

Book review: Writing as a learning activity

Klein, P. D., Boscolo, P., Kirckpatrick, L. C., & Gelati, C. (Eds.) (2014). *Writing as a Learning Activity* [Studies in Writing]. Leiden/Boston: Brill | ISBN: 978 90 04 25967 6

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How does writing contribute to learning? Through what processes does writing contribute to learning? How can educators support and instruct people in using writing to learn? These are important questions on which the new state-of-the-art volume *Writing as a Learning Activity* focuses. Since the nineteen-seventies, empirical research on writing-to-learn has developed into both a very dynamic and prosperous field of research. The editors of this volume intend to delineate the major trends of the field and also to point to future directions and challenges. To reach these goals, they have brought together renowned researchers and research groups from nine different countries with different disciplinary specializations such as cognitive psychology, literature, linguistics, and history education. Accordingly, the thirteen chapters of this edited volume make clear that state-of-the-art research in writing-to-learn is a genuinely interdisciplinary endeavor that draws on different theoretical paradigms (i.e., classic cognitivism, social constructivism, situated cognition, semiotics), and employs different methodologies (i.e., laboratory experiments, quasi-experimental interventions studies, design experiments, phenomenographic studies, discourse and content analysis) to answer the questions of interest.



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From historical views on writing to the current trends

The book starts with an informative introductory chapter by Klein, Boscolo, Gelati and Kirkpatrick. The authors sketch the lines of development from the historical views on writing-to-learn, such as the strong text view (Britton, 1982; Emig, 1977) and the analytic writing view (Applebee, 1984), to the current trends. Whereas the historical views considered the processes that effectuate learning mainly as being inherent in the act of writing, modern cognitive perspectives assume that the effects of writing rather depend on the cognitive strategies or processes which the writer applies in writing. Thus, a first important trend that can be identified with regard to the current volume is the shift from focusing on the textual medium to the cognitive strategies as the driver of learning through writing. This trend was already foreshadowed by the influential volume *Writing as a Tool for Learning* (Tynjälä, Mason & Lonka, 2001). Nevertheless, in the current volume, a clear cognitive processing view is discernable in many of the chapters inasmuch as they present thorough qualitative analyses of writers' cognitive processes in relation to specific writing-to-learn activities, such as argumentation, explanation or summarizing.

Besides a focus on the cognitive processes involved in writing-to-learn, a second trend in the chapters of this volume is the shift from writing across the curriculum to writing within the disciplines (Klein et al., 2014). The historical views of writing-to-learn (strong text view, analytic writing view) have in common with the cognitive processing view that they conceive of writing-to-learn as being neutral to the particularities of each discipline. Researchers in these traditions typically design and explore writing tasks to help students develop their understanding of subject matter. However, these researchers are mainly interested in teaching students to write about discipline-specific contents but not in teaching them to acquire the writing *of* the disciplines. Thus, a major trend in research on writing-to-learn is the recognition that students should be taught the genres of writing that have evolved historically and express the epistemological commitments pertinent to a specific scientific discipline (Bazerman, Simon & Pieng, 2014). Several chapters of the current volume embody this trend in prototypical fashion: Van Drie et al. (2014), for example, present a theoretical analysis of the genres typical for history education (i.e., the recording, the explaining and the arguing genre, cf. p. 101) and discuss which specific processes of historical reasoning can be associated with these genres. The authors assume that, through authentic writing tasks, students can learn to participate in a cultural practice important in the discipline of history: "Writing in history not only involves students in developing arguments, but also in using the domain specific language and 'grammar' of history." (van Drie et al., 2014, p. 98).

A third trend displayed by the volume is the shift from a conceptualization of the writer as a "lonely problem solver" to a situated and distributed cognition view of writing (Klein, 2014). Writing can be regarded as being situated and distributed because the members of a scientific community – a community of practice (Lave and Wenger,

1991) – typically collaborate in writing in order to implement and reproduce socially negotiated writing practices. The peer-review system may be referred to as a prototypical example to illustrate such a situated and distributed practice. Bazerman, Simon and Pieng (2014) use the concept of intertextuality, originally borrowed from literary theory (see Kristeva, 1980), to highlight the situated character of writing: “...writers enter into and contribute to a discussion through drawing on communal resources, characterizing and reformulating prior discussion, and commenting on specific statements of others” (Bazerman et al., p. 250). In line with the situated perspective, several chapters of the book present empirical studies that show how closely the activities of reading and writing are intertwined. Thus, the situated perspective acknowledges the constitutive role of the writing environment, especially the text sources available to the writer for reading and the opportunities for collaboration with peers in the production of text. These elements constitute affordances for reading, interpretation and co-construction of meaning (Nykopp, Martunen & Laurinen, 2014). They support and shape the cognitive processes of the individual writer as well as the product of writing. Klein (2014) concludes from his qualitative study that “the complexity of the students [written] explanations was not a result of sophisticated individual writing strategies. Instead it appeared to be the result of a supportive writing environment and collaboration between the peers.”

Further highlights

Given the importance of the learning environment and, in particular, the multiple text sources writers typically draw upon for producing their texts, it is no wonder that some of the chapters focus on writing-to-learn from multiple sources (e.g., Wiley et al., 2014; Mateos et al., 2014). The authors of these chapters do not necessarily adopt a situated cognition perspective, but they convincingly argue that writing in or out of the disciplines is mostly based on prior reading of more than one text. Accordingly, Mateos et al. define writing-to-learn from multiple sources as a hybrid task inasmuch as reading and writing are closely intertwined. The chapters by Wiley et al. and Mateos et al. are particularly interesting, because learning from multiple sources has hitherto mainly been investigated in research on text comprehension (e.g., Anmarkrud, Bråten, & Strømsø, 2014; Stadler & Bromme, 2013). Accordingly, research on text comprehension and research on writing-to-learn have been treated as rather separate realms. The chapters by Wiley et al. and Mateos et al. mark important steps in overcoming this gap. They argue on the basis of cognitive theories of writing, such as Bereiter’s and Scardamalia’s knowledge transforming model (1987) and the document model of multiple text comprehension by Rouet, Perfetti and Britt (1999). By bringing these strands of research together, the authors identify important cognitive processes necessary for integrating and synthesizing information from multiple sources. Their empirical studies further show the problems students from different age and educational

levels typically face when confronted with writing assignments such as writing a synthesis from multiple sources.

Besides getting an insight into novel writing-to-learn environments that afford students to write from multiple sources or collaborate with peers, a further highlight of the book is the laborious and carefully implemented intervention studies dedicated to help students acquire sustainable knowledge and writing skills. Del Longo and Cisotto (2014), for example, describe in detail a comprehensive quasi-experimental intervention study lasting over several weeks that was dedicated to teach university students oral and written argumentation skills. Dikilitaş and Bush (2014) had students write short personal compositions to support students' vocabulary learning in second language acquisition. Based on a thorough analysis of the cognitive processes underlying the writing of summaries, Gelati, Galvan and Boscolo (2014, this volume) conducted a five-month-long intervention study with the goal to teach fourth-grade students essential strategies in writing summaries. Together, these theoretically driven, ecologically valid, and comprehensive intervention studies are illustrative in how students with different age and educational levels can be taught important skills in writing-to-learn.

My opinion

Writing as a Learning Activity is a must-read for everyone who wants to become informed about the state of art in the field. The collection of chapters nicely illustrates the current theoretical trends and manifests both the diversity and interdisciplinarity of the methodological approaches used to investigate how writing can contribute to learning. The chapters witness the heritage of classic theories like Bereiter's and Scardamalia's (1987) knowledge transforming model. On the other hand, the reader learns how theorizing about the relationship between writing and learning has developed and become differentiated since then. New theoretical approaches are being incorporated and discussed, such as the multiple documents model by Perfetti, Rouet and Britt (1999), or the situated cognition perspective (see Klein, 2014). Thus, when reading the chapters, I found the theoretical reviews without exception profound and the empirical, mostly qualitative analyses, thorough and stimulating. Nevertheless, despite their theoretical strength, most of the studies presented in the chapters were rather explorative and avoided testing hypotheses. As a psychologist, I somewhat missed "stronger" study designs that would allow for a more rigorous test of hypotheses. Also, although the book presented evidently effective and also convincing interventions to support writing-to-learn, some of the questions addressed in the introductory chapter still remained open at the end of the book. For example, given that in most of the studies, students were "prescribed" certain writing tasks, I asked myself whether the students actually learned to appreciate the epistemic power of writing through enacting these tasks designed by the researchers. Thus, motivational aspects of writing still seem to be neglected in current research on writing-to-learn and could

therefore be a promising topic for future research. At the same time, I have learned a lot from reading the book. In my opinion, particularly one statement from the introductory chapter perfectly captures the book in a nutshell: “The relation between writing and learning is not limited to special writing to learn activities. Rather, academic and professional writing are intertwined with the construction and internalization of knowledge.”

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