

Editorial

Research on textbooks has long and strong traditions in the Czech Republic (see overview study written by J. Průcha for this issue). In recent years, several books have addressed this topic. Jan Průcha's (1998) monograph can be considered a fundamental work on the topic, several volumes were initiated by The Institute for Research in School Education at Masaryk University in Brno (see Janík, Najvar, & Doskočilová, 2013). Despite that, we missed a more recent special journal volume presenting various research investigations in the area. A well themed issue can focus attention on a hot issue, and present a more diverse array of voices. The world conference on textbooks and educational media held in Ostrava and organized by IARTEM and the University of Ostrava's Faculty of Education in September 2013 was a good opportunity to fill this gap, and inspired the idea of this issue.

Orbis scholae is happy that it could provide authors from very diverse places – Australia, Brazil, the Czech Republic, and Spain – with the opportunity to exchange ideas and empirical findings about the textbooks or, more properly, teaching and learning resources.

According to many experts, the transition to digital media problematizes the traditional definitions of textbooks. There are variations of digital media, ranging from traditional textbooks in digital form, to supplementary learning objects engaging the learner in different ways in knowledge construction. Current textbook research provides reasons to use the notion of the 'textbook' with considerable care and caution. Wikman and Horsley (2012) argue that varying educational traditions, contexts, and settings load the concept with different meanings, and offer sometimes different and competing discourses. Echoing Augustine's thoughts about time, most of us know what a textbook is until we have to define it precisely. Many definitions encompass a primary conceptualisation that textbooks are texts produced for educational use within educational institutions like schools. They are also considered to be 'adapted' texts that convey a special form of approach to knowledge (Wikman, 2004). This discourse provides some frames for the concept of the 'textbook', but the meaning of 'textbook' can be regarded as elusive, and can only be considered in relation to very highly articulated contexts.

Furthermore, the research area of the textbook can still be described as under-theorized. Finding a theoretical approach which makes reference to the presence of textbooks in classrooms is a challenge for educational research (Braga Garcia, this

6 issue). Nevertheless, two interconnected shifts in textbook research and theory can be traced. The first is the noticeable move from analysing textbooks as products, to investigating their use in teaching and learning processes. Both printed and digital textbooks, and other curriculum materials, are modified, adapted, and customized by teachers, yet only a little is known about these processes, and even less about the textbook-based actions of the students, both in the classes and at home.

The second shift is related to the paradigmatic basis for textbook research. Although a multi-paradigm standpoint is still characteristic, sociocultural approach seems to be fertile and beneficial, and is accepted by many current researchers. A sociocultural approach to teaching and learning resources emphasizes the role of 'learning environment', where students can utilize learning tools to learn and develop. The 'ecological' conception of instruction has been successfully employed, for example, by many researchers investigating the role and impact of ICT in school settings. Textbook researchers Horsley and Lambert contributed to the conception with the theory of ecotones, which can help us comprehend the transitional character of current instruction, not only in relation to textbooks.

Horsley and Lambert (2001) have proposed that classrooms can best be understood as learning environments. The essence of the ecosystem concept is that any environment can be analysed and understood in terms of how its energy runs through it in a highly organised and structured way. The position and role of the textbook as an element in such dynamic learning environments is poorly understood – or at least confused. If we can begin to analyse classrooms in such terms, it may enable us to 'place' textbooks (and other learning resources) in different classroom settings. This ecological analysis can be developed a little further in looking at the way that textbooks continue to evolve, particularly in the context of the wider resource environment, including the digital information explosion. Horsley and Lambert (2001) proposed the biological concept of ecotones to help analyse these changes in a way that avoids the erroneous assumption that new computerised technologies will simply replace the old print-based ones. In their own words:

Biologists use the term 'ecotone' to describe an area where two adjacent ecosystems overlap – for example, where a forest gradually turns into grassland. The ecotone has an ecology of its own. It can support forms of life not found in either of the adjacent systems. Today, there exists the educational equivalent of an ecotone between traditional learning environments and the emergence of new learning environments designed around student centred interaction and internet & technology based learning tools (Horsley & Lambert, 2001, p. 38).

The underlying point here is that although there have always been different classroom ecologies, as discussed above, they have in fact mostly operated under the same set of educational assumptions. Over the years, these have pretty well governed fundamental classroom relationships within superficially diverse teacher-student-resources learning ecologies. Put another way, differences in traditional classroom appearances may be so superficial that they may be no more than one

might expect from within a single ecosystem. But this ecosystem approach leads us to imagine that all classroom practices and all teachers are transitional in nature, and the natural inclination in teachers is not to operate at extremes, but in transition between learning environments; fostering both learner centred and teacher directed learning in the same classroom; promoting transmission approaches and active learner agency and constructivist approaches within the same classroom and the same school; promoting individual orientations and group and collaborative classroom activities and tasks within the same classroom.

The sociocultural approach allows us not only to approach the classrooms as learning environments, it also enables to conceptualize the textbook as an object of the school culture, and as an artefact of school life. Three papers in the issue sought to employ a sociocultural approach as a starting point for their investigations, and a background for reflection.

Tânia Maria F. Braga Garcia's paper reports on the research project analysing the constitutive elements of the assessment process performed by Brazilian teachers in selecting textbooks available through the centralized national program. The enormous diversity of Brazilian society proves to be a great challenge when analysing textbook policies. The authoress explains that it is not possible to understand the Brazilian educational programs and life in the schools without investigating the roots of economic and social differences. The researchers sought to find out, for example, what criteria teachers use in the course of textbook selection, how teachers consider diversity and local culture when selecting the texts, and whether there are any specific strategies developed by schools to help in the selection process. The framing of the study, i.e. references to the concepts of the textbook as an object of the school culture, the textbook as a market product, and the textbook as an artefact of school life make Braga Garcia's paper even more valuable.

The other two articles address textbooks from mutually opposite perspectives: in local and global contexts, although both of them are based on sociocultural theory. Alvarez Seoane and Rodríguez Rodríguez analysed educational materials produced and funded by local municipal institutions in Galicia, Spain. Despite the fact that many studies highlight the globalizing and centralizing character of textbooks, there is also a need for the resources embedded in local contexts. The authors explain that the importance of such materials lies in contextualization of the learning, and in adjusting to the particularities of each region or community. The authors report on their study of educational resources, published by local authorities, focused on the features like content area, topic, format, authorship, and language.

Mike Horsley and Zuzana Sikorová conducted a secondary analysis of data collected on classroom teaching and learning resources from TIMSS Studies 2003, 2007 and 2011. The paper explores what resources were used in mathematics and science lessons in 2011, according to the teachers' reports, comparing the use of textbooks, workbooks or worksheets, and computer software. Surprisingly, the results show that textbooks remain the very basis of instruction internationally, and even that the use of textbooks as a basis resource has increased in many of the countries participating

8 in the study since 2003. Nevertheless, it is also apparent that different teaching and learning resources are emphasised in different countries. The paper also proposes a theoretical framework for a sociocultural approach to textbooks and other classroom teaching and learning resources.

The last research paper in this issue is framed within the broad discourses of quality of instruction and educational reform. It is not focused on educational media, despite the fact that it complements the previous papers nicely. Vojtěch Žák presents a mixed methods follow up study of the instruction of three Czech upper secondary physics teachers after eight years. So this “molecular” study covers a roughly similar time span and similar subject as the “molar” study by Horsley and Sikorová. The patterns of instruction changed very little in the cases Žák followed. The results of micro- and macroanalyses converge and confirm the stability of instructional practices.

The discussion paper by Mike Horsley included in this issue shall be an important step towards *The Standards for the Use and Development of Classroom Teaching and Learning Materials*. The document grew out of concerns about the limited attention given to this topic in other standards for the teaching profession. The development of such standards shall reflect the fact that the way teachers use classroom teaching and learning materials “is critical in affording or constraining student learning”.

Last two articles of this special issue are interconnected, in a sense. The first report, by Jan Průcha, outlines the long tradition of textbook research in the Czech Republic, a tradition in which the author of the report played a key role. And – last but not least – this special issue on textbooks and new media is an outstanding opportunity for celebrating the 80th anniversary of Professor Jan Průcha himself, and his life dedicated to education, Czech educational sciences, and educational research. The article by Josef Maňák and Tomáš Janík summarises his renowned research career and outstanding contribution to educational sciences in the Central Europe.

References

- Horsley, M., & Lambert, D. (2001). The secret garden of classroom and textbooks. In M. Horsley (Ed.), *The future of textbooks: Research about emerging trends* (pp. 8–24). Sydney: TREAT.
- Janík, T., Najvar, P., & Doskočilová, M. (2013). Ten years of the Institute for Research in School Education. *Orbis Scholae*, 7(2), 81–91.
- Průcha, J. (1998). Učebnice: teorie a analýzy edukačního média [The textbook: Theory and analyses of the educational medium]. Brno: Paido.
- Wikman, T. (2004). På spaning efter den goda läroboken. Om pedagogiska texters lärande potential [Looking for the good textbook. On the learning potential of educational texts]. Åbo: Åbo Akademi.
- Wikman, T., & Horsley, M. (2012). Down and Up: Textbook research in Australia and Finland. *IARTEM eJournal*, 5(1), 45–53.