

WRITERS' ASSESSMENT AND EVALUATION OF THEIR TEXTS

In this chapter, the term 'assessment' will refer to the writer's evaluation of his or her own text for purposes of revision and improvement. The concepts used for describing these phenomena come from the field of cognitive psychology.

From simple observation we know that adult writers keep returning to their text while they are writing or once they have finished writing in order either to re-read or transform it. In other words, they assess and rewrite their text more or less frequently during the process of writing. However, many writers are unable to detect text problems, and even if they are able to detect them, may not know how to correct them. Conversely, even if they have this knowledge, error detection is not guaranteed.

In terms of the processes and knowledge involved, it is possible to address the question of how writers assess their own text by comparing their evaluation processes as writers with those of a control group evaluating student writing (see, for example, Huot, 1990). In determining a grade, the evaluators elaborate a mental representation of the text they are reading and they compare this representation with the form and content criteria the text is supposed to meet. However, it is more relevant and closer to the real processes involved in assessment activities to describe the writer's competence in terms of cognitive models of the writing process (planning, sentence generation, and revising) and to consider research that precisely specifies when, why, and how reviewing (e.g. going back to the ongoing text) is used by writers of different levels of expertise. 'Reviewing' is a component of the revising process. 'Revision' means making any change at any point in the writing process. It is a cognitive problem-solving process in that it involves (a) the detection of mismatches between intended and instantiated texts, (b) decisions about how to make desired changes, and (c) the process of making these changes.

THE PROCEDURAL MODEL

Since the early eighties, a number of authors have claimed that experienced writers use reviewing in a conscious and voluntary way throughout the process of writing and not only, as has been commonly thought, at the end of the writing process (see for example, Beach & Eaton, 1984; Butler-Nalin, 1984; Hull, 1987; Kievra, 1983; McCutchen, Hull, & Smith, 1987;

Nold, 1981). In fact, the function of reviewing is not limited to one simple rereading during the final editing. Rather, writers re-read their text in order to isolate their ideas, to co-ordinate them with what they are about to write, and, if necessary, to control and revise the form (e.g., mechanics and grammar) and also the content (semantic coherence, ideas, etc.) of what they have already written or what they intend to write next. The subprocesses involved in reviewing are also called revising processes (for a review, see Fitzgerald, 1987) and mainly consist of evaluation processes.

Scardamalia and Bereiter (1985) have described text revising in terms of a set of mental operations, namely Compare, Diagnose, Operate, and say that this sequence of operations is repeatedly activated in order for the writer to control the text. During the course of composition, two kinds of representations are built: one concerns the text as it is written and one as it is intended. The "Compare" process matches these two representations. When a disagreement (or a dissonance; e.g. incongruities between intention and execution) is detected, the 'Diagnose' operation is initiated. This operation identifies the nature of the disagreement. In the case of a successful diagnosis, writers have two options: either they question the internal plan of the text or they transform it ('Operate') according to a strategy that reduces the dissonance. This assessment procedure may affect all possible linguistic levels, from orthography to global semantic coherence. As Witte (1985) points out, the writer's intended text is as important as the actual written text.

The procedural model identifies in more detail those processes which play a role during evaluative reading. It also integrates some of the possible outcomes of the evaluation, such as 'Don't do anything', or 'Change the plan', or 'Change the text'. Finally, it emphasises the cognitive complexity involved in finding a linguistic solution that resolves the dissonance (e.g. 'Choose a tactic' and 'Generate text change'). In fact, writers can encounter problems in producing a solution if both the tactic chosen and the text changes fail.

THE COGNITIVE MODEL

The cognitive model of the revision process proposed by Flower, Hayes, Carey, Schriver and Stratman (1986) describes the functioning of the writer-reviser in terms of the knowledge and processes involved. This model also specifies the reviser's possible strategic choices during each stage of the revision procedure. The authors identify three functional stages: 1. task definition; 2. evaluation leading to a problem representation; and 3. strategy selection that could possibly lead to a modification of the text or plan:

1. The task definition stage allows the reviser to specify the goals (e.g., clarity), the characteristics of the text to be examined (e.g., local or

can encounter difficulties with all of these different processes: (a) faulty task representation, (b) insufficient knowledge of the written language, (c) non-automatic procedures, and (d) absence of metacognitive strategies. This model, via its means-ends table, also emphasises the full scope of potential linguistic problems a writer can encounter during revision and assessment of his or her writing. In addition, the assessment of text frequently results in a large variety of concrete text transformations (Faigley & Witte, 1981). These transformations are categorised as a function of (a) the operation applied for changing the text (deletion, addition, replacement, substitution, rearrangement), (b) the linguistic level in question (punctuation, spelling, word, phrase, clause, sentence, style, text organisation), and (c) the moment at which the writer revises the text (rough outline, first draft, final examination of an almost complete text).

WORK IN PROGRESS

Increasing the capacity to control the text during writing is an essential feature in developing writing (Espéret & Piolat, 1990). In addition, it is important to analyse how writers with different levels of proficiency assess their texts. A number of empirical studies using different methods have shown that, regardless of the point in time at which the writing activity is analysed, novice or inexperienced writers rarely return to their text to reread, control, or possibly modify it. During revision, they only correct the most superficial aspects of the text by using a limited number of transforming operations. This is illustrated in the following studies.

Fabre (1990) analysed the spontaneous writing of 6-8-year old children by collecting their rough drafts from the classroom's trash cans. On the basis of an analysis of all correction marks (erasures, substitutions of linguistic elements, etc.), she states that these children most frequently used suppressions and substitutions to replace one element of the text by another without disrupting the text sequence. In contrast, the addition of letters and words was rare and their displacement was non-existent. Thus, the younger writers only assessed their text in order to exert a linguistic vigilance that helped them to adapt their text to the calligraphic and orthographic norms. They rarely attempted to improve their text by adding or shifting information.

This vigilance is exerted at the very moment of the writing activity and not during later re-reading (Piolat, 1988). In an experiment in which 6-12-year old children were asked to write a story, all interruptions associated with a revision were analysed and the modified word or element was recorded. Very few writers (including the 12-year olds) reread their work while writing. The younger writers mainly revised common spellings and French grammatical orthography at the very moment of writing a word.

While they were writing, therefore, novice writers only assessed, and corrected if necessary, the word or part of a sentence which they were actually engaged in writing.

Even if younger writers may only spontaneously focus on evaluating the most superficial aspects of the text, this does not mean that they are unable to diagnose problems concerning different aspects, such as global text organisation. To test this potential capacity, Piolat and Roussey (1991) asked 10-year old children to revise a descriptive or narrative text that contained local and global errors which affected the coherence of the text. Only those children who were judged by their teachers to be the 'most experienced' in text writing managed to improve the text. However, even they only managed to improve the narrative; they did not improve the description. In a different experiment, Boscolo (1989) first asked 8-12-year old children to write a story. Then, he instructed them to transform their text according to a modification of the major theme (a sunny day turned into a rainy day). Only the older writers managed to modify the text while preserving the semantic coherence: the 12-year old writers were able to focus their evaluation process on the global organisation of their text if they were required to do so, although they failed on some specific revisions; the youngest writers introduced or kept more anomalies in their text.

Assessment capacities are clearly better developed in adult writers, but there is considerable interindividual variation depending on their level of expertise. Hayes, Flower, Schriver, Stratman and Carey (1987) asked different writers (university students, teachers of rhetoric courses, and professional writers) to revise a long letter. This letter contained several errors. They had to resolve problems of adjustment to the recipient, genre, style, syntactic units, lexical units, punctuation, and spelling. The participants first revised the text by expressing aloud their thoughts concerning the revision, then, once the corrections had been made, they explained the reasons for their modifications. The writers differed with respect to the processes and the different types of knowledge involved:

1. Experts, compared to less experienced writers, elaborated a richer, more complex, and more flexible task definition in order to improve the form and content of the text.
2. During text evaluation, experts detected and, above all, diagnosed more problems than less experienced writers. Less experienced writers detected fewer problems concerning text organisation. As soon as they had registered the problems, expert writers had already anticipated ways of resolving them. They eliminated almost all of the detected errors while novice writers only eliminated two-thirds. Analysing think-aloud protocols, the authors show that, in contrast to detection, diagnosis constitutes an optimal assessment strategy although it requires more time, attention, and knowledge.

3. Expert and novice writers differ to a large extent in their respective ability to use the five strategies (ignore the problem, postpone its resolution, search for more information, rewrite or revise). As concerns the assessment of text, the first three strategies are more efficiently used by experts. They often rely on the search strategy in order to determine the place, the frequency, and the extent of both the problems they detect and the information that is missing or poorly specified. Therefore, the search strategy constitutes a 'discovery strategy'. Finally, as concerns the text modification strategies of rewrite and revise, less experienced writers paraphrase more often than expert writers in order to preserve the information aims that guide sentence generation. In addition, during rewriting, novice writers exhibit greater difficulties in choosing between the new and the old version of the text.

PROBLEMS AND DIFFICULTIES

The previous statements lead us to believe that the acquisition of control and evaluation of a text can go on for ever. How can we explain the slowness and difficulty that writers experience while assessing their own text in order to assure its quality?

One suggestion is that writers are penalised by a cognitive overload due to the multitude of the processes involved in writing. For novice writers, word searches and spelling are not sufficiently automatic for them to direct their assessment (McCutchen, 1996). At the same time, reflexive procedures which direct their deliberated evaluation to different text levels (e.g. coherence, grammar etc.) are not available.

A second interpretation is that during assessment, writers do not manage to turn away from the representation of their own text in order more fully to appreciate the texts of other writers (Bartlett, 1982; Monahan, 1984). Less experienced and novice writers do not manage to adapt a point of view that deviates from their own: the one of the future reader. Young writers in elementary school impose their interpretation on the text while confounding it with the literal meaning of the text. In addition, they overestimate the comprehensibility of the text, and they impose their interpretation on the future reader (Beal, 1993). Although the results of Levy, Di Persio & Hollingshead (1992) question this interpretation, Daneman & Stainton (1993) find similar results with undergraduate writers. These writers were better at evaluating the texts of others because this activity mostly implies a bottom-up process and not, as for their own writing, a top-down process. Moreover, the students were more efficient with their own text when the correction was delayed by two weeks.

To help writers to evaluate their writing more successfully, several

interventions have been proposed. What they all have in common is that they aim at increasing the writer's capacity to question and criticise what he or she has written:

- work on tasks that include series of questions that either direct reflection to different levels of the text or exercise particular text transformations (Scardamalia & Bereiter, 1985; Matsuhashi, 1987);
- collaborative writing in which dialogue, negotiations, and even play during a task's realisation, improve self-regulation procedures (Britton, Dusen, Gulgoz, & Glynn, 1989; Daiute, 1989; Paoletti & Pontecorvo, 1991; Roussey, Farioli & Piolat, 1992; Sitko, 1992);
- the use of word processors containing help functions (spelling checks, synonym dictionaries, etc.) that can support the diagnosis of problems (Owston, Murphy & Wideman, 1992; for reviews see Piolat & Blaye, 1991; Sharpies, 1991; Snyder, 1993).

Such interventions have had varying amounts of success.

FUTURE DIRECTIONS IN RESEARCH AND PRACTICE

The identification of the processes involved in assessment and text transformation seems well advanced. Butterfield, Hacker and Alberston (1996) have provided a modernised version of the revision model of Flower et al. (1986). This version integrates in the working memory and in the long-term memory of the reviser different cognitive and metacognitive functions. This new model has been used to help categorise more than 100 research reports.

Little data is available concerning the cognitive and metacognitive ways writers learn to assess their text. Investigations should be undertaken to verify whether writers use several evaluation cycles to check all text levels and whether they are able to evaluate the final result of their corrections. Such studies could break new research ground because they might help us to understand the functional relations between evaluation processes (detection and diagnosis) and text transformation processes (rewriting and revising). In relation to this, Hacker, Plumb, Butterfield, Quathamer & Heineken (1994) carried out two particularly important studies with high school students (aged 16-19). In the first experiment, the detection of surface and content errors and the correction of those errors were delayed by one week. In the second experiment, one subgroup of the students was asked not only to detect errors but also to respond to some questions focusing on implicit and explicit meanings of the text. The results show that in order to increase their assessment and evaluation capacities, students need firstly to have specific linguistic knowledge (grammatical, lexical etc.) so that they can detect and correct errors, and secondly to be able to focus on how others will comprehend their texts.

In addition, most of the studies concerning the assessment of writing and text revision have used literary material to investigate the processes involved in writing (Beason, 1993). However, writing is clearly useful for transmitting information in other situations, and this is particularly true for students who have to write texts in all the scholastic disciplines and thus have to use a variety of types of knowledge. Data should be collected that traces the acquisition of the writers' assessment competence as they compose different types of texts (argumentation, demonstration, description, etc.) which are outside the literature course, but which could be really useful in their personal and professional life.

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