

Inspiring contributions from the *Network on Knowledge and Quality across School Subjects and Teacher Education* (KOSS)

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BOOK REVIEW

International perspectives on knowledge and quality – implications for innovation in teacher education policy and practice, by Hudson, B.Gericke, N.Olin-Scheller C. & Stolare, M. (eds.), London, Bloomsbury Academic, 2022, pp. 202, £90 (hbk), ISBN: 9781350178403

International perspectives on knowledge and curriculum – epistemic quality across school subjects, by Hudson, B.Gericke, N.Olin-Scheller C. & Stolare, M. (eds.), London, Bloomsbury Academic, 2022, pp. 256, £90 (hbk), ISBN: 9781350167094

How can teaching in schools be a transformative and empowering process of students' capabilities? What is the most essential quality of teachers' professional knowledge – and how might that be taught to prospective teachers? Now and then ongoing debates on educational issues receive input that not only changes the debate but really advances insights. The recent twin volumes *International Perspectives on Knowledge and Quality – Implications for Innovation in Teacher Education Policy and Practice* and *International Perspectives on Knowledge and Curriculum – Epistemic Quality across School Subjects* do indeed offer such input. These volumes emanate from the network on Knowledge and Quality across School Subjects and Teacher Education, (KOSS) funded by the Swedish Research Council (2019–2021). The network brought together scholars from United Kingdom (UCL, Institute of Education), Finland (Helsinki University) and Sweden (Karlstad University) on deliberations over 'how educators and education systems can ensure that school-based knowledge building reaches its transformative potential'.¹

In these books, thirty-three researchers from the KOSS network offer their best response to these questions, theoretically and empirically. Their answers not only rest upon current research but are also anchored in reviews of disciplinary fields and in author's original research. Readers are invited into an intriguing conversation on how disciplinary knowledge in subjects and professional knowledge do not always intersect in a presumed manner and how that knowledge connects to a variety of schools subjects and the shifting contours of how disciplinary knowledge must be transformed into professional knowledge to be able to support high-quality teaching and advance students' learning. The twenty-one chapters presented in these two volumes orient around scholarship in higher education institutions and its relation to education of teachers and instruction in schools and explores the theme from an epistemological perspective and contributes to the discussion about the nature of knowledge and learning. Michel Young's concept of powerful knowledge (Young 2014) is used as their point of departure and this volume explores new and central aspects of the debate on social constructivism and the importance of specialised knowledge for teaching and learning.

Context-wise this volume is anchored in the explorative interplay between the continental didaktik-tradition (Hopmann 2007) and the Shulman tradition of pedagogical content knowledge (Shulman 1987, 2004). Another way to put it would be that these studies bridge and explore central educational aspects of teaching and learning in the bildung-tradition and the Anglo-Saxon curriculum tradition. In both these respects, these volumes make significant contributions and the outcome of this three-year collaborative project in the network is an example of how focused collegial collaboration can push frontiers; in this case on our understanding of how learning occurs and how that process relates to theories on how teaching

simultaneously must be enacted due to the specific content in respect and guiding educational purposes.

Discussions on how to improve learning in schools often end up in ideas on reforms of the educational system and on how teacher education must change. Both strategies might be valuable, probably many times necessary, but are not sufficient conditions for improvement for several reasons. One complicating dimension is the strategies' political nature, so that they become political tools rather than serious attempts for betterment. However, for better or worse, policy development during last decades has partly shifted from a structural focus towards a focus on the teacher and teaching; a shift visible in the OECD publication *Teachers Matter – Attracting*, OECD (2005) and global studies like *Empowered Educators – How Darling-Hammond et al.* (2017)

In addition, we have witnessed another shift, from general pedagogies towards subject specific theories on teaching and learning. The studies presented here are to be understood as part of this potentially tectonic shift. A benefit from this shift in focus is that the importance of teachers and teaching is somehow self-evident and as such, interventions for advancement generate profound educational questions about teaching and learning. The KOSS network explores brilliantly three vital questions that surface in the renewed interest in teaching:

- (1) How can the nature of powerful knowledge and epistemic quality in different school subjects be characterised?
- (2) How can the transformation processes related to powerful knowledge and epistemic quality be described?
- (3) How can the nature of teachers' powerful professional knowledge be characterised and what are the implications for teacher education policy and practice?

The final question is addressed in *International Perspectives on Knowledge and Quality – Implications for Innovation in Teacher Education Policy and Practice* while the first two are mainly addressed in *International Perspectives on Knowledge and Curriculum – Epistemic Quality across School Subjects*. Conceptually these volumes revolve around three theoretical concepts, *powerful knowledge*, *transformation process* and *epistemic quality* (Gericke et al. 2018; Hudson 2018; Young 2014). A great advantage offered by authors is the respect they display for three types of subject specific differences. First, studies presented have been conducted in different school subjects and, from insights that emerge from these subjects' particular features and affordances, we learn how teaching and learning are subject specific. Secondly, these chapters pay significant attention to the relationship between school subjects and academic disciplines and how that impacts on content acquisition. Thirdly, in relation to that issue, these chapters explore particular demands that arise for any professional programme in academia that has to (a) transform disciplinary knowledge for professional purpose, (b) develop professional approaches to disciplinary knowledge that make such advanced knowledge accessible for school pupils and (c) establish foundational knowledge and strategies about how pupils understand particular content and how acquisition can be improved by teaching.

These volumes address such aspects of teaching and learning from a perspective of subject-specific didactics, and it is exactly in exploring the intersection between the specific and the general that this volume contributes to, describes how and illustrates the emergent field of subject didactics. Repeatedly, but differently, each chapter offers valuable insights on the specificity that occurs in each subject in the intersection between the types of demands that teacher education must meet. These insights also shed light over how these demands are constitutive for the complexity of teaching and how academic knowledge must be transformed into professional knowledge that is accessible for pupils. According to my

understanding, it is something like an original sin in academia that we have neglected these fundamental differences and the interrelation between academic disciplines, school subjects and teachers' professional knowledge. A chapter on the transformation from 'personal to pedagogically powerful understanding of school mathematics' (Knowledge and Quality, p.205) departs from a crucial observation that the German mathematician and mathematics educator Felix Klein put forward close to a century ago:

... since he was scarcely able, unaided, to discern any connection between this task and his university mathematics, he soon fell in with the time honoured ways of teaching, and his university studies remained only a more or less pleasant memory which had no influence upon his teaching.

Klein voices here what many newly graduated teachers have experienced historically, and to my understanding, still do to some extent today. It is heartbreaking that students still, despite hard work, do not always acquire what's necessary for them to become successful teachers; particularly in moments when they experience, that they do not know how to transform what they learnt during their studies into adequate teaching. And consequently do not know how to get better at getting better (Bryk et al. 2016).

These volumes provide a solid ground for renewed attempts to find out how disciplinary knowledge can contribute to teachers' professional knowledge – and student learning. If we want academic studies to influence teaching, we have to develop new understandings of the relationship between academic disciplines and teachers' professional knowledge. The researchers behind these two publications significantly push the field forward as their theoretical approach allows them to elaborate on how epistemic qualities in teaching relate to student learning and to 'focus on how these concepts form knowledge of importance for the field of subjects didactics and suggest how this knowledge might be developed within teacher education' (Knowledge and Quality, p.4). These chapters, spanning countries (Australia, England, Finland, France, Germany, Norway, Scotland and Sweden), school systems, subjects etc. outline some key features of teachers' powerful professional knowledge and offer new ground for deliberations on how we best advance how we educate teachers.

As a way forward we might reflect upon how Ernst Boyer in the 1990s advocated for an elaborated and extended understanding of academic scholarship. According to Boyer (1990), academic scholarship should include four dimensions: scholarship of discovery, of integration, of application and of teaching and learning. In these volumes we can witness what such scholarship looks like, as authors are deeply anchored in their different academic disciplines but also widely endorse a scholarship of teaching and learning within their field of subject-specific didactics. Their efforts have not only resulted in inspiring anthologies; they have also set new directions for the conversation on teachers professional knowledge in terms of how powerful knowledge can be transformed into teaching with high epistemic quality, teaching that draws pupils 'into disciplined and systematized ways of thinking' (Knowledge and Quality, p.69). This is particularly important as the question of how teaching can cause learning is to a high degree subject-specific. David Labaree once commented, that '[t]he general rule of teaching is that general rules don't help very much' (Labaree 2004, 98). Here readers are introduced to how teaching and learning 'are linked to content representing certain knowledge', how the 'unique nature of this content knowledge makes teaching and learning specific' (Knowledge and Quality, p.14), and to how 'powerful knowledge in school subjects can only be understood and defined in the light of transformations' (Knowledge and Curriculum, p. 204).

These studies illustrate clearly the potential of subject-specific didactics and its potential to enhance teachers' professional knowledge as well teacher education. They offer new avenues for revisiting discussions on learning in our schools, on

teaching and teacher quality as well as the overarching issues of quality and equity. And ultimately, they contribute to new understandings of how ‘knowledge building in schools can be a transformative and empowering process, transforming pupils’ capacities, sense of self-efficacy and agency, while also acting as a powerful engine of social justice and social transformation’ (Knowledge and Curriculum 1). Clearly these are books to read, to discuss and to be inspired by.

Note

1. <https://www.kau.se/en/rose/external-relations/knowledge-and-quality-across-school-subjects-and-teacher-education-koss> (c.f the Knowledge and Quality volume, p. xvi).

References

- Boyer, E. L. 1990. *Scholarship Revisited. Priorities of the Professoriate*, Special report, Carnegie Foundation for the Advancement of Teaching, Princeton NJ
- Bryk, A. S., L. M. Gomez, A. Grunnow, and P. G. LeMahieu. 2016. *Learning to Improve - How America's Schools Can Get Better at Getting Better*. Cambridge: Harvard Education Press.
- Darling-Hammond, L. 2017. *Empowered Educators - How High-Performing Systems Shape Teaching Quality Around The World*. San Francisco: Jossey-Bass.
- Gericke, N., B. Hudson, C. Olin-Scheller, and M. Stolare. 2018. "Powerful Knowledge, Transformations and the Need for Empirical Studies Across School Subjects." *London Review of Education* 16 (3): 3. <https://doi.org/10.18546/LRE.16.3.06>.
- Hopmann, S. 2007. "Restrained Teaching: The Common Core of Didaktik." *European Educational Research Journal* 6 (2): 109–124. <https://doi.org/10.2304/eeerj.2007.6.2.109>.
- Hudson, B. 2018. "Powerful Knowledge and Epistemic Quality in School Mathematics." *London Review of Education: Special Issue On Knowledge and Subject Specialist Teaching* 16: 3.
- Hudson, B., N. Gericke, C. Olin-Scheller, and M. Stolare, edited by. *International Perspectives on Knowledge and Curriculum – Epistemic Quality Across School Subjects*. New York: Bloomsbury Academic. 2022. <https://doi.org/10.5040/9781350167124>
- Laberee, D. F. 2004. *The Trouble with Ed Schools*. New Haven: Yale University Press.
- OECD. 2005. *Teachers Matter – Attracting, Developing and Retaining Effective Teachers*. OECD.
- Shulman, L. S. 1987. "Knowledge and Teaching: Foundations of the New Reform." *Harvard Educational Review* 57 (1): 1–23. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>.
- Shulman, L. S. 2004. *The Wisdom of Practice. Essays on Teaching, Learning and Learning to Teach*. San Francisco: Jossey-Bass.
- Young, M. 2014. "Powerful Knowledge as Curriculum Principle." In *Knowledge and the Future School: Curriculum and Social Justice*, edited by M. Young and D. Lambert, New York: Bloomsbury Academic.

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