## K1 Beaumaris Lounge Thursday 6 December 11.30 - 12.00

A new holy grail? Mixed Methods and quality management in teaching and learning in HEIs (0582)

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Quality management (QM) is confronted with one of the most obvious contradictions in modern management, because "qualities" are often measured with "quantities". Nevertheless, organizations which rely on numbers or indicators often ignore two important points: Firstly, numbers or indicators are an "alert system", but do not provide an answer on how or why something triggers an alert. Secondly, organizations' reactions to address the how or why are frequently decoupled from empirical evidence. Particularly complex organizations like higher education institutions (HEIs) reveal a lot of different reasons and mechanisms that may cause different values in pre-selected indicators. Based on the findings of our research project on HEIs in Germany ("WiQu: Research on Impact of quality management in higher education"), we claim that the provision of additional qualitative information and evidence helps to interpret the outcomes of indicators and leads to more functional interventions regarding quality in teaching and learning.

Paper (max. 1036 words)

## Research problem and research question

Since the relevance of empirical research in social sciences increases, there is an ongoing conflict between qualitative and quantitative approaches. Gage (1989) and many others (e.g. Cameron, R., & Miller, P. 2007) called this phenomenon the paradigm wars, and for a long time there was no hope to unify the fellow-combatants, and still there are scientists who are at least not interested in a "cease fire". However, in the 1990s, with the rise of several approaches, which aim to combine qualitative and quantitative methods and methodologies – like mixed methods (Tashakkori/Teddlie), multimethod (Morse 2003) and methodical pluralism (Norgaard 1989) – the lines between the two poles of the methodological continuum became blurred. Although the various approaches follow more or less different premises and focus on different aspects of the combination of qualitative and quantitative methods, we emphasize their mutual benefits. Hence, the integration of qualitative and quantitative methods can help to overcome the inherent weaknesses of both approaches.

Numbers, and particularly indicators, play an eminent role not only in research but also in modern management. They are an integral part of statistics and modelling in evidence-based policy-making and steering (Howlett 2009, 162). However, recent research has shown that indicators, similar to evaluations, fulfil many different purposes including learning, gaining legitimacy but also dialogue and controlling (Piciotto 2016, 428/429). However, the use of indicators is not uncontested, particularly if it is not really clear what they indicate or if their construction does not follow methodological but pragmatic considerations (etc.).

Recently, indicators in research are comparatively widely used and established (for example citation indices, reputation measures, etc.). In teaching and learning indicators are not widely applied due to the difficulties in measuring the quality of teaching and learning. This does

not necessarily mean that indicators are useless in this particular field, but it means that they need to be used with caution and under consideration of relevant background information, which contextualizes the numbers. Therefore, we suggest a combination of different methods and ask the question how mixed method approaches may contribute to quality management in teaching and learning. Such a perspective would integrate quantitative data to reduce complexity as well as qualitative data to contextualize data-driven information.

Mixed methods in quality management of teaching and learning

Higher education institutions, are generally characterised by a high degree of contingency and various internal implicit rules. Especially these contingent structures (Kelle 2006, 2010) and the diversity of stakeholders with sometimes very different communication and action logics require methodical approaches that can help to describe and understand these logics, and make them usable. For example, the scientific community in higher education in Germany is characterised by the fact that lecturers are researchers and vice versa (Humboldtian Model). Hence, scientists may approach teaching as a subject with unquestioned premises, which mainly recur on their own daily experiences and perceptions. These implicit assumptions can play an important role in many situations in the form of "bridging assumptions" (Kelle 1998; Kelle et al. 2017), which can be regarded as advantageous insider knowledge. This means that complementary qualitative methods are beneficial, because they can help to classify results and experiences with quantitative instruments within the field.

To support our argumentation, we use data from the research project "WiQu: Research on impact of quality management in higher education – procedural, structural and personnel causes and consequences of quality assurance facilities", which was funded by the Federal Ministry of Education and Research (BMBF). The project itself was based on a mixed methods approach (Kelle 2006) combining two types of data sources and empirical evidence, namely surveys and half-structured interviews. The empirical evidence shows that most quality managers are aware of the fact that numeric procedures and particularly indicators are reducing complexity in a systematic but also problematic manner. Nevertheless, they are trapped in fulfilling different actors' demands and resolving tradeoffs between in depth and in breadth approaches. This tradeoff is overlapped by other tradeoffs like resources, qualifications or time (etc.). Besides these internal challenges there are additional problems occurring between formal requirements and internal needs.

We conclude that the integration of mixed method approaches is very rewarding for evidence-based quality management in teaching and learning. It prevents from biases, misunderstandings as well as misinterpretations. Therefore, such an approach can be regarded as an important step forward to understand indicator systems and to improve their application in HEI context. However, these instruments still requires a lot of balancing and bargaining between various internal and external actors.

## Literature

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