

Content and Language Integrated Learning: Shifting Boundaries and Terrain Mapping

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Abstract

European policies mandate encouraging plurilingualism in a digitally enhanced world. This mandate is placing increased demands on higher educational practitioners and institutions to prepare today's learners with new linguistic skills. Content and Language Integrated Learning (CLIL) policy appears to resonate strongly with European aspirations and goals of educating citizens and promoting lingual diversity, pluriculturalism, and mobility within the European Union. Whilst offering a potential solution through the interweaving of content and language in a dual-focused educational approach, CLIL is at risk of becoming a 'buzz word' without evidence-based research on emerging CLIL practices. This paper suggests a framework for practice-based research in the initial steps of CLIL implementation into HE curriculum and considers expansive learning theory as a theoretical and analytical framework to advance knowledge creation. The deliberate construction of a transdisciplinary networked learning community is advanced as the outcome and vehicle as the first initiative for CLIL implementation. The partnering and convergence of the knowledge expertise of language experts and subject experts in collaborative reflective practice enhances networked learning within and beyond the institutional boundaries, professional development and learner multiliteracies, including languages, culture, content and digital media. The context for this study is within tertiary architectural education in France where students study architecture in the first language, French, and Language and Communication Skills in the additional language of English as a separate discipline. This lack of convergence appears at odds with the emerging trend and evolution of transdisciplinarity in architectural education and practice where academia and associated professions of architecture, design and engineering increasingly teach, practice and research collaboratively. This desk-based research first examines the significance of CLIL in the European context, its variants, along with the challenges and drawbacks in crossing disciplinary boundaries. The implications for language and disciplinary practitioners and their role are discussed. Transdisciplinary collaborative work, teaching and learning can bridge language and knowledge barriers between the different disciplines in and through the fusion of language learning of, for, and through the languages of architectural practice and content, leading to innovation in curriculum development. Relational agency, in other words calling on the capacity of individuals to jointly work and learn with other practitioners, pedagogies, theories and resources distributed within institutional settings, given that a supportive learning community is possible, can lead to enhanced professional agency, in other words the capacity to act effectively informed by appropriate professional knowledge.. This paper concludes that further research is needed on relational agency within collective activities, such as networked learning communities to advance CLIL implementation.

Keywords: Language learning, Content and language integrated learning (CLIL), learning community

Introduction: Why is language learning important in higher architectural education?

This study contributed to a larger EU funded project ARCHI21 (Architectural and Design based Education and Practice through Content & Language Integrated Learning using Immersive Virtual Environments for 21st Century Skills). ARCHI21 investigates architectural education, content integrated language learning and the

potential for 3D virtual environments, social networking and Web 2.0 technologies to support and enhance transdisciplinary learning of multiliteracies.

Students of architecture and practicing architects can work more easily throughout Europe due to the EU Professional Qualifications Directive on recognition of professional qualifications (2005) but they should have “a knowledge of languages necessary for practising the profession in the host Member State” (p. 50, Art. 53). As higher education (HE) institutions harmonise their programmes to comply with the Bologna Process (1999) for the creation of the European Higher Education Area (EHEA), there is an opportunity to introduce change to foreign language learning. This opportunity is especially important given that the mobility, cooperation and employability within Europe of architectural and design learners, educators and practitioners may be restrained by the emerging diversity and inequality of language learning opportunities in HE and adult learning organizations where:

- 1 foreign language learning is isolated and separated from content
- 2 institutions offer minimum language contact hours
- 3 foreign language learning is no longer obligatory
- 4 poor or no preparation exists for Erasmus students’ academic study abroad.
- 5 there is a lack of specialized courses for educators of architecture and practicing architects to skill-up their language competence.

The introduction of a context-dependent plurilingual approach has the potential to transform language learning and teaching curricula and to enhance the school profiles, educator profiles, learner profiles, and encourage mobility within the EU (Marsh, 2002). Furthermore, validated language competence in another language is now required to obtain a Master degree in architecture (Arrêté, 2005). The examination and discussion of literature appropriate to the European context seeks to answer the overarching question:

- 1 To what extent can contemporary expansive learning theory (EL) facilitate the advancement of content and language integrated learning (CLIL) in higher architectural education?
- 2 What are the conceptual commonalities and differences among CLIL approaches?
- 3 What are the key challenges and drawbacks faced by educators in cross-disciplinary dialogue and co-designed content?
- 4 What role can educators play to advance the emergence of collaboration across fields of expertise?
- 5 How can reflection on practice contribute to group knowledge and teacher professional development?

CLIL as a Potential Solution

CLIL, an educational approach which is “essentially methodological” (Marsh, 2008, p. 244) is defined as a dual-focused approach in which “an additional language is used for the learning and teaching of both content and language” (Marsh, 2008, p. 234). CLIL places “language and non-language content on a form of continuum, without implying preference for one or the other” (Marsh, 2002, p. 58) where both have a joint curricular role. The interweaving of content and language is an “innovative fusion” (Coyle, Hood & Marsh, 2010, p.1) of non-language subject with and through a foreign language. It focuses mainly on meaning-making, differing from language form focused approaches (Marsh, 2002) and allows for largely “implicit and incidental learning” in “naturalistic” situations (p. 72). While this approach is not new (Marsh & Marsland, 1999), CLIL is a “European solution to a European need” (Marsh, 2002, p. 11) which suits the immediacy of purpose of today’s learners who prefer “to learn as you use and use as you learn” (Marsh, 2002, p. 66). Its apparent success in such a relatively short time reflects the growing need for authentic, relevant and purposeful language learning to meet the needs of the citizens of Europe today and tomorrow.

Technological advancements have changed the architectural profession and educational practices dramatically, enabling the rapid transfer and sharing of information, designs and testing of models across the boundaries of classrooms, professions, institutions, countries and languages. The Internet facilitates the creation of networks of learning where students interact synchronously or asynchronously with other people and online materials on local, national and international projects in technologically mediated spaces. These networked learning spaces, in addition to the physical spaces of the traditional classroom, are potential conduits for embedding authentic CLIL integration in real world activities relevant to students’ learning curriculum.

Commonalities and Differences – The need for research

The complexity of CLIL terminology and its implementation lies in its very foundations as an approach with no blueprint to fit all shapes and sizes but as a “fusion of subject didactics, leading to an innovation which has

emerged as education for modern times” (Coyle, Hood, & Marsh, 2010, p. ix). Coyle (2007) argues, however, that “such a flexible inclusive approach to CLIL is both a strength and potential weakness” (p. 546). Whilst this openness to interpretation encourages educators to experiment in their local and national settings, Van de Craen claims “CLIL resembles acupuncture : it works but nobody seems to know why” (2002, p. 209). In a detailed overview of different CLIL models, Navés (2009) states, “What they all have in common is they are programmes of varying length that provide, nevertheless, a substantially greater and better exposure to the target language” (p.36). Nevertheless, some European CLIL approaches emphasise language over content (Coyle, 2007), and “subject matter pedagogies and their integration with language pedagogies are being systematically overlooked” (p. 549). Other CLIL variants emphasise content over language, assuming language acquisition. de Bot (2002) argues that “teaching a subject in a foreign language is not the same as an integration of language and content” (p. 31). Marsh (2008) warns of the potential negative consequences if “dual-focussed language-sensitive methodologies” are not used “alongside change of medium of instruction from one language to another” (p.244).

While benefits of CLIL are rightly claimed (Coyle, 2007; Dalton-Puffer & Smit, 2007; Lasagabaster, 2008; Wiesmes, 2009), Davison & Williams (2001) note the high face validity of CLIL but also the lack of a research base. Furthermore, Wiesmes (2009) warns against CLIL becoming a trend or buzz word, and together with Coyle (2007), Coyle, Hood and Marsh (2010), observe the need for research and practice to combine for CLIL to be recognized as a field of inquiry. Dalton-Puffer and Smit (2007) argue that “while the political support for CLIL teaching is generally strong, concrete guidance and support for teachers implementing it are largely absent” (p. 16).

Key Challenges and Drawbacks Faced by Educators

CLIL challenges the status quo (Marsh, 2008) and implies changes to the traditional repertoires of language and non-language teachers, requiring the development of a special approach (Eurydice, 2006) where educators work collaboratively to formulate new didactics for “a real integration of form and function in language teaching” (de Bot, 2002, p. 31). In 2003, the European Commission stated:

Many more members of the teaching profession should in future be able to teach their subject(s) through at least one foreign language; to this end, trainee teachers should study language(s) alongside their area of specialisation and undertake a part of their teaching studies abroad. (p. 11).

However, what does this mean for the in-service experienced language and subject teachers? Pre- and in-service training for future CLIL educators exists in the form of special EU funded programmes (CLIL Comenius courses) and various university courses, but to what extent do these programmes prepare the terrain for located transdisciplinary CLIL in HE?

Costa & Coleman (2010) report research findings that university professors are not very receptive to following training to teach in a foreign language and are wary of the watering down and simplification of content to make it comprehensible. Coyle (2008) refers to similar tensions between ‘subject experts’ and ‘language experts’ and also concerns of language quality by non-linguists. Mehisto (2008) refers to tensions or disjuncture in changing mindsets from a current to a new approach. Marsh (2008) observes “professional and cultural territorialisation” (p. 66) and CLIL being seen as a platform for English as the European lingua franca as the strongest criticisms of this approach. Whilst Coyle and others (2010) recognise that CLIL “presents an opportunity and a threat to accepted language teaching practice,” they also note that it is “an opportunity for language teachers to regenerate their profession” (p. 12). Again, the perspective is from the language teaching profession’s and begs the question ‘What happens to the non-bilingual, subject matter experts?’

Critical discursive analysis is needed to share the expertise of emergent CLIL theoretical principles (Coyle, 2007; Heine, 2010). Coyle (2007) suggests CLIL practitioner communities can provide an inclusive approach to advancing CLIL research. Online international communities of practice have emerged, using different technologies to discuss and debate labelling, pedagogy, learning events. Coyle and others (2010) advance the need to proactively identify CLIL in the technology enhanced learning of the Knowledge Age in the knowledge triangle of education, research, and innovation, advocated by EURAB (2007) calling for a structured and reported approach to CLIL implementation, requiring recording of each step of the process in order to reiterate and improve upon in action or after action. Wiesmes (2009) advocates avoiding reifying models, suggesting

systematic examination and integration of subject-based pedagogical models into CLIL theories to explore and develop further Coyle's 4Cs Framework (1999) within the situated action.

In attempting to bring clarity to CLIL approaches, Coyle's 4Cs Framework provides a pedagogical conceptual tool to map out CLIL activities where culture is placed at the core and where content is the starting point. The 4Cs framework for CLIL starts with content (such as subject matter, themes, cross-curricular approaches) and focuses on the interrelationship between content (subject matter), communication (language), cognition (thinking) and culture (awareness of self and 'otherness') to build on the synergies of integrating learning (content and cognition) and language learning (communication and cultures). It unites learning theories, language learning theories and intercultural understanding (Coyle, 2008). The conceptualized CLIL framework or triptych linguistic approach (Coyle, 2007) focuses on the use and development of language of learning, for learning and through learning as a more relevant approach to determine the language needed within the CLIL approach.

We argue that the concept of community and its construction is missing in Coyle's framework. Whereas team teaching, collaboration and cooperation are mentioned in CLIL literature, the paucity of literature critically examining the role of the partnering and collaboration between professionals within CLIL approaches may either reflect a largely uncritical and normative assumption of success or an area for future exploratory research. We further forward that CLIL implementation in HE does not automatically translate into the replacement of in-service educators by specially trained CLIL language teachers or bilingual subject-matter teachers. A potential alternative is the partnering of the knowledge expertise of the located language experts and subject experts to enhance reflective practice and offer professional development. Interestingly, Dalton-Puffer and Smit (2007, p. 15) observe only recent research combining the micro and process-oriented perspectives.

Coordinating, Cooperating, or Collaborating in Community?

Coyle (2008) views contextually bound CLIL pedagogies as "a conduit for propelling CLIL learning communities towards constructing their own CLIL theories of practice ... developed through classroom praxis and professional collaboration" (p. 108). The construction of a learning community and /or community of practice with the located or 'in-situ' key actors or 'old-timers' (James, 2007) may be a solution to transdisciplinary CLIL implementation.

The term 'community' has different context-dependant theoretical perspectives (Eraut, 2002). Lave and Wenger's community of practice theory (Lave & Wenger, 1991; Wenger, 1998) focuses on the collective co-participation where "social relations are formed, negotiated and sustained around the activity that has brought people together" (Fuller, 2007, p. 21). Learning occurs through legitimate peripheral participation, newcomers being on the edge and old-timers in the centre, culminating in the replacement of old-timers (Lave & Wenger, 1991, p.57). More appropriate for this inquiry is Engeström's expansive learning theory which appears to offer an account of how new knowledge is produced. Community is a dimension of an activity system and the "thing or project people are working to transform" (Blackler, 2009, p. 26) is prioritized. For the purposes of this paper, 'community' refers here to the learning community of practitioners working in small scale team and working groups which "provide more scope for the negotiation of relationships between members" (Eraut, 2002, p. 4) or a collective organization deliberately established for an explicit purpose.

We suggest that in a context-driven approach, meaningful discourse through transdisciplinary cooperation and collaboration between educators is the first stage in the contextual and processual development required to map the terrain for CLIL experimentation. Initial negotiations between transdisciplinary members constitute the first steps in the process of: a) coordinating joint activity (cooperation) where complementary skills and knowledge are brought to the CLIL concept, and b) the process of joint creation (collaboration) where overlapping skills and knowledge are brought to the CLIL concept with equitable contribution.

Engeström's (1987) third-generation activity theory, expansive learning (EL) offers a framework for formative interventions and the potential development of collective activity systems. It allows the conceptualization of the collective intent and the distributed agency within an activity system. EL builds on a model of multiple interacting activity systems where each activity consists of interrelated elements: subject, object, mediating artefacts, community, rules and division of labour. Three central theoretical constructs to EL are activity system, contradiction and zone of proximal development (Engeström, 2008).

The Zone of Proximal Development or ZPD (Vygotsky, 1978) where people need to be in order to learn and develop, is the distance between existing activity (dissatisfaction with prevailing language learning) and the potentiality of new activity (content integrated language learning) in the whole collective activity system (Engeström, 1987). This is called the cycle of expansive learning (Engeström, 2001) or “terrain of activity to be dwelled in and explored, not just a stage to be achieved or even a space to be crossed” (Engeström, 2009, p. 312). It is based on dialectics ascending from the abstract to the concrete, starting first with questioning of the existing practice and expertise of the key actors and then analysis, both historical and actual-empirical analysis, followed by modelling, the third strategic action. The first three learning actions act as the basis of joint cooperation, collaboration and collective creative activity in the transdisciplinary negotiation of the approach to CLIL curricula integration and qualitative transformation. This framework is appropriate to develop and examine how practitioners from different disciplines and perspectives, holding different belief systems and priorities can negotiate and co-design curricula change and also to follow the trajectories, step by step, to advance knowledge creation.

Crossing and Shifting Disciplinary boundaries, beliefs and perceptions

For CLIL initiation, we have argued for the necessity for transdisciplinary community construction to support a learning community of heterogeneous knowledge makers (language and non-language educators) towards a common purpose (CLIL). Horizontal development within EL is the crossing of boundaries (here, disciplinary) which occur in collaborative partnering (Doyle, 2004), as opposed to vertical, hierarchical power relationships. Boundary crossing requires both negotiation and re-orchestration (Engeström, 2009) in the collective intentionality towards collaborative work on common objects, or “collaborative intentionality capital” (Edwards, 2009, p. 198). It enables multivoicedness, or being “professionally multilingual” to “speak across professional boundaries” (Edwards, 2009, p. 206) which Engeström refers to as object-oriented interagency (2008).

What are the implications of boundary crossing for individual identity, power and control in the learning community? EL does not address the issue of individual identity (Edwards, 2009), seeing it as an embedded element in an activity system (Billett, 2007) which has its own historicity. While Lave & Wenger (1991) and Wenger’s (1998) work on communities of practice does focus on identity formation, it has been criticized for not addressing the issue of power and control (Schwen & Hara, 2003; Daniels, 2008). According to Contu and Willmott (2003) relations of power in popularized versions of situated learning theory are “dimly recognized or discarded” (p. 3).

Billett (2007) argues for greater attention to relations between the individual and social in communities and the relational interdependence of agency, intentionality and subjectivity. Similarly, Edwards (2009) proposes relational agency as the capacity to work with others to interpret and respond to problems of practice. For Engeström (2009), “relational agency and expansive agency are complementary lenses, one focused on the individual, the other focused on the distributed collective” (p.317) but he does not expand further on the individual. According to Edwards (2009), relational agency can help to understand personal agency in the negotiation and reconfiguring of tasks. It is a capacity not only to work in alignment with others but to recognize the other person as a resource and to know how to elicit and negotiate the use of that resource in joint action.

Taylor (2009, p. 230) argues that Engeström has not dealt with the problematisation of community but treated it as a backgrounding parameter when in fact, it is and should be dealt with as an object of activity because it is itself the outcome of activity, as community has to be constructed. Taylor posits that there are always two outcomes of activity where humans are concerned, intervention and community formation (2009, p. 238). Taylor (2009) posits coorientation theory as the “building block of a conceptualization of community” (p. 230) where creation of value is in the outcome of the transformed object, realized through performance. It is a triadic relationship where the beneficiary and agent first relate to each other through their common interest in the object (Taylor, 2009, p.31). Taylor (2009) warns of contradictions and degenerations where the object is “monopolized by one at the expense of the other” (p. 232) and where agency and beneficiary have diverging purposes, the relationship “cannot ever be – symmetric” (p. 232). According to Taylor, the role of authority holds coorientational relationships together and he questions the authority ‘given’ to divide the labour and create rules within the Engeström model. He claims that the genesis of community is not sufficiently explained yet in Engeström’s model. No system of activity is going to persist very long if it does not produce its own community in the very act of accomplishing the practical purposes of the people who make it up (Taylor, 2009, p. 238). Engeström (2009, p. 314-317) acknowledges Taylor’s argument of no in-depth treatment of authority but takes a

historical lens to authority, stating that authority and agency are closely related. However, his stance is the collective, not the individual, in object-oriented interagency, or the “connecting and reciprocating” while “focused on and circling around a complex object” (Engeström, 2008, p. 225). Engeström’s response is that team reflective communication may overcome troubles questioning the division of labour, rules and boundaries.

Figure 1 offers a framework to analyse local interagency collaboration in community construction and potential emerging tensions and contradictions. It attempts to promote dialogue between theory and practice, between CLIL, SLA (Second Language Acquisition), EL and predominant design studio and process/problem based pedagogies within tertiary architectural education. The object and future vehicle for inclusive CLIL implementation is a networked learning community of reflective practice, of reflection-in-action and reflection-on-action (Schön, 1983; Schön & Wiggins, 1988) to support experiential approaches.

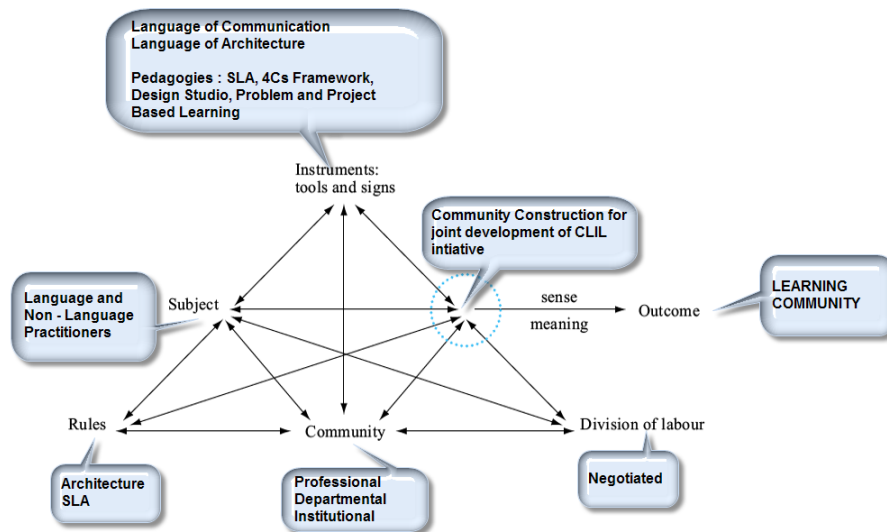


Figure 1: Community Construction as Object

Conclusion

There is much to be gained through a sustained practice-based research engagement with the CLIL approach in higher architectural education. It has been suggested that deliberate community construction across disciplinary boundaries for practitioners is the first step in anticipation of CLIL implementation, where it is both an outcome and a vehicle. Expansive learning theory provides an analytical framework to underpin the reiterative process involved in developing avenues to guide CLIL inquiry. However, further research is needed to understand what shapes the participation and learning of members of the intended learning community regarding power relations and potential tensions of authority and identity across disciplines and between individuals. Furthermore, transformative practice requires long-term institutional support to be sustainable. CLIL implementation demands a heavy investment of time, resources and a high degree of mutual trust, professional respect and motivation by individuals to participate collaboratively on jointly negotiated, created and delivered actions. These areas merit in-depth research to ascertain the potential value-addedness of CLIL in higher architectural education. By taking a case study approach and actively involving students of architecture in an emerging networked learning community, not only language learning may be enhanced but also professional development for in-situ practitioners of both language and non-language subjects through scaffolded transdisciplinary experimentation and inquiry. However, further studies could investigate whether or to what extent CLIL implementation via a transdisciplinary networked learning community might generate tension or conflict between architectural content and language learning.

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