

**To cite this article:**

Kletzenbauer, P., Fürstenberg, U. & Reitbauer, M. (2022). Becoming “Language-Aware” in ICLHE: Creating a Space of Trust for Teachers, Teachers Trainers and Language Specialists. *CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education*, 5(2), 53-63. <https://doi.org/10.5565/rev/clil.81>

<https://doi.org/10.5565/rev/clil.81>

e- ISSN: 2604-5613

Print ISSN: 2605-5893

# Becoming “Language-Aware” in ICLHE: Creating a Space of Trust for Collaborative Partnerships between Teachers, Teacher Trainers and Language Specialists



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In this paper, we present a cross-disciplinary collaboration model inspired by collaborative action research (CAR) developed at a computer science department at a University of Applied Sciences in Austria. We outline the roles which language teachers at the institution and external teacher educators and language specialists play in creating a space of trust for the professional development of content specialists.

Recent research has called for such collaborative partnerships between language and content specialists to raise awareness among English Medium Instruction (EMI) practitioners and stakeholders that language is a central element in knowledge transfer to support specific disciplines in their processes of conceptualization and problem-solving. This demand for an integrative approach which takes the interplay of language and content into consideration has not yet received sufficient attention, neither at the institutional level nor at the level of individual teachers. Innovative approaches are clearly needed to improve the quality of Integrating Content and Language in Higher Education (ICLHE) teaching.

The generally positive reactions of the content teachers to the Trust Model of Cross-Disciplinary Collaboration suggest that it can contribute to improving their understanding of the epistemic function of language and their ICLHE teaching practice.

**KEYWORDS:**

ICLHE, Collaborative Action Research (CAR), Language Awareness, Trust Model of Cross-Disciplinary Collaboration

En este artículo presentamos un modelo de colaboración interdisciplinaria inspirado en la investigación-acción colaborativa (IAC) desarrollado en un departamento de informática de una Universidad de Ciencias aplicadas de Austria. Exponemos las funciones que desempeñan los profesores de idiomas de la institución y los formadores de profesores y especialistas en idiomas externos en la creación de un espacio de confianza para el desarrollo profesional de los especialistas en contenidos.

Investigaciones recientes han reclamado este tipo de asociaciones de colaboración entre especialistas en idiomas y en contenidos para concienciar a los profesionales de la Docencia universitaria en inglés (DUA) y las partes interesadas en que la lengua sea un elemento central en la transferencia de conocimientos con la finalidad de apoyar las disciplinas específicas en sus procesos de conceptualización y resolución de problemas. Esta demanda de un enfoque integrador que tenga en cuenta la interacción entre la lengua y el contenido no ha recibido todavía suficiente atención, ni a nivel institucional ni a nivel de los profesores individuales. Es evidente que se necesitan enfoques innovadores para mejorar la calidad de la Integración de Contenidos y Lengua en la Educación Superior (ICLES).

Las reacciones generalmente positivas de los profesores de contenido al modelo de colaboración interdisciplinaria de Trust sugieren que éste puede contribuir a mejorar su comprensión de la función epistémica de la lengua y de la práctica docente ICLES.

**PALABRAS CLAVE:**

Integración de contenidos y lengua en la educación superior (ICLES), Investigación-acción colaborativa (IAC), Conciencia lingüística, Modelo Trust de colaboración interdisciplinaria

## Introduction

English is becoming more widely used as a medium of instruction in tertiary education all over the world. This development is driven by the status of English as the global language and by the increasing internationalisation of higher education (see Dearden, 2015). Thus, many subject specialists without a background in language teaching find themselves having to teach their subjects in English (Yuan, 2021), often without adequate preparation or support.

If there are language teachers working in the same institution or department, it often falls to them to provide language expertise and support for their subject teacher colleagues. In fact, when both content and language are taught at an institution, the challenges of ICLHE (Integrating Content and Language in Higher Education) mean that content and language specialists often find themselves collaborating out of necessity. This is the case for the department we investigated: content teachers do not have the training or experience to handle the language aspects of ICLHE on their own, and language teachers are not sufficiently familiar with the subject-specific content. This results in “a ‘natural’ need for them to collaborate with each other” (Lo, 2020, p. 36).

These collaborations can be challenging for a variety of reasons. Gustafsson et al. (2011) name “infrastructural, institutional, epistemological, disciplinary, rhetorical” reasons, and Wilkinson (2018) acknowledges that “collaboration across disciplines is hard work and demands much of those who try to achieve it” (p. 609), all the more so as the respective roles of content teachers and language teachers are not clearly defined in the ad-hoc collaborations that are common in ICLHE in higher education. Thus, while it has been widely acknowledged that “effective cross- and inter-disciplinary collaboration can be a key factor in the success of an EMI program”, (Brown, 2017, p. 158), and researchers have sounded a “clarion call for partnerships between EMI (English as a Medium of Instruction) teachers (content specialists) and English language teachers/

**“When both content and language are taught at an institution, the challenges of ICLHE (Integrating Content and Language in Higher Education) mean that content and language specialists often find themselves collaborating out of necessity.”**

researchers (language specialists) as an innovative approach to improving the quality of EMI teaching [...] there is a lack of information about how language specialists can collaborate with EMI teachers and what roles they can play in EMI teacher education” (Yuan, 2021, p. 2). This is precisely the gap which we will attempt to address in this paper by presenting a model for effective collaboration between content and language teachers in EMI which also involves outside experts, in this case a teacher trainer and a language specialist.

## Collaborative Partnerships between Language and Content Teachers

Collaborative partnerships in ICLHE can take many forms. Recent research on language/content teacher collaboration, e.g. Lo (2020), has identified mainly instances of spontaneous, superficial forms of collaboration such as language teachers proofreading content teachers’ course materials. Based on her work with schools in Hong Kong, Lo also discusses types of collaboration that go further than that and are theme-based, genre-based or project based.

In terms of professional development, Yuan (2021) believes that language teachers can facilitate the integration of content and language by collaborating with content teachers, but she also sees the former as initiators of classroom change. This role of language teachers in language/content teacher collaborations will be discussed in more detail below.

Yuan also states that language teachers should attend to teachers’ social and affective needs and advocate the professional status of EMI teachers (see for example Moate, 2011; Pappa et al., 2017). Hessel et al. (2020) highlighted that content teachers who “felt prepared to teach CLIL/EMI, tend to have higher well-being overall” (p. 86) which means that their professional well-being not only promotes “effective ways of supporting students’ L2 development” but also “resource-effective ways of developing CLIL materials” (p. 86).

The great variety of possible forms of content/language teacher collaboration gives rise to a need for ways to evaluate the effectiveness of different collaboration efforts. Davison (2006) provides a framework for doing this. His model for evaluating the effectiveness of language/content teacher collaboration consists of five stages of increasing effectiveness:

- Pseudocompliance
- Compliance
- Accommodation
- Convergence (and some co-option)

### ■ Creative co-construction

The indicators for each stage are attitude towards the idea of collaboration, effort (i.e. investment of time and understanding), achievements such as outcomes or products of the collaboration, and expectations of support, also in terms of professional development.

The section below presents several forms of collaboration between a language teacher and her content teacher colleagues in a Computer Science department at a University of Applied Sciences in Austria, which also involved a teacher trainer and a language specialist as external partners. The effectiveness of the different approaches will be evaluated in terms of Davison’s framework.

## Approaches to Collaborative Partnerships in an ICLHE Setting: Context and Challenges

The content/language teacher collaborations described below took place at a computer sciences department with a total of 25 content teachers, i.e. faculty members who teach and do research in applied computer sciences. The degree programme is supported by one full-time English teacher, who is a full staff member and is expected to engage in research in addition to her teaching, and three part-time freelance English teachers who work for the department on a contract basis.

When EMI classes were introduced at the department in 2015, collaboration between the individual disciplines, but also between the content teachers and the language teachers, was rare or even non-existent. English as the new language of instruction was more or less imposed by university management, and content teachers received neither institutional nor individual support in order to cope with this new challenge. The absence of an explicit language policy (see for example Dannerer et al., 2021) implies a lack of knowledge about the role of language in teaching and creates a situation in which teachers do not feel that they can voice their concerns about the challenges of EMI teaching. This is exacerbated by an institutional culture in which teachers tend to work autonomously and are not generally in the habit of asking for support.

Even so, the language teacher at the department had already experimented with different forms of collaboration with her content teacher colleagues before the introduction of the collaboration model discussed in this paper. The workload faced by content teachers is often not conducive to collaboration with colleagues since they have to deal with teaching and research at the same time. Their schedule is tight, and allows little time for didactical reflection or new lesson planning.

In trying to establish any form of collaboration, the initial challenge for the language teacher was the fact that

her content teacher colleagues found it difficult to make time for meetings, coordination and reflection. It was therefore imperative to create a form of collaboration which they would experience as being worth the extra effort and beneficial for their ICLHE teaching.

### Laying the Groundwork for Collaboration: Gaining Subject Knowledge for ESAP

When the English teacher in our study joined the computing department in 2012, she put a strong emphasis on English for Specific Academic Purposes (ESAP) classes, which were expected to be designed according to the students’ needs and the demands of their future professional life. After a couple of semesters, the language teacher thus felt the need to approach her content teacher colleagues in order to gain a better understanding of the IT world and to investigate which communication skills her colleagues thought she should work on. She carried out classroom observations and used them to identify ways in which the language and content classes could be linked more closely.

#### Description of the Collaboration

The first innovation the language teacher introduced was a yearly presentation event which imitated the setting of an international computer science conference where the students had to present projects they had worked on in their content classes in English. Another initiative she started in the Master’s programme was a joint lecture on cyber security where students worked on different research topics. While the students worked on practical applications (i.e. prototyping, simulation, modelling) in the lab for the content class, the language classes focused on the communicative skills needed to deal with the topics in question. At the end of the term, a ‘roadshow’ featuring student presentations was hosted jointly by the content and language teachers. Feedback and assessment on content and language were provided holistically, taking both the content and language teacher’s opinion into consideration. The assessment grid for the class was thus set up together including elements such as content quality, results, prototyping as well as language use, delivery and overall performance. The ‘roadshow’ covered 60% of the overall class assessment. The remaining 40% reflected their lab performances and their class activity in the language classes.

#### Evaluation of the Effectiveness of the Collaboration

In terms of Davison’s framework, this collaboration showed some characteristics of Stage 1 (pseudocompliance or passive resistance), as there was little understanding of the purpose of the collaboration on the part of the content teachers, and there was no *effort* to ensure sustainability by evaluating the collaboration and planning for a continuation

in subsequent semesters. However, the content teachers' overall *attitude* was neutral to positive: they did not reject the language teacher's ideas and showed no resistance to the idea of collaboration in general, as suggested in Davison's model. The reason for this may be the high level of trust the language teacher enjoyed as a member of the regular teaching staff, as well as the fact that she designed her interventions to avoid adding to the content teachers' workload.

### Concrete Steps towards Collaborative Partnerships: Collaboration Initiated by Content Teachers

Following her first experiences with language/content teacher collaboration, initiating change by developing an awareness for the challenges of teaching content in a foreign language (Yuan, 2021) became the language teacher's primary concern as this particular issue had not been addressed at the department at that time. This prompted her to engage with the topic of ICLHE more closely and to focus her own research on the interplay between language and content.

### Materials Design and CLT Methods

Feeling that the voice of a language teacher who was part of the department was not powerful enough to trigger innovation, the language teacher began to collaborate with a teacher trainer who she had been working with for many years, mainly in the area of CLIL teacher development. The main aim of this collaboration was to initiate change at the department in terms of how language was understood by the faculty in general, and in content classes in particular. The voice of an external specialist was intended to take ICLHE teaching at the department to the next level by persuading content teachers to engage more with the challenges of EMI and to make use of opportunities for collaboration.

**Description of the Collaboration.** When the first content teacher approached the team and asked about ways of achieving more efficient knowledge transfer, he was asked to explain the content he would like to work on in one of these classes and share the materials he intended to use. Based on the materials received and the content teacher's stated lesson aims, the language teacher and the teacher trainer developed some tasks (i.e. reading, listening and speaking activities) which were designed to stimulate language development as well as knowledge transfer. These tasks were embodied in worksheets and activities which focused on interactive elements in the classroom (i.e. pair work, group work, teacher-student interaction) and which were strongly influenced by Communicative Language Teaching (CLT).

The lesson plan was then presented to the content teacher. Although he was interested in the suggested approach to content development, he was hesitant about implementing interactive methods. For example, he was unsure about using

videos in class for language development, e.g. to practice formulating questions. He also had reservations about working with a research paper interactively in class, e.g. through jigsaw reading rather than simply telling students to read the paper at home, which was his usual approach. The content teacher expressed his concern that following the new lesson plan would mean leaving his comfort zone. He also mentioned that using more interactive elements while teaching would also mean “needing more language” than usual. He therefore invited the language teacher to join his session to provide language support.

In a subsequent reflection meeting together with the teacher trainer, the content teacher confirmed his previous concerns and added that he had felt under enormous pressure during the whole session. He also had the feeling that the students were surprised about the way he taught the class. For both content teachers and students, it was unfamiliar terrain, with the students adapting to the activities surprisingly easily however.

The language teacher and the teacher trainer were well aware that each form of collaboration needs time and several attempts to run successfully, but they still felt that preparing materials with a language focus for a content teacher with no language teaching background is not yet a complete formula for success in ICLHE teaching.

### Evaluation of the Effectiveness of the Collaboration.

According to Davison's framework, this form of collaboration could be assigned to stage 2 (Compliance). The teachers started out with a positive *attitude*, and they tried to implement roles and responsibilities. The content teacher agreed to teach the material (i.e. new worksheets) as instructed by the language teacher which led to a certain amount of stress - “teachers feel defensive and besieged by conflicting demands” (Davison, 2006, p. 467). The innovations that both teachers agreed on, i.e. their ‘*achievements*’, were concrete and non-intrusive, which is also mentioned as a distinguishing characteristic of level 2 in Davison's framework.

### Strategies and Techniques for Interactive Teaching

In order to address the discomfort content teachers felt when asked to include opportunities for language development in their classes, the language teacher and the teacher trainer, who had already carried out some small-scale research projects in the area of CLIL teacher development together (Fürstenberg & Kletzenbauer, 2014; Fürstenberg & Kletzenbauer, 2015), decided to take a closer look at content teachers' conceptualisations of language. Based on an online questionnaire on CLIL/EMI teachers' understanding of the general communicative and pedagogical functions of language, class observations and stimulated recall interviews, they concluded that content teachers fail to see how language can contribute to a more successful transfer of knowledge. Instead, the content teachers' concept of language is strongly shaped by their experience of being taught a second language

at school. When they are asked to think about their students’ language development, they understand this as meaning work on vocabulary and grammar, which they do not feel qualified to teach, rather than the role of language in the building and transfer of knowledge. Thus, language, which is a natural part of their L1 teaching, is perceived as detached from the content once they teach in a foreign language (Fürstenberg et al., 2021). In fact, they then experience language as an obstacle to effective teaching.

**Description of the Collaboration.** This was the starting point for a collaboration with another content teacher who approached the team of language teacher and teacher trainer because he felt that his teaching was less interactive and hence less effective in English than in German.

The team decided to work with the teacher’s existing classroom practices and support him in improving them as needed to develop a more interactive style of teaching. To achieve this, they first observed and video recorded 22.5 hours of the teacher’s EMI classes. They then chose two short episodes that illustrated typical problems in the teacher’s interaction with his students and analysed these with the teacher in stimulated-recall interviews. The team and the teacher watched the scenes together twice. The first time, the teacher was asked to “think aloud” and describe his thoughts on his language use at that particular point in the session. The second time, the teacher was asked to stop the video whenever he had a comment on the classroom scene. The researchers also took on the role of coaches, answered the teacher’s questions and offered their observations and feedback on his language use (Fürstenberg et al., 2021).

In this collaboration, the team was very careful not to impose a CLT-inspired methodology on the teacher. Instead, they focused on explaining strategies for using language effectively for building knowledge in interaction with the students. They also attempted to shift the teacher’s focus from his perceived lack of language proficiency to the communicative function of language. In other words, they tried to “disentangle the myth of language being solely a medium of instruction [...] by show[ing] content teachers how language in CLIL/ EMI can be enriching, if they have a better understanding of the connection between content and language” (Fürstenberg et al., 2021).

**Evaluation of the Effectiveness of the Collaboration.** According to Davison’s framework, this form of collaboration belongs to accommodation, which is level 3. As in the collaboration described above, there was a positive *attitude* from the beginning. There was also a greater willingness to experiment on the part of the content teacher, who wanted his lessons to become more interactive. Both teachers made an *effort* to meet each other’s needs. The content teacher gave permission for his sessions to be recorded; the language teacher refrained from imposing her ideas on the content teacher’s teaching approach. However, both sides were working with a limited understanding of the theoretical basis of their collaboration. This meant that the products, i.e. ‘*achievements*’ of the collaboration were conceptualised

as strategies and techniques and the discussion did not address any underlying issues such as cognitive load (which will be dealt with in the next section on cross-disciplinary partnerships). In the words of the content teacher, “[the team’s] feedback has helped me a lot to work out very concrete improvements in my teaching, e.g. [...] regular summaries of the content [and a] more active involvement of the students through planned dialogic interactions.” As specified by Davison, the teacher acknowledges external sources of encouragement (“The [team’s] feedback [...] offers an additional perspective [...] through the discussion with experts”), but also shows signs of recognizing intrinsic rewards from the collaboration (“Observing my own approach [...] helps me to recognise my own strengths and weaknesses in teaching”).

## Cross-Disciplinary Partnerships: towards a New Collaboration Model for EMI

**A**t this point, the team was coming to realise that they lacked the theoretical concepts to explain the role of language in knowledge building and the centrality of the integration of content and language to the content teachers. CLT-inspired teaching approaches were not accepted by the teachers without an understanding of how they can contribute to student learning. The team decided to enlist the help of a language specialist, i.e. a linguist from a university to help content teachers to see the function of language from a different angle.

### Description of the Collaboration

In this new approach, the language specialist provided models and explanations for elements of the content teachers’ classroom practices that the language teacher and the teacher trainer had identified as problematic.

#### ■ Problematic area 1: Content teachers equate ‘language’ with ‘technical vocabulary’

The language teacher had long observed a disconnect between the content teachers’ generally positive attitude towards English in their private lives (reading and watching films in English, using English while travelling) and their perception of English as an obstacle to effective teaching. Faculty members of the computing department volunteered to take part in a study (Fürstenberg et al., 2022) headed by the external language specialist to explore why their engagement with language outside the EMI classroom did not affect their EMI teaching. The study focused on the pedagogical functions of language in particular. Based on an online questionnaire, class observations and stimulated recall interviews, it analysed content teachers’ conceptualization of language and raised their awareness of what Morton (2018) characterizes as ‘specialized’ and ‘common’ language knowledge for content teaching (SLK-CT and CLK-CT). The results of the study have already

been used in coaching sessions to inform future professional development activities.

■ **Problematic area 2: Content teachers are not sufficiently aware of the epistemic function of language**

In their work with the content teachers, the language teacher and the teacher trainer found it difficult to convince content teachers of the need to engage with language in their teaching as they tended to see language instruction exclusively as the job of the language teacher. This also meant that they did not see any need to adapt their teaching style, specifically by adding more scaffolding, when changing the language of instruction to English. In order to provide a different perspective on the question of how the integration of content and language in the EMI classroom could be improved, the language teacher and the teacher trainer sought the guidance of the language specialist to develop a framework to illustrate the connections between cognitive load and language of instruction. “This framework necessarily implies a change in methodology— that is, interactive methods as an alternative to lecturing. If content specialists reflect on their new teaching approach, ideally guided by a language specialist, this could also have an impact on how they perceive language per se, and this in turn might also change their mindset towards language integration.” (Reitbauer et al., 2018, p.99).

Two content teachers volunteered to collaborate with the research team. Together they explored the role of cognitive processes in the construction of knowledge by applying a framework to foster integration. The framework illustrates how integration is informed by cognitive-linguistic principles (see Roussel et al., 2017). Content teachers are encouraged to assess the intrinsic cognitive load of the content for their students first. In a next step, content teachers are asked to reduce the extraneous cognitive load by making content more accessible. Finally, the framework asks the content teachers to activate the cognitive resources of their students i.e. the German cognitive load to foster the integration of content and language. Using this framework appears to make it easier for content teachers to comprehend the role of language in knowledge building, and the team will continue to use it in professional development activities (Reitbauer et al., 2018).

■ **Problematic area 3: Teachers’ over-reliance on lecture-style teaching**

When observing content teachers during their lessons, the team found a tendency to lecture rather than to employ more dialogic forms of teaching. Together with the language specialist, they explored the concept of semantic waves<sup>1</sup> (e.g. Maton, 2013 and Clarence, 2017). The unpacking and repacking of new information is necessary for knowledge building, but also helps to develop appropriate discipline-specific discourse.

Five content teachers from the department were introduced to the concept of semantic waves to facilitate their understanding of meaning making in dialogic exchanges. A study was carried out to discover how well the teachers were able to apply this new concept by means of a retrospective self-observation task based on a successful teaching sequence. Examining their approaches to task design allowed the cross-disciplinary team to better understand teachers’ didactic choices and underlying conceptualizations of language. In particular, the cross-disciplinary collaboration aimed to increase teachers’ readiness to apply the concept of semantic waves to their own teaching in order to make room for dialogic teaching in their future ICLHE classes, giving them confidence to move away from merely lecture-style teaching.

■ **Problematic area 4: The role of the L1 and translanguaging in English medium teaching**

Another cross-disciplinary collaboration was dedicated to the role of the L1 in the ICLHE classroom. The team introduced the concept of translanguaging and the idea that the languages a person speaks are not discrete systems, but rather form a speaker’s extended linguistic repertoire (see for example Cenoz & Gorter, 2021). Thus, it is important for content teachers to understand translanguaging as a pragmatic, strategic pedagogical choice which allows them to react flexibly in terms of their classroom discourse, both when their focus is on knowledge building and when it is on fostering interpersonal relationships. The team therefore conducted a series of semi-structured interviews to investigate ICLHE teachers’ attitudes towards translanguaging and their evaluation of its effectiveness in various discourse situations, hoping that ultimately, a clearer understanding of the potential of translanguaging on the part of ICLHE teachers can improve subject-specific discourse and ICLHE classroom practices when addressed in professional development sessions.

**Evaluation of the Effectiveness of the Collaboration**

The type of collaboration described above could be said to straddle levels 4, convergence and some co-option, and 5 creative co-construction of Davison’s framework. For example, there is a very positive *attitude* towards collaboration (level 4) and it is well on its way to being normalised (level 5) as a standard feature of work at the department; there are *efforts* to engage with the ideas of the other side on the part of both language and content teachers (level 4) - as one of the teachers noted, demonstrating a new interest in the language aspect of his lesson: “[m]otivating students to speak more is something new for me because in the lab we work individually and I usually provide one-to-one feedback, mostly in German”. However, there is no indication that the content teachers are actively working towards a greater understanding of language teachers’ ideas in a process they see as continuous (level 5). Still, there is a high degree of trust (level 5); the *achievements* of the

collaboration increasingly go beyond improved delivery and change how content teachers talk about the content, to include the content itself. They start to reflect on how they can best teach the content (level 4). One of the content teachers commented: “I think what I hadn’t really thought about before were the goals - what do I want to achieve with this teaching sequence. [...] Using the [cognitive load] framework was a bit of an eye-opener as my students had the opportunity to discuss issues in the whole group. They [...] expressed their points of view and evaluated the coding sequence which in turn made me aware of their shortcomings in terms of doing this in the correct way. My job now is to make use of the framework more often.”

Level 4 of Davison’s framework is also characterised by a preference for action research, which leads to extensive reading and the study of theoretical concepts in each other’s area by the teachers on level 5. Feedback from the content teachers involved in the collaboration shows that they have started to reflect on their practice more than they had done before: “The collaboration [...] has already started a deeper reflection process for me.” However, they still rely heavily on the language teacher and, by extension, the whole team for innovative ideas: “There is a promising base to start, but of course it’s up to me to continue here, and it’s great to have [the language teacher’s] support because I can turn to her and her team right away.”

We hope that the model of collaboration we have developed will provide an impetus for the kind of action research that might lead to collaborations that ultimately reach level 5 (creative co-construction) of Davison’s framework.

understood as a process of reflective engagement with a joint professional interaction (i.e. pedagogical intervention) to achieve a common goal. This kind of reflective engagement can lead to personal, professional and social change (Riel, 2019) as we need reflection to overcome new situations or problems we are basically not prepared (i.e. trained) for.

According to Kember (2000, p. 32) “[e]mploying an action research approach does not guarantee a change in beliefs. Action research projects, though, do at least provide a mechanism for perspective transformation”. This is highly relevant in the context of collaboration in CLIL/EMI, especially if language teachers see the fostering of innovation as one of their roles (Yuan, 2021). Peers are a valuable asset in this context as they could be the motivators to see issues from different angles, adding a different voice to the research in question.

The usual approach to action research is to envision it (see Figure 1) as a spiral or cycle (see for example Kemmis & McTaggart, 1988).

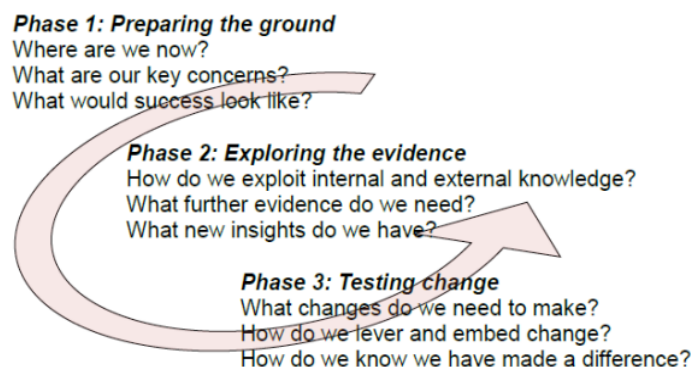
In line with Kemmis & McTaggart (1988), Norton (2009, p. 70) also identified several distinct steps when conducting collaborative action research (i.e. observe, plan, act, reflect, etc.). However, when referring to Higher Education, she refers to research as “a messy process, where the environment is a complex and social one, and where the problems are ill-defined and ill-structured”. In our collaboration, we attempt to impose order on this inherent ‘messiness’ by assigning different steps in the collaborative action research process to different actors within our team (see Table 1).

## A Way Forward for Collaboration in ICLHE: Conducting Action Research in a Space of Trust

Before discussing the role of Collaborative Action Research (CAR) for collaboration in ICLHE, it is useful to briefly explain the term. CAR can be

**“[E]mploying an action research approach does not guarantee a change in beliefs. Action research projects, though, do at least provide a mechanism for perspective transformation.”**

Figure 1. *Education Scotland (2015, p.5). CARS.*



**Table 1.** *ITDEM’D Model adapted from Norton (2009)*

Step	Description	Responsibility of
1	Identifying a problem / paradox / issue / difficulty	language teacher (assesses the situation)
2	Thinking of ways to tackle the problem	teacher trainer (suggests innovations)
3	Implementing it	content teachers
4	Evaluating it (actual research findings)	language specialist (links observations and data to theoretical concepts)
5	Modifying future practice	teacher trainer (suggests innovations based on cognitive linguistic theories)
6	Disseminating your findings	language teacher (informs content teachers); teacher trainer (designs professional development activities); whole team (academic conferences and papers)

To return briefly to Davison’s framework, at the highest level, creative co-construction, the teachers involved have a high level of trust in each other. For collaboration to succeed as a form of professional development, we have found it useful to expand this space of trust so that it includes external collaborators as well as the content and language teachers who work in the same institution (see Figure 2). In this way, fresh perspectives and new ideas can be introduced and can enrich CLIL/EMI teaching practices.

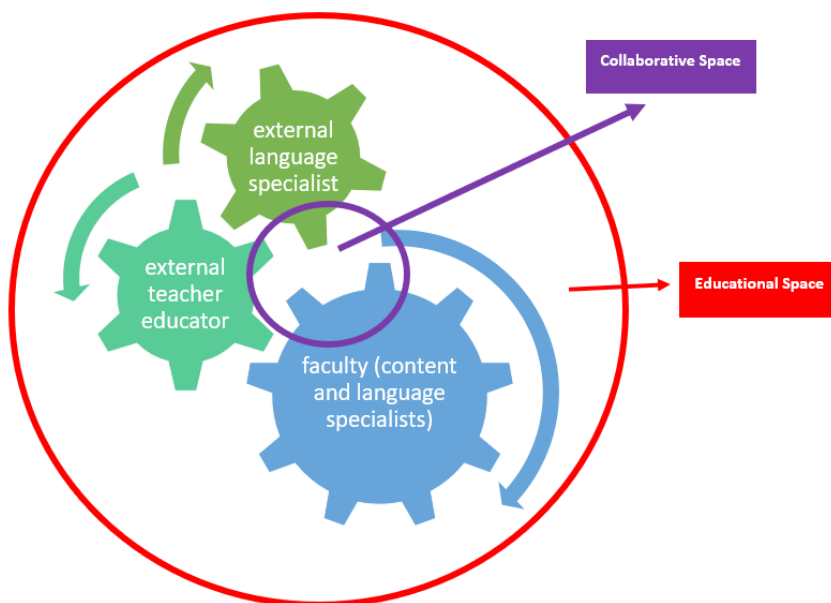
In the computing department where the collaborations described in this paper took place, the language teacher works very closely with her content teacher colleagues in the department. The language teacher’s greatest asset in this form of in-house collaboration is that she is a part of the same system as the content teachers. Consequently, she is familiar with institutional regulations, the curriculum, norms of assessment etc. This shared experience is an important element for building trust, but at the same time, there was concern that it may have kept the language teacher from

seeing the bigger picture. Further, it is likely that it would have made it easier for her colleagues to dismiss her suggestions by reminding her of the constraints of the system they all work within.

Bringing in an external teacher trainer who has the language teacher’s trust adds an outsider’s perspective. A person who is not part of the system can provide fresh insights and encourage both content and language teachers to look beyond their shared context. This was therefore helpful for putting obstacles and challenges into perspective.

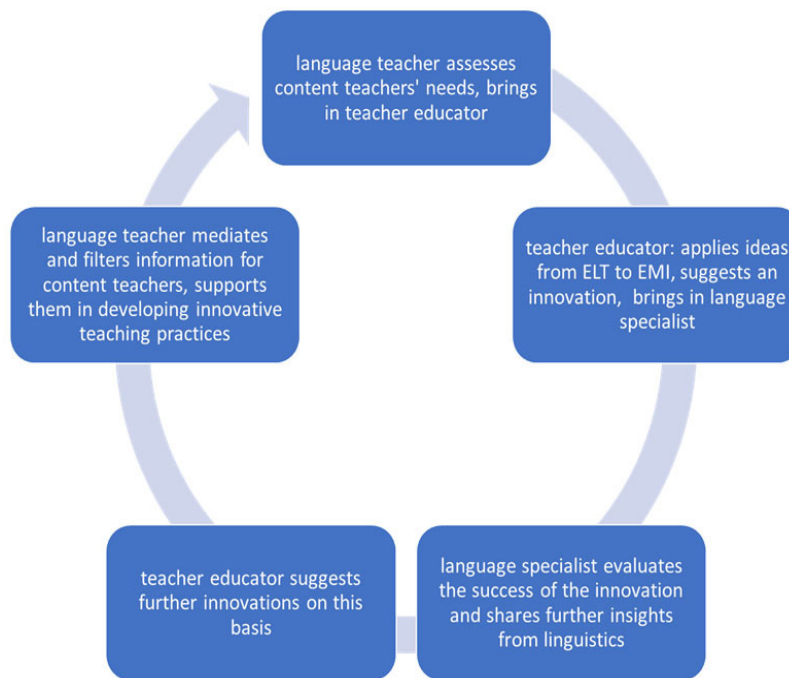
However, teacher educators in CLIL/EMI contexts are often language teachers themselves (Macaro & Tian, 2020) and view the language aspects of CLIL/EMI through an ELT (English Language Teaching) lens. This was the case in our collaboration project, and we felt that a fresh perspective was needed. An external language specialist was therefore brought in and added her insights, resulting in this cycle of collaboration (see Figure 3).

**Figure 2:** *Trust Model of Cross-Disciplinary Collaboration*





**Figure 3:** *Cycle of cross-disciplinary collaboration*



The in-house language teacher has a pivotal role in this model. As the content teachers trust her, she can gradually expand the space of trust to include her external collaborators and filter and adapt their ideas in such a way that they become acceptable to the content teachers. She also feeds back the content teachers’ reactions to the external collaborators, providing the impetus for more innovative practices (teacher educator) based on current research (language specialist).

In this way, the model allows for individualised forms of professional development. Unlike a one-size-fits-all EMI training, in this professional development model, insights from research and suggestions for teaching practice are mediated by the language teacher who understands the needs of her content teacher colleagues and can thus make sure that the information and support they receive are relevant to their specific situation.

This provides opportunities for enhancing the content teachers’ understanding of the theoretical underpinnings of the innovations suggested to them. While they might not be ready to read up on linguistics or even study CLIL/EMI literature, they might be willing to engage with the personalised information provided to them via their trusted colleague in the department.

Concrete steps in this direction have already been taken. For example, the language teacher and one of her content teacher colleagues attended a conference (ICLHE, 2015, Brussels) dealing with ICLHE research together. Diving into the world of language specialists was a completely new experience for the content teacher. The opportunity to share his CLIL/EMI experience, talk to linguists and listen to research in CLIL/EMI was a great step forward for this form of cross-disciplinary collaboration.

We therefore hope that our model might be a way of reaching the highest level of Davison’s framework by splitting up the task of CAR and assigning the various components to the collaborator who is best placed to fulfil them.

## Conclusion

In order to establish cross-disciplinary collaboration in EMI a space of trust needs to be created where content and language teachers as well as language specialists and teacher trainers feel comfortable discussing and reflecting on research initiatives. This approach has several benefits as all agents involved experience increased motivation working towards a common goal. Pedagogical initiatives and spaces of reflection cannot emerge in isolated settings, they need to be created jointly to flourish. Research plays a crucial role here, because access to research also gives content teachers the opportunity to enhance their understanding and awareness of the epistemic function of language, eventually seeing forms of collaboration as effective ways of improving their teaching practice through guided reflection. CAR-based collaboration models such as the one presented above therefore have great potential to contribute to teachers’ professional development.

This notion is also supported by Davison (2006) who puts forward the idea that “collaborating teachers may benefit from more action-orientated teacher research with built-in opportunities for critical reflection and discussion of different views and perceptions of the nature of learning and teaching”. We believe that this form of access, including

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external language specialists and teacher trainers, is more likely to be welcomed by content teachers as it enables them to move away from their initially limited understanding of language towards a more informed epistemic view. Thus, our model of collaborative partnerships for CLIL/EMI might be worth investigating further, e.g. by widening the scope to include “more discourse-based studies of collaborative classrooms and of team planning conversations” (as suggested by Davison, 2006, p. 472).

Finally, it needs to be stressed that institutional support is needed for collaborations to reach their full potential. At the computer science department where the initiatives described in this paper took place, the different kinds of cross-disciplinary collaboration have changed the professional mindset of the computing faculty. All kinds of collaboration are now seen as more valuable, and team teaching is listed at the very top of teachers’ preferences when it comes to designing new courses for the curriculum. This mindset is also reflected in the development process of a new degree programme, which further supports and promotes collaboration as a USP (Unique Selling Proposition) to ensure high quality ICLHE teaching. ■

## Notes

- 1 Semantic waves describe an ideal conceptual journey for novice learners to follow, shifting between expert and novice understanding, abstract and concrete context, and technical and simple meanings. It is part of Legitimation Code Theory or ‘LCT’ (Maton, 2013)

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