

Content and language integrated learning (CLIL) as a strategy for improved cultural and linguistic diversity of students in technical degree programs

A cross-cultural study between Austria and the Czech Republic

Victoria Rammer, MA

OVERVIEW

- About the Project “CLIL”
- Theoretical Framework
 - Cultural aspects in Austria and the Czech Republic
 - Employability in Higher Education
 - Content and Language Integrated Learning (CLIL)
- Research Design
 - Objectives
 - Research Study 1 and 2
 - Empirical findings
 - Conclusion



About the Project

INTERREG – ATCZ62 - CLIL

ABOUT THE PROJECT

Project	CLIL – Content and Language Integrated Learning
Lead Partner	VŠTE, Institute of Technology and Business in České Budějovice
Project Partner	FH OÖ Forschungs und Entwicklungs GmbH*
Duration	01.11.2016 – 31.10.2019
Countries	Austria, The Czech Republic
Project website	http://clil.vstecb.cz/

*Research and Development Department – University of Applied Sciences Upper Austria

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”.



ABOUT THE PROJECT

- Implementation of the CLIL approach within four technical degree programs
 - Informatics
 - Logistics
 - Civil engineering
 - Mechanical engineering
- Development of foreign language skills (German, Czech, English) within the cross border region in Austria and the Czech Republic

ABOUT THE PROJECT

- Identify current needs of the labour market in the Austrian-Czech cross-border region
 - Improve tertiary education
 - Adapt existing curricula with a broader range of skill-sets
 - Enhance graduate employability
- Development of e-learning modules and terminology lists
 - 4 disciplines (informatics, logistics, civil and mechanical engineering)
 - Technical expertise and transversal skills
 - 3 languages (German, Czech, English)

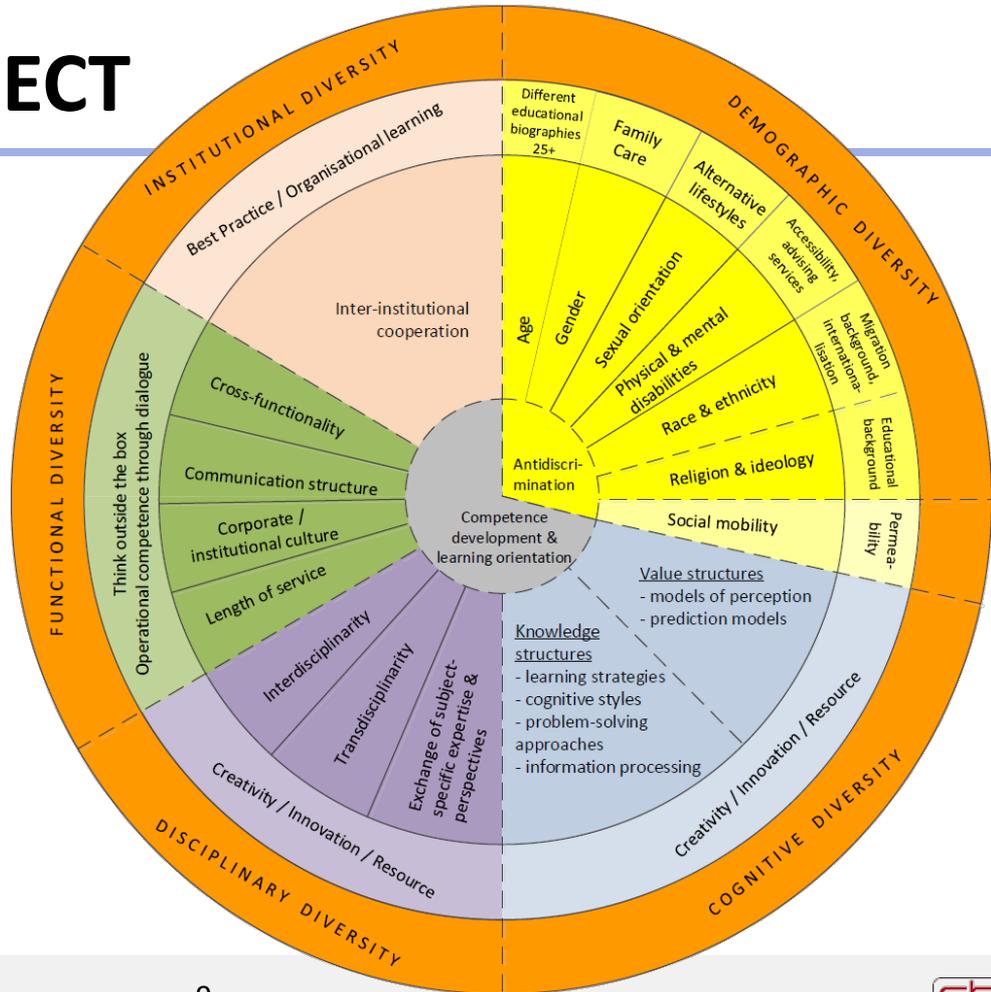
ABOUT THE PROJECT

- Project objectives
 - Identify key factors for graduate employability
 - Enhance foreign language skills (German, Czech, English) and intercultural competence
 - Prepare future graduates with a profound understanding of culture and diversity
 - Encourage the cooperation of higher education institutions and the local industry

ABOUT THE PROJECT

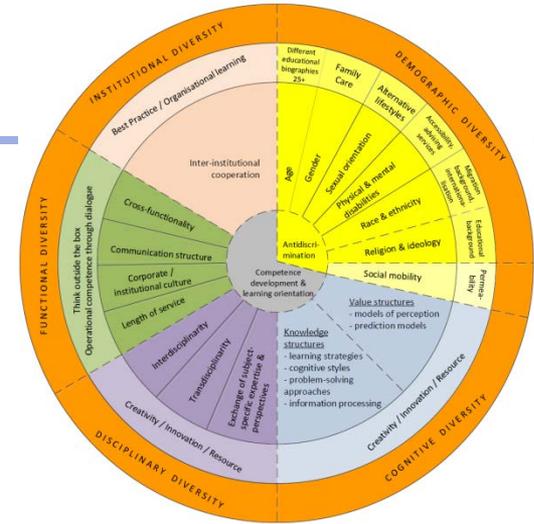
HEAD Wheel (Higher Education Awareness for Diversity)

(Gaisch, M. & Aichinger, R. 2016)



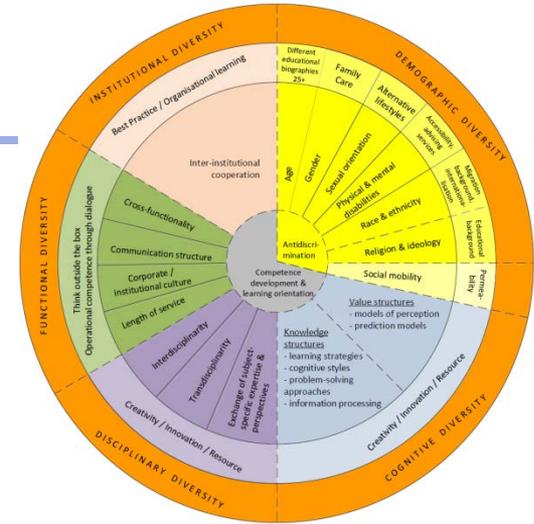
ABOUT THE PROJECT

- Demographic diversity
 - Internationalization
 - Social mobility (traditional and non- traditional students)
- Cognitive diversity
 - Integration on new learning strategies and methods
 - Skills development
 - Enhancement of cognitive styles
 - Competence orientation
- Disciplinary diversity
 - 4 disciplines (informatics, logistics, civil and mechanical engineering)
 - Different backgrounds of the project partners (education and didactics, communication management, intercultural and diversity management, technical experience)
 - Integration of the local industry and business representative



ABOUT THE PROJECT

- Functional diversity
 - Management perspective
 - Teaching perspective
 - Student perspective
- Institutional diversity
 - Inter-institutional cooperation
 - 2 institutions
 - VŠTE, Institute of Technology and Business in České Budějovice
 - University of Applied Sciences Upper Austria

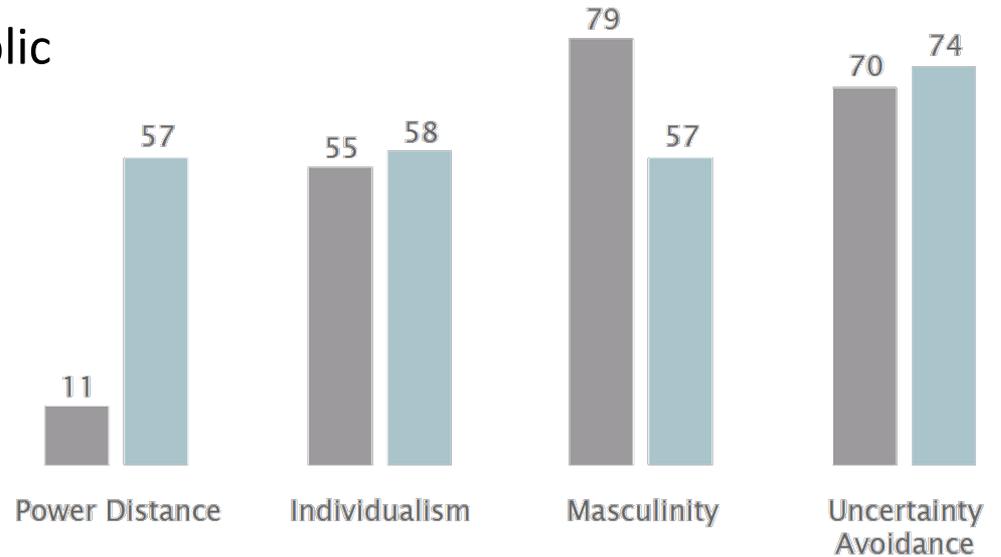


An aerial photograph of a complex highway interchange in a city, featuring multiple lanes, overpasses, and surrounding greenery. A semi-transparent grey rectangular box is centered over the image, containing the title text in white. The background shows a mix of urban infrastructure, including roads, buildings, and trees with some autumnal colors.

Cultural Aspects in Austria and the Czech Republic

CULTURAL ASPECTS

- Cultural dimensions of Austria and the Czech Republic (Hofstede, 1984)



CULTURAL ASPECTS

Austria

- Using hierarchy only for convenience
- Competition, achievement and success are important
- Working consecutively
- Rule-based control

Czech Republic

- More hierarchical society
- Operating more simultaneously
- Diffuse Culture = mingle work and private life
- Human-oriented control

Schroll-Machl Sylvia, Nový Ivan (2008, 2009)

CULTURAL ASPECTS

Austria

- Strong independence
- Preference for loosely social relationships
- Role-oriented
- Conflict avoidance

Czech Republic

- Strong independence
- Preference for loosely social relationships
- Role-oriented
- Conflict avoidance

Schroll-Machl Sylvia, Nový Ivan (2008, 2009)

A person wearing a dark blue suit jacket and a white shirt is sitting at a desk. They are using a silver laptop. A large, tan-colored messenger bag is resting on the desk in front of them. The background is a bright, slightly blurred office or home workspace with a white wall and a small potted plant.

Employability in Higher Education

EMPLOYABILITY IN HIGHER EDUCATION

“Employability means that students and graduates can discern, acquire, adapt and continually enhance the skills, understandings and personal attributes that make them more likely to find and create meaningful paid and unpaid work that benefits themselves, the workforce, the community and the economy”

(Oliver, 2015)

EMPLOYABILITY IN HIGHER EDUCATION

- Equip future graduates with an appropriate skillset that goes beyond narrow disciplinary boundaries e.g.
 - Intercultural competence
 - Foreign language skills
 - Communicative effectiveness
 - Global networking
 - Etc.
- Embrace the capacity of graduates to optimally accomplish a job position

(Oellinger et al, 2014; Gaisch & Oellinger, 2014; Chydenius & Gaisch, 2016; Boeda et al., 2016)

A stack of old, worn books with a semi-transparent grey text box overlaid in the center. The books have yellowed pages and some are bound with green tape. The background is blurred, showing more books and a green plant.

CLIL
Content and Language
Integrated Learning

CONTENT AND LANGUAGE INTEGRATED LEARNING

“CLIL can be defined as an educational approach where curricular content is taught through the medium of a foreign language, typically to students participating in some form of mainstream education at the primary, secondary, or tertiary level” (Dalton-Puffer, 2011)

- Increase intercultural awareness and foster personal abilities of the learner
- Support the development regarding language usage, cognitive flexibility, communication competence and cross-cultural understanding of students

A top-down view of a wooden desk. On the left is a silver laptop with a black screen. To its right is a white mug filled with dark coffee. Further right are two pencils, one yellow and one pink, and a yellow sticky note. There are also some crumpled pieces of paper scattered on the desk. A semi-transparent grey rectangle is overlaid in the center, containing the text.

Research Design Objectives and Methodology

RESEARCH DESIGN - OBJECTIVES

- May foreign language skills (German, Czech and/or English) in technical degree programs (informatics, logistics, civil and mechanical engineering) have the potential to increase graduate employability in the Austrian-Czech border region?
- May intercultural competence and linguistic diversity be an asset for the local industry of Upper Austria and the Czech Republic?
- How can technical study programs be enriched with elements of content and language integrated learning (CLIL) and how this didactical method may be beneficial for both higher education institutions and enterprises that operate in this cross-border region.

RESEARCH STUDY 1 (NOVEMBER-MARCH)

Age	Min Max	26 years 62 years
Gender	Male Female	11 3
Duration of the interview	Min Max	15 minutes 69 minutes
Countries	Austria Czech	5 people 9 people
Disciplines	Informatics Logistics Civil engineering Mechanical engineering Business representative *	2 people 2 people 2 people 2 people 6 people
Total participants		14 participants

* Upper Austrian Chamber of Commerce, Institute for Economic Development (WIFI) and WIFI International, South Bohemian Chamber of Commerce

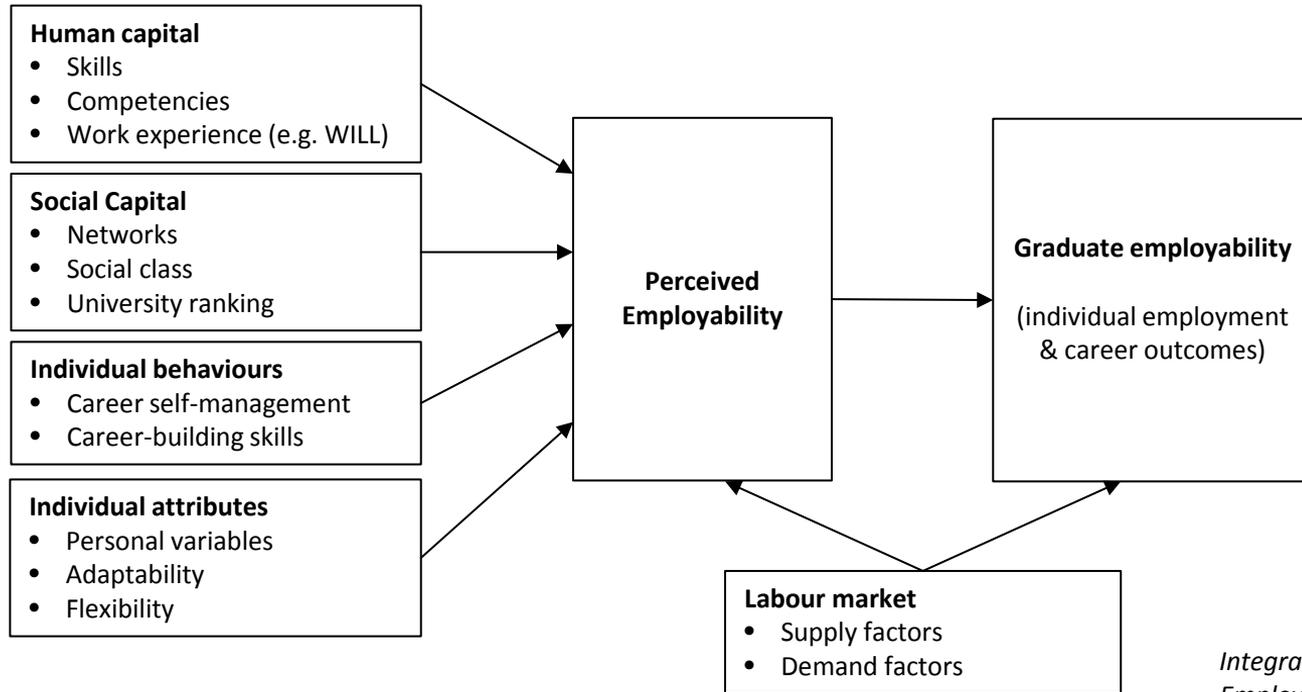
RESEARCH STUDY 1 (NOVEMBER-MARCH)

- Experience within cross-border cooperation in Austria and the Czech Republic
- Employability requirements of the local industry
- Cultural awareness of employees
- Working language within the company
- Foreign language skills of employees
 - Usage of technical terminology in different languages (German, Czech, English)

RESEARCH STUDY 2 (MAY-NOW)

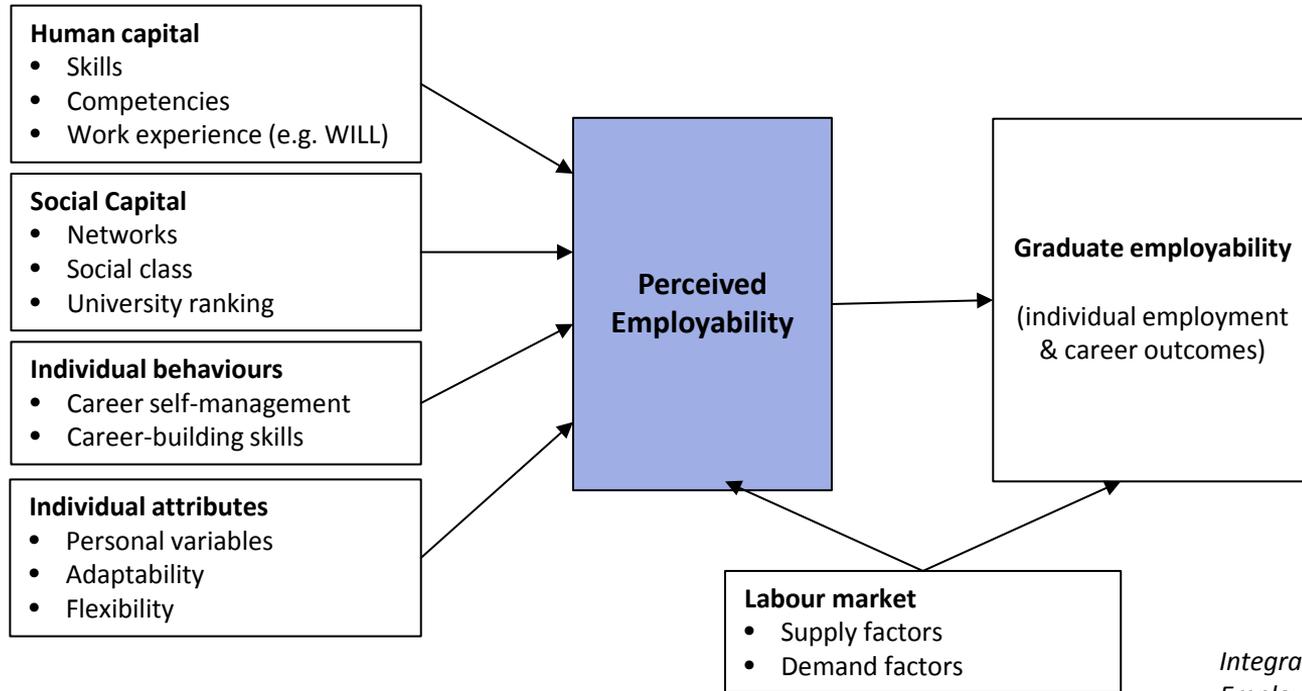
- Qualitative study
- Countries
 - Austria
 - The Czech Republic
- Disciplines
 - Informatics
 - Logistics
 - Civil engineering
 - Mechanical engineering
- Graduates who have been working in an international company for one year

RESEARCH STUDY 2 (MAY-NOW)



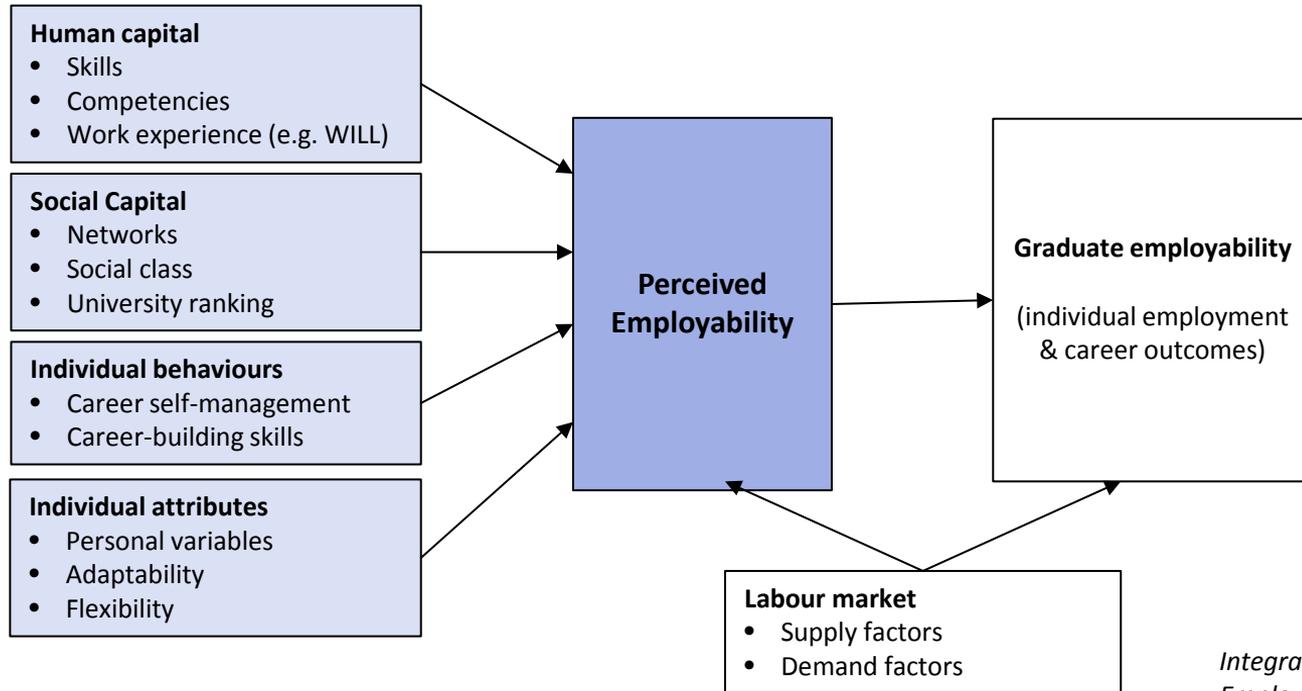
Integrated Model of Graduate Employability (Clarke, 2017)

RESEARCH STUDY 2 (MAY-NOW)



Integrated Model of Graduate Employability (Clarke, 2017)

RESEARCH STUDY 2 (MAY-NOW)



Integrated Model of Graduate Employability (Clarke, 2017)

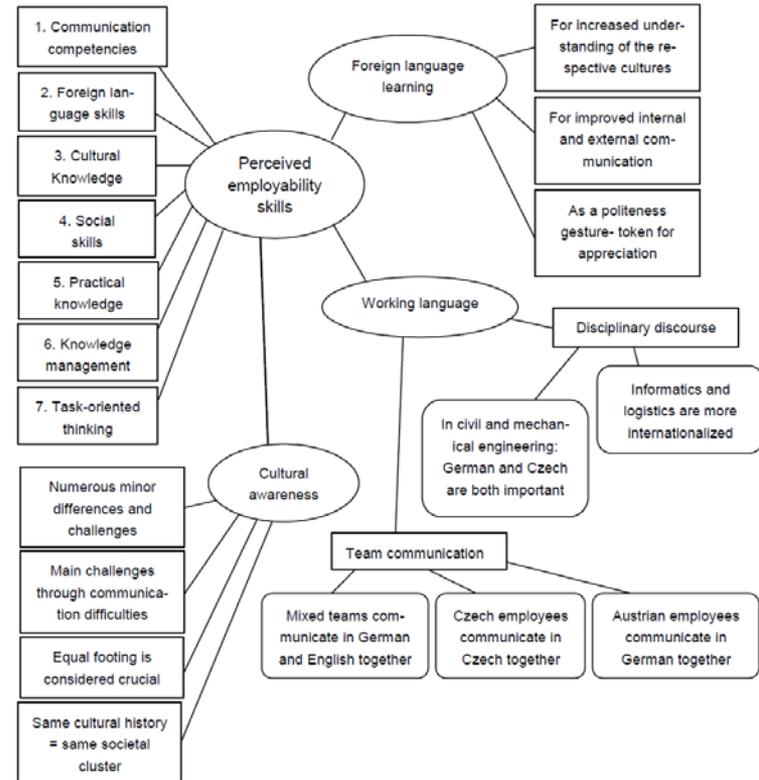
A modern conference room with a large table, chairs, and a projector, overlaid with a semi-transparent box containing the text 'Empirical Findings'. The room features a wooden floor, a grid ceiling with recessed lights, and large windows on the right side. A projector is mounted on the ceiling. The text 'Empirical Findings' is centered in a white, bold font within a semi-transparent grey rectangular box.

Empirical Findings

EMPIRICAL FINDINGS

- Thematic map of the key findings

- Perceived employability skills (ranked according to the priority)
- Foreign language learning
- Working language
- Cultural awareness



EMPIRICAL FINDINGS

- Perceived employability skills
 - Communication competencies
 - Foreign language skills
 - Cultural knowledge
 - Social skills
 - Practical knowledge
 - Knowledge management
 - Task-oriented thinking

EMPIRICAL FINDINGS

- Foreign language learning
 - For increased understanding of the respective cultures
 - For improved internal and external communication
 - As a politeness gesture – taken for appreciation

EMPIRICAL FINDINGS

- Working language
 - Disciplinary discourse
 - In civil and mechanical engineering: German and Czech are both important
 - Informatics and logistics are more internationalized
 - Team communication
 - Mixed teams communicate in German and English together
 - Czech employees communicate in Czech together
 - Austrian employees communicate in German together

EMPIRICAL FINDINGS

- Cultural awareness
 - Numerous minor differences and challenges
 - Main challenges through communication difficulties
 - Equal footing is considered crucial
 - Same cultural history = same societal cluster

A scenic view of a long, straight asphalt road stretching into the distance. The road is flanked by rows of trees and vineyards. The sky is clear and blue, suggesting a bright day. The overall atmosphere is peaceful and open.

Conclusion

CONCLUSION

- Cross-border region requires graduates that possess
 - disciplinary and transversal skills
 - a profound understanding of linguistic and cultural diversity

CONCLUSION

- The enrichment of technical study programs with CLIL-based elements was perceived to bring:
 - development of language proficiency
 - enhancement intercultural awareness
- Improvement of the collaboration between internationalized companies at the Austrian-Czech cross-border region through
 - Language skills
 - Intercultural competencies
 - Respectful and appreciative communication

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

ResearchGate: [CLIL-Content-and-Language-Integrated-Learning-at-the-Tertiary-Level](#)