Writing a Synthesis from Multiple Sources as a Learning Activity

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The fact that writing is involved in performing numerous academic tasks does not mean it is used in a similar way in all of them, nor does it presuppose that when it is employed it is used epistemically and eventually leads to learning. The possibility of using writing as a learning instrument is dependent on the type of tasks teachers set and students have to carry out in academic settings. However, research on writing has often ignored the fact that the demands made on students to write mostly require them to write after having read one or more texts. When this happens, reading and writing are performed in close connection with each other, so that some authors have defined them as hybrid acts (Spivey, 1997). This chapter focuses on how hybrid tasks can be better used within education to promote learning. It begins with an examination of the epistemic potential of synthesis and hybrid tasks in general. Writing a synthesis from multiple sources is a hybrid task with a high potential for fostering learning. For example, using multiple sources (“library research”) is a common learning activity at the higher educational levels; so is writing from multiple primary historical sources (see Wiley, Steffens, Britt, & Griffin, this volume). The chapter then deals with the complex processes involved in writing syntheses from multiple texts. We analyse the differences in the ways students write syntheses and the difficulties they have with such tasks at different educational levels, and we present some of the studies we have carried out on the processes involved in making syntheses and on the resulting products. Some of the methodological tools employed in analysing these processes are also examined. We end by describing several interventions to improve learning. These interventions aim to help students at different educational levels to produce syntheses from multiple texts.

Hybrid Tasks and Their Epistemic Potential

Today there is general agreement that the mere fact of assigning writing-to-learn tasks in academic settings is no guarantee of meaningful learning, that is, learning in terms of knowledge construction (Tynjälä, 2001a). This is so because there is not just one way of performing writing processes. The classical work on writing, Bereiter and Scardamalia’s *The Psychology of Written Composition* (1987), proposes two ways in which texts are produced: the knowledge-telling and knowledge-transforming models. These two general models, which some authors suggest might be viewed as two strategy families (Hayes, 2011), mark the difference between writing procedures that may potentially lead to a review and modification of one’s own knowledge (knowledge-transforming procedures), and those in which writing is limited to reflecting, in whole or in part, already-existing knowledge (knowledge-telling procedures). Composing a text in accordance with one model or the other entails activating different cognitive processes which, in the final analysis, have different consequences for the writer’s knowledge.

In writing from sources, students alternately adopt the roles of reader and writer, a reader who reads with the aim of writing, and a writer who writes based on what he or she has read. In this connection, some research supports the hypothesis that when reading and writing are used together they are more powerful learning tools than when used separately (for a review see Tierney & Shanahan, 1996; Tynjälä, 2001a; see also Bazerman, Simon, & Pieng; Gelati, Galvan, & Boscolo; and Wiley, Steffens, Britt, & Griffin, in this volume.). This epistemic potential resides, at least in part, in the possibility of using a procedure in the production process that is more recursive than linear (McGinley, 1992); the students’ process of recurrently going back and forth between the source text(s) and their own text means that the information is understood, elaborated, and integrated. This process can give rise to more or less substantial modifications to the knowledge the students had in approaching the task. In this way, when students write on the basis of, and in relation to, what they have read, reading and writing combine their respective potentials and thereby multiply their powers as instruments of thought and learning.

However, not all tasks involving reading and writing have the same epistemic potential. The actual potential of hybrid tasks seems to depend on various modulating variables; two of the most obvious are the number of texts to be read and the nature of the task the students have to perform on the basis of the reading material. Several studies have found that having to read one text involves dissimilar requirements from having to read more than one text, so these two kinds of tasks may therefore promote different degrees of learning