

In search for the relationship between teachers' research conceptions and their research integration practices (0246)

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Theoretical framework

The relationship between research and teaching is considered as a defining characteristic of higher education (Healey, 2014). The current literature pays much attention to ways to improve and understand the relationship between research and teaching (Malcolm, 2014). One of the possible factors influencing teachers' choices to integrate research in their teaching are teachers' research conceptions (Brew, 2012). Research conceptions are thought to have a powerful influence on teachers' teaching, in particular teachers' research integration practices (Brew, 2012). Although research conceptions (e.g., Kiley & Mullins, 2005) and research integration practices (e.g., Zimbardi & Myatt, 2012; Verburgh, 2013) have been separately well explored, there is a paucity of evidence illustrating direct links between teachers' research conceptions and their research integration practices (Authors, 2014).

A framework was elaborated to analyse the relationship between teachers' research conceptions and teaching practices (Authors, 2014). The framework distinguishes between teachers' general and contextualised research conceptions. General research conceptions are a teacher's overall ideas about defining attributes of research. Contextualised research conceptions reveal the educational interpretation of the defining research attributes for the students of the teacher. Our study illuminated three categories of general research attributes: Research steps, Qualities of research processes, and Qualities of researchers, each consisting of different subcategories. When teachers considered their students, they reinterpreted their general research conceptions by making two differentiations: the level of mastery of the research attributes, distinguishing between understanding or performing research attributes, and the target of research attributes, distinguishing between a focus on scientific disciplines or a focus on professional settings.

A classification scheme to identify teachers' research integration practices is also available. It is based on two perspectives in those practices: a focus on research processes and a focus on research results (Authors, 2014). Eight meaningful research integration practices are distinguished: 1. Facts, 2. Scientific Facts, 3. Research-based facts, 4. Research methods, 5. Segments of research, relevant for students, 6. Segments of research, functional for discipline, 7. Full research study, relevant for students and 8. Full research study, functional for discipline. Results indicate that in their studies students are confronted with very different research integration practices.

While conceptions on the one hand and practices on the other hand can be described, the ultimate question about the relationship between teachers' research conceptions and their research integration practices remains unanswered. The present study therefore investigates the interplay between teachers' general and contextualised research conceptions and their research integration practices by studying in an integrated way teachers' general and contextualized research conceptions as well as their research integration practices.

Methodology

Overall, the study is characterized as a series of case-studies. Data were collected by means of semi-structured interviews with 25 teachers. All teachers were active in a bachelor programme, scaled at level 6 in the ISCED 2011, that targets business. Business can be characterized as a soft-applied science (Biglan 1973).

Each interview started with introductory questions about participants' teaching and research experiences and responsibilities. Next, similar to our previous study (Authors, 2014), participants were asked to individually draw a person doing research. Afterwards they were invited to explain their drawings to the interviewer. The interviewer asked questions that helped the participant to discuss general research attributes. Then participants were asked to specify the meaning of the discussed general research attributes for their students. They are asked to explain what they want their current students to know or to be able to do after graduation in this particular program. In this phase participants' contextualised research conceptions are discussed. Next, teachers were asked to describe one of their modules (concerning marketing). Teachers were encouraged to describe the module in detail by specifying what the students do in the module, what the nature is of the materials, what the role is of assessment, what actions the teacher takes to inform and support the students. Different teaching practices and inherent teaching goals are discussed. Finally teachers are asked to describe how they would organize and implement that module in an ideal world where they could focus only on students' learning. Finally, reasons why this ideal module cannot be provided are discussed. Teachers are invited to reflect on factors that would help them to deliver the ideal module.

Interviews were audiotaped and transcribed verbatim. Data were analysed using a grounded theory approach (Strauss & Corbin, 1990). After a within-case analysis, taking the individual teacher as the unit of analysis, a cross-case analysis was performed to analyse the interplay between teachers' general and contextualised research conceptions and their research integration practices (Miles & Huberman, 1994). For the analysis the previously developed coding scheme for distinguishing research conceptions as well as the coding scheme for distinguishing research integration practices are used.

Results

With respect to the outcomes the study is to reveal: (a) differences between teachers with respect to their general research conceptions, while some will stress research steps others will highlight characteristics of the researcher; (b) differences between teachers' contextualized research conceptions that relate to teachers' goals with students and their assessment; (c) rather limited variation in research integration practices with a focus on discussing research results (3. Research-based facts) and on research methods/skills (4. Research methods or 5. Segments of research, relevant for students); (d) an absence of a clear relationship between teachers' general research conceptions and their actual research integration practices, and (e) some but no explicit relationship between teachers' contextualized research conceptions and their research integration practices, (f) a clear impact of teachers' educational conceptions on their research integration practices, with a more student-oriented conception linked to a stronger focus on students' research activities and (g) an impact of educational policy rules at the level of the institution on their research integration practices.

Implications of the study

The study is one of the first addressing the specific relationship between teachers' research conceptions and their research integration practices in an integrated way. Further research is to reveal the specific factors influencing the interplay between teachers' research conceptions and research integration practices.