

Using Peer Review to Foster the Development of Scientific Competence in Psychology Students

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Introduction

Developing the scientific-methodological competences of psychology students is a challenge, especially when it comes not only to the application of scientific methods, but also to reflecting on what constitutes good scientific work. One instrument that could support the development of scientific competence is peer review, where students review the text of other students and give feedback based on predefined criteria. The aim of this study was to develop and evaluate a didactic setting using peer review as didactic method to foster the development of academic research and writing competencies.

Methods

A design-based research approach was used develop, evaluate, and adapt the didactic setting in three design circles (four seminars at two universities). The aim was to identify which factors are conducive and inhibiting for the competence development. This design-based approach was complemented by a quantitative evaluation, asking the students to rate their competences pre and post on the GEKo (Grazer Evaluationsmodell des Kompetenzerwerbs; Paechter et al., 2007), a peer review questionnaire (Bauer et al., 2009) and self-developed items.

Results

The development in three design circles showed that these factors are relevant for successful peer review:

- If attendance is compulsory, good on paper, without rather online
- If possible: review criteria are also used for grading
- Feedback from the teacher(s) on the reviews
- Scale for assessment with fields for comments in case of poor assessment
- Blind review
- Each piece of work should receive two to six individual reviews
- Mandatory with at least two submission dates (these can be self-selected and asynchronous)

The supporting quantitative analyses showed that self-rated scientific competence improved, however it was higher at one university compared to the other.

Discussion

In redesigns, it will be investigated how an online review can be implemented and if peer review is also helpful for the supervision of bachelor and master theses.

Is the first author also the speaker?

Yes

If first author is not the speaker, please indicate speaker's name here:

Please indicate up to five keywords regarding the content of your contribution

Peer review, scientific competence, methodological competence, psychology students, design-based research

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