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Brooke, Mark ORCID logoORCID: <https://orcid.org/0000-0002-3071-6806> (2022) ICLHE: policies and practices. In: Integrating Content and Language in Higher Education: Developing Academic Literacy. Springer, Singapore, Singapore, pp. 1-17. ISBN 9789811945588

Official URL: https://doi.org/10.1007/978-981-19-4559-5_1

DOI: http://dx.doi.org/10.1007/978-981-19-4559-5_1

EPrint URI: <https://eprints.glos.ac.uk/id/eprint/13154>

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CHAPTER 1

ICLHE: POLICIES AND PRACTICES

GLOBAL LANGUAGE

As Grasmann and Grasmann (2011) argue, English is considered fundamental knowledge for mobility and employability in the globalized labour market, and a necessity for the developing nature of international relations facilitated through online technology. The importance of English is clearly reflected across the globe with universities offering English-taught undergraduate and post-graduate programmes. Moreover, being an English as a medium of instruction higher institution is closely connected to the worldwide rankings of universities and is used as a contributing factor to benchmark quality education (Sandström & Neghina, 2017). In many universities, English-language requirements in the form of IELTS, or institutional English entrance exams, are very important for admission on higher education courses. Further, English is used by multilingual academics as their lingua franca (Seidlhofer, 2011). A fundamental indicator used to assess the quality of publications is the English language (Marginson, 2016; Welch, 2002) with 27,000 journals included in the Web of Science (WoS) indexes and the Science Citation Index predominantly published in English (Curry & Lillis, 2018). Even 25 years ago, Viereck (1996) stated that scientific researchers were fully aware of the ideology of 'publish in English or perish' (p. 20). The culmination of these social phenomena has given English a high status in the global higher education environment, and the need to use the language effectively is ever-present for an internationally recognized status.

Providing CLIL (Content and Language Integrated Learning) at primary and secondary education levels (e.g., Dalton-Puffer, Nikula & Smit, 2010) and ICLHE (Integrating Content

and Language in Higher Education) courses in tertiary education (Wilkinson & Zegers, 2007) are strategies to build students' abilities to deal with the continuing momentum of English as a global academic lingua franca. ICLHE is adopted by many universities to help undergraduate students integrate into the demands of the academic objectives of their disciplinary studies (Pérez-Vidal, 2015; Smit & Dafouz, 2012; Wilkinson & Zegers, 2007). Indeed, it can be seen as a key strategy in the international higher education field with many institutions adopting English-taught foundational programmes.

DEFINING ICLHE

ICLHE courses have a dual-focused educational approach concentrating on both subject content and academic literacy development (Coyle, Hood & Marsh, 2010, pp. 41-45). They can exist on a continuum comprising a whole gamut of content-driven to language-driven pedagogy (Juan-Garau & Salazar-Noguera, 2015, p. 2). Thus, defining them, can be a complex process.

Despite this, in their editorial of a special issue of the *Journal of Academic Writing* (2013) exploring scholarship of teaching and learning (SoTL) in ICLHE, editors Magnus Gustafsson and Cecilia Jacobs provide an interesting deconstruction of the ICL abbreviation into its three components: 'Integration', 'Content', and 'Language', and how these terms have very different meanings across groups practising ICLHE. 'Language', they argue, can be viewed in terms of a first, second, third or foreign, and linked to bi-, multi-, and plurilingualism. Gustafsson and Jacobs (2013) also go on to show how 'content', as knowledge structures, represents multiple meanings too in terms of university subjects and modules, as well as disciplinary content and practices. Finally, they argue that the third construct, 'integration' can be taken as processes to combine disciplinary subjects with language curricula; the

planning and teaching of joint lessons and sharing of materials and assessments as collaborations between language and content specialists; as well as across disciplines.

A framework proposed by Dafouz and Smit (2012) identifies six relevant components to holistically conceptualize ICLHE or what they also refer to as English-Medium Education in Multilingual University Settings (EMEMUS). These are *Roles of English* (in relation to other languages); *Academic Disciplines (language)*; *Management, Agents, Practices and Processes*; and *Internationalization and Glocalization*. The model produces the acronym ROAD-MAPPING. In brief, Role of English refers to language planning in a society, and entry requirements, as well as proficiency and exit levels of English medium programmes.

Academic disciplines refer to the specific use of English as a form of academic literacy in a given context. Management is how effort is made to control a language situation by social agents, and through social practices. Finally, internationalization and glocalization explore the complex interplay between the local and global educational environments. Consistent with this conceptualization from Dafouz and Smit (2012), Marsh (2002) points out that contextual variables determine the position and state of the programmes (p. 59). Immersion programmes tend to be carried out in countries where the languages are present in the students' natural environment (home, or/and society at large) and instruction of language is more implicitly or incidentally through a content-oriented focus. Thus, immersion courses are commonly set up to ensure the learning of more than one official language. For example, in Spain, Basque and Catalan are learned in this way (Lasagabaster & Sierra, 2010). Programmes focusing more heavily on language instruction tend to exist in countries where the target language is not spoken locally (Lasagabaster & Sierra, 2010). In these contexts, courses focus more on the language input side as these cater to students whose first

language is other than the medium of instruction (MOI), and there is little opportunity for exposure to the language outside of the educational environment.

In the following sections, we provide a review of the major contexts for ICLHE today.

ICLHE ACROSS GEOGRAPHICAL REGIONS

English-medium instruction (EMI) has a stronghold in postcolonial countries in Asia such as Hong Kong, Malaysia, and the Philippines. In Hong Kong despite the fact that 95% of its population speaks Cantonese, six of the eight government-funded universities are English medium. In Malaysia, English is the second language after Malay. It is not the sole language of instruction as a number of universities and disciplines use Bahasa [Malay] (Hashim & Leitner, 2014, p. 19). However, it is the sole medium of instruction in science, medicine and in all programmes in private higher institutions (as cited in Kaur & Zainuddin, 2019, p. 172). It also represents the language of research and advancement (Kaur & Zainuddin, 2019, p. 172). Moreover, the use of EMI in top Malaysian universities such as University of Malaya (UM) is a provision for international students who are commonly non-native speakers of English immigrating from other ASEAN countries and the Middle East such as Indonesia and Iran (Kaur & Zainuddin, 2019, p. 173) for their studies. Similarly, in the Philippines, English is strongly dominant in education. Kirkpatrick (2014) presents how the University of the Philippines at Dilman attempted to push Filipino as a language of education and research. However, this push was abandoned shortly afterwards, and English was readopted due to the unpopularity of the policy amongst staff and students.

Additionally, English has a strong culture in university programmes in other Asian nations.

According to Murata et al., (2019, p. 149), in Japan, universities have been offering widespread English medium programmes since the early 2000s in a push to internationalize

the society, to benefit domestic students for the global labour market, as well as increase positions in the university ranking scales. At least 25% of universities make some English-medium courses available to undergraduates. Similarly, the Ministry of Education (MOE) in China has made English an important element of the College English Curriculum Requirements (CECR) (Fang & Xie, 2019). There are approximately 400 million learners of the language in China. Students and teachers across faculties are required to have high levels of English in higher education institutes. Competition in the global labour market and university rankings are also given as the main motivators for this language policy (Fang & Xie, 2019). In Taiwan, also, according to Tsou and Kao (2017), English medium tertiary programmes are characteristic of the quality of education and research. Moreover, according to Lin (2019), English proficiency has become gatekeeper in the process of university recruitment of staff and students in Taiwanese Higher Education institutions.

Due also to a colonial history with Britain, commonwealth countries such as Australia (Xu, Leung, Hall, Jafari & Pour, 2019, p. 197) and New Zealand (Hamid et al., 2013) use English as the default medium of instruction and communication in universities. In research the number of international scientific papers published per year is over 15,000 in Australia. One of the main reasons why international students today have been attracted to study in these nations in such great numbers is because of the EMI universities based on the traditional British system coupled with the use of English in society for a full immersion process. As Kirkpatrick (2014) argues, Asia is predominantly a 'provider of international fee-paying students' (p. 16) in Australia. Similarly, in North America, and Canada, ICLHE English programmes have become an instrumental element of immersive foundational tertiary

courses for international students immigrating to these countries to follow undergraduate and post-graduate courses across the disciplines (Brinton et al., 2004; Celce-Murcia, 2007).

In the UK, ICLHE has seen strong growth with the increase of international students, reflecting the drive towards the globalization of its higher education institutions (Lillis & Scott, 2007). According to the organization 'Study in UK' (<https://www.studying-in-uk.org/international-student-statistics-in-uk/>), the total number of students enrolled in higher education institutions in the UK in 2021/2021 was 2,751,865, an increase of 8.7% compared to the 2019/2020 academic year (2,532,385). In 2021, of these international students, 452,225 students were from countries outside of the European Union. 32% or 143,820 of the total number of international students in the UK were from China. The second largest group, with a total of 84,555 students, were from India. After India, other non-EU countries sending the most students to the UK were Nigeria (21,305 students), the United States (19,220), Hong Kong (16,655), Pakistan (12,975), Malaysia (11,510), Saudi Arabia (8,825), Canada (6,785), and Singapore (6,580). 152,905 students are from countries of the European Union: Italy sends the most students to the UK (14,605); followed closely by France (14,090), then Romania (12,860), Spain (12,290), Germany (12,250), Poland (10,755), Ireland (9,740), Greece (9,555), Portugal (8,470), and Cyprus (8,335).

In Europe, because of the Bologna Process, universities in this region seek to standardize degrees to facilitate student movement throughout the region's universities (Kirkpatrick, 2014). The European Commission has been promoting bi- and tri-lingualism through university courses as part of its vision of a plurilingual Europe, and particularly to promote student mobility across European states (Coyle, 2013; Knight, 2008; Lasagabaster, 2008).

English-medium education at tertiary level has been developed substantially as part of the

vision. The number of undergraduate and post-graduate courses in English throughout Europe has rapidly increased in the last two decades. Sandström and Neghina (2017) report that in 2009, there were 55 English taught Bachelor's (ETBs) in Europe. By 2017, this had increased to 2900 programmes. According to the StudyPortals database of the 19 European countries studied (Turkey, Netherlands, Spain, Germany, Greece, Denmark, Hungary, Switzerland, Poland, Italy, Cyprus, Lithuania, France, Sweden, Czech Republic, Finland, Austria, Latvia, Romania), ETBs grew by 43% in 2015 alone. The average number of higher education institutes offering ETBs today in Europe is 38% of its total. English is neither an official nor national language in a country like Germany. However, according to the report by Sandström and Neghina (2017), the German Academic Exchange Service and the Conference of University Rectors in Germany first piloted EMI programmes in higher education in 1996, and then established these permanently in 2002. Today, there are 20,458 programmes taught in English in Germany. Similarly, in the Netherlands and Spain, many of the higher education courses are provided in English.

In Singapore, the context for this book, the English language syllabus (2020) has a quintessential role and can be analysed by applying the framework from Dafouz, and Smit (2016). The English Language Syllabus states that:

'The context of language use in Singapore is influenced by many factors, both local and global. At home, English remains as the common language and the lingua franca of the Internet, of science and technology, and of world trade. Today, many changing socio-economic factors make proficiency in English and the development of 21st century competencies even more necessary for our students' (P.6).

Thus, English is viewed as both the local and international language in Singapore. It acts as a gateway to success. Both higher education and research are important drivers of Singapore's global strategies (Marginson, 2011). The nation spends 2.6% of its GDP on research and development, a significant portion in comparison to other Asia-Pacific nations (Marginson, 2011). To evidence the impact of these policies, the U.S. National Science Board reports that from 1995 to 2007 the number of academic papers produced each year in Singapore rose by 10.5% (Marginson, 2011). The rapid development of the nation-state's knowledge economy over the last five decades can be seen in part because of the English-medium language policy.

ICLHE pedagogy in Singapore is similar to immersion environments. The two main public universities are fully English-medium and are in the top 50 of the *Times Higher Education* World University Rankings 2021: The National University of Singapore in 21st and Nanyang Technological University in 46th position. However, as noted in the preface, students at the National University of Singapore often come from other nations in the Asian region where English might have a second language status (China, Indonesia, Japan, Korea, Malaysia). Moreover, ICLHE modules such as those from the Ideas and Exposition programme, cater for a diversity of undergraduates, often from STEM subjects (Science, Technology, Engineering, Maths). The programme is designed to engage all participants, whether using English as a first or second language, in academic literacy development (Van de Poel & Van Dyk, 2013). Thus, a focus on language can be important in these modules. Moreover, as the modules are part of a foundational programme, students generally input and guidance in academic literacy development learning outcomes, as presented in the appendix of the preface.

IMPACT OF ENGLISH AS A GLOBAL LANGUAGE

The development of English as the global language in higher education has produced warranted criticism. Kirkpatrick (2014) refers to 'the paradox of internationalization' (p. 16): as mobility is encouraged across borders, local languages are strongly impacted by EMI policies. Trevasques et al., (2003) argue that 'Internationalization has become little more than an entrenchment of the English language as an instrument of power and of an English-speaking worldview as the only legitimated perspective through which the world can be viewed and interpreted' (p. 5). With EMI offered rather than instruction in local languages, students, teachers and researchers are exposed to fewer languages (Haberland, 2011, p. 43 as cited in Kirkpatrick, 2014), and according to Phillipson (2009, p. 37, as cited in Kirkpatrick, 2014), this has deep ideological consequences. It clearly impacts the development of these languages in their academic forms. It also leads to the adoption of an English-oriented consciousness, or ethnocentrism, mediated through education. Thus, principles and values connected to the English-speaking world might be transferred to local contexts as a form of neo-colonialist ideology.

One pushback in recent times to the ideology that promotes English as a high-status language in the global higher education environment is translanguaging. Translanguaging has gone beyond a focus on code-switching to incorporate multilingual and multimodal embodiment and to describe a fluid version of communicative practice (Canagarajah, 2018; Li Wei, 2018). As Ou, Gu and Hult (2020) argue, the term focuses on the daily needs of repertoire building. Moreover, it explores the complex spaces where multilinguals communicate together (Pennycook, 2017). Therefore, the model goes beyond an individual's individual competence, and English is only one variable among others for translanguaging analysis.

The dominance of English has also been under attack with the recent rise in decolonizing the curriculum and developing inclusive multilingual practices. Shahjahan et al., (2022) demonstrate that curriculum development is increasingly viewed as collective responsibility for inclusivity so that Eurocentric elements of education are reduced, even replaced. Consequently, this is a movement that questions whose knowledge counts in higher education. For example, in Canada, the Truth and Reconciliation Commission (TRC) regards education as essential for the country's reconciliation with its indigenous communities. Programmes such as Gahman and Legault's (2019) Women and Gender Studies place the histories from 'Aboriginal' peoples in central position. The course states that its content is 'inherently connected to the lands, lives, histories, and futures of the Indigenous peoples of Turtle Island' (as cited in Shahjahan et al., 2022, p. 84). This movement is also increasingly common in nations in Central and South America as well in Africa, Asia and Oceania (Shahjahan et al., 2022).

The authors of this book are highly aware of the kind of ideological impact that ICLHE courses may have on local languages and cultures. Therefore, while the modules presented in this volume belong to a foundational programme that is taught and assessed in English, our view is that local cultures and their languages should be encouraged to be a part of the ICLHE curriculum. This can be facilitated if students who wish to study local language contexts can conduct multi-lingual and multi-cultural research. Documents in local languages can be cited and translated as evidence in academic writing. Students can also be encouraged to publish their work in media and academic platforms written and read in the local languages. These policies embracing translanguaging and the decolonization of the curriculum might go some way in reducing the negative impact of EMI as a global force and sustaining cultural diversity.

DIDACTIC GOALS OF ICLHE

Lyster (2017) states that, despite the diverse perspectives on CLIL and ICHE, certain themes, like the link between language and content, tend to be constants in the field. However, different perspectives on how best to integrate language and content have emerged in ICLHE. Dalton-Puffer (2007)'s work focuses on academic language functions such as describing, explaining, and predicting. Kong (2009) advocates that knowledge relationships such as cause-effect, hypothesis, and comparison are presented (p. 10). Kong and Hoare (2011) conclude that students' technical academic knowledge can be fostered by pushing them to elaborate on the language that they have used. Llinares, Morton, & Whitaker (2012) emphasise the teaching of disciplinary genres (e.g., science reports, historical accounts, essays). Accordingly, differences in language instruction might exist but as Lyster (2017) states, what programmes share is an explicit focus on both content and language objectives, and these tend to have a complementary status in the classroom.

What has also grown in many tertiary settings is a genre of ICLHE with an interdisciplinary nature. Jacobs (1989) defines this as 'a knowledge view and curriculum approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic, or experience' (p. 8). These interdisciplinary programmes tend to be problem-based or topic-based. The main aim is to offer students the opportunities to apply more than one perspective on a specific problem or topic of interest (Jacobs, 1989). An example of a module of this genre is presented by de Greef et al., (2017). Students were asked to explore the problem of how a financial crisis emerged and how to draw on different disciplines to help to understand it and deal with a future possible crisis. Students from disciplines such as business, economics, politics, and sociology could work together effectively. De Greef et al., (2017) also offer an example of the topic-centered

approach such as a module on Evolutionary Thinking and how Darwinian evolution can be applied in fields other than biology. In this particular case, the topic might be explored as a theoretical framework for interdisciplinary understanding of the development of human behavior drawing on disciplines such as sociology, economics, cultural studies, philosophy, and history.

The modules presented in this edited volume value all of these perspectives on ICLHE. For example, the way we facilitate learning might be to focus on functions related to a genre, or knowledge relationships such as hypothesis forming in research planning. Moreover, fostering cognitive engagement and active learning and supporting language acquisition are essential goals in our practice. However, we do not see that there should be a distinction in our interdisciplinary programmes between problem-based or topic-based organization. In this way, we believe our modules might be 'boundary crossing' (Lillis & Scott, 2007, p.19).

Cook, for example, in her chapter, explains how she employs problem-based learning (PBL) in the teaching- learning cycle to enable students the opportunity to apply interdisciplinary knowledge to her topic of social psychology. The other authors through subjects such as colour, sport, food politics, semantics, the internationalization of education, discourse and citizenship, film and gender studies, and science fiction in popular culture, also use problem-based learning by asking students to come up with a research question worth exploring in their modules. To do this, they need to problematize a phenomenon that they find of interest, and that is worthy of deep analysis. For example, Brooke shows how a student problemtizes gender in sport by exploring the tensions that a female athlete like Alex Morgan experiences as she presents herself on social media. In this way, problem-based inquiry protocols would normally be directed at exploring a data source and establishing relationships amongst factors, using methodology such as hypothesis testing (Ho & Brooke,

2017, p. 22), or inductive reasoning such as that related to grounded theory (Strauss & Corbin, 1994).

Academic literacy as mentioned in the preface can be viewed as the building block for acculturation and success in higher education (HE) (Van de Poel & Van Dyk, 2013). That is, it embraces the notion that students are being trained to engage with the codes and conventions of academia' (pp.45-46). However, in our topic-based approach, we go beyond the 'identify and induct' (Lillis & Scott, 2007), as already noted, to help students to be both inward and outward facing. In the programme, we can facilitate student learning, and we would argue, tutor learning experiences, that are the products of a nexus of multiple simultaneous processes over time and involving various forms of interactional patterns.

We seek in this book to demonstrate how this holistic approach to the teaching and learning nexus may be broken up into various didactic goals and interactional patterns. However, it should be remembered that these goals and interactions all feed from each other at all times, often simultaneously. They are a part of the integrated system of instruction, and not one element has precedent over another.

Genre and genre pedagogy

In a recent study in the Netherlands, Van Kampen, et al., (2020) report that language specialists embedding English stated that they commonly taught lists of field-specific terminology in the target language. In contrast, the disciplinary specialists in the report expressed the need for their students to learn relevant genres from their fields. Learning genres is part of learning how different epistemological beliefs and assumptions exist across disciplines (de Greef et al., 2017, p. 36; Lueddeke, 2003; Neumann, 2001). The specialists argued that genres were essential rhetorical elements of the subject-specific discourse, and

therefore should be central goals of an ICLHE module. According to Lin (2016), genre pedagogy theory and a knowledge of Systemic Functional Linguistics for text analysis, both from the Sydney School (Martin, 1999; Martin & Rose, 2005; 2008), are the most useful knowledge structures for CLIL and ICLHE teachers. Others (Berkenkotter & Huckin, 1995) align more closely to rhetorical genre theory studies (RGS), greatly influenced by Miller's (1984) text 'Genre as Social Action,' which also argues that text is a rhetorical response to recurrent social contexts. In this academic literacies model, students' ability to learn communication practices from various contexts and shift from one academic situation, style and genre to another is an important goal. Hence, similarly to the Sydney School, RGS seeks to develop students' awareness of genres, and their social semiotic meanings in the construction of disciplinary knowledge.

Gardner and Nesi (2013) present research on common genres in the ICLHE context, drawing on 2858 BAWE (British Academic Written English) corpus texts produced for assessment purposes by undergraduate and taught postgraduate university students. They report a classification of 13 genre families. Among the most common genres used for academic assessment in higher education is the published research article standard, the 'Introduction-Method-Results-Discussion' (IMRAD). They (2013) also report on research that has found this to be one of the most common genres in higher education in other studies (Swales & Najjar, 1987; Hopkins & Dudley-Evans, 1988). However, Gardner and Nesi (2013) also state the student essay appears to be a very common genre, and an important assessment instrument. In fact, Gardner and Nesi (2013) uncover an essay genre family. In general, the genre requires that students demonstrate their ability to construct a coherent argument and employ critical thinking skills.

The essay is often sequenced with an Introduction, which then leads onto a series of arguments, and sums up the main findings in a conclusion. The authors conclude that in some higher education disciplines, the essay may correspond to a published academic/specialist paper from the discipline's journal. Specialist journals such as *Journal of Film Studies* might use a question-and-answer rhetorical approach rather than sectioning the work into clearly divisible categories as the IMRAD genre. Examples randomly selected from specialist journals such as the *Journal of Film Studies* or the *Journal of Film and Video*, take a question-response structure e.g., What Defines Cognitive Film Theory? What Has Cognitive Film Theory Accomplished? What Must Cognitive Film Theory Do Better? In these examples, the essays are organized in a series of arguments. However, citing work from Tribble (2009, p. 416), Gardner and Nesi observe that there are very few resources available to teach the essay genre. In fact, there appears to be a great need for research on teaching both the essay and IMRAD genres in ICLHE modules. The essay and the IMRAD are taught on this programme and contributors share their action research teaching these as well as other genres that they teach such as the summary-reflection, and the lens paper.

Multiliteracies

Twenty years ago, Gunther Kress (2000) was already arguing that higher education needs to reconsider the notion of knowledge because the 'social' has changed and academic institutions are required to develop alongside these social changes. Kress (2000) was referring to the multi-modal nature of knowledge. Today, much of the communication that we are exposed to is multi-modal (Lillis & Scott, 2007). Lectures and student project presentations are multimodal in nature; and to produce a genre of this type, the communicative act requires reflection about the relationship between images, sounds and texts. Thus, it is not surprising that Van Kampen, Meirink, Admiraal and Berry's (2020)

report that discipline specialists in the Netherlands emphasized the need to teach students through multi-modal material. Moreover, Archer and Breuer (2016) point out that today students need to know how to make multimodal academic arguments (p. 6). Therefore, academic multimodal argument should be central in university ICLHE curriculum design.

Dale et al., (2010) posit that knowledge comes in many forms but the most commonly used in an ICLHE module might be visual (graphic novels, social media sites, real objects, photographs or paintings), audio-visual (film, theatre, documentaries, advertisements, reports of live events) and spoken input (sound bites, longer audio recordings, even read-aloud literature). This focus on multiliteracies (Bezemer & Kress, 2016) is essential as a didactic goal. Moreover, teaching through multi-modality is an opportunity to maximize input (Dale et al., 2010) by catering to different intelligences (Ramos-Ford & Gardner, 1991) and learning styles (Felder & Silverman, 1988). Knowledge of multi-modal genres can be taught effectively at foundational level in higher education institutes through interdisciplinary modules such as the ones from this edited volume.

Complex cognitive skills

Another important goal in ICLHE interdisciplinary courses is that students learn 'complex cognitive skills' (Kirschner & Van Merriënboer, 2013). An important element of developing thinking is the teaching and learning of threshold concepts (Meyer & Land, 2003, 2005). When integrated into a student's knowledge system, these concepts can be transformative in nature (Hill, 2020), leading to changes in 'knowing, doing, being, and future learning possibilities' (Barradell & Peseta, 2016, p. 263). Thus, Meyer and Land (2006) use the metaphor of a 'portal' to describe threshold concepts. Additionally, de Greef et al., (2017) suggest other activities to develop thinking skills such as asking students to explain the

essence of a chapter using a metaphor, or to explain their project to a layperson rather than an expert in the field. A shift across registers can help students to reflect analytically.

Furthermore, it is reported how engaging students with higher-order tasks, such as project work to complete a report, can achieve goals of cognition as students seek to solve a problem, and evaluate its consequences (Van Kampen, Meirink, Admiraal & Berry, 2020).

Other complex cognitive skills such as an ability to identify, gather and integrate information, as well as examine arguments, uncover assumptions, and infer from evidence are also essential (Facione, 2011; Kirschner & Van Merriënboer, 2013). Based on the *Miniature guide to critical thinking* from Paul (1984) and Elder (2005), de Greef et al., (2017, p. 156) provide a table to overview potential important questions as learning outcomes of reflective thinking for an ICLHE module.

Elements of thought	Guiding questions for students
All reasoning has a purpose.	What am I trying to accomplish?
All reasoning is an attempt to figure out something, to settle some question, to solve some problem.	What question am I addressing? Do I consider the complexities in the question?
All reasoning is based on data, information and evidence.	What information do I need to settle the question? Which methods or disciplines are needed?
All reasoning is expressed through, and shaped by, concepts and ideas.	How did I reach this conclusion? Is there another way to interpret the information?
All reasoning contains inferences by which we draw conclusions and give meaning to data.	What is the main idea here? Can I explain it?
All reasoning is based on assumptions.	What am I taking for granted? What assumption has led me to that conclusion?

All reasoning leads somewhere and has implications and consequences.	If someone accepted my position, what would be the implications? What am I implying?
All reasoning is done from some point of view.	From what point of view am I looking at this issue? Is there another point of view I should consider? Are all disciplinary perspectives thoroughly looked at?

Table 1: Reflective thinking for student learning

Students might be encouraged to reflect on their work and self-review using some or all the guiding questions in table 1. One key element of reflective learning is being able to explain past mistakes and adapt to avoid those mistakes in the future. This is referred to being engaged in ‘deep, active learning’ (Ryan & Ryan, 2015, p. 16). The self-review might be a think aloud activity in groups. These guiding questions can also be used to evaluate a peer’s work. de Gree et al., (2017, p. 156) posit that through analytical tasks, students’ ability to have a questioning attitude can increase. Being involved in peer review encourages students to focus on and to value others’ views, a key philosophy in citizenship development (Cummins, 2004). Further, the goal of peer review is to help to develop moderation, and an open-mindedness towards others, both prerequisites of collaborative learning.

Sound decision making development (Cannon-Bowers & Salas, 1997), through collaborative activity, might also be a critical thinking goal in ICLHE. The process of sharing individual perspectives and mutually negotiating meanings around a common goal has been termed collaborative elaboration (Van Meter & Stevens, 2000). To encourage a collaborative environment, students need to work together. They might produce co-written assignments or a collection of their written research projects (Norder & Rijdsdijk, 2016 as cited in de Greef et al., 2017, p. 154).

Autonomous learning

Another element that de Greef et al., (2017, p. 155) pinpoint as an essential goal in teaching ICLHE is the development of students' autonomous learning and organizational skills, particularly as part of an undergraduate foundational programme. According to Self-Determinism Theory (Deci & Ryan, 1991, p. 327), autonomy refers to being self-initiating and self-regulating. The teaching/Learning Cycle (TLC) from genre pedagogy demonstrates decreasing teacher support as students become increasingly autonomous as they are encouraged to deconstruct and jointly construct texts (Ranta & Lyster, 2017; de Greef et al., 2017). Moreover, de Greef et al., (2017, p. 145) argue, the teacher can adopt a coaching for learning style which helps to build trust between the teacher and students and develop students' autonomy and responsibility for their learning. Student and teacher can become collaborators in the knowledge construction process as students research topics that interest them within a given interdisciplinary field. Teachers might not be experts in all topics of inquiry selected by students; rather, they use their experience as researchers and educators to guide students through the knowledge construction processes. Students encouraged in this type of self-regulated research can further develop their voice (Cummins, 2004). This helps to build a positive self-image and boost self-esteem producing a positive self-reinforcing cycle. If students are encouraged to be responsible for their learning, this can help to develop a growth mindset. Drawing on Dweck's (2006) research, de Greef et al., (2017, p. 141) posit that students tend to try harder and be more determined to face challenges and achieve their objectives in this type of growth environment. Also, if students can be guided to select subjects that intrinsically motivate them, they should be more able to follow their passions; thus empowering them socially and academically.

Transformative pedagogies

Transformative pedagogies to encourage students to think about knowledge production as necessarily contextual, ideological and contestable are also essential goals in ICLHE.

Students can be made aware that academic arguments are related to issues of power, structural inequality and social justice in the real world (Canagarajah, 2002; Cummins, 2004; Giroux, 2004, 2011). As Cummins (2004) argues, texts are both linguistic and cultural artefacts and in consequence, students' attention should be directed towards the socio-political practices in which the texts are embedded. One transformative pedagogy that focuses on doing this relates to teaching intercultural communication (Cummins, 2004; Holliday, Hyde & Kullman, 2004; Hoff, 2020; Wagner & Byram, 2017).

As Holliday, Hyde and Kullman (2004) point out in their book on Intercultural Communication, the goals are to develop a deeper understanding of the representation of other groups, and to reduce otherization. To do this, Wagner and Byram (2017) argue that students should be made aware of the social groups and their products and practices in their regions and be able to discern and critique dominant perspectives. They should also be curious and open to other cultures; able to interpret a document or event from another culture; and to learn to use knowledge of other cultures in real time communication. Moreover, Hoff (2020) points out that a pedagogy de-emphasizing how outcomes may be assessed is important so that marginalized de-centring discourses on intercultural communication can be facilitated. De Greef et al., (2017) show how asking students to research and then present ideas from different perspectives on issues, through role play, can help to do this. In this book, we argue that this can also be achieved through expository writing. Critical discourse analysis is a common practice in the chapters that follow.

CONCLUSION

With the complexity of an ICLHE (Integrating Content and Language in Higher Education), it seems essential that training be available for university teaching staff regarding the actual practice of creating and delivering a module. Van Kampen et al. (2020) report on a small but growing minority of teachers who can focus on CLIL specifically in bachelors and master's schoolteacher education programmes in the Netherlands. They also state that there are some training courses for in-service schoolteachers in the Netherlands. However, very little exists in the higher education sector regarding the type of interdisciplinary module that high proficiency students require. Training and research in CLIL tend to focus on lower English language level learning such as secondary school contexts (Lin, 2016; Lo, 2020). Moreover, there appears to be very little literature from teacher-researchers sharing their SoTL practices. The content of this book is therefore very timely.

REFERENCES

- Archer, A., & Breuer, E. (2016). Introduction. A Multimodal Response to Changing Communication Landscapes in Higher Education. In R. Fidalgo & T. Olive (Eds.), *Studies in Writing: Vol. 33, Multimodality in Higher Education*, (pp. 1–17). Brill.
- Barradell, S., & Peseta, T. (2016). Promise and challenge of identifying threshold concepts: a cautionary account of using transactional curriculum inquiry, *Journal of Further and Higher Education*, 40(2), 262-275.
- Berkenkotter, C., & Huckin, T. N. (1995). Genre knowledge in disciplinary communication: Cognition/Culture. *Power*, 6.
- Bezemer, J., & Kress, G. (2016). *Multimodality, learning and communication: A Social Semiotic Frame*. Routledge.

- Brinton, D.M., Snow, M. A., & Wesche, M. B. (2004). *Content-based Second Language Instruction*. New York: Newbury House.
- Canagarajah, S.A. (2002). *Critical academic writing for multilingual students*. Ann Arbor: University of Michigan Press
- Canagarajah, S. (2018). Translingual practice as spatial repertoires: Expanding the paradigm beyond structuralist orientations. *Applied Linguistics*, 39(1), 31-54.
- Cannon-Bowers, J. A., & Salas, E. (1997). A framework for developing team performance measures in training. In M. T. Brannick, E. Salas, C. Prince (Eds.), *Team performance assessment and measurement: Theory, methods, and applications* (pp.45-62). Mahwah, NJ: LEA.
- Celce-Murcia, M. (2007). Towards More Context and Discourse in Grammar Instruction. *TESL-EJ*, 11(2), 1-6.
- Coyle, D. (2007). Content and language integrated learning: Towards a connected research agenda for CLIL pedagogies. *International journal of bilingual education and bilingualism*, 10(5), 543-562.
- Coyle, D. (2013). Listening to learners: An investigation into successful learning across CLIL contexts. *International journal of bilingual education and bilingualism*, 16(3), 244-266.
- Coyle, D., Hood, P. & Marsh, D. (2010). *CLIL*. Cambridge: Cambridge University Press.
- Cummins, J. (2001). Bilingual children's mother tongue: Why is it important for education? *Sprogforum*, 19, 15–20.

Cummins, J. (2004) Using IT to create a zone of proximal development for academic language learning: A critical perspective on trends and possibilities. In C. Davison(ed.) Information Technology and Innovation in Language Education (pp. 105-126). Hong Kong: Hong Kong University Press.

Curry, M. J., & Lillis, T. (2018). The Dangers of English as Lingua Franca of Journals. *Inside Higher Ed*. Retrieved October 2020 from <https://www.insidehighered.com/views/2018/03/13/domination-english-language-journal-publishing-hurting-scholarship-many-countries>).

Dafouz, E., & Smit, U. (2016). Towards a Dynamic Conceptual Framework for English-Medium Education in Multilingual University Settings, *Applied Linguistics*, 37(3), 397–415.

Dale, L., Van der Es, W., Tanner, R., & Timmers, S. (2010). *CLIL skills*. ICLON, Universiteit Leiden.

Dalton-Puffer, C. (2007). *Discourse in content and language integrated learning (CLIL) classrooms* (Vol. 20). John Benjamins Publishing.

Dalton-Puffer, C., Nikula, T., & Smit, U. (Eds.). (2010). *Language use and language learning in CLIL classrooms* (Vol. 7). Amsterdam & Philadelphia: John Benjamins Publishing.

Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. A. Dienstbier (Ed.), *Nebraska Symposium on Motivation, 1990: Perspectives on motivation* (pp. 237–288). University of Nebraska Press.

de Greef, L., Post, G., Vink, C., & Wenting, L. (2017). *Designing Interdisciplinary Education: A Practical Handbook for University Teachers*. Amsterdam University Press.

Dweck, C. S. (2006). *Mindset: The New Psychology of Success*. New York: Ballantine Books.

Elder, L. (2005). Critical Thinking as the Key to the Learning College: A professional development model. *New Directions for Community Colleges*, 130: 39–48.

English language syllabus. Secondary Express Course Normal (Academic) Course. (2020).

Curriculum Planning and Development Division. Retrieved Nov. 2021 from [Microsoft Word - 2. \(Public Syll - ENA\) Typesetter Handover CC 241219 1300.docx](https://www.moe.gov.sg/Word-2-(Public-Syll-ENA)Typesetter-Handover-CC-241219-1300.docx) ([moe.gov.sg](https://www.moe.gov.sg))

Facione, P. (2011). Critical thinking. *What It Is and Why Its Counts*. London: Measured Reason and The California Academic Press.

Fang, F. G., & Xie, X. S. (2019). Linguistic diversity on a Chinese university campus: Myths of language policy and means of practice. In J. Jenkins & A. Mauranen (Eds.). *Linguistic Diversity on the EMI Campus: Insider accounts of the use of English and other languages in universities within Asia, Australasia, and Europe*. (pp. 125-148). Abingdon: Routledge.

Felder, R. M.; Silverman, L. K. (1988). Learning and teaching styles in engineering education. *Engineering Education*, 78(7): 674–81

Gardner, S., & Nesi, H. (2013). A classification of genre families in university student writing. *Applied linguistics*, 34(1), 25-52.

Giroux, H. A. (2004). Cultural studies, public pedagogy, and the responsibility of intellectuals. *Communication & Critical/Cultural Studies*, 1(1), 59-79.

----- (2011). *On critical pedagogy*. New York & London: Bloomsbury.

- Grasmane, D., & Grasmane, S. (2011). Foreign language skills for employability in the EU labour market. *European Journal of Higher Education*, 1(2-3), 192-201.
- Gustafsson, M., & Jacobs, C. (2013). Student learning and ICLHE—Frameworks and contexts. *Journal of Academic Writing*, 3(1), ii-xii.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). Halliday's introduction to functional grammar (4th ed.). New York, NY: Routledge.
- Hamid, M. O., Nguyen, H. T. M., & Baldauf Jr, R. B. (2013). Medium of instruction in Asia: Context, processes and outcomes. *Current Issues in Language Planning*, 14(1), 1-15.
- Hashim, A., & Leitner, G. (2014). English as a lingua franca in higher education in Malaysia. *The Asian Journal of Applied Linguistics*, 1(1), 16-27.
- Hill, S. (2020). The difference between troublesome knowledge and threshold concepts, *Studies in Higher Education*, 45(3), 665-676,
- Ho, M. W., & Brooke, M. (2017). *Practical Guide to Project-Based Learning*. World Scientific Publishing Company.
- Hoff, H. E. (2020). The Evolution of Intercultural Communicative Competence: Conceptualisations, Critiques and Consequences for 21st Century Classroom Practice. *Intercultural Communication Education*, 3(2), 55-74.
- Holliday, A., Kullman, J., & Hyde, M. (2004). *Intercultural communication: An advanced resource book for students*. Routledge.
- Hopkins, A., & Dudley-Evans, T. (1988). A genre-based investigation of the discussion sections in articles and dissertations. *English for specific purposes*, 7(2), 113-121.

- Jacobs, H. H. (1989). *Interdisciplinary Curriculum: Design and Implementation*. Alexandria, VA: Association for Supervision and Curriculum Development, ASCD.
- Juan-Garau, M., & Salazar-Noguera, J. (Eds.). (2015). *Content-based language learning in multilingual educational environments*. Springer International Publishing.
- Kaur & Zainuddin (2019). Going global: EMI policies and practices at a Malaysian public university. In J. Jenkins & A. Mauranen (Eds.). *Linguistic Diversity on the EMI Campus: Insider accounts of the use of English and other languages in universities within Asia, Australasia, and Europe*. (pp. 172-193). Abingdon: Routledge.
- Kirkpatrick, A. (2014). English as a medium of instruction in East and Southeast Asian universities. In N. Murray & A. Scarino (eds.), *Dynamic ecologies* (pp. 15-29). Springer, Dordrecht.
- Kirschner, P. A., & van Merriënboer, J. J. (2013). Do learners really know best? Urban legends in education. *Educational psychologist*, 48(3), 169-183.
- Knight, J. (2008). *Higher education in turmoil: The changing world of internationalization*. Rotterdam: Sense Publisher.
- Kong, S. (2009). Content-based instruction: What can we learn from content-trained teachers' and language-trained teachers' pedagogies?. *Canadian Modern Language Review*, 66(2), 233-267.
- Kong, S., & Hoare, P. (2011). Cognitive content engagement in content-based language teaching. *Language Teaching Research*, 15(3), 307-324.
- Kress, G. (2000). A curriculum for the future. *Cambridge Journal of Education*, 30(1), 133-145.

- Lasagabaster, D. (2008). Foreign language competence in content and language integrated courses. *The Open Applied Linguistics Journal*, 1(1), 30-41.
- Lasagabaster, D., & Sierra, J. M. (2010). Immersion and CLIL in English: more differences than similarities. *ELT journal*, 64(4), 367-375.
- Li Wei. (2018). Translanguaging as a Practical Theory of Language. *Applied Linguistics*, 39(1), 9–30, <https://doi.org/10.1093/applin/amx039>
- Lillis, T. & Scott, M. (2007). Defining academic literacies research: issues of epistemology, ideology and strategy. *Journal of Applied Linguistics*, 4(1) pp. 5–32.
- Lin, A. M. Y. (2016). *Language across the curriculum & CLIL in English as an additional language (EAL) contexts: Theory and practice*. Singapore: Springer.
- Lin, H. Y. (2019). Perceptions of the Englishization of higher education in Taiwan: implementation and implications. *International Journal of Bilingual Education and Bilingualism*. 23(5), 617–34.
- Lueddeke, G. R. (2003). Professionalising teaching practice in higher education: A study of disciplinary variation and 'teaching-scholarship'. *Studies in higher education*, 28(2), 213-228.
- Lyster, R. (2017). *Content-based language teaching*. Routledge.
- Marginson, S. (2011). Higher education in East Asia and Singapore: Rise of the Confucian model. *Higher education*, 61(5), 587-611.
- Marginson, S. (2016). Global stratification in higher education. In *Higher education, stratification, and workforce development* (pp. 13-34). Springer, Cham.

Marsh, D. (compiler and author) (2002). CLIL/EMILE –The European dimension: Actions, trends and foresight potential. Jyväskylä: UniCOM, University of Jyväskylä.

Retrieved October 2020 from

https://jyx.jyu.fi/bitstream/handle/123456789/47616/1/david_marsh-report.pdf

Martin, J. R. (1999). Mentoring semogenesis: 'genre-based' literacy pedagogy. In *Pedagogy and the Shaping of Consciousness: Linguistic and Social Processes*, edited by F.

Christie, 123–55. Cassell (Open Linguistics Series)

Martin, J. R., & Rose, D. (2005). Designing literacy pedagogy: Scaffolding democracy in the classroom. In J Webster, C Matthiessen & R Hasan (Eds.) *Continuing Discourse on Language: A functional perspective* (pp. 251-280). London: Continuum.

Martin, J. R., & Rose, D. (2008). *Genre relations: Mapping culture*. London: Equinox.

Meyer, J. H. F., & Land, R. (2003). Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines. *ETL Project Occasional Report 4*.

Meyer, J. H. F., & Land, R. (2005). Threshold concepts and troublesome knowledge (2): epistemological considerations and a conceptual framework for teaching and learning. *Higher Education* 49(3), 373–388.

Meyer, J., & Land, R. (2006). *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge*. Abingdon, Oxon; New York; Routledge.

Miller, C. R. (1984). Genre as social action. *Quarterly journal of speech*, 70(2), 151-167.

- Murata, K., Iino, M., & Konakahara, M. (2019). Realities of EMI practices among multilingual students in a Japanese university. In J. Jenkins & Mauranen, A. (eds.). *Linguistic diversity in international universities*. Oxon: Routledge.
- Neumann, R. (2001). Disciplinary differences and university teaching. *Studies in higher education, 26*(2), 135-146.
- Ou, W. A., Gu, M. M., & Hult, F. M. (2020). Translanguaging for intercultural communication in international higher education: transcending English as a lingua franca. *International Journal of Multilingualism, 1*-19.
- Pakir, A. (1999). Bilingual education with English as an official language: Sociocultural implications. In J. Alatis & A. Tan (eds.), *Georgetown university round table on languages and linguistics, (341-350)*, Washington, DC: Georgetown University Press
- Paul, R. (1984). Critical Thinking: Fundamental to education for a free society. *Educational Leadership, 42*: 4–14.
- Paul, R., & Elder, L. (2008). Critical Thinking: Strategies for Improving Student Learning, Part II. *Journal of Developmental Education, 32*(2), 34-35.
- Pennycook, A. (2017). Translanguaging and semiotic assemblages. *International Journal of Multilingualism, 14*(3), 269-282.
- Pérez-Vidal, C. (2015). Languages for all in education: CLIL and ICLHE at the crossroads of multilingualism, mobility and internationalization. In *Content-based language learning in multilingual educational environments* (pp. 31-50). Springer, Cham.

Ramos-Ford, V., & Gardner, H. (1997). Giftedness from a multiple intelligences perspective.

In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (2nd ed., pp. 54-66). Boston: Allyn & Bacon.

Ranta, L., & Lyster, R. (2017). Form-focused instruction. In P. Garrett, J. M. Cots (Eds.), *The Routledge handbook of language awareness* (pp. 40-56). Routledge.

Ryan, M., & Ryan, M. (2015). A model for reflection in the pedagogic field of higher education. In M. E. Ryan (Ed.), *Teaching Reflective Learning in Higher Education* (pp. 15-27). Cham: Springer.

Sandström, A. & Neghina, C. (2017). English-taught bachelor's programmes.

Internationalizing European higher education. The European Association for International Education (EAIE). ISBN 978-90-74721-46-2. Retrieved October, 2020 at <https://www.studyportals.com/wp-content/uploads/2017/09/EAIE-StudyPortals-English-taught-bachelor-programmes-Europe.pdf>

Seidlhofer, B. (2011). *Understanding English as a lingua franca*. Oxford: Oxford University Press.

Shahjahan, R.A., Estera, A.L., Surla, K.L., Edwards, K.T. (2022). "Decolonizing" Curriculum and Pedagogy: A Comparative Review Across Disciplines and Global Higher Education Contexts. *Review of Educational Research*, 92(1):73-113.
doi:[10.3102/00346543211042423](https://doi.org/10.3102/00346543211042423)

Smit, U. & Dafouz, E. (2012). Integrating content and language in higher education. An introduction to English-medium policies, conceptual issues and research practices across Europe. In *AILA Review* 25, 1-12. Strauss, A. & Corbin, J. (1994). Grounded

- Theory methodology: An overview, In N. K. Denzin, and Y.S. Lincoln, (Eds): *Handbook of Qualitative Research*. (pp.273-285). Sage Publications, London.
- Swales, J., & Najjar, H. (1987). The writing of research article introductions. *Written communication, 4*(2), 175-191.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual review of psychology, 33*(1), 1-39.
- Tribble, C. (2009). Writing academic English—a survey review of current published resources. *ELT journal, 63*(4), 400-417.
- Tsou, W., & Kao, S. (2017). *English as a medium of instruction in higher education*. Singapore: Springer Nature.
- Valcke, J., & Wilkinson, R. (2017). *Integrating Content and Language in Higher Education: Perspectives on Professional Practice*. Peter Lang Publishing Group.
- van Kampen, E., Meirink, J., Admiraal, W., & Berry, A. (2020). Do we all share the same goals for content and language integrated learning (CLIL)? Specialist and practitioner perceptions of ‘ideal’ CLIL pedagogies in the Netherlands. *International Journal of Bilingual Education and Bilingualism, 1*-17.
- Van Meter, P., & Stevens, R. J. (2000). The role of theory in the study of peer collaboration. *The Journal of Experimental Education, 69*(1), 113-127.
- Wagner, M., & Byram, M. (2017). Intercultural citizenship. In Y.Y. Kim (Ed.), *The International Encyclopedia of Intercultural Communication* (pp. 1-6). New York: John Wiley & Sons
- Welch, A. (2002). Going global? Internationalizing Australian universities in a time of global crisis. *Comparative Education Review, 46*(4), 433-471.

Wilkinson, R., & Zegers, V. (Eds.). (2007). *Researching Content and Language Integration in Higher Education*. Maastricht: Maastricht University Language Centre

Xu, Z., Leung, J., Hall, M., Jafari, J., & Pour, M. S. (2019). Linguistic diversity on an Australian university campus. In J. Jenkins & A. Mauranen (Eds.). *Linguistic Diversity on the EMI Campus: Insider accounts of the use of English and other languages in universities within Asia, Australasia, and Europe*. (pp. 197-206). Abingdon: Routledge.

Yu, S., & Lee, I. (2016). Peer feedback in second language writing (2005–2014). *Language Teaching*, 49(4), 461-493.