

# Exploring Forms of Cooperation and Roles of English and Disciplinary Teachers Applying CDF Approach to Establish International Educational Environment

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## **Abstract**

This study examines the collaborative dynamics and delineated roles of English and disciplinary teachers in implementing the Conceptualisation, Development, and Fluency (CDF) approach to cultivate an internationalised educational environment within higher education. Specifically, it explores how English teachers contribute by fostering academic language proficiency, thereby enabling students to engage with key disciplinary concepts and discourse. Simultaneously, disciplinary teachers prioritise accessibility to specialised knowledge, guiding students in comprehending and applying field-specific language and communicative norms. From a theoretical standpoint, this research evaluates cooperative strategies such as integrated curriculum design, co-teaching models, and interdisciplinary workshops which collectively enhance the integration of language and content instruction. The study presents diverse forms of cooperation, analysing their advantages and challenges within the Slovak higher education landscape with a focus on the local context of the Slovak University of Technology in Bratislava (STU MTF). Furthermore, the contribution critically assesses the practical applicability of CDF framework, offering insights into its potential for establishing inclusive and internationally oriented learning environments.

**Keywords:** Internationalisation of Higher education, Teacher Cooperation, CDF Approach

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## 1 Introduction

In today's globalised academic landscape, creating an internationalised educational environment within higher education institutions has become essential for preparing students to succeed in diverse, multicultural contexts. One promising method for fostering this environment is the Conceptualisation, Development, and Fluency (CDF) approach, which emphasizes both language proficiency and disciplinary knowledge as foundations for learning. Implementing this approach requires effective cooperation between English language teachers and disciplinary (subject-specific) teachers, as each brings distinct expertise essential to student development. English teachers focus on enhancing students' academic language skills, enabling them to comprehend and articulate disciplinary concepts accurately, while disciplinary teachers concentrate on guiding students in mastering field-specific content and communication norms. Understanding the forms of collaboration and the roles each type of educator plays in applying the CDF approach is crucial to advancing integrated learning models that support internationalised, inclusive, and accessible education. This investigation thus aims to clarify the collaborative dynamics and practical applications of the CDF framework within higher education to optimize learning outcomes and foster globally relevant competencies.

### 1.1 Internationalisation of Higher Education

Internationalisation in higher education encompasses a range of strategies aimed at embedding global perspectives, cultural awareness, and cross-border collaboration within universities. This broad concept includes several distinct forms, such as student and staff mobility, international curriculum development, cross-border partnerships, on-campus internationalisation, and internationalisation at home (IaH) each contributing uniquely to the global reach and relevance of educational institutions.

This study primarily focuses on Internationalisation at Home (IaH), given that, within our context, higher education institutions enrol a significantly larger proportion of domestic students compared to international students. To equip students with the skills necessary for a globalised world, it is essential to create an 'artificially internationalised' educational environment, primarily through an English-medium instructional setting.

The methods for establishing English education environments are diverse and vary according to the specific context of each higher education institution. Institutions may implement one or more approaches tailored to their unique educational and linguistic landscapes. Common approaches include English-Medium Instruction (EMI), where courses are delivered entirely in English; Content and Language Integrated Learning (CLIL), which integrates language and content instruction; bilingual or multilingual programs that balance English with the local language; English-focused campus initiatives that promote language use and cultural exchange on campus; and Virtual Exchange and Collaborative Online International Learning

(COIL), which facilitate cross-cultural interactions and collaborative projects through online platforms.

To establish an English-language educational environment, provide targeted support for students, and facilitate collaboration between English and disciplinary faculty, we have selected the Conceptualisation, Development, and Fluency (CDF) approach as our framework for implementation.

## 1.2 Conceptualisation Development and Fluency – CDF approach

The Conceptualisation, Development, and Fluency (CDF) approach is a structured framework designed to help students progressively build their academic and language skills within an English-medium or internationalised educational environment. The CDF approach is particularly useful in higher education settings where content learning and language proficiency need to be developed simultaneously. Here's how each component of CDF can contribute to establishing an English-language education environment:

### *Conceptualisation*

In the CDF approach, conceptualisation focuses on helping students understand and engage with core concepts of their discipline in English. This stage encourages students to form a foundational understanding of key ideas, theories, and vocabulary in their field, often through structured reading, introductory discussions, and guided activities. By introducing disciplinary content in English, students begin to develop both content comprehension and language familiarity simultaneously (Turner & Robson, 2008).

### *Development*

The development phase builds on students' initial understanding by deepening their engagement with subject-specific content and enhancing their language skills. Here, students are encouraged to participate in more complex discussions, collaborative projects, and analytical tasks in English. This stage often includes interactive learning strategies, such as group work and case studies, which require students to actively use English in ways that align with the professional and academic standards of their discipline (Hyland, 2006)

### *Fluency*

The fluency phase aims to enable students to communicate their ideas and knowledge effectively in English with confidence and accuracy. By this stage, students have developed a level of comfort with both the disciplinary content and language and are encouraged to participate in presentations, debates, and writing projects that require fluency in English. Fluency activities are often designed to simulate real-world professional tasks, preparing students to work in international environments where English is the primary language of communication (Beelen & Jones, 2015).

The CDF approach thus provides a scaffolded structure in which students progressively develop the language proficiency and academic skills required for their fields. By focusing on conceptual understanding, skill development, and fluency, CDF supports an inclusive, English-medium education that benefits both domestic and international students in globalised higher education settings.

## 2 Teachers in Higher education

The authors will provide a brief overview of English practitioners and disciplinary teachers, focusing on their roles and potential in applying the CDF approach.

### 2.1 English Teachers

When speaking about English teachers, we should keep in mind that we speak only about those teaching English for Specific Purposes at Slovak non-philological universities. Here we must admit that the number of English teachers at Slovak higher educational institutions has significantly reduced recently, and especially the number of ESP practitioners. This unfavourable process of decrease is still going on despite the plans and visions of the Ministry of Education, Science, Research and Sport of the Slovak Republic which has previously proclaimed the necessity of having a knowledge-based and the English language competent population of graduates. Some universities closed their language centres/departments, e.g. the Technical University of Košice has significantly reduced the number of language teachers, and the rest of practitioners has been allocated at individual faculties, which means they have no further close cooperation and knowledge or experience exchange with other fellow teachers, although – on the other hand, this allocation may improve their insight into the discipline they teach language for. From other institutions with similar situation, we can mention Trnava University, Faculty of Law, or Trenčín University of A. Dubček which has also allotted their language teachers to subject-specific departments and similarly it has been done by the University of St. Cyril and Methodius in Trnava, at its Faculty of Social Sciences, just to mention at least few examples in the country.

Teachers are hardly trying to keep with the latest educational trends. They implement ICT (including the utilisation of artificial intelligence for educational purposes), utilise a communicative approach in teaching, constantly develop integrated language and soft skills, use many practical examples, case studies in teaching as well as have extracurricular activities. The universities (especially the technically oriented ones) also suffer from low interest from the wide public. The number of students is decreasing, however, the last few years the foreign students (from Ukraine or Kazakhstan to mention at least the situation at STU MTF in Trnava) came to Slovak universities and improved such the number of students.

The role of English teachers has shifted significantly in recent years. Not only they are *a) language teachers*, they also *b) must have some background knowledge* in the specific subject they teach English for (medicine, law, informatics, engineering, etc.). These two roles could be enough, however, recently, the ESP teachers have become *c) intermediators* of the internationalisation process as the government requires the universities to provide as many study programmes in English as possible, not mentioning the growing number of Erasmus mobility students.

This situation has proved the fact that the cooperation of ESP practitioners with subject-specific teachers – disciplinary teachers – is inevitable, and should be present throughout the whole academic year and study in the form of mutual help, i.e. the disciplinary teachers should help the English practitioners to grasp the subject matter more in depth, to understand the concept; and vice versa, the English teachers should help the disciplinary ones to better implementation of linguistic elements into their subject. Application of this mutual and constant cooperation would lead to the development of students' knowledge, experience, and confidence. With such experience and enhancement, the students can fluently and smoothly communicate their ideas and will gain comfort with both disciplinary content and language in real-world professional situations.

## 2.2 Disciplinary Teachers

Disciplinary teachers are all those teachers teaching a specific subject in a particular scientific discipline. They have deep knowledge of their discipline, also have analytical skills, and are able of practical application of their knowledge. These teachers often follow a structured approach, i.e. a linear and logical progression to convey the curricular topic systematically.

There are several ways of their possible cooperation with English practitioners which depends on the disciplinary teachers' English language competence. And here is the situation much better as the survey executed within our institutional project INTERMTF I in 2018 showed – 67.3% of disciplinary teachers (of 209 teachers-respondents) are prepared to start teaching at least part of their lesson in English. The language teachers can provide help and support especially in terms of didactics, i.e. how much and what tools can be used to integrate language into their subject-matter teaching.

The best way of mutual cooperation of disciplinary and English teachers seems to be the Content and Language Integrated Learning (CLIL) and application of CDF approach. The benefits of such learning lie in enhanced and developed student learning as this integrated approach helps them not only grasp the complexity of concepts but also communicate them effectively and fluently. Needless to say, the cooperation is beneficial for both groups of teachers and boosts thus interdisciplinary understanding.

### 3 Teacher Cooperation Forms

There are several approaches to enhancing the development of an English education environment within universities, including team teaching, collaborative research and project initiatives, specialised English and pedagogical training courses for disciplinary faculty, and the establishment of professional learning communities. The specific form of implementation should be carefully tailored to the context and unique needs of the local university.

#### 3.1 Teacher Cooperation at STU MTF

ESP instructors have undertaken various initiatives in their efforts to identify an appropriate model of collaboration, with the overarching objective of establishing an effective English education environment at STU MTF. They designed and led the international research project CLIL-HET (CLIL-Higher Education Teacher), which aimed to develop a didactic study program for disciplinary teachers and facilitate the exchange of teaching strategies among educators from various countries. The project investigated the needs and concerns of disciplinary teachers within the context of an English education environment. Collaboration in the project centred on subjects and study programs delivered in English for domestic students. The initiative also addressed both disciplinary teachers and students, examining their linguistic preparedness and capacity to establish a simulated international environment.

#### 3.2 Future Cooperation Forms

Recently, the focus on building an international academic environment at STU MTF has shifted toward developing study programs in English specifically for foreign students, rather than for domestic audiences. To achieve optimal collaboration among educators, considerations must extend beyond linguistic and didactic preparedness to include intercultural studies, ensuring a comprehensive approach to fostering an effective international educational setting.

Future forms of collaboration are likely to be grounded in interdisciplinary connections. At STU MTF, the implementation of online courses is being considered as a means of supporting both students and disciplinary teachers. These courses aim to help disciplinary educators standardize the English proficiency levels within their classes while simultaneously offering didactic guidance on how to effectively prepare and deliver their subject content in English. The development of future cooperation models at STU MTF is significantly influenced by the willingness of disciplinary teachers to engage in additional training, their openness to collaboration, and their readiness to share expertise with colleagues. Equally critical is the university management's commitment to offering incentives and support for teachers actively contributing to the establishment and enhancement of an English education environment, whether for domestic students, international students, or mixed groups.

## 4 Discussion

In the dynamic landscape of higher education, promoting collaboration between English teachers and subject-specific instructors is essential for equipping students to succeed in a globalised environment. By integrating frameworks such as the CDF (Conceptualisation, Development, and Fluency) approach with methodologies like Content and Language Integrated learning (CLIL), educators can create environments that merge linguistic proficiency with disciplinary expertise, benefiting both domestic and international students.

### 4.1 Cooperation's Role

Collaboration between English teachers and disciplinary teachers is fundamental to effective internationalised education. English teachers play a vital role in improving students' academic language skills, essential for comprehending and expressing disciplinary content. Disciplinary educators facilitate students' understanding of domain-specific concepts and communication standards. This partnership enables students to acquire confidence and fluency in their fields while also cultivating the language skills essential for professional success (Beelen & Jones, 2015).

### 4.2 Implementing the CDF Approach

The CDF framework offers a structured approach for integrating content and language learning.

- *Conceptualisation*: This phase introduces essential disciplinary concepts in English, fostering an initial understanding (Turner & Robson, 2008).
- *Development*: During this phase, students engage with progressively complex content using interactive methods such as case studies and collaborative tasks (Hyland, 2006).
- *Fluency*: Focused on practical application, this phase equips students to effectively convey disciplinary knowledge in professional settings.

These stages collectively support an inclusive, English-medium education that prepares students for global opportunities.

### 4.3 Advantages of CLIL

The CLIL methodology enhances cooperation by seamlessly integrating content and language instruction. This method promotes interdisciplinary comprehension and strengthens both linguistic and subject-specific skills. Students gain a more comprehensive educational

experience, enabling them to articulate complex concepts effectively. Simultaneously, subject teachers enhance their teaching methods through linguistic insights provided by English educators (Hurajová, 2018).

#### 4.4 Challenges and Recommendations

Despite its advantages, implementing cooperative models necessitates addressing institutional and logistical challenges. A decline in the number of English practitioners and insufficient institutional support at some Slovak universities impede progress. Addressing these issues requires specific strategies, including:

- Establishing interdisciplinary workshops.
- Cultivating professional communities.
- Hurajová (2019) suggests utilising digital tools like AI to create innovative teaching solutions.

In a period of swift global transformation, higher education must adapt by adopting collaborative methodologies such as the CDF framework and CLIL.

### 5 Conclusion

The world is rapidly changing, and so is education in higher educational institutions, particularly concerning their internationalisation. This process requires new approaches and a shift in the roles of both English practitioners and disciplinary teachers to effectively prepare a new generation of educated individuals.

Despite potential differences in university education systems at international, national, or local levels, collaboration among all involved stakeholders is essential (Hurajová, 2019). Implementing Content and Language Integrated Learning (CLIL) and the Conceptualisation, Development, and Fluency (CDF) approach can offer numerous benefits. Therefore, integrating these methodologies into curricula and syllabi is advisable.

Strengthening cooperation between English and disciplinary educators enables universities to equip students for success in diverse, multicultural settings. This transition not only enhances educational outcomes but also fosters a generation capable of navigating an increasingly interconnected world.

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