Formulating Activities in L1 and L2 and Their Relation With Text Quality

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There have been many studies into the relation between cognitive processes during writing in the mother tongue (L1) and writing in a second or foreign language (L2). The results of different studies can hardly be called equivalent. However, many of the differences in results between studies can be attributed to methodological issues (van Weijen, 2009). In some studies, for instance, differences between languages are studied as between subject comparisons, while a within subject comparison is far more effective for analysing L1 and L2 writing processes (Roca de Larios, Murphy, & Marin, 2002, p. 31).

Second, if writing processes like planning, formulating, revising etc. are compared across languages, this usually concerns comparisons of frequencies (van Weijen, 2009). However, as task situations during writing continuously change, so does the probability of occurrence of cognitive activities. Indeed it has been shown that the orchestration of cognitive activities over the writing process is strongly related to aspects of the quality of the resulting texts (Van den Bergh et al., 2009).

In the present study, we focus on the orchestration of formulating activities during writing in L1 and L2, and their relation with text quality.

Method

First year university students of English (N = 20) wrote eight short argumentative essays while thinking aloud. All students wrote four texts in their L1 (Dutch) and
four texts in their L2 (English), on topics such as ‘surveillance cameras’, ‘downloading music’, ‘mobile phone use’ etc. The assignments were counterbalanced, so that each assignment occurred as often in L1 as in L2.

The think-aloud data were transcribed and coded in terms of cognitive activities (van Weijen, 2009). Two raters coded the protocols. The interrater agreement ($\kappa$) varied from 0.84 in L1 to 0.95 in L2. Text quality was rated by two panels of raters, one for the L1 texts and one for the L2 texts. Each panel consisted of five raters, who rated text quality in a holistic way. The interrater agreement was satisfactory ($\alpha > 0.82$ for L1 and 0.83 for L2).

As observations of cognitive activities were nested within assignments, and assignments were nested within individuals, the results were analysed by means of multilevel modelling (Van den Bergh et al., 2009).

**Some Results**

The estimated occurrence of formulating activities is presented in Figure 1 (top row). Each line represents the average occurrence of formulating activities for one writer.

Figure 1: Top row: The probability of occurrence of formulating activities (y-axis) during the writing process (x-axis) in L1 (left) and L2 (right). Bottom row: The correlation between formulating activities and text quality in L1 (left) and L2 (right), average (solid line) and 80% confidence intervals due to task (80).