

Differences in the Perception of E-Learning Resources

*A cross-cultural analysis of logistics students in
Austria and the Czech Republic*

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OVERVIEW

1

Setting the scene

2

Theoretical framework

Cultural aspects

E-learning Systems and Gamification

3

Research design

Objectives

Methodology

4

Empirical findings

5

Conclusion & Limitations

SETTING THE SCENE

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/

SETTING THE SCENE

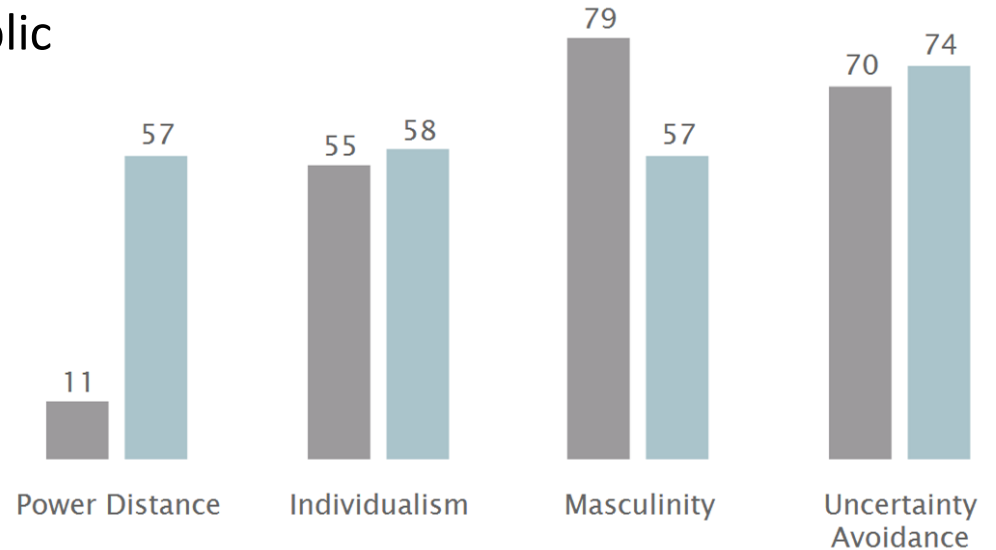
- Aim of the Project
 - Implementation of the CLIL approach within technical degree programs (informatics, logistics, civil engineering, mechanical engineering)
 - Development of foreign language skills (German, Czech, English) within the cross-border region in Austria and the Czech Republic
 - Identification of current needs of the labour market in the Austrian-Czech cross-border region
 - Development of e-learning modules and terminology lists
 - Enhancement of graduate employability in this geographical region

An aerial photograph of a dense urban skyline, likely New York City, featuring numerous skyscrapers and a prominent tower with a spire. A semi-transparent white rectangular box is overlaid on the center of the image, containing the title text.

Cultural Aspects in Austria and the Czech Republic

CULTURAL ASPECTS

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



CULTURAL ASPECTS - DIFFERENCES

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 - SIMILARITIES


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 in a dark blue suit and white shirt is sitting at a desk, working on a laptop. A tan messenger bag is resting on the desk in front of them. The background is a bright, slightly blurred office setting with a window and a potted plant.

E-Learning Systems and Gamification

E-LEARNING SYSTEMS AND GAMIFICATION

- E-Learning Systems
 - support students by improving their skills and gaining new knowledge by using web-based information and communication systems and technologies
 - encourage students to learn more independently and actively
 - support
 - contact between students and teachers
 - cooperation between students
 - communication between all participants
 - possibility to learn from each other

(Zaric, Scepanović, Vujicic, Ljuco-vic & Davcev, 2017) | (Amriani, Aji, Utomo & Junus, 2013) | (Shea, Picett & Pelz, 2003)

E-LEARNING SYSTEMS AND GAMIFICATION

- Gamification
 - is defined as the use of game design mechanics and elements in non-game contexts
 - with the aim to enhance the engagement and motivation of learners by using gaming techniques

(Deterding, Sicart, Nacke, O'Hara & Dixon, 2011) | (Muntean, 2011)

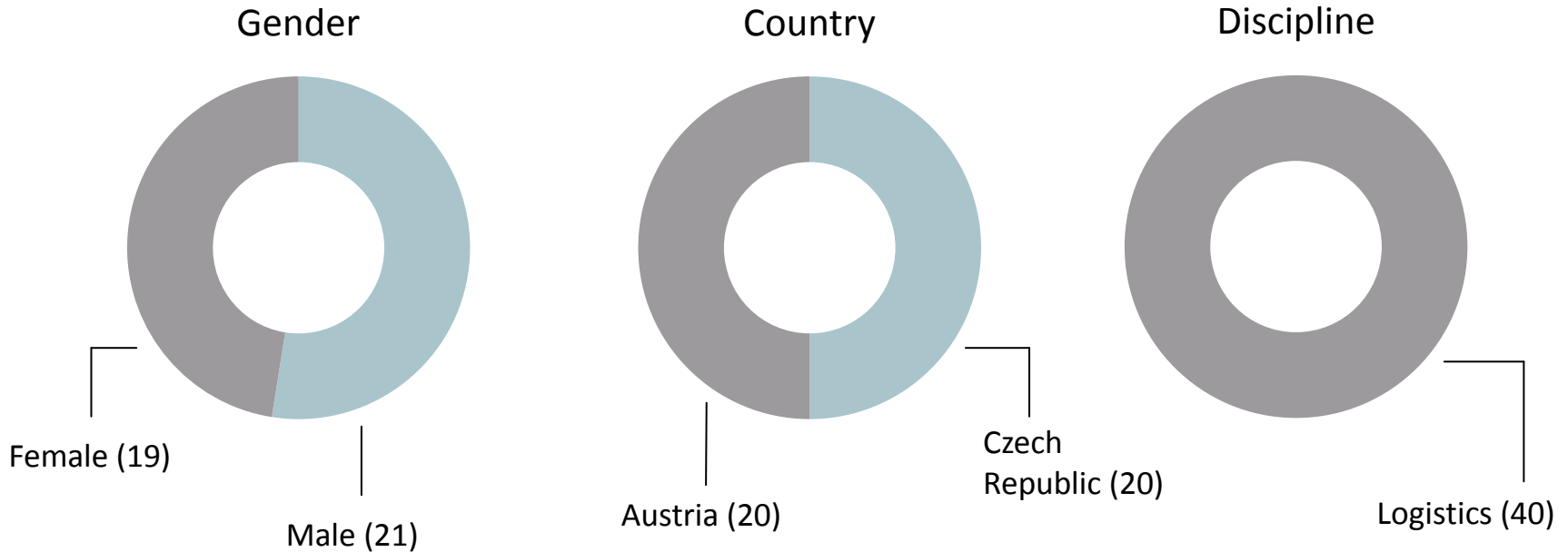
A top-down view of a wooden desk. On the left, a silver laptop is open. To its right is a white mug filled with dark coffee. Further right, a yellow pencil lies horizontally. Below the pencil are two sticky notes, one white and one light green. There are also some crumpled pieces of paper scattered on the desk. The background is a light-colored wooden surface with a visible grain.

Research Design Objectives and Methodology

RESEARCH OBJECTIVES

- Identify the contextual differences and online learning preferences of Bachelor students taking a degree in logistics in Austria and the Czech Republic
- With the aim to
 - deliver online material that suits the requirements of the investigated geographical groups
 - present e-learning resources in such a way that it can also benefit employees of the local industries in Austria and the Czech Republic

RESEARCH DESIGN - METHODOLOGY

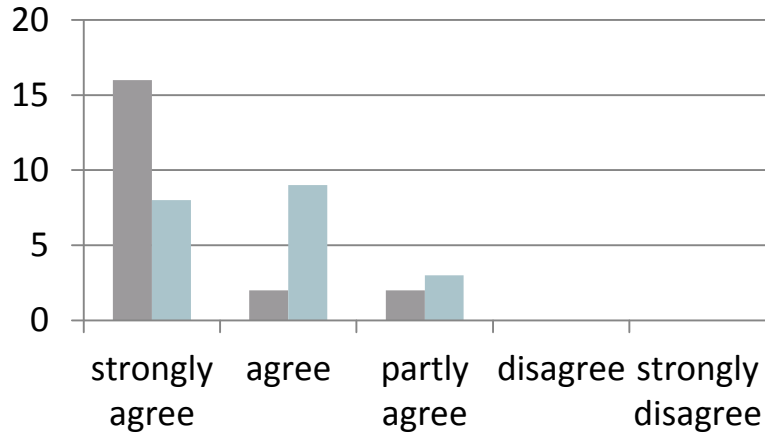


A modern conference room with a large table, chairs, and floor-to-ceiling windows. The room is brightly lit, and the text "Empirical Findings" is overlaid in the center.

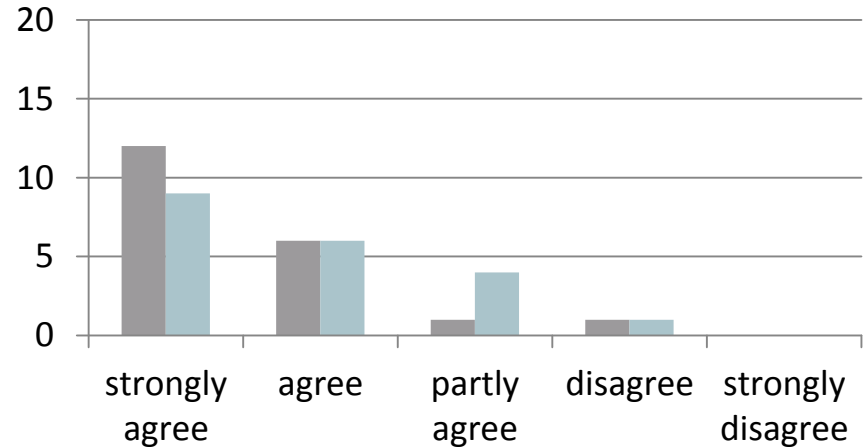
Empirical Findings

EMPIRICAL FINDINGS

Clearly defined learning objectives are important



Consistent structure of learning materials to avoid ambiguity

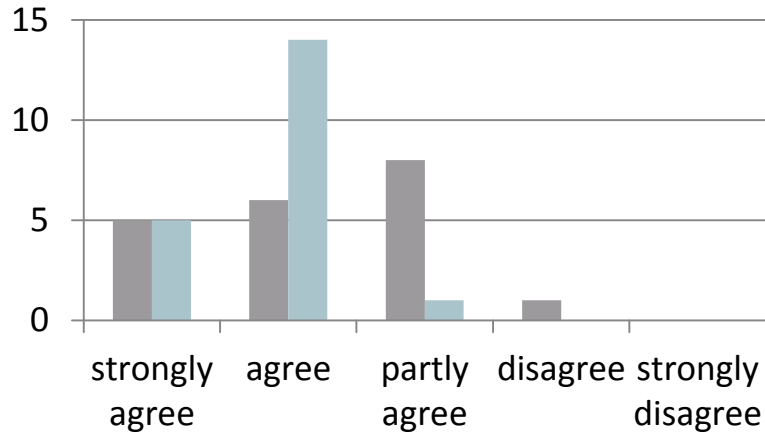


■ Austria

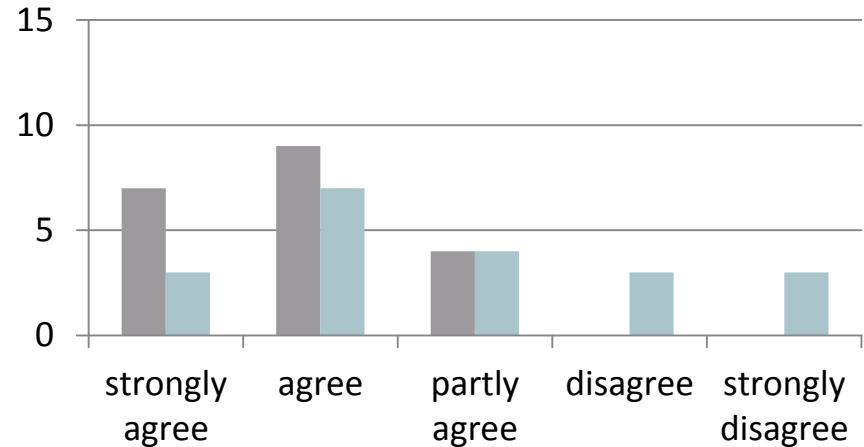
■ Czech Republic

EMPIRICAL FINDINGS

Creation of learning materials by qualified experts



Getting an overview of learning content before learning lesson

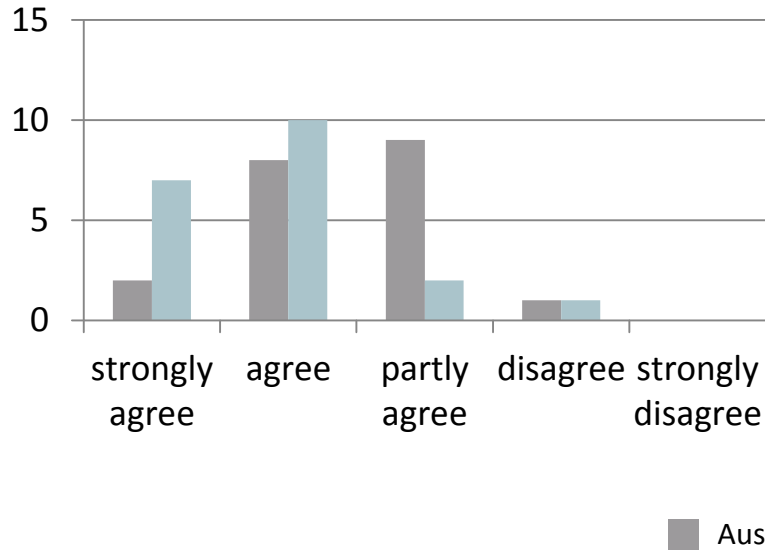


■ Austria

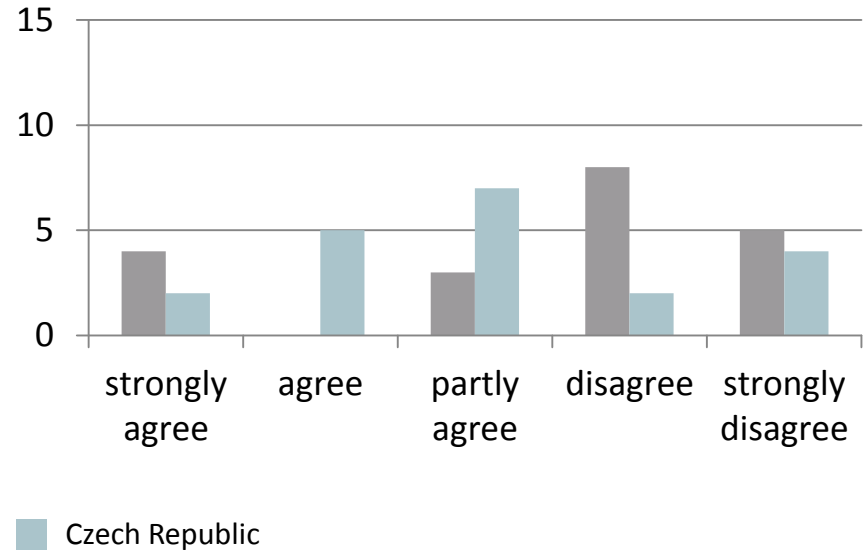
■ Czech Republic

EMPIRICAL FINDINGS

Use of different multimedia elements within the learning materials

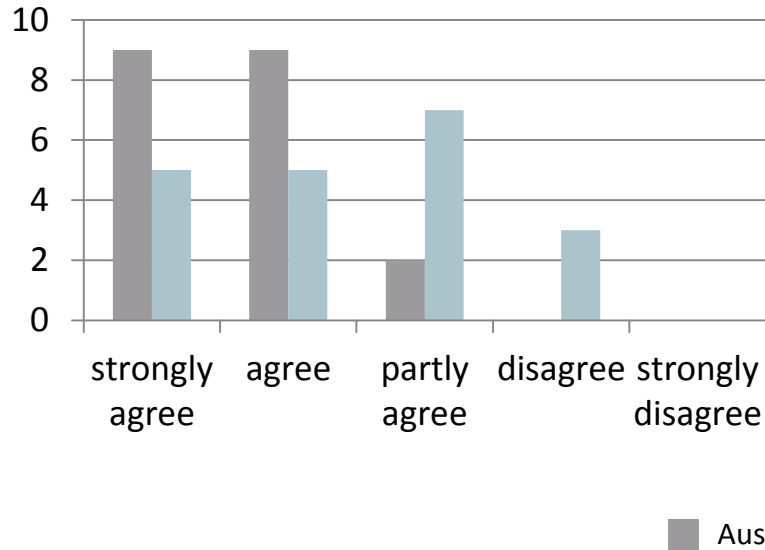


Textual preparation of learning materials without gamification elements

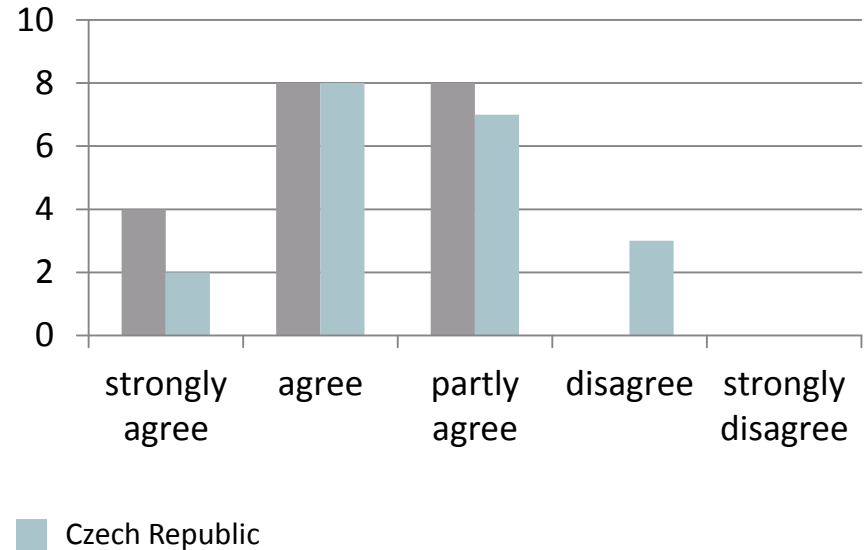


EMPIRICAL FINDINGS

Tools for self-evaluation (quiz, text) to measure progress

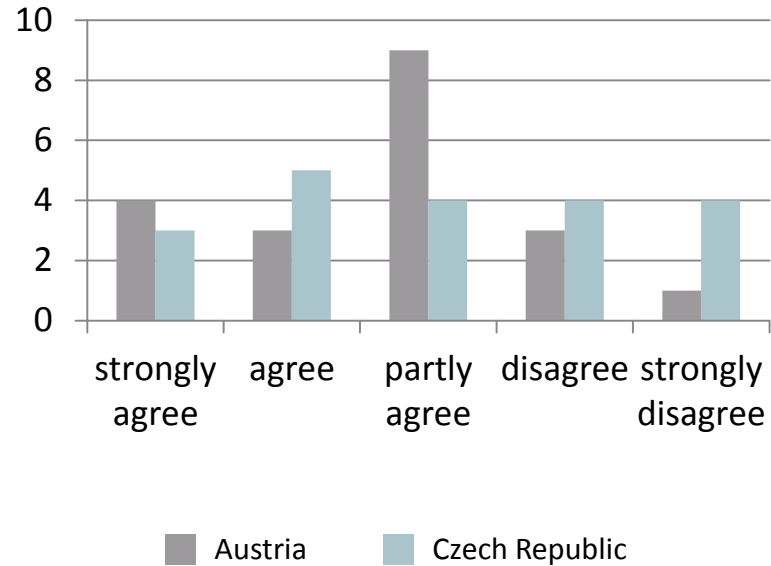


Possibilities for self-evaluation are appreciated



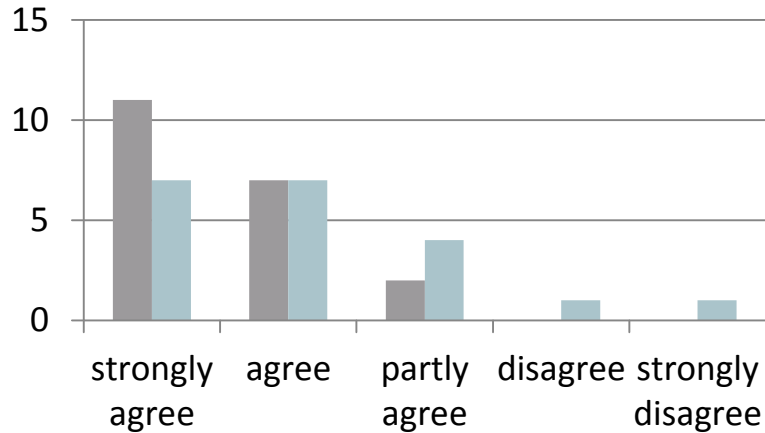
EMPIRICAL FINDINGS

Possibilities for competition

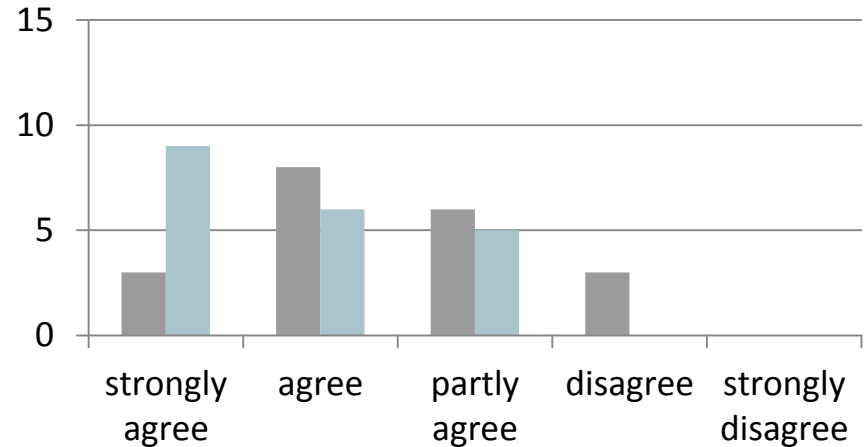


EMPIRICAL FINDINGS

Understanding of learning materials through active working with the content



Understanding of learning materials through reflecting the content

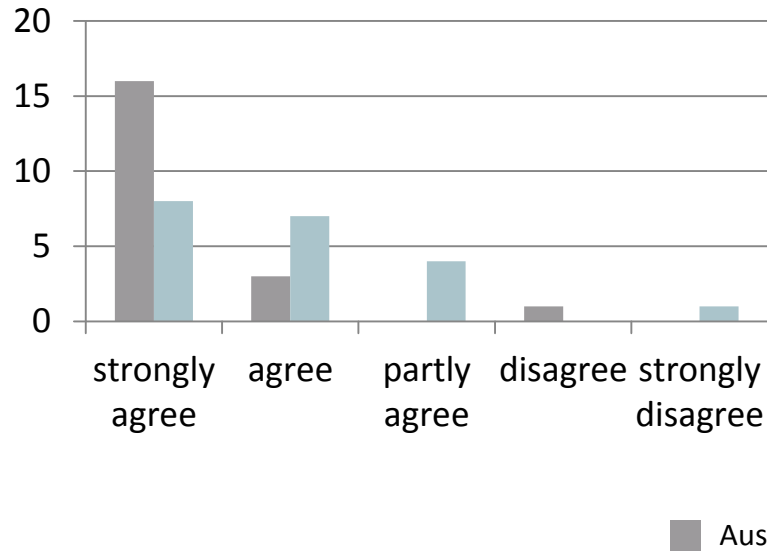


■ Austria

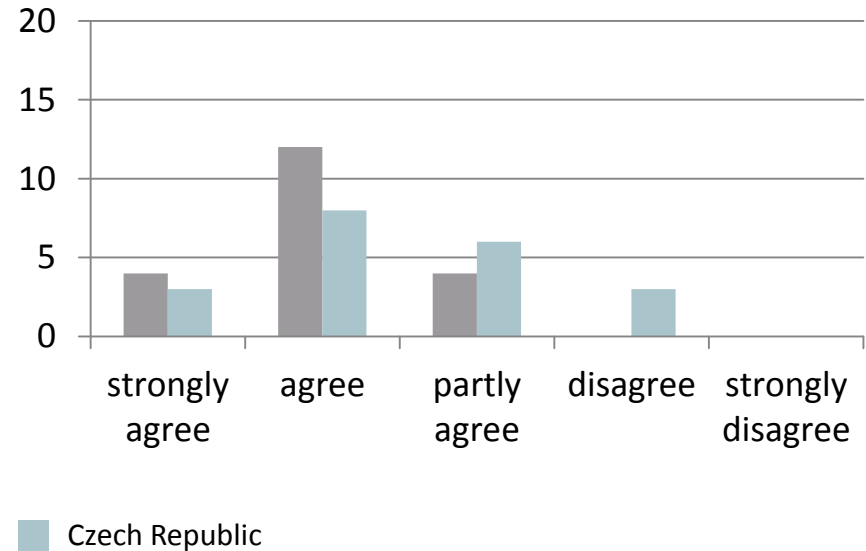
■ Czech Republic

EMPIRICAL FINDINGS

Preference of practical examples

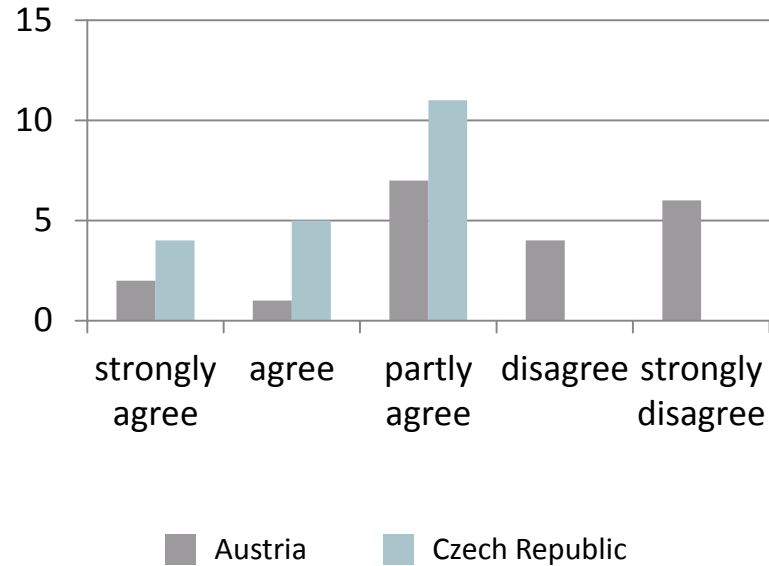


Preference of facts and details



EMPIRICAL FINDINGS

Gender-sensitive language and gender equality within learning materials



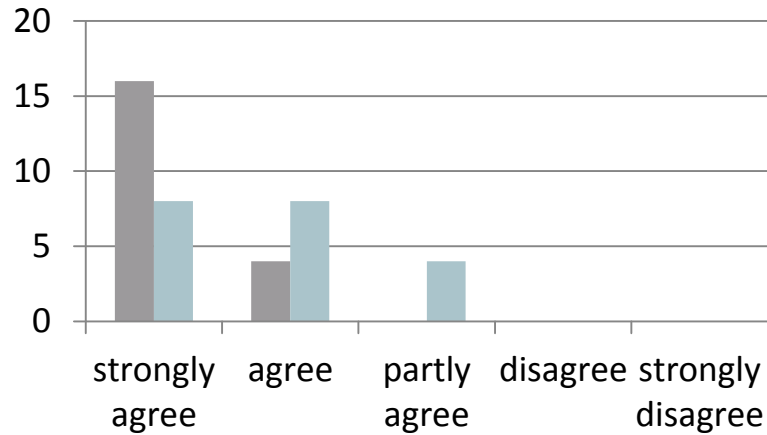
A modern conference room with a large table, several chairs, and floor-to-ceiling windows overlooking a cityscape. The room is brightly lit, and the ceiling features recessed lighting and a central projector. The text is overlaid on a semi-transparent white rectangle in the center of the image.

Empirical Findings

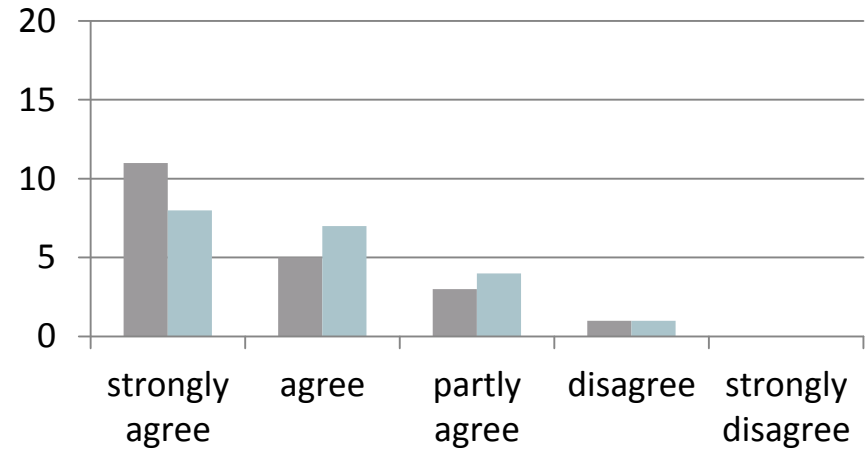
Layout, visualization and structure of e-learning material

EMPIRICAL FINDINGS

Logical structure



Consistent structure and design

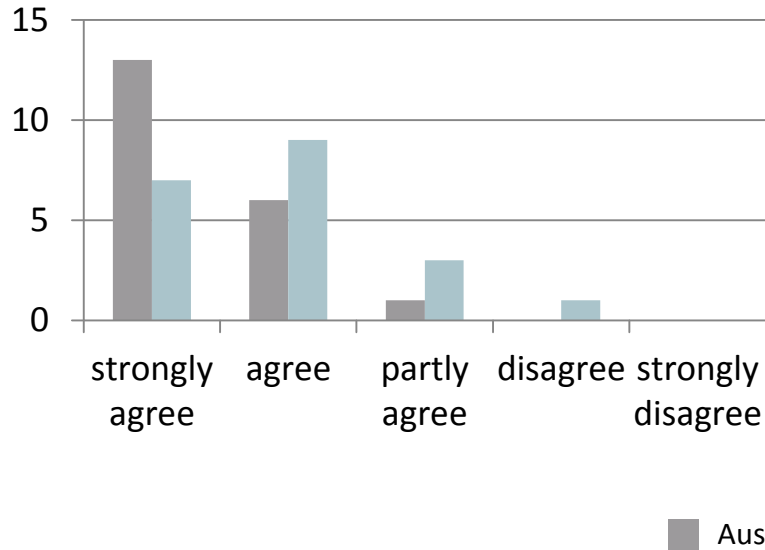


■ Austria

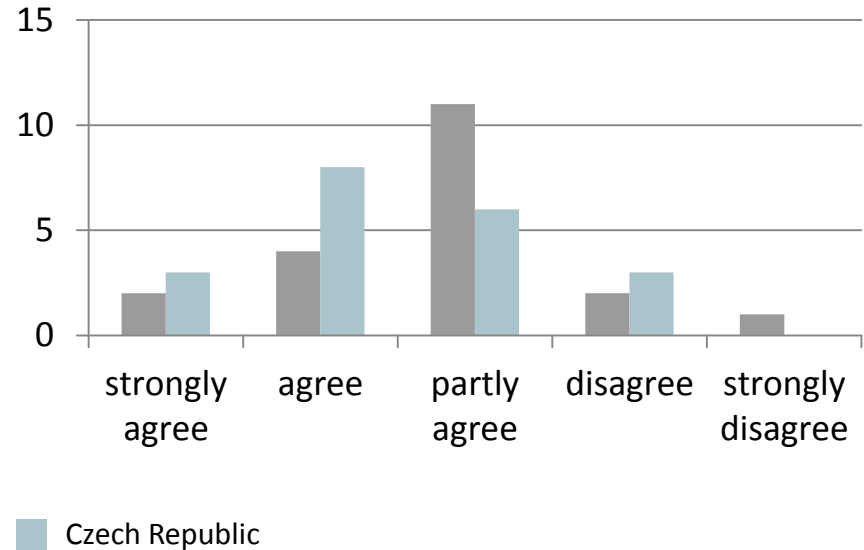
■ Czech Republic

EMPIRICAL FINDINGS

Usage of graphs, pictures and diagrams

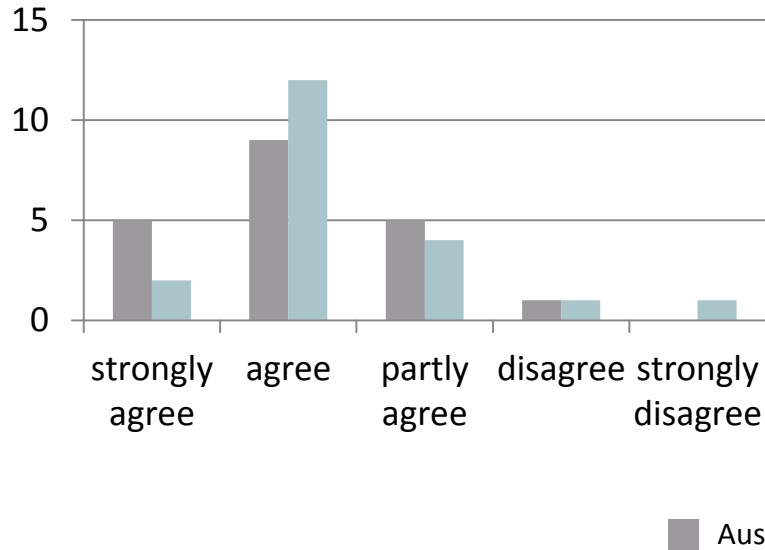


Audio dubbing of individual slides to explain contents

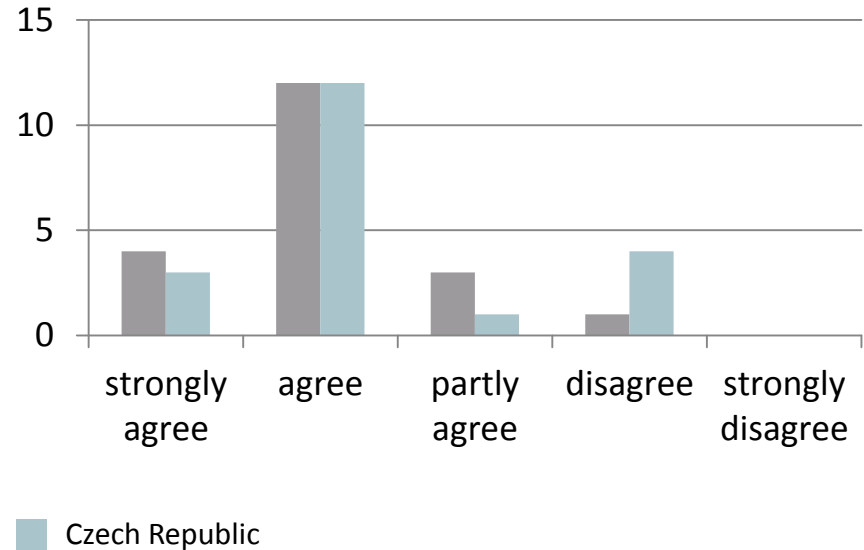


EMPIRICAL FINDINGS

Usage of mind maps, etc. for a better overview

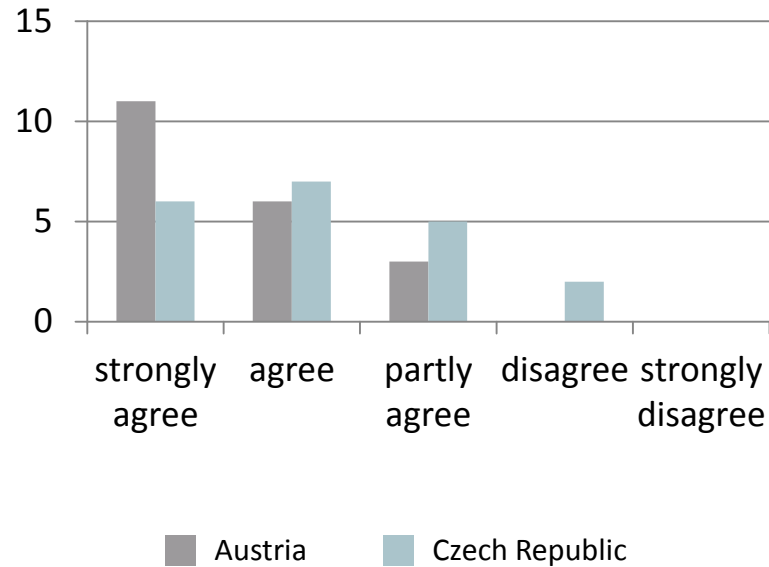



Detailed textual preparation of learning materials



EMPIRICAL FINDINGS

Usage of gamification elements



A scenic view of a two-lane road stretching into the distance, lined with trees and vineyards under a clear sky. The road is paved and has a dashed white line down the center and solid white lines on the sides. The trees are mostly deciduous with some autumn-colored leaves. The vineyards are visible on both sides of the road, and the sky is a clear, pale blue.

Conclusion & Limitations

CONCLUSION

- Apparently Austrian and Czech students have a different perspective on learning which is why
 - Czech students are more into text based learning
 - Austrian students are more into visualisation and gamification
- Adopt both approaches within the project so that all players are satisfied

LIMITATIONS

- Too small sample size for quantitative study
- Focus on bachelor students of logistics only
- Restricted regional perspective

POTENTIAL FUTURE AVENUES

- Broaden the scope to all 4 disciplines
 - Informatics
 - Civil engineering
 - Mechanical engineering
 - Logistics
- Take more participants into account
- Embrace more geographical regions

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