer for the lecturers’ questions. Thereby, they can learn the engineering knowledge from their earlier students to teach the later courses. Thus, learning through interacting with the students was another “float” that the lecturers took to develop their content

subject knowledge, and pedagogical competence, as well as fostering their collaboration with their students.

Finding of the research shows that peer learning between the CLIL lecturers and their colleagues is another way that the lecturer participants in this research were able to develop their professional learning. Through both formal and informal interaction with their colleagues as peers, the lecturers co-constructed an interpretation of CLIL pedagogy, as well as engineering content knowledge. The lecturers faced so many challenges prior to the implementation of the CLIL program with so little support or preparation that the community of practice was their best chance to learn through interaction with their peers, colleagues and senior lecturers. This interaction with peers allowed the lecturers to achieve a certain level of confidence teaching subject content in English. However, their results and belief in the success of the program would have been more consistent if they had had more opportunity to learn subject content ahead of time.

Regarding subject content teaching and the integration with language, students and lecturers also interacted with each other by raising and answering questions in the classroom. Lecturer Hai said, “I like to raise questions for my students because sometimes they come up with profound answers. They also expanded on subject knowledge, so I was able to learn a lot from that”. Through interaction with the students, the lecturers developed their content subject knowledge, and pedagogical skills, as well as improving their communication with their students. Their methods also depended on how much English the students had acquired in their earlier studies. Lecturer Phuong felt that the methodology she used to teach CLIL was influenced by students’ English levels, as well as the required teaching materials and educational goals. Lecturer Phuong said:

Although lecturer’s competence is of paramount importance, I have found no detailed research, as mentioned in the literature review chapter, which has been conducted to investigate how language lecturers who teach CLIL program co-construct the subject content knowledge for teaching CLIL. Among many researchers who raised their concerns for the CLIL language teachers’ knowledge, Pérez Cañado (2018) reported that CLIL teachers’ competence must be shaped clearly and that CLIL teachers must be well prepared for the CLIL teaching. She asserted that CLIL teachers must have sufficient scientific or subject content knowledge.

In addition, in previous studies, researchers have investigated how CLIL teachers have acquired English or target language proficiency, rather than how English lecturers have learned subject content. Thus, the findings of this research contribute to the body of work making up the conceptualisation of CLIL. It also contributes to understanding of how CLIL lecturers in different social-cultural contexts construct knowledge of CLIL pedagogy, especially in a situation where no training supports have been provided for in-service lecturers and high school teachers.

A summary of the findings of this research related to the NAUTE lecturers' co-construction of engineering content knowledge can be illustrated by the following diagram. This model can be used as a base to be expanded on in future research to develop a framework for CLIL lecturers who started as language lecturers at technological universities, vocational colleges, or even high schools, to learn subject content knowledge for CLIL teaching.

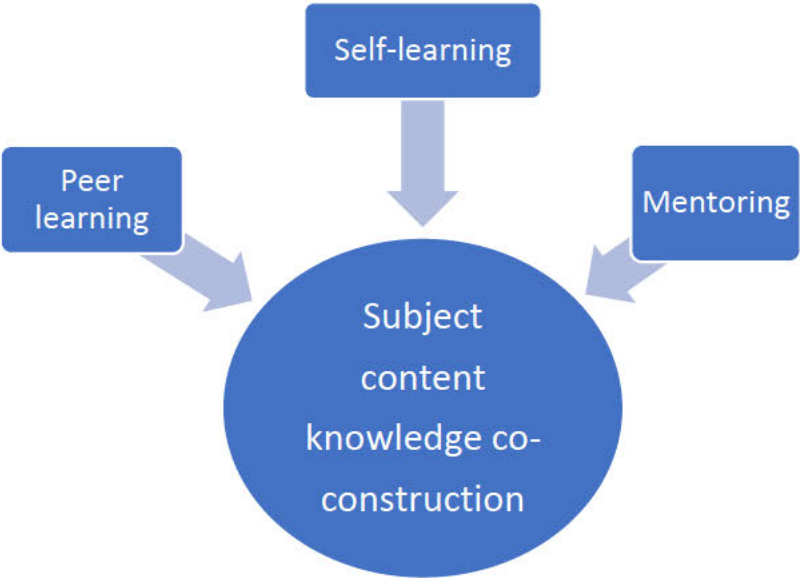


Figure 8.2: Model of subject content knowledge co-construction

To conclude, the lecturers who became CLIL practitioners at NAUTE made conspicuous efforts to co-construct their engineering content knowledge, using three important sources from within the community of practice at their university. The data in this study was gathered to help better understand the contextualisation of professional learning of subject content by CLIL lecturers, which can then provide insight to help other universities create a CLIL training model for language lecturers. By framing this model as in figure 3 above, and through data analysis of the

research, this study offers a significant contribution to the understanding of CLIL teacher co-construction of subject knowledge content where CLIL teacher competence is lacking (Pérez Cañado, 2018). This perspective may be useful to help address the many challenges that continue to surface within the CLIL field across the world, and particularly in the Vietnamese context.

8.3 LECTURERS' ADVANTAGES AND DIFFICULTIES IN LEARNING AND PRATICING CLIL PEDAGOGICAL SKILLS

CLIL pedagogical skills are regarded as one of the most important aspects of the qualification and professional training for CLIL lecturers (Lohmann, 2008). Teaching CLIL is challenging for lecturers due to the uniqueness of the CLIL model integrating subject and language content, and the associated pedagogical concepts, and thus there is still controversy about different theoretical models for CLIL. Neither a standardised form nor detailed CLIL pedagogical competencies have been established for CLIL teacher training so far. In order to develop a quality training system for CLIL lecturers, the practical demands of CLIL teaching must be investigated in a diverse range of educational milieux to identify which contextualised pedagogical competencies are most essential for a successful CLIL practice integrating target language and subject content instruction.?

This section discusses what this case study at a Vietnamese university found in terms of how the lecturers delivered CLIL lessons in comparison with their contemporaries teaching at different levels of education around the world, as described in existing field research. It looks at what social-cultural factors affected the quality of CLIL teaching at NAUTE, as well as the lecturers' understanding of CLIL, and the journey of professional development they undertook to deliver the CLIL program. The findings of this research represent another piece of the puzzle in developing a clear picture of CLIL pedagogical practices in the Vietnamese context, in Asian region, and around the world.

8.3.1 Difficulties in teaching CLIL due to inadequate understanding of CLIL pedagogy

One important finding of this research was the extent to which the lecturers' lack of pedagogical competence for CLIL was due to their inadequate theoretical understanding of CLIL. The key problems were rooted in their CLIL teaching methodologies failing to prioritise the dual goals

of CLIL (Coyle, 2009), which would have required a balanced integration of engineering and English language content. As discussed, the lecturers tended to use the same more teacher-centred, traditional methodologies that they were used to employing to teach English.

This study highlights the importance of lecturers' awareness of CLIL pedagogy. Previous studies of teachers' conceptions and experiences of CLIL in Serbia, Kazakhstan and Spain documented the methodological challenges of integrating subject content with language teaching, and teachers' tendency to build a boundary between subject content and language (Lazarević 2019; Karabassova 2018; Skinnari and Bovellan cited in Nikula et, al.,2016). Unlike these studies, the findings of this study suggest that, when teachers struggle to save face because of their own weak command of the content subject knowledge and experience tension in the classroom as a result, CLIL methodology and integration skills are not the first thing they worry about. Because the NAUTE lecturers were not knowledgeable about the fundamentals of CLIL, the integration of subject content with language, and the need to support all aspects of the students' language development were not these teachers' top priorities. Due to their insufficient understanding of CLIL content and methodology, the NAUTE lecturers wasted their instructional time by duplicating the same content material in two languages. Previous research has not highlighted the issue of the repetition of teaching by language teachers struggling to teach subject content the target language. Also, because their low awareness of CLIL pedagogy and their insufficient engineering knowledge leads to mediocre results, the lecturers did not believe in the benefits of CLIL or its potential to equip students with the communication skills they will need in a globalised future workplace.

8.3.2 Lecturers' advantages and flexibilities in teaching CLIL

Another finding, however, was that in their efforts to make their CLIL teaching smoother and easier, the lecturers successfully adapted compatible pedagogical techniques to each discipline based on self-developed curriculums and teaching materials. The CLIL lecturers for each engineering discipline used different teaching methods to address their students' varying requirements. Thus, in this context of the NAUTE CLIL program, the lecturers created flexible CLIL pedagogy based on their language teaching skills and experience. Their practice reflects the variations in CLIL pedagogical implementation and models seen around the world (Coyle et al, 2010). Thus, the findings of this research add more colours to the spectrum of

understanding of CLIL pedagogical practice in the field, which echos a similar argument by Cenoz et al (2014) cited in the literature review:

It is not possible to justify practical pedagogical tools or a theoretical framework that would apply to all contexts/tasks typical of CLIL as an educational approach to language and content learning. The core and unique features of CLIL are still in need of further research to have a clear-cut scope of the field.

The integration of content and language in CLIL teaching was revealed to be intensely difficult and problematic for the lecturer participants in this research due to their lack of knowledge of engineering content as well as their mistaken belief that their primary responsibility in CLIL teaching was to focus on language rather than content. Nonetheless, these NAUTE lecturers managed to work towards a dual focus on both on language and subject knowledge content, despite continuing to prioritise the former. The data suggests that lecturer participants' increasing capacity to vary the balance of language and content in their teaching resulted from a combination of self-teaching in CLIL, interaction with colleagues, the academic demands of the faculties, and collaboration with peers and students in the classroom. After many years of independent professional learning and accumulating English teaching experience, the lecturers showed their ability to integrate subject content and language in their curriculums and classrooms. These activities, both deliberate and incidental, which contributed to their professional development as CLIL teachers, all took place within the community of practice in this Vietnamese university.

Contrary to the findings of research conducted by Aguilar and Rodríguez (2012) in Spain that teachers did not feel that the quality of their teaching was affected by insufficient proficiency in English, the Vietnamese lecturers in this case study did express concern about the quality of their content teaching. In fact, underdeveloped speaking skills and the inability to maintain communication with students created a significant tension, and constrained teachers' agency since they were the wider socio-cultural environment. To some extent, these findings echo those of Pappa et al. (2019) study in the Finnish CLIL context.

In addition, as in the studies by Pena Díaz and Porto Requejo (2008) and Pavón Vázquez and Rubio (2010), participants said they believed they needed to improve their English competence to improve their English teaching. This is contrary to what Banegas (2012a: 124) concludes, that "teachers may equate CLIL success with their own level of English and curricular content understanding". In their responses in the questionnaire and interview, lecturers also said they

had been concerned about classroom language, and their understanding of English terminology for the engineering disciplines they were teaching, as well as their inadequate grasp of pedagogical approaches for CLIL. Optimistically, these concerns suggest that the participants have recognized the changes required to improve their pedagogical approaches. They have already adopted the practice of making adjustments to classroom strategies based on students' levels of language and subject content knowledge.

Thus, analysis of my data and comparison with the findings of previous research shows that CLIL pedagogy can be very flexible depending on a variety of factors in the socio-cultural context it is used in. However, the most important factors affecting the teaching of CLIL is the competence of the lecturers or teachers in the two areas of study. Significantly, CLIL lecturers coming from an English teaching background tend to focus on Language, whereas subject content teachers are more likely to focus on content. In either case, the failure to achieve an equal balance of the two focuses is a consequence of an unclear pedagogical framework for teaching CLIL, and also often of unclear top-down policy in different social-cultural contexts, as in the case of the NAUTE lecturers. There were also many socio-cultural factors that affected the learning and teaching of CLIL at NAUTE, such as very large classes, low student motivation due to exam weighting, students' low levels of English language, university forms, etc.

8.4 CONCLUSION

This chapter has presented discussion on findings of the study about lecturers' experiences with the professional learning for CLIL teaching. There are difficulties that they had to confront. However, optimistically, lecturers were to some extent succeeded in solving their difficult situations where lack of training and supporting. The effort to learn has shaped their praxis of the subject content learning and flexible teaching methods which originally contribute to the field of CLIL.

CHAPTER 9

CONCLUSION

9.1 INTRODUCTION

Empowering lecturers through ongoing professional learning improves their confidence in the teaching environment, thereby fostering them to be more “active participants” in their individual developing process (McDougald, 2020, p.4). The competence of lecturers plays a vital role in the success of an educational program. As expressed by Pérez Cañado and Ráez Padilla (2015, p.7), “Research into teacher training needs is especially necessary, as the key to any future vision for bilingual education is held to rely in teacher education.” My research has identified different factors affecting the lecturers’ knowledge, skills and conception of CLIL teaching so that it can make a contribution to the field of CLIL theory and give some insight into the real practice of CLIL through these lecturers’ experience in the context of a Vietnamese university.

This chapter presents a summary of the key findings of the research, the theoretical and practical contribution of the study, and the implications and limitations of the research. Finally, I share my personal intellectual growth and development of research skills.

9.2 CHALLENGES FACING CLIL PROFESSIONAL DEVELOPMENT

Professional development for CLIL lecturers is a necessity, not a choice for both novice and experienced lecturers (McDougald, 2019). Yet professional development has been a challenge for many CLIL lecturers due to the diverse ground that needs to be covered (Frigols-Martin, 2011; Vilkancienė & Rozgienė, 2017). There are formal and informal PD plans for language professionals and for content experts, and generic PD plans that try to combine forces, attempting to bring them all together. Nevertheless, professional development for CLIL lecturers should be constructed on a continuous learning process (Borko, 2007; Freeman, Reynolds, Toledo, & Abu-Tineh, 2016). CLIL lecturers’ professional development is still of the highest concern to the researchers, practitioners and policy makers in different contexts throughout the world. Although there is an established framework for CLIL teacher training in European countries, it is still in need of more research to establish its effectiveness. Recent

research has indicated that CLIL teachers in different countries including Spain, Argentina, the Netherlands required different training and knowledge depending on their teaching level and socio-cultural contexts, their professional histories and expertise, and their experience of teaching methodology prior to teaching CLIL. This reinforces my finding that CLIL training must be contextualised based on the character of the sociocultural factors at play and should also “cover different kinds of skills in the content subject, in language, in the best practice in teaching and learning, in the integration of the previous three (Marsh et al. 2010: 5).

CLIL is an umbrella term for different models of language education in Vietnam, such as EMI or ESP, which are often undertaken by lecturers without proper training prior to the implementation of the programs due to very unclear top-down policy from the country’s ministry of education. It is apparent that to establish a successful CLIL practice in the context of Vietnamese higher education, it’s essential that universities and authorities meet CLIL lecturers’ demands for prior training and ongoing professional development, as well as on going professional development to develop skills and content subject knowledge.

Training needs for CLIL lecturers in Vietnamese higher education should be foregrounded in teacher education programmes. The lecturers in this study never received any actual training. **They had to build up their professional learning and development through self-driven, informal learning of content knowledge and teaching methodology.** These lecturers, however, still feel they are lacking competence to teach CLIL. It is essential that the Vietnamese ministry of education and policy makers at different levels are made concern of CLIL’s requirement that practitioners be constantly informed on the latest strategies and benchmarks and provide a more formal program of continuous professional development for lecturers, as recommended by the lecturers in this study.

9.3 RESEARCH QUESTIONS REVISITED

This study investigated a case of professional learning and development in a group of CLIL lecturers at a Vietnamese university. There were three questions to be addressed in the research:

Q1: What was the lecturers’ understanding of CLIL and how did that impact their professional learning for CLIL?

Q2: How did these lecturers engage in professional learning in order to optimise the quality their CLIL program?

Q3: What pedagogical strategies do these lecturers employ to deliver CLIL lessons?

The findings of the study have, to some extent, enabled the research questions to be addressed, and key themes and implications also emerged throughout the data analysis which will be highlighted in the following sections.

9.3.1 Discordant and inconsistent lecturer beliefs and epistemologies

Findings of this study reveal that lecturers' professional learning and development was determined by their beliefs and epistemologies which, in turn, reflects their actions and efforts by the lecturers towards the CLIL program implemented under the unclear top-down policy from Universities, Ministry of Education and Government characterised by a failure to prepare CLIL lecturers and other stakeholders for the significant leap in outcome expectations and responsibilities. Findings from this research reveal that lecturers had to struggle alone with the difficulties of teaching the program which required important knowledge and skills that they were lacking. CLIL methodology is strongly influenced by Vygotsky's socio-cultural theory of learning and in the context of NAUTE university, the lecturer participants achieved optimal cognitive development within their independent professional learning where they constructed new knowledge through socially mediated interactions. The lecturers acquired CLIL knowledge through collaboration and interaction with other lecturers in the community of practice at the university. Lecturers' understanding and belief change through times due to the nature of the interactions through which they con-constructed knowledge changed over time, from less formal to more formal. Lecturers, hence, became more knowledgeable and experienced, because of the official curriculum revamp in 2013 and due to top-down pressure from the government and the university to optimise results. In socio-cultural theory of learning, activity is considered as "a purposeful social interaction between actors and artefacts" (Gabbillon, 2020, p.9). The findings of this research have confirmed that the lecturers who participated in different learning activities were able to more easily restructure their beliefs and epistemology, including their self conceptual co construction. This viewpoint of my study considers the participants' activities as contextualised and in the relation to the theoretical and practical knowledge of CLIL and their perception of it.

9.3.2 Disorientation of CLIL professional learning and the mix of methods to learn subject knowledge.

The findings of this study reveal that the NAUTE lecturers did not have the introductory training for their professional learning prior to or ongoing of teaching CLIL. However, by finding different methods to co-construct subject knowledge through interacting with subject lecturers, with CLIL colleagues, and with students as peers and mentors, the lecturers shaped their own professional learning and development. The CLIL lecturer participants in this research are the learners for knowledge of CLIL. Thus, the findings of this study support the constructivist epistemology of the sociocultural theory of learning (Vygotsky, 1986), considered to be the primary theoretical basis of the CLIL approach, which focuses on learners, co-construction of knowledge and problem-solving (Gabbilon,2020). This view of learning and knowledge acquisition works to describe the pathway of professional learning and development these lecturer participants followed within a community of practice where they exchanged knowledge with peers, and shared learning activities to solve the problems of lack of training, support and clear top-down policy from the university administration and Department of education. However, in contrast to the learners as the centred and active learners as described in the constructivist theory (Huang, 2020; Bada 2015 cited in Mayombe, 2020), the lecturer participants in the context of the period in this study started as learners without introductory guidance from the university or the Department of education on how to develop a professional CLIL practice.

It is obvious that an education program will be successful if lecturers are properly trained, especially in a CLIL-oriented multilingual environment. Since CLIL lecturers and stakeholders can become aware of their responsibility and requiring competence, as a result of PD, they can provide CLIL students with multi solutions for academic achievement. Ongoing professional development equips CLIL lecturers with a multitude of opportunities, resources, and approaches, enabling them to become better-qualified professionals dedicated to achieving success by all means, with the skills to solve problems, overcome obstacles and embrace the challenges that arise in multilingual teaching environments.

9.3.3 Misconception of CLIL Pedagogy

Findings show that the lecturers in this study did not have an accurate conception of CLIL teaching. They initially taught CLIL the same way they had taught English previously, using the same techniques. Some of them also used traditional methods like grammar-translation or communicative approach. Finding of this research shows that lecturer participants did not fulfill the characteristic of teaching CLIL which means integrating content and language, intertwine with other factors such as culture and cognition (Coyle, 2010) and focus as well as on student development as conceptualised in 4cs framework (Coyle, 2010): Content, Culture, Communication and Cognition. Lecturers should aim to develop a framework incorporating those four factors for their CLIL teaching. However, the lecturers in this study had no awareness of CLIL pedagogical philosophy or strategies. Consequently, they used discipline-base methodologies in which the fundamental teaching activities were based on the distinctive character of the engineering subjects integrated into the English curriculum. Lecturers' using of L1 in different situations in the classroom also shape the praxis of their pedagogy. In addition, there are challenges and difficulties facing teaching CLIL due to other factors such as the large class size or students' low motivation for learning. These findings create an interesting snapshot of CLIL teaching in a Vietnamese higher education context, which can be considered a special "cultural" factor in the 4Cs model.

9.4 CONTRIBUTIONS OF THE STUDY

Using qualitative research to explore the lecturers' understanding of and professional learning for CLIL in a Vietnamese university, and their problem-solving efforts to overcome the challenges presented by their lack of initial understanding, this study has provided insights into the conceptions, experiences, pedagogical practices and theories of CLIL lecturers in the field, and the methods of professional learning which shape their authorities. Thereby, the study has highlighted the important relationship and tension between lecturer beliefs and epistemologies and the fundamental theoretical and pedagogical basis of CLIL teaching, as well as factors that new CLIL lecturers should be prepared for in professional learning. Additionally, it has highlighted key issues within this context, including the lack of orientation for lecturer competence and lack of preparation for the inception of the CLIL program in the Vietnamese context as contributory factors to the lecturers' time-consuming and challenging professional development.

The study has also identified different methods used by the lecturers to co-construct subject knowledge and pedagogical practice within the community of practice constituted by their university, which also shaped the context of their praxis of professional learning. Analysis of these findings study suggests two things in particular. Firstly, lecturers forced to self-seek sources for CLIL professional development due to the lack of clear top-down policy and meaningful supports results in ineffective teaching and program implementation. Secondly, although the lecturers' informal methods of independent co-construction of subject knowledge provided a makeshift framework for their professional learning, it was a temporary and superficial solution which did not support robust CLIL teaching. The implication is clear that to optimise the implementation of CLIL programs in Vietnam, lecturers must be supported with consistent, formal, ongoing professional development plans in both CLIL theory and pedagogy and the subject knowledge relevant to their practice.

9.5 IMPLICATIONS OF THE STUDY

The research has revealed findings which offers a number of recommendations which may serve as meaningful responses to the challenges of successful CLIL implementation in Vietnamese higher education.

Firstly, the findings of the research provide evidence-based picture of the state of CLIL implementation in Vietnam. Different factors challenged c CLIL stakeholders, especially CLIL lecturers were identified in the Vietnamese higher education context.

Secondly, the implications of the research findings resonate with the decision making related to training and preparing for CLIL lecturers for more successful CLIL programs in the future and the conducting of future educational initiatives. Furthermore, policy makers could use this study as an important basis to intertwine needs analysis with the competence requirement of lecturer ongoing professional development for an innovative program or curriculum. It could also provide insight into how to mobilise potential resources at the universities for lecturer professional development to improve the effectiveness of current CLIL programs economically and streamline the implementation of new ones. The findings also identified the necessity for appropriate training for CLIL language lecturers in Vietnamese higher education so that the quality of the CLIL program can be improved and that the momentum of the implementation of CLIL can be sustained. In this regard, the findings of this study can be used to design suitable

training programs through the continuous professional development approach. Initial training can help the lecturers reduce burden on themselves due to lack of training, preparation, or support.

Finally, while the findings of this study are applicable to professional development for CLIL lecturers in Vietnam, the study can be potentially applied to the implementation of CLIL programs focusing on the CLIL teachers ongoing professional development in many other contexts in the Asian region, or internationally.

9.6 LIMITATIONS OF THE RESEARCH

Despite the significant and original contributions of this research, it still has some limitations and shortcomings due to certain factors such as the constraints in time, resources, and achievable scope. These factors obstruct the researcher to probably explore many other impacting factors to the lecturers' professional development for CLIL programs in Vietnam.

In addition, the research took place in one technology university in Vietnam, without reference to the many different higher education institutions in Vietnam using English lecturers to implement CLIL programs, and how their experience may have differed from NAUTE. Further inquiry into the professional development of a larger sample of CLIL lecturers at different universities would be valuable to substantiate and expand on the findings of this study.

9.7 RECOMMENDATION FOR FUTURE RESEARCH

In line with the findings of my research and to its limitations, I would recommend further research to be conducted to investigate strategies to optimise the professional development for CLIL lecturers in higher education in Vietnam with a larger scale than the present research. Future research can also study the roles of the lecturers in decision making for the top-down policy of the government for the ongoing professional development for the tertiary lecturers.

9.8 PERSONAL SPIRITUAL GROWTH AND THE DEVELOPMENT OF THE RESEARCH SKILLS

I am grateful to have had a chance to experience this PhD journey. The period of four years of doing this research has been a meaningful journey of inner self-exploration resulting in both

academic and spiritual personal development and growth. I learned many valuable life lessons, especially the lesson of sharing, cooperating, and encouraging while interacting and working with other people.

As a novice researcher with little experience of doing research, I didn't know how to begin with this process at first. I had so many questions such as: What topic should I choose to study? How can I decide on an interesting topic so that I can maintain passion and interest throughout the process? etc. When I decided on a topic, a series of other questions emerged, such as what should I focus on? What theoretical framework should I use to collect and shape my data etc. Reading, researching and deciding which theoretical framework to use for your research is vitally important, as the theoretical framework can be considered the navigator for the boat to make it to the open sea. What direction to take, through what lens to look at the problems or issues raised in the research questions? What concepts to use when analysing data so that the pictures drawn from the findings make the most substantial contribution to the research literature, and have the best chances of changing the general view of the current situation to help create a new theoretical framework for the development of society? Repeated sequences of questions and learning lead to step- by -step progress. I now feel that I have answered all those questions, while building up my research skills and accumulating invaluable experience and knowledge to become a confident independent researcher at the end of my PhD odyssey. It is the most intense studying adventure I have ever experienced in my life. And the more I learnt, the more I realized how much I don't know and how many more skills I need to practice.

Like the CLIL lecturer participants in this research, I as a researcher learner had a "bittersweet" PhD experience which gave me the chances to explore many surprising new ideas. I overcame many struggles, like a river learning to flow into the great ocean, where I eventually realized that although the way may be full of rain, strong winds, even storms, at the end you can see the beautiful blue horizon and feel fresh air from the sea to reward you. More than anything else, this journey has paralleled my spiritual growth. During this period, I have overcome significant obstacles and trauma in my personal life, including family break up and learning how to survive as a single mother of two children in Australia without family support. Sometimes, I could not hold back my tears crying so bad at the station like a child after a long day in the library while two sick boys (15 years old and 10 years old) were waiting at home. In addition, Covid-19 pandemic started at the most vulnerable time of my life in April 2020 when I was trying my best to finish my thesis. Overwhelmed by all the burden, I was so stressed that had to talk to the

university counsellor for many times. However, these ordeals helped me to learn to be strong and realize that I am not alone at all, there are so many good people around willing to assist and support and encourage me with their beautiful hearts. They have been always there for me. Ultimately, I also realized that as long as you do not give up, the universe will make everything happen, as your will, desire and patience are the key to success. If you have love, you have inspiration; and if you have patience, you can pursue your objective until the end. Mother Teresa had a famous saying that I like: “it is not how much we do... but how much love we put in that action”. For me, it is philosophy that can be applied to all the interactions in my life.

With my love for study and persistent desire for personal spiritual growth, I have beaten paralysing fear at many points during this research process. That triumph makes the happiness and peace I feel now even more intense, and I believe MIRACLE is an accurate word I can use to describe the ending of my PhD journey.

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APPENDICES

Appendix 1- Interview questions

A. CLIL teacher participants

- What is your full name? Gender: Male/Female
- What is your highest qualification? (Colleague, BA, MA)
- How many years have you been assigned to teach the CLIL program?
- Can you express your understanding of the CLIL program being implemented in your school and in Vietnamese higher education?
- Can you tell me the main features of CLIL program that you are teaching? (For example, what content and language are integrated and focused in your CLIL program? Do you focus more on language or engineering content?)
- How have you been trained to become a professional CLIL teacher from pre-service and in-service training program? Can you discuss with me the way you become a CLIL teacher? How do you develop yourself in the CLIL program in terms of teaching and developing curriculum?
- What teaching strategies have you employed to teach a CLIL lesson? What methods have you used to teach both content and language at the same time to your students?
- In terms of pedagogical practice, what advantages or disadvantages impact your teaching? How have you been supported by the students in the classroom?
- Can you provide me with the information about the policy from your university of MOET that directly used as guideline for CLIL program?

- How have you been supported by the subject teachers? If yes, can you tell me in detail the roles of subject teachers in the CLIL program?
- Can you tell me what are the most challenging issues in conducting the CLIL program for the teachers?
- Do you have any suggestions for the CLIL stakeholders based on the real context of your teaching?

B. CLIL head teachers

- What is your full name? Gender: Male/Female
- What is your highest qualification? (Colleague, BA, MA)
- How many years have you been assigned to teach the CLIL program?
- Can you express your understanding of the CLIL program being implemented in your school and in Vietnamese higher education?
- Can you tell me the main features of CLIL program that you are teaching? (For example, what content and language are integrated and focused in your CLIL program? Do you focus more on language or engineering content?)
- Have you been trained to become a professional CLIL teacher from pre-service and in-service training program? If no, can you discuss with me the way you become a CLIL teacher? How did you undertake professional learning yourself in the CLIL program in terms of teaching and developing curriculum?
- How do you involve in the implementation the policy for CLIL program of your university and from MOET?

- How do you support the CLIL teachers in your division in term of professional development, pedagogical practice and curriculum development?
- Can you demonstrate the challenges that you have to cope with in your role as head teacher of the CLIL program?
- Do you have any suggestions for future CLIL teachers' professional development and curriculum?

C. Subject teacher participants

- What is your full name? Gender: Male/Female
- What is your highest qualification? (Colleague, BA, MA)
- What is your teaching subject? How many years have you teaching the subject?
- Can you express your understanding of the CLIL program being implemented in your school and in Vietnamese higher education?
- Can you tell me how you have been involved in the CLIL program in your university? (How have you been assigned to develop CLIL program ?)
- How have you supported the CLIL teachers in terms of the subject knowledge, curriculum development and pedagogical practice?
- What are the issues that you want to address by taking part in the CLIL program?
- Do you have any suggestions for the CLIL teachers' and the policy makers about the CLIL program?

Appendix 2- Consent Form

Project Title: Teachers' CLIL experience in Vietnamese higher education.

I hereby consent to participate in the above- named research project.

I acknowledge that:

I have read the participant information sheet (or where appropriate, have had it read to me) and have been given the opportunity to discuss the information and my involvement in the project with the researcher.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to:

- Participating in an interview*
- Having my information audio recorded*

I consent for my data and information provided to be used for this project and other project for an extended period of time.

I understand that my involvement is confidential, and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time without affecting my relationship with the researcher, and any organisations involved, now or in the future.

Signed:

Name:

Date:

This study has been approved by the Human Research Ethics Committee at Western Sydney University. The ethics reference number is.....

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix 3- Letter to the dean

Dear Sir/Madam,

My full name is Thi Tinh Phan. I am studying a Doctor of Philosophy (PhD) at Western Sydney University in Australia.

I am currently working on a PhD research project entitled “Teachers’ CLIL experience in Vietnamese higher education”.

The aim of my research is to identify tertiary lecturers’ professional learning experiences (including content knowledge learning, pedagogical practices, and curriculum development) of CLIL programs, in order to understand how to promote, more successfully, a seamless integration of both subject knowledge content and target language learning.

It is hoped that the research will provide insights and recommendations to help develop lecturers’ professional learning for CLIL programs which is still at the very beginning stage in Vietnamese tertiary education, identifying cultural and ecological factors which may impact of the success of teaching and learning CLIL program in the nationwide.

As part of my research, I will interview CLIL lecturers at Vinh university of technology education, Vinh city, Vietnam. Accordingly, in order to conduct my research, I need your approval as the initial permission so that I can work with the CLIL/Subject teachers in your faculty.

With your permission, I will send the invitation letter and the information sheets to all the teachers. The teachers will be given a week to consider their participation and if the teachers agree to participate in the research, they will also be given the consent form to sign before each interview. The research will not impact the teachers’ normal tasks at school because it will be organized based on the teachers’ convenience of locations and available times.

If you have any questions about this research, please feel free to contact me on (+61) 451542899 or email 18618323@student.westernsydney.edu.au.

Finally, if you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.edu.au.

All information is confidential and will be handled as soon as possible.

Thank you in anticipation of your involvement.

Yours sincerely,

Thi Tinh Phan

PhD Candidate

School of Education

Western Sydney University

M: +61 451542899

E: 1861

8323@student.westernsydney.edu.au

Appendix 4- Invitation letter

Dear Sir/Madam,

My full name is Thi Tinh Phan. I am studying a Doctor of Philosophy (PhD) at Western Sydney University in Australia. I hereby cordially invite you to participate in my research project.

I am currently working on a PhD research project entitled “Teachers’ CLIL experience in Vietnamese higher education”.

As part of my research, I will interview CLIL lecturers at Vinh university of technology education, Vinh city, Vietnam. You will be asked to participate in interview that will last about 45-60 minutes to explore your views and your professional development and teaching of a CLIL program.

There are no ‘right’ or ‘wrong’ answers to any of these questions and the research is interested to better understand the diversity of teachers’ views and practices. With your permission, the interview would be digitally recorded and later transcribed by me. All information you provide will be treated confidentially and your responses to the questions will not be able to be linked back to you personally. Your name will not be used in storing or reporting any of the research findings.

After the interview, I will summarize our discussion and I will provide you with the opportunity to check what I have recorded accurately represents your views. You will also be provided access to the final research report. The result of this study may be published in a peer-reviewed journal and presented at conferences, but only group data will be reported.

If you do not wish to continue with your involvement in the research, you can withdraw your consent at any time.

If you have any questions about this research, please feel free to contact me on (+61) 451542899 or email 18618323@student.westernsydney.edu.au.

Finally, if you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.edu.au.

All information is confidential and will be handled as soon as possible.

Thank you in anticipation of your involvement.

Yours sincerely,

Thi Tinh Phan

PhD Candidate

School of Education

Western Sydney University

M: +61 451542899

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Appendix 5- Consent Form- CLIL teachers

Project Title: Teachers' CLIL experience in Vietnamese higher education.

I hereby consent to participate in the above- named research project.

I acknowledge that:

- I have read the participant information sheet (or where appropriate, have had it read to me) and have been given the opportunity to discuss the information and my involvement in the project with the researcher.
- The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to:

Participating in an interview

Having my information audio recorded

Having my school diary and performances in lesson plan photo taken

I consent for my data and information provided to be used for this project and other project for an extended period of time.

I understand that my involvement is confidential, and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time without affecting my relationship with the researcher, and any organisations involved, now or in the future.

Signed: _____

Name: _____

Date: _____

This study has been approved by the Human Research Ethics Committee at Western Sydney University. The ethics reference number is.....

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix 8-Human Ethics approval

**WESTERN SYDNEY
UNIVERSITY**



REDI Reference: H12847
Risk Rating: Low 2 - HREC

HUMAN RESEARCH ETHICS COMMITTEE

28 September 2018
Doctor Jinghe Han
School of Education

Dear Jinghe,

I wish to formally advise you that the Human Research Ethics Committee (HREC) has approved your research proposal H12847 "Teachers' CLIL experience in Vietnamese higher education", until 28 September 2022 with the provision of a progress report annually if over 12 months and a final report on completion.

In providing this approval the HREC determined that the proposal meets the requirements of the National Statement on Ethical Conduct in Human Research.

This protocol covers the following researchers:

Jinghe Han, Chwee Bong Lee, Thi Phan

Conditions of Approval

1. A progress report will be due annually on the anniversary of the approval date.
2. A final report will be due at the expiration of the approval period.
3. Any amendments to the project must be approved by the Human Research Ethics Committee prior to being implemented. Amendments must be requested using the HREC Amendment Request Form.
4. Any serious or unexpected adverse events on participants must be reported to the Human Research Ethics Committee via the Human Ethics Officer as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the Committee as a matter of priority.
6. Consent forms are to be retained within the archives of the School or Research Institute and made available to the Committee upon request.
7. Project specific conditions:
There are no specific conditions applicable.

Please quote the registration number and title as indicated above in the subject line on all future correspondence related to this project. All correspondence should be sent to humanethics@westernsydney.edu.au as this email address is closely monitored.

Yours sincerely


Professor Elizabeth Deane
Presiding Member,
Western Sydney University Human Research Ethics Committee

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