

International Conference at the
Leopold-Franzens-University in
Innsbruck

**„Media – Knowledge – Education:
Augmented and Virtual Realities“**

*Panel 4: Games
(in Claudiasaal)*

**April 25-26th, 2019
from 5:15 – 5:45 PM**

**The Intergalactic
ZEIBI:**

**Preventing School
Absenteeism through Game-
Based Learning and Theatre
Pedagogy in an International
Comparison**

Begic P., Bilgin M.
& Buchwald P.



BERGISCHE
UNIVERSITÄT
WUPPERTAL

Content



BERGISCHE
UNIVERSITÄT
WUPPERTAL

- **Content**
- **ISSA-Project**
- **Theoretical Introduction**
- **Our Concept**
- **Preliminary Results**
- **Further Information**
- **Discussion**

ISSA-Project



BERGISCHE
UNIVERSITÄT
WUPPERTAL

Participating Countries:

- Cooperation between Germany, Greece, Spain and Turkey

Aims of the Project:

- Reducing the rate of school absenteeism and –dropout in the EU
 - Psychoeducation on the consequences of absences
 - Improving the use of digital media
 - Acquisition of social skills



<http://www.issaproject.com/>

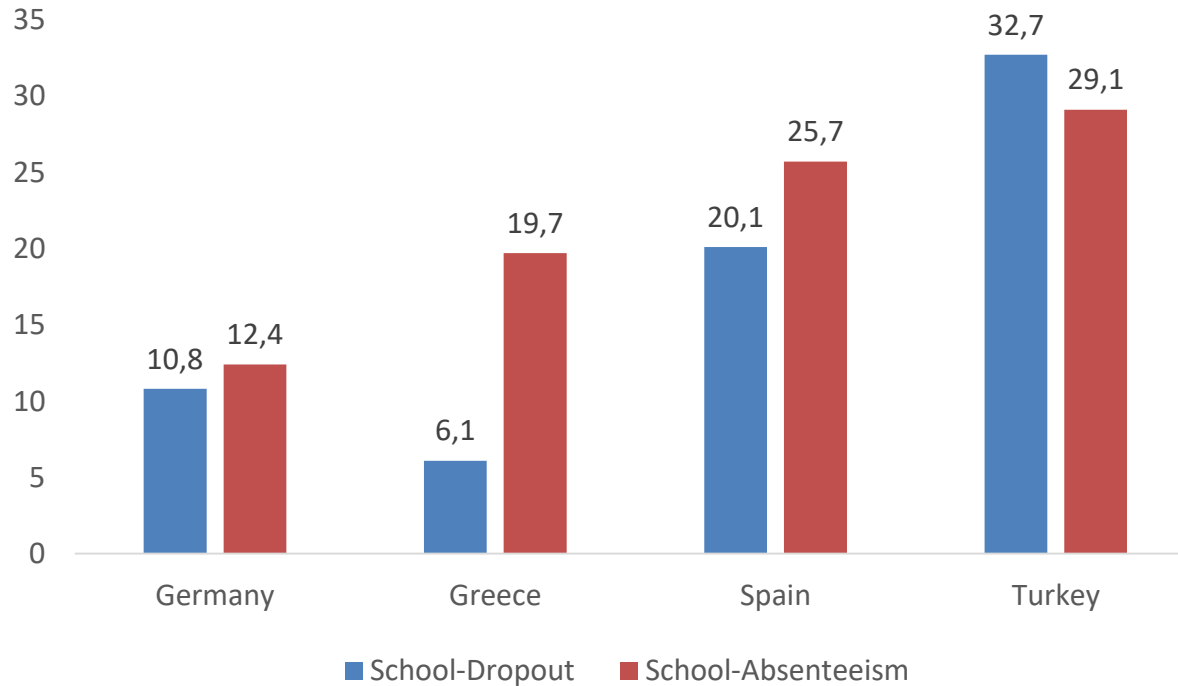
Co-funded by the
Erasmus+ Programme
of the European Union



Projectno.:

2016-1-TR01-K201-034947

International Prevalences of School-Dropout and Absenteeism



(Eurostat, 2018; OECD, 2016)

Theoretical Introduction



BERGISCHE
UNIVERSITÄT
WUPPERTAL

Introduction to School-Dropout and -Absenteeism

WEEKLY GLOBAL STRIKES every Friday
outside your local city hall or parliament



#FridaysForFuture

#FFF

(<https://www.fridaysforfuture.org/join>)

School-Absenteeism:

- Staying away from school, illegitimate school failure
- Multi-causal and long-term genesis/development
- Influencing factors: family, school, peers and the individual itself

(Ricking & Hagen, 2016)

Types:

- Truancy (unauthorized absence from class)
- Fearful school refusal
- Retention by the parents

(Ricking & Speck, 2018)

School-Dropout:

- Early school leaving and exit from the school system

(Ricking & Hagen, 2016)

- Adolescents with at most a lower secondary degree and no advanced degree


(European Commission, 2013)

Consequences:

- Emotional and social development risks, lower educational participation, difficult professional and social integration
- Lower income
- Negative health effects
- Etc.

(Ricking & Hagen, 2016; Oreopolus, 2007; Stamm et al., 2009)

Need for
Prevention



Total Goal of Preventional Methods:

- Reducing social costs through early-stage prevention measures

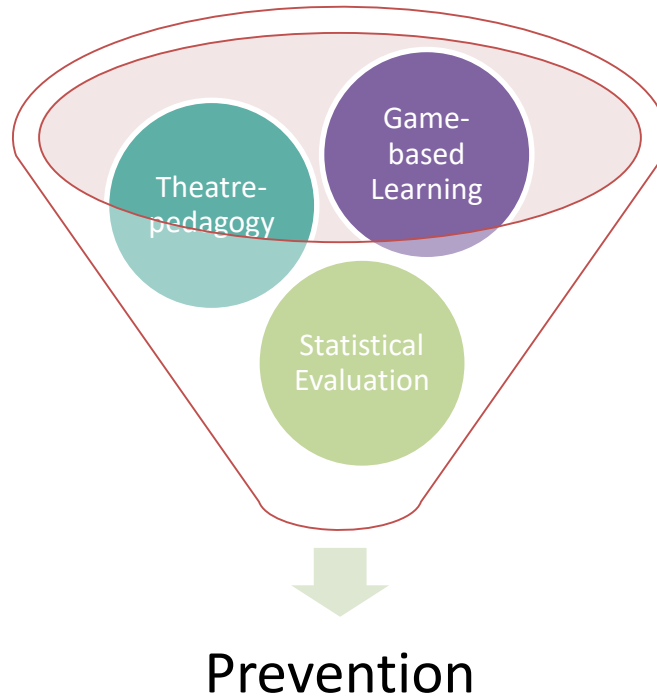
(Czock & Wölbing, 2011)

Our Concept

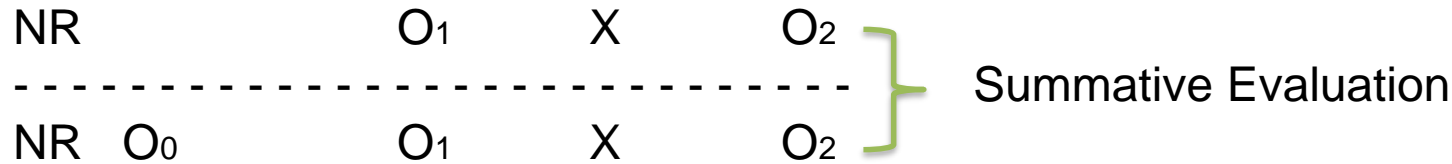


BERGISCHE
UNIVERSITÄT
WUPPERTAL

The Intergalactic ZEIBI: Key Components



Treatmentgroup + Waiting-Controlgroup with Identical Pre- and Posttests:



Notation:

O₀, O₁, O₂ : (Identical) Tests on three measurement-points

X: Treatment

NR: Non-randomised

Overview on the Theatrepedagogical Concept with ZEIBI

Duration: 90 min. for each session

1. Questionnaire



2. Workshop A



3. Workshop B



4. Workshop C



5. Questionnaire



**Social Isolation
vs. Social
Support**

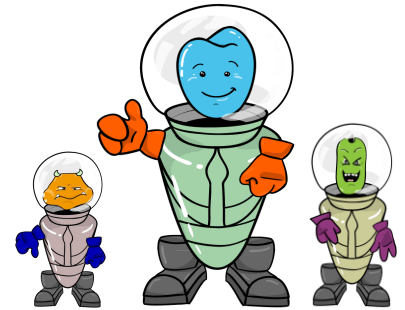
**SMART-
Goalsetting**

Self-Efficacy



ZEIBI:

- A gender neutral alien from space
- A Jump and Run game integrated into an online-platform
- Contains individual and collective activities



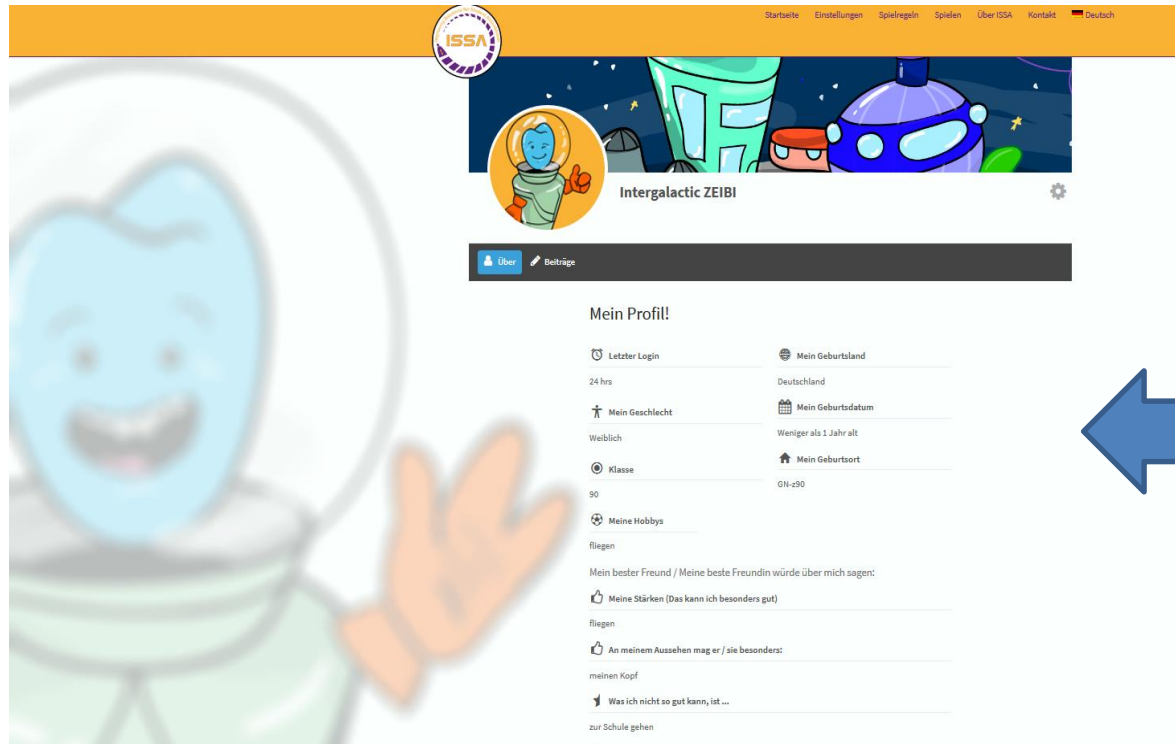
<https://www.issastudent.com/>

Starting-Point:

- Stimulation-hypothesis
 - Online-platform stimulates social integration and fosters friendship-relations

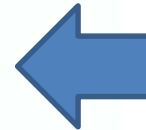


(Shapiro & Margolin, 2014)



2 Main Functions:

1. Implementation of the content of the workshops
2. Social Support, through widening the social network





3 Main Functions:

1. **Motivation** through addressing the Incentive system in form of futurecoins, repairpoints etc.
2. **Awareness** on the topic school attendance in form of futurehints
3. **Sustainable support** of the theatre-pedagogical effect

Preliminary Results



BERGISCHE
UNIVERSITÄT
WUPPERTAL

Description:

- Online-Questionnaire
- Fieldstudy a School-Setting
- Duration: 60 min.



(<https://www.soscisurvey.de/issa/>)

Test Battery:

- Krefeld Questionnaire on School Absenteeism (Dunkake, 2015)
- Psychological Reactance (Merz, 1983)
- Strategic Approach to Coping Scale (SACS; Buchwald & Schwarzer, 2003)
- Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997)

Descriptive Data:

Sex:

- 52.7% male
- 47.3% female

Age:

- Total Range: 12-16 years

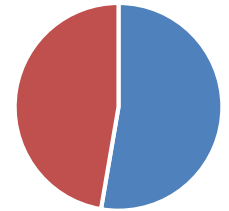
N:

- 527

School Absenteeism:

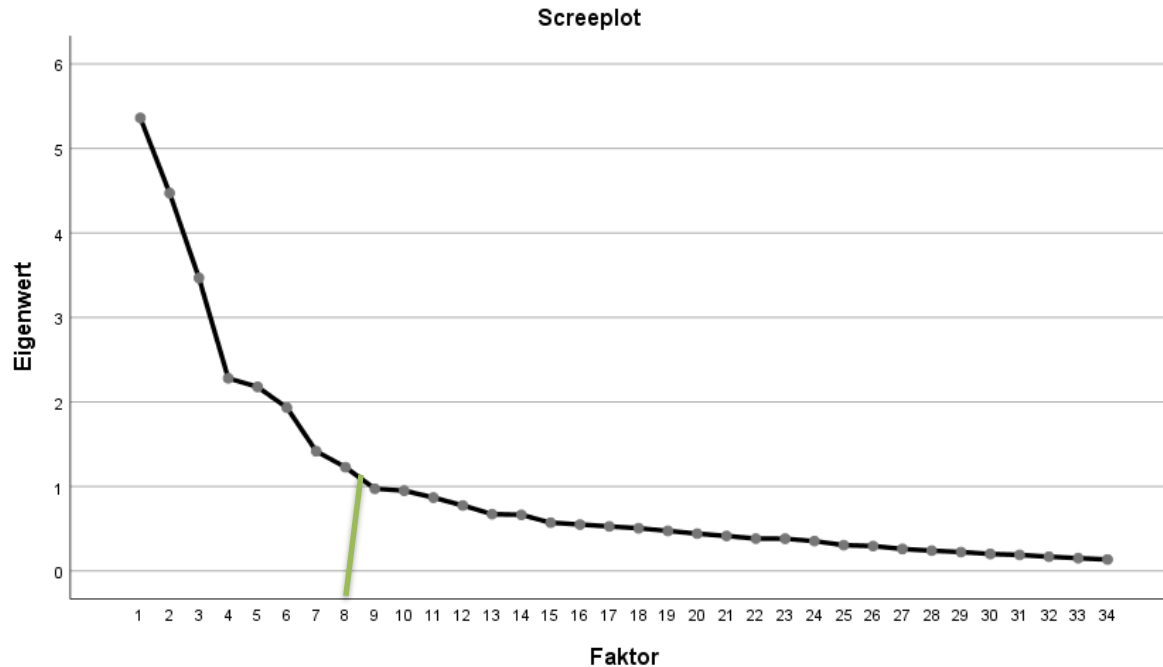
- Repeating a year at school: 22 %
- Truancy of whole school days: 33 %

Sex



■ Male ■ Female

Exploratory Factor Analysis



Cattell's screeplot indicates eight factors before the "elbow" and these factors have greater eigenvalues than one

Confirmatory Factor Analysis

	Model Fit					Model Comparison
	χ^2 (df)	CFI	RMSEA	TLI	p	AIC
Model Fit						
M1: One-Factor Model	3676 (496)	.301	.118	.209	.00	3871
M2: Correlated Factors	731 (467)	.942	.035	.930	.00	985
M3: Model with a factor of higher order	800 (487)	.931	.037	.920	.00	1015

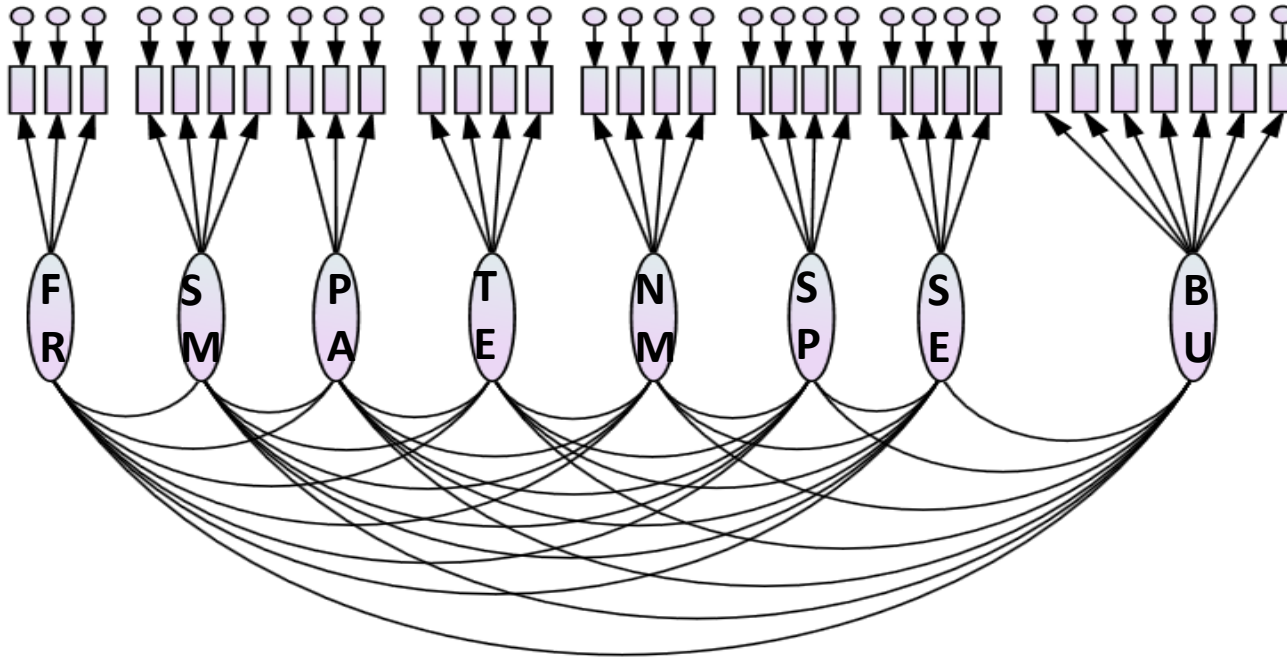
Note. χ^2 (df) = Chi-squared value with associated degrees of freedom, p = significance of χ^2 statistics, CFI = Comparative Fit Index, RMSEA = Root Mean Square Error of Approximation, AIC = Akaike Information Criterion.

Model 2 implies correlated, but distinguishable factors without a shared factor of higher order

→ Confirms and extends existing literature

(Haight, Kearney, Hendron & Schafer, 2011)

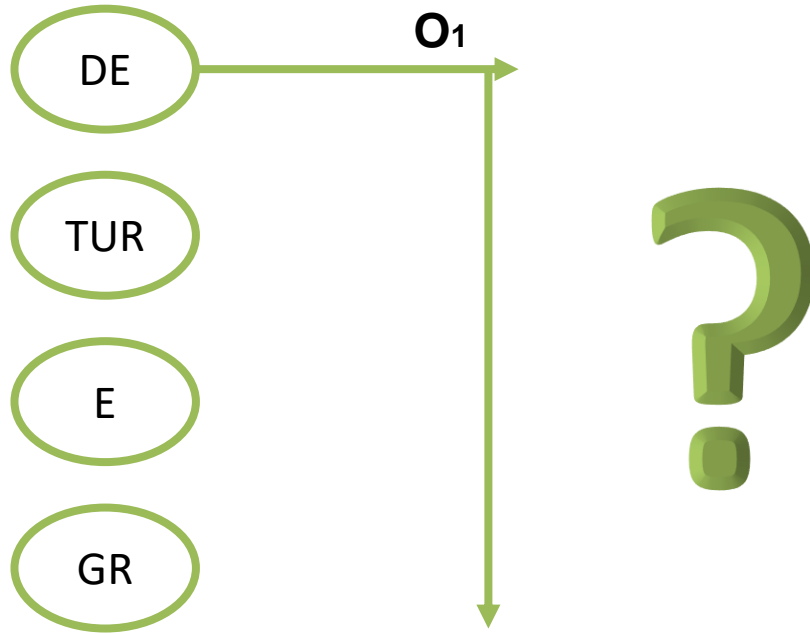
Confirmatory Factor Analysis



Statistically derived
Reasons / Categories for
School Absenteeism:

FR: Friends
SM: Support of Mother
PA: Parents
TE: Teacher
NM: Neglections of
Mother
SP: School Phobia
SE: School Environment
BU: Bullying

International Prevention on School-Absenteeism



„In general, however, cross-cultural aspects of school absenteeism and school refusal behavior remain in need of greater exploration and explication.”

(Kearney, 2008)

Further Information

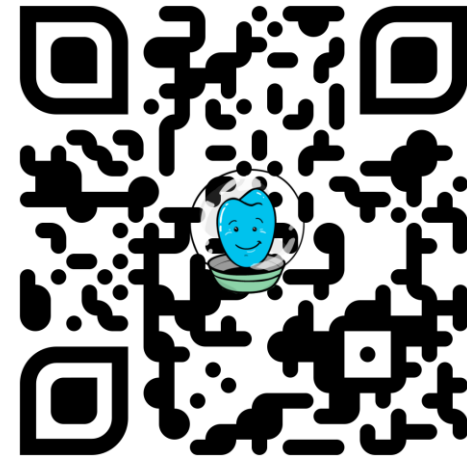


BERGISCHE
UNIVERSITÄT
WUPPERTAL



<http://www.issaproject.com/>

https://www.instagram.com/issaproject_eu/



issaprojekt@uni-wuppertal.de

<https://www.issastudent.com/>

Contact Information



Petra Begic

begic@uni-wuppertal.de



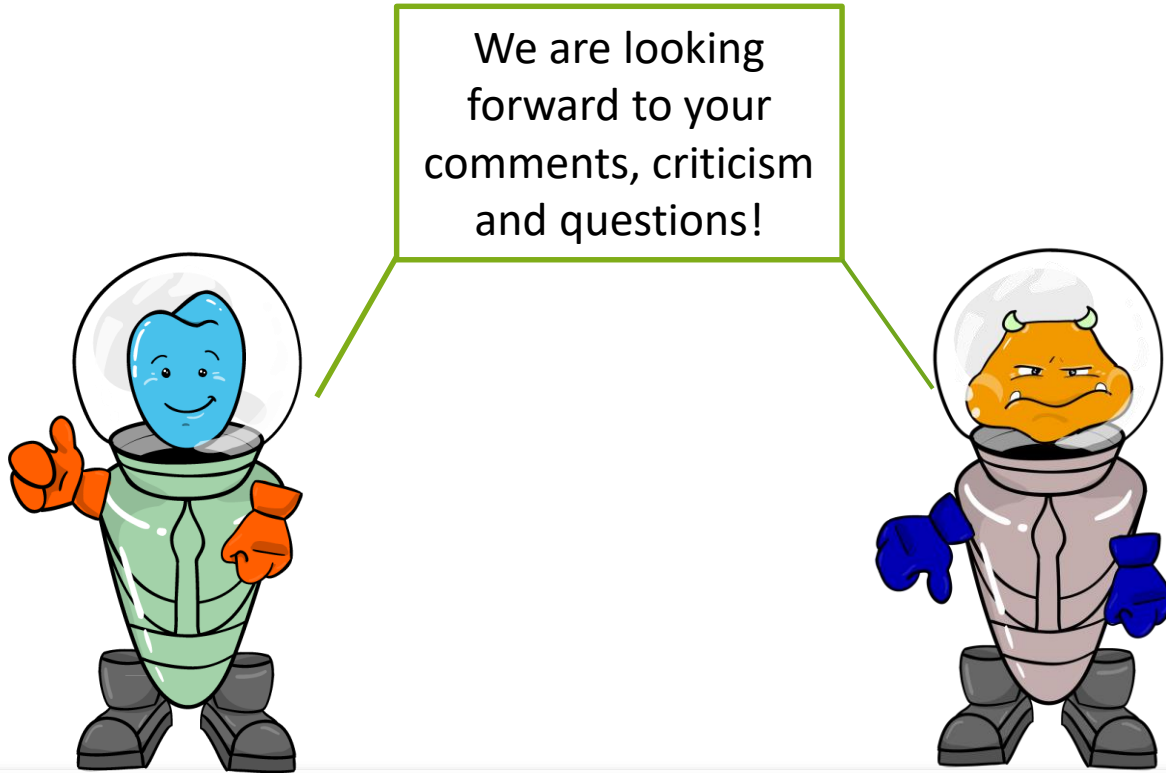
Mustafa Bilgin

bilgin@uni-wuppertal.de



Prof. Dr. phil. Petra Buchwald

pbuchwald@uni-wuppertal.de



Discussion



BERGISCHE
UNIVERSITÄT
WUPPERTAL