



# Report

## 2<sup>nd</sup> International Workshop

### CLIL

#### Content and Language Integrated Learning

21<sup>st</sup> June 2018

University of Applied Sciences Upper Austria  
Campus Hagenberg

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## About the Project

The project "CLIL" has been funded with support from the European Commission, the European Fund for Regional Development (EFRE), and the Federal State of Upper Austria under the program INTERREG V-A Austria-Czech Republic 2014-2020.



The aim of this EU project is to investigate how foreign language learning may be incorporated in technical degree programmes to generate an added value for both graduates and the local industry in the Austrian-Czech cross-border region. In this vein, foreign language skills as well as intercultural competences of the students and the cooperation between the training and application sectors should be increased.

In order to achieve these goals, multilingual e-learning modules in German, Czech and English are developed for four technical degree programmes, namely informatics, logistics, civil and mechanical engineering. In addition to specialist knowledge, it is also intended to impart transversal skills which are vital for today's world of work.

By involving experts from regional communities, current needs of the local industries in the Austrian-Czech cross-border region are identified. This knowledge helps to improve tertiary education and to adapt existing curricula to a broader range of skill-sets as well as to enhance graduate employability within this region. This may contribute to a positive development of the employability of graduates and to counteract the lack of technically trained specialists with suitable foreign language skills in this border region.

## Project Team

The project team consists of two persons of the University of Applied Sciences Upper Austria and two persons of the VSTE in Budweis

FH OÖ:

- Mag.<sup>a</sup> Dr.<sup>in</sup> Martina Gaisch
- Victoria Rammer, MA

VSTE:

- PhDr. Jan Gregor, Ph.D.
- Mgr. Libuše Turinská



## About the Workshop

Within the framework of the three-year Interreg project CLIL (Content and Language-Integrated Learning) which seeks to prepare interactive teaching/learning material in German, English and Czech for the fields of informatics, logistics, civil engineering and mechanical engineering, an international workshop was held on 21<sup>st</sup> June at the University of Applied Sciences, Campus Hagenberg.

A total of 34 people participated in this event and listened to interesting presentations and lectures on CLIL, English-Medium Instruction, multimedia learning and visualization. The Campus Hagenberg welcomed the Czech delegation from the VSTE (Institute of Technology and Business) in Budweis as well as three renowned researchers of the University of Vienna, Univ.Prof.<sup>in</sup> Dr.<sup>in</sup> Ute Smit, Univ.Prof.<sup>in</sup> Mag.<sup>a</sup> Dr.<sup>in</sup> Christiane Dalton-Puffer and Mag.<sup>a</sup> Dr.<sup>in</sup> Helen Heaney, BA.

Besides the interesting presentations on CLIL and English-Medium Instruction, FH Prof.<sup>in</sup> Mag.<sup>a</sup> Dr.<sup>in</sup> Tanja Jadin, e-learning expert and professor of the degree programme communication and knowledge media at the Campus Hagenberg, gave insights into the field of multimedia learning, including various e-learning methods and gamification. Furthermore, results of an intercultural study project in the field of e-learning were presented by two Master students of Hagenberg Campus. Thereby, valuable advice as to the usage of learning programmes and language learning apps was given.

Further presentations in the field of visualization and interactive environment demonstrated the importance of graphical and textual presentations of data, facts and figures.

The aim of the workshop was an intercultural and interdisciplinary exchange between Czech and Austrian teachers, researchers, and students to gain insights into and further information on CLIL and innovative e-learning formats.

Consequently, this workshop resulted in added value for all team members. Together, ideas could be generated, which will flow into the project in terms of the creation and preparation of innovative e-learning materials and modules.



## Speakers and Experts



**Univ.Prof.<sup>in</sup> Dr.<sup>in</sup> Ute Smit, University of Vienna**

ROAD-MAPPING: English medium instruction (EMI) in higher education

... has been conducting intensive research on CLIL and EMI for more than 15 years. In addition to lectures in the context of further education events in Austria, she regularly appears as a (plenary) speaker at relevant international conferences. Her extensive list of publications includes numerous scientific articles in renowned journals as well as central book publications. Furthermore, Dr. Smit was and is centrally involved in national and international research projects on CLIL and EMI and is (founding) board member of relevant international networks and associations, currently on ICLHE.



**Univ.Prof.<sup>in</sup> Mag.<sup>a</sup> Dr.<sup>in</sup> Christiane Dalton-Puffer, University of Vienna**

Layers of language support in EMI settings

... is professor of English Linguistics at the University of Vienna and one of the leading researchers internationally on CLIL. She is the author of *Discourse in CLIL classrooms* (Benjamins, 2007), has edited books and journal issues on CLIL research, and has authored numerous articles in international journals. She has also given talks and keynotes on CLIL in several continents. Her current research focus is how teachers and students use language to express subject content and to work towards curricular learning goals of specialist subjects.



**Mag.<sup>a</sup> Dr.<sup>in</sup> Helen Heaney, BA, University of Vienna**

CLIL in action

... is a senior lecturer in the English Department at the University of Vienna, her main teaching focus being on courses in the teacher education programme. For the last five years, she has held annual CLIL workshops for teachers at secondary technical and vocational schools in the province of Salzburg and has also worked closely on the topic with the University College for Agrarian and Environmental Pedagogy in Vienna. Before moving to Vienna, she worked as a native team teacher for twelve years in CLIL classes at a grammar school in Klagenfurt.



**FH Prof. in Mag. a Dr. in Tanja Jadin, FH OÖ**  
Multimedia learning

... studied psychology at the University of Salzburg. She holds a doctorate degree in psychology. She worked in several research projects and was a lecturer at several institutions. Since September 2011 Tanja Jadin has been professor for E-learning at the University of Applied Sciences Upper Austria, Campus Hagenberg. She has been responsible for the Master Degree Programme of Communication and Knowledge Media since June 2013. Her research interests are new digital media for learning, such as MOOCs, mobile learning, game-based learning, media competence, self-regulated and informal learning.



**Dr. Björn Zimmer, BSc MSc, FH OÖ**  
Input Visualization

... has been employed as research assistant in the USIVIS Project (<http://www.usivis.org/en/home-en/>) since May 2017. The project explores novel tools for the interactive visualization of Big Data. He lived in Sweden for almost 6 years, where he was a PhD student at Linneaus University in Sweden in the field of information visualization (InfoVis). His interests include collaborative exploration, visualization of networks and analyse of multivariate data on the web.



**Michaela Hilger, BA, FH OÖ**

... is a Master student of the degree programme Communication and Knowledge Media at Campus Hagenberg. She graduated from the same named Bachelor degree programme and works alongside her studies as Learning Designer at the company LearnChamp Consulting GmbH in Vienna.



**Carina Winter, BA, FH OÖ**

... is a Master student of the degree programme Communication and Knowledge Media at Campus Hagenberg. She did her bachelor's degree at the FH Burgenland, Campus Eisenstadt in the study programme Information, Media and Communication. Alongside her studies, she works in the marketing-lead management of Navax Consulting GmbH.

## Workshop Programme

08:30 – 09:00	Registration (FH2, HS6)
09:00 – 09:30	Welcome and official opening – FH-Prof. Mag. Dr. Berthold Kerschbaumer, Dean Mag. <sup>a</sup> Dr. <sup>in</sup> Martina Gaisch, Project manager, FH OÖ
09:30 – 11:00	ROAD-MAPPING: English medium instruction (EMI) in higher education ao. Univ.-Prof. <sup>in</sup> Dr. <sup>in</sup> Ute Smit, University of Vienna
	Layers of language support in EMI settings Univ.-Prof. <sup>in</sup> Mag. <sup>a</sup> Dr. <sup>in</sup> Christiane Dalton-Puffer, University of Vienna
11:00 – 11:30	Coffee break
11:30 – 12:30	CLIL in action – Mag. <sup>a</sup> Dr. <sup>in</sup> Helen Heaney, BA, University of Vienna
12:30 – 13:30	Networking lunch
13:30 – 14:00	Good practices of online learning material Michaela Hilger, BA and Carina Winter, BA
14:00 – 14:45	Multimedia learning – FH-Prof. <sup>in</sup> Mag. <sup>a</sup> Dr. <sup>in</sup> Tanja Jadin, FH OÖ
14:45 – 15:30	Discussion and brainstorming
15:30 – 16:00	Campus tour
16:00 – 16:30	Visiting the PIE-Lab - Jeremiah Diephuis BA MA, FH OÖ
16:30 – 17:00	Input visualization – Björn Zimmer, MSc, FH OÖ
17:00	Workshop dinner

## Welcome and official opening

FH-Prof. Mag. Dr. Berthold Kerschbaumer, Dean of the Campus Hagenberg and Mag.<sup>a</sup> Dr.<sup>in</sup> Martina Gaisch, project manager of the CLIL project opened the workshop with a short presentation about the University of Applied Sciences Upper Austria, Campus Hagenberg and gave an overview of the workshop programme.

FH-Prof. Dr. Berthold Kerschbaumer provides some insights and interesting facts about the University of Applied Sciences Upper Austria, in particular about the respective campus. The participants received information about the different fields and degree programmes and the development of the Hagenberg campus from its creation to its current state.

After the opening by the dean the workshop programme was introduced. Mag.<sup>a</sup> Dr.<sup>in</sup> Martina Gaisch provided an overview and welcomed the speakers, experts and guests of the workshop.





## ROAD-MAPPING: English medium instruction (EMI) in higher education

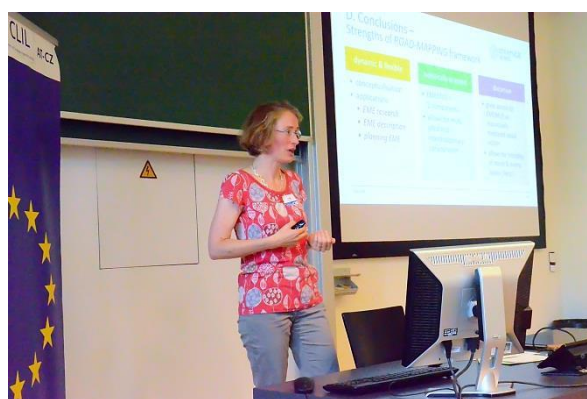
Univ.-Prof.<sup>in</sup> Dr.<sup>in</sup> Ute Smit, University of Vienna presented the topic ROAD-MAPPING: English-medium instruction in higher education as well as introduced the term EMEMUS to the audience.

Univ.-Prof.<sup>in</sup> Dr.in Ute Smit stated during the workshop that at a time of growing internationalization in higher education, English-medium instruction has become a wide-spread phenomenon. She talked about the globalization and internationalization within academia as well as the exchange between actors and institutions across national boundaries. As reflected in ample research, however, the 'Anglicization' of higher education is far from monolithic since it comes in highly diverse realisations with their own contingencies, challenges and strengths.

In order to expand the focus towards a theoretical understanding, Prof.<sup>in</sup> Ute Smit presented a conceptual framework intended for dynamic analyses of English-medium education in multilingual university settings (or EMEMUS). Drawing on sociolinguistic orientations and discursive approaches, the ROAD-MAPPING framework regards EMEMUS as a social phenomenon and views discourse as access point to six relevant dimensions, namely Roles of English (in relation to other languages), Academic Disciplines, (language) Management, Agents, Practices and Processes, and Internationalization and Glocalization. The conceptual framework should help to overcome prior fragmented conceptualizations, serve as reference when analysing particular contexts or when examining different settings, facilitate multi-sited "conversations". The ROAD-MAPPING can be used for doing EME research (e.g. analysing data, (re-)interpreting findings, designing a study), describing EME in regions or countries and preparing EME teacher development.

With the help of selected EMEMUS cases, Prof.<sup>in</sup> Ute Smit illustrated the descriptive and analytical value of the framework for researchers, teachers and higher educational management, arguing that it allows us to see the proverbial wood as well as its trees.

As conclusion, Prof.<sup>in</sup> Ute Smit stated that ROAD-MAPPING framework is dynamic, flexible, holistically oriented discursive model which gives access to EMEMUS as discursively mediated social action and allows for interplay of micro & macro levels as well as for multi-sited and interdisciplinary collaboration.



## Layers of language support in EMI settings

Univ.-Prof.<sup>in</sup> Mag.<sup>a</sup> Dr.<sup>in</sup> Christiane Dalton-Puffer, University of Vienna, talked about layers of language support in EMI contexts.

Learning and teaching tertiary level specialist content in a second or foreign language poses a whole set of challenges to students and lecturers. Language specialists in particular are often confronted in demands that fan out beyond well-established ESP or EAP-oriented practices, as they are being asked to support colleagues as well as students in their journey through the EMI classroom, lab and lecture hall. The territory to be covered seems vast and where to begin? A further difficulty seems to be finding a way to communicate about language with subject specialists. How to it make sense to them without compromising one's insights into complex and inextricable workings of language in the construction of knowledge, of disciplinarity, of reality?

In her presentation Prof.<sup>in</sup> Christiane Dalton-Puffer introduced a layered model that can serve as a blueprint for an action plan. In a variation of Lin's (2016) labelling of this model, she named this model the "EMI-Egg". Within the talk she introduced the four layers of the EMI-Egg (vocabulary, sentence patterns, language functions, genres) with illustrations and example. The focus of the presentation was on the inner two levels – Word level and cognitive discourse functions:

- Word level (sentence patterns, academic & specialist words)
  - Vocabulary types: noticing the distinction between general & recurring vs. specific and unique terms
  - Word formation: Noticing patterns in the relation of verbs – nouns – adjectives – adverbs
- Cognitive discourse functions
  - Mark cognitive operations and their verbalisation
  - Roots in thinking skills
  - Roots in competence-based subject curricula
  - Interface of content and language: make thought accessible for learning and sharing
- Text types & genres
- Curriculum context

While several aspects of the model are familiar from ESP/EAP contexts, its specificity in EMI contexts is the need for frequent dialogue with subject specialists regarding its specifications in a particular discipline. Prof.<sup>in</sup> Christiane Dalton-Puffer argued that the EMI Egg has potential for serving as a translation app between language and subject specialists within an EMI programme.



## CLIL in action

Mag.<sup>a</sup> Dr.<sup>in</sup> Helen Heaney, BA, University of Vienna talked about “CLIL in action”. She provided insight in different vocabulary issues, tools and reading strategies.

Following on from the previous lectures on EMEMUS and EMI-Egg, Dr.<sup>in</sup> Helen Heaney focused on some of the building blocks of CLIL in action in a tertiary setting with the help of hands-on best-practice examples relating to content, language and methodology issues. This involves taking a closer look at the provision of appropriate input in CLIL sequences, including the role of input, intake and output; presenting, practising and retaining vocabulary with a focus on multi-word units and assessing the readability of authentic texts (academic and specialized vocabulary; sentence patterns).

Within the interactive part of the workshop the participant had to work with different text sequences and try to identify general academic vocabulary as well as field-specific technical vocabulary. Afterwards, the group discussed the frequency of individual words within the text sequences as well as the difficulty of the specific technical words. In a next step, the participants had to identify multi-word units within the texts provided and talk about the readability of the different text passage. These workshop exercises helped to understand and recognize the necessity of reading strategies.

This interactive session was followed by suggestions relating to guiding comprehension in a CLIL setting covering, for example, what needs to be taken into account when designing specific tasks and planning single or multiple lesson sequences, working with reading and listening cycles and encouraging a rich processing of information in general.



## Good practices of online learning material

Michaela Hilger, BA and Carina Winter, BA students of the degree programme Communication and Knowledge Media, campus Hagenberg, provided some insight into an intercultural study project within the field of e-learning. The study project was realized together with company LISEC Austria GmbH in the course of the academic year (October 2017 – June 2018).

The project consisted of two main parts. On the one hand, a blended learning concept was developed, which includes training and further education for their internationally employed fitters. On the other hand, the concept included a proposal to introduce a dictionary app for smartphones and a vocabulary trainer as web-based training (WBT). These were prototypically implemented by the students and subsequently evaluated and further developed with the help of experts and the target group.

Furthermore, Michaela Hilger and Carina Winter talked about the process and the outcome of the project. They also showed some examples of the dictionary app and the vocabulary trainer. These examples demonstrated well how different e-learning and gamification elements and tools may be used within different learning environments.



## Multimedia learning

FH-Prof.<sup>in</sup> Mag.<sup>a</sup> Dr.<sup>in</sup> Tanja Jadin of the University of Applied Sciences in Upper Austria, Campus Hagenberg talked about multimedia learning and how e-learning materials can be improved through the usage of gamification elements.

Prof.<sup>in</sup> Tanja Jadin stated that developing learning materials for online learning can be a major challenge. Learning materials should be conceived and designed in line with didactical and psychological considerations. By doing so, it is important to know more about how our memory works, and more precisely about the limitations of our working memory. In the presentation, Prof.<sup>in</sup> Tanja Jadin provided a short overview of the information process, its limitations and essential theories such as the cognitive load theory. In consideration of the discussed limitations, it was demonstrated how the learning process can be facilitated by multimedia learning.

Moreover, several principles of multimedia learning were presented, e.g. text and picture usage or narration instead of text use. According to Prof.<sup>in</sup> Tanja Jadin these principles are helpful for the development of diversified and motivating online learning materials for students. By drawing on these concepts, cognitive load can be reduced and the information process is likely to be better supported. Prof.<sup>in</sup> Tanja Jadin also showed examples of the different multimedia learning methods e.g. interactive videos and serious games.



## Visiting the PIE-Lab

Playful Interactive Environments (PIE) is a research group founded by the Department of Digital Media at the University of Applied Sciences Upper Austria, School of Informatics, Communications and Media in Hagenberg. The research group focuses on the investigation of new and natural playful forms of interaction and the use of playful mechanisms to encourage specific behavioural patterns. In cooperation with research partners in the fields of media psychology and usability, additional work is conducted regarding perception research of computer-generated characters and the design, implementation and evaluation of interactive environments. Typical research topics include large public displays, projection mapping, co-located games, serious games, gamification, audio reactive installations and non-linear narratives.

During the guided tour through the PIE-lab, the participants gained insights into playful interactive environments which can also be used in learning contexts. After the presentation of various projects, the participants were able to try out some of the interactive games.

## Input visualization

Björn Zimmer, MSc, Research Associate of the University of Applied Sciences Upper Austria, Campus Hagenberg demonstrated in his presentation the importance of graphical and textual presentations of data, facts and figures.

In the first part of his presentation, he provided a brief overview of the history of infographic and showed examples of famous historical illustrations, graphs and figures. Moreover, he highlighted the main methods for visualizing business data in charts and reports and for detecting patterns, outliers and/or anomalies. He also talked about KPI's (Key Performance Indicators) which can be used to identify events or problems within the data.

The second part of the presentation focused on psychology and human visual perception as well as interaction design for information visualizations. One aspect Björn Zimmer talked about in this part of the presentation was semiotics as the "study of symbols". He pointed out that cultural and social backgrounds can have an impact on the usage and understanding of various symbols. Another aspect he demonstrated was the effect of colour coding. He stated that we can only distinguish colours on larger areas, especially in context of the transition from blue to yellow. For small coloured areas differentiation becomes much harder.

Complementary to the presentation of Multimedia Learning of Prof.<sup>in</sup> Tanja Jadin, Björn Zimmer discussed about non-interactive infographic and interactive data and information visualization. In conclusion, he demonstrated some examples of interactive and static infographics and highlighted some tools which can be used in this context.



# Dissemination und Publicity



# Press Release

FH OÖ CAMPUS HAGENBERG

## Internationaler Workshop über Content and Language-Integrated Learning

25.06.2018

Im Rahmen des dreijährigen Interreg-Projekts CLIL (Content and Language-Integrated Learning) mit dem Ziel interaktives Lehr/Lernmaterial in deutscher, englischer und tschechischer Sprache für Informatik, Logistik, Bauingenieurwesen und Maschinenbau aufzubereiten, fand am 21. Juni ein internationaler Workshop am Campus statt.

Eine tschechische Delegation des Projektpartners VŠTE – der technischen und ökonomischen Hochschule in Budweis - kam nach Hagenberg, um sich im Rahmen von Vorträgen über CLIL, English-medium Instruction und multimedialem Lernen auszutauschen.

„Es ist uns gelungen, mit Prof. Ute Smit, Prof. Christiane Dalton-Puffer und Dr. Helen Heaney drei renommierte Forscherinnen der Uni Wien für diesen Event zu gewinnen“, freut sich Dr. Martina Gaisch, die für dieses EU-Projekt verantwortlich zeichnet.

Auch die E-Learning-Expertise unserer KWM-Professorin Dr. Tanja Jadin und die Ergebnisse eines interkulturellen Studienprojekts sind in die weiteren Projektüberlegungen eingeflossen.

„Der Event war ein schönes Zeichen für gelebtes Diversity Management. Es waren nicht nur Vertreter/innen aus den Fakultäten Wels, Steyr, der Abteilung Hochschulforschung und Hochschuldidaktik anwesend, sondern auch von unterschiedlichen Schulen aus Österreich und Tschechien“, zieht Gaisch Bilanz.



ForscherInnen und ProfessorInnen der FH OÖ, der Universität Wien und der Technische und Ökonomische Hochschule in České Budějovice, Tschechien, vernetzten sich in Hagenberg. Foto: FH OÖ



**FH Oberösterreich Campus Hagenberg**

27. Juni um 23:45 · 🌐

Gelebtes Diversity Management und "Content and Language-Integrated Learning" (CLIL) beim internationalen Workshop am Campus Hagenberg 😊

Am Montag durften wir eine tschechische Delegation des Projektpartners VŠTE České Budějovice - der technischen und ökonomischen Hochschule in Budweis - in Hagenberg begrüßen. Der Workshop fand im Rahmen des dreijährigen Projekts CLIL statt, mit dem Ziel interaktives Lehr/Lernmaterial in deutscher, englischer und tschechischer Sprache für Informatik, Logistik, Bauingenieurwesen und Maschinenbau aufzubereiten. Projektverantwortliche Dr. Martina Gaisch zeigt sich erfreut über den erfolgreichen Tag.

👇 Hier weiterlesen 👇



### Internationaler Workshop über Content and Language-Integrated Learning

Im Rahmen des dreijährigen Interreg-Projekts CLIL (Content and Language-Integrated Learning) mit dem Ziel interaktives Lehr/Lernmaterial in...

FH-OÖE.AT

👍 Gefällt mir

💬 Kommentieren

➦ Teilen



# Photo Impressions



## Links

Project Website

<http://clil.vstecb.cz/>

Workshop Website

[www.fh-ooe.at/clil](http://www.fh-ooe.at/clil)

Press Release

<https://www.fh-ooe.at/campus-hagenberg/die-fakultaet/aktuelles/news/news/news/internationaler-workshop-ueber-content-and-language-integrated-learning/>

Press Release - Facebook

[https://www.facebook.com/fhhgb/?hc\\_ref=ARTolz7CJJRaV9yP6xUSb7Ig63H81s21FyYxSH-O5EQFaCMbdJZWHy5CIVQgvimCuW0&fref=nf](https://www.facebook.com/fhhgb/?hc_ref=ARTolz7CJJRaV9yP6xUSb7Ig63H81s21FyYxSH-O5EQFaCMbdJZWHy5CIVQgvimCuW0&fref=nf)

PIE-Lab Hagenberg

<http://pie.fh-hagenberg.at/>