Preservice Physical Education Teachers’ Digital Literacy

Olivia Wohlfart, Moritz Mödinger & Ingo Wagner

Research Goal

Explore the association of PE preservice teachers’ digital literacy as well as role modeling by teacher educators with PE preservice teachers’ ICT integration intent in future teaching practice.

Theoretical Background

Figure 1. The technological, pedagogical, and content knowledge (TPACK) model (reproduced with permission from http://tpack.org).

Method

- 50-item online quantitative survey based on Endberg (2019) and Schmidt et al. (2009).
- n=185 of 417 preservice teachers in Baden-Württemberg (44.4 % of the cohort) in the period 26.04. - 09.05.2021.
- Sociodemographics:
  - 50% male; 49% female; 1% divers
  - Average Age: 28 years (SD = 4.4)
- Data Proofing: Accreditation of internal validity (Cronbach's α and Spearman-Brown coefficient) & item-proofing via correlation-analysis

References


Results

Figure 2. Descriptive statistics for preservice PE teachers’ self-assessments of proficiency in TPACK domains (n = 132) and Information and Communication Technology (ICT) integration intent (n = 113).

Table 1. Association between university lecturers’ ICT integration and pre-service teachers’ self-assessments and ICT integration intent.

Discussion

Results revealed positive associations between self-assessed PK, CK, and ICT integration intent in future teaching practice. The results for the technological dimension (TK) deviated to some extent, indicating greater respondent heterogeneity in relation to this knowledge domain. In addition, teacher educators’ role modeling positively impacted digital literacy and ICT integration intent. Teacher educators’ use of software for content creation was positively associated with preservice teachers’ self-assessments of TK and TPK. As TK and TPK were among the lowest-scoring domains, it seems important to promote the use of specific ICT in teacher education (von Kotzebue, 2022). Finally, inadequate role modeling seems to have implications for digital literacy in preservice teachers and PE education, emphasizing the need for further research in this area.