How academic teachers use digital media - Introduction to my research topic

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My doctoral thesis is about the use of digital media in academic teaching. The video presents the research question, methodology and some results of my work.

The aim of my research is to identify how academic teachers integrate digital media to either realize new didactical scenarios or support their teaching. This is the way my research goes beyond other empirical studies that aim to describe the quantity of digital media use. To address a focus on the quality of digital media use, I refer to the description of new learning cultures and use this in a functionalist approach (Jenert & Gebhardt, 2010). That for I assume that it is possible to describe learning cultures through objective variables that I see in the description of learning methods and learning materials. I conducted an empirical study at the universities in Saxony using a quantitative online survey and some group discussions in 2016. My papers present the results of the empirical studies. And I only can highlight some findings here.

Many academic teachers already use digital texts and presentations in their lessons. Some of them use video or audio files, too (Riedel & Köhler, 2017). So the focus in 2016 lied on providing learning content in a presentation or transmission mode (Laurillard, 2001). This is assessed as a teaching mode that represents traditional learning cultures (Laurillard, 2001). On the other hand, there are many digital tools that have the potential to provide feedback or to work and learn collaboratively, that are only used by less than forty percent of the teachers surveyed. So the realization of new learning cultures by digital media is not achieved yet. First studies on the situation in the covid19-pandemic show, that this does not seem to have changed by now (Karapanos et al., 2021). Having a look on discipline-specific use of digital tools, I found some differences showing that teachers in humanities and social science do use collaborative tools more often than others. Teachers in sciences on the other hand do not use digital media that much, but they are ahead concerning the use of electronic tests (Riedel & Börner, 2016a). When it comes to the motives and obstacles to use digital media for teaching, it is to highlight that teachers want to be convinced by the benefits and state their own motivation, their own media literacy and the existence of a technological infrastructure as positive factors on the use of digital media (Riedel & Börner, 2016b). At the same time, they state technological infrastructure as insufficient or too complicated and rate this as an obstacle as well as the time effort they have to spent. Especially with regard to realize e-examinations legal frameworks are the most hindering factor (Riedel & Möbius, 2018). The results of a cluster analysis on the data show that there is a potential for the development on new learning cultures (Riedel, 2020). There were three different clusters of media use, with the biggest cluster including more than a half of the teachers surveyed using digital presentation materials. Another cluster includes some multimedia materials and synchronous teaching. But there is a third group using a huge variety of digital tools that is likely to realize scenarios supporting a new learning culture. It is obvious that each cluster has some specific characteristics in the demographic data. For example, there seems to be a good influence of didactical training and workshops, because the data shows that most of the teachers from the material-users-cluster have not attended any didactical training whereas the teachers in the intensive-users cluster already participated in several didactical training sessions.

I am about to finish my cumulative work and will hopefully present the whole work soon.

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