

# Development, exploration and evaluation of an interactive teaching/learning concept for Health Care students considering learning outcomes for interprofessional communication competence



Entwicklung, Erprobung und Evaluation eines interaktiven Lehr-/Lernkonzepts für Studierende der Gesundheitsberufe unter Berücksichtigung von Lernergebnissen zum Erwerb interprofessioneller Kommunikationskompetenz

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## Background

For demand-oriented and efficient care, the development of interprofessional competences should already be promoted in the training setting<sup>3</sup>. Particular relevance in interprofessional cooperation is attributed to communication competence<sup>4</sup>. So far, however, longitudinal studies of the effects of theory-based concepts on the different levels of learning as well as before-and-after studies with a robust evaluation design are missing<sup>5</sup>. Also, the therapy professions, their thematic-subject interfaces as well as the resulting interprofessional communication and interaction situations have been little researched so far. Thus the work focuses on the theoretical justification, conception and evaluation of a teaching/learning event for the promotion of interprofessional communication competences, especially for the therapy professions of occupational therapy, speech therapy and physiotherapy.

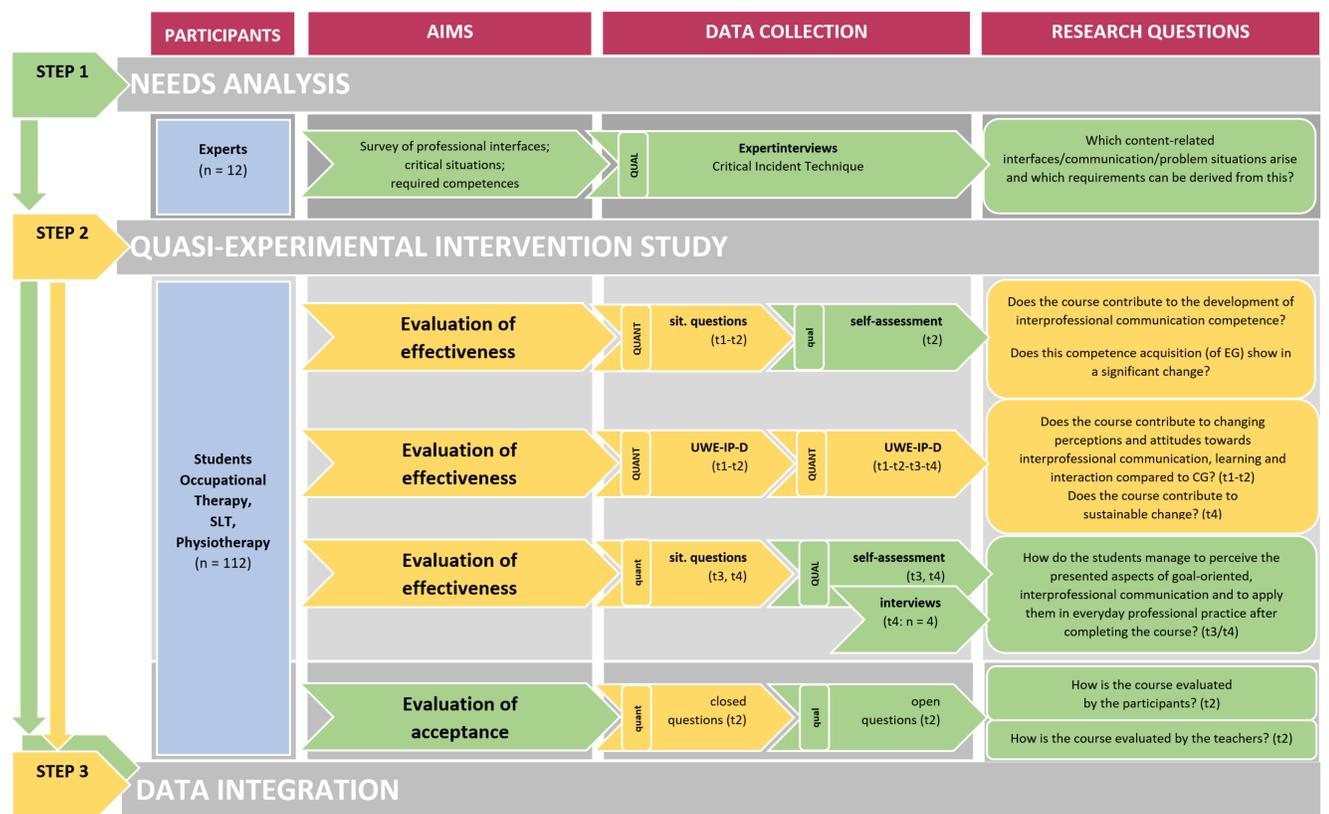
## Design and Methods

	t1	LLV	t2	t1a	LLV	t2b	t3	t4
EG	O	X	O				O	O
WCG	O			O	X	O	O	O

EG: Experimental group  
WCG: Waiting control group | LLV: interprofessional course  
t1: Pretest | t2: Posttest EG | t1a: Pretest 2 WCG | t2b: Posttest WCG  
t3: Follow-up after 3 months | t4: Follow-up after 6 months

## Levels of evaluation

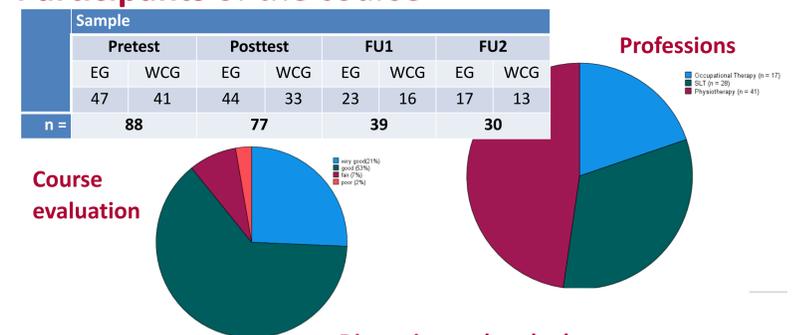
Kirkpatrick level <sup>6</sup>	Dependent variable	Measuring instrumente
1	Reaction	Evaluation of course (Anl. an Dahmen et al. 2016 <sup>7</sup> )
2a	Modification of attitudes/perceptions	UWE-IP-D (Mahler et al. 2017 <sup>8</sup> )
2b	Acquisition of knowledge/skills	„situational questions“ (Latham 1987; Schuler 2007 <sup>9</sup> )
3	Behavioural change	semistructured interviews (Bogner et al. 2014; Kruse 2015; Helfferich 2011 <sup>10</sup> )



## Project process

- **Conception** of the course
- **Acquisition and training** of teachers
- **Pretest** situational questions
- **Conduct** of the course  
Summer term 2020  
Winter term 2020/2021
- **3** participating universities in Germany
- **Study programs** (training-integrated; additive)
  - SLT; Physiotherapy (B.Sc.)
  - Occupational Therapy, SLT, Physiotherapy (B.Sc.)
  - SLT, Physiotherapy (B.Sc.)
- **Steps 1-3** completed
- **Data collection completed** (quasi-experimental study; t4: Follow-up 2)

## Participants of the course



## First results (selection)

### Results of the expert-interviews > comparison with HPCCC<sup>11</sup>

The student...	results of the content analysis from expert interviews (n=12) (sub-) categories / results*	examples*
01* adapts his/her own language to the patient's level of understanding and language, avoids jargon	Professional language Expression Appropriate communication	"that means for the others to also put aside their own professional language, which is perhaps also professionally specific." (2_Int_Phys_Tel_Transcript, paragraph 98) "if you throw around too many terms" (2_Int_Phys_Tel_Transcript, paragraph 103)
02* uses techniques to establish and maintain an empathic relationship and ensures that the patient feels accepted and understood	Empathy Listening Understanding Considering Acceptance	"I try to make myself understood when talking to the patient" (7_Int_Phys_Transcript, paragraph 68) "empathy is very important" (4_Int_SLT_Transcript, paragraph 76). "listening to each other, being open, that's what the relationship needs" (11_Int_OT_Transcript, paragraph 45)

## References

<sup>1</sup> Shrader, S et al. (2017). A systematic Review of Assessment Tools Measuring Interprofessional Education Outcomes Relevant to Pharmacy Education. *American Journal of Pharmaceutical Education*, 81 (5), article 119.  
<sup>2</sup> Walkenhorst, U et al. (2015). Position statement GMA Committee - "Interprofessional Education for the Health Care Professions". *GMS Z Med Ausbild*, 32(2).  
<sup>3</sup> WR (2012). *Empfehlungen zu hochschulischen Qualifikationsverfahren für das Gesundheitswesen*. Köln: Wissenschaftsrat.  
<sup>4</sup> WHO (2010). *Framework for action on interprofessional education and collaborative practice*. WHO: Genf.  
<sup>5</sup> SVR (2007). *Kooperation und Verantwortung. Voraussetzungen einer zielorientierten Gesundheitsversorgung*. S. 437-440. Nomos: Baden-Baden.  
<sup>6</sup> Foronda, C et al. (2016). Interprofessional communication in healthcare: An integrative review. *Nurse Education in Practice*, 19, 36-40.  
<sup>7</sup> Abu-Rish, E et al. (2012). Current trends in interprofessional education of health sciences students: A literature review. *Journal of Interprofessional Care*, 26, 444-451.

### Pre- and post-results of UWE-IP-D:

experimental group (n = 44) vs. waiting control group (n = 34)

Subscales (scale range)	Pre (t1)		Post (t2)		pre-post-significance ANOVA subscale*GR (EG vs. WCG)	η <sup>2</sup> (Cohen 1988)
	EG (M (SD))	WCG (M (SD))	EG (M (SD))	WCG (M (SD))		
Communication + Teamwork four-point Likert scale, sum score 9-36; 1 = strongly agree, 2 = agree, 3 = undecided, 4 = strongly disagree	19.09 (3.60)	18.03 (3.20)	17.34 (3.14)	18.09 (2.92)	F = 12.95 p = .001	.146
Interprofessional Learning five-point Likert scale, sum score 9-45; 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree	16.73 (3.92)	17.50 (4.25)	14.25 (3.92)	17.68 (4.74)	F = 8.24 p = .005	.098
Interprofessional Interaction five-point Likert scale, sum score 9-45; 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree	30.80 (3.33)	30.21 (2.50)	31.05 (3.69)	30.26 (3.44)	F = .094 p = .760	.001

### Discussion and outlook

- ✓ course: empirical-theoretical foundation
- ✓ Evaluation of the methodical-didactical realisation: positive
- ✓ Indications of competence development and transfer to everyday professional practice (communication strategies)
- ✓ Course contributes to the change of level 2a (UWE-IP-D: KuT; IPL)
- ? UWE-IP-D: IPI results > discussion + interpretation
- evaluation of the use of situational questions; investigation of long-term effectiveness (FU1+2)

## Contact

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Gefördert von der

