LEARNING TO WRITE

Observation, modeling, and interaction in the classroom

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Abstract
The contribution of "learning-by-observation" to students' acquisition of writing skills is a major focus of research by Rijlaarsdam and co-workers. After reviewing key findings from this research, three directions for future research on writing instruction in elementary and secondary school classrooms are discussed: the instructions given to students for observing, the use of interactive forms of modeling, and the ways of combining peer observation and peer interaction.

Keywords: learning to write, writing instruction, peer observation, modeling, peer interaction

1. THE ROLE OF OBSERVATION IN LEARNING TO WRITE

It is generally recognized that learning to write—in the sense of producing coherent, well-structured texts of various genres—is one of the most demanding activities that students encounter during their schooling. Composing a text requires the mobilization of multiple types of knowledge (concerning content, genre, syntax, spelling, …), as well as the coordination of procedural skills in planning, transcription, reviewing, and revising. Alamargot and Chanquoy (2001) have described in detail the cognitive complexity involved in writing and the various models that have attempted to account for this complexity. In addition, student writers in classroom settings are confronted with the complexity of the social dimensions of writing: dialogue with teachers and negotiation of the meaning of writing tasks, collaboration with peers, co-construction of tools and artifacts that support writing (Englert, Mariage, &

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Dunsmore, 2006). Reports of commissions and national assessments in several countries have shown that the majority of school-age children encounter major difficulties in learning to write and fail to acquire adequate skills (Koster, Tribushinina, De Jong, & Van den Bergh, 2015). This constitutes a major challenge for the conception and implementation of effective writing instruction.

The concept of "learning-by-doing"—which refers to learning through active engagement in the performance of a task—has been a mainstay of theories of instruction in all areas of the curriculum. It was espoused in the progressive education movement led by John Dewey, was highlighted in behaviorist views on action and practice, and is present in contemporary cognitive conceptions of learning by enactment (Schunk, 2012). In the area of writing, support for "learning-by-doing" comes from the results of empirical surveys showing that the regularity with which students compose texts is a critical determinant of their writing proficiency (Davis, Clarke, & Rhodes, 1994). Gert Rijlaarsdam and his co-workers in the Language, Literature & Arts Education Lab, at the University of Amsterdam, have long defended another position. They argue that it is essential to distinguish "writing," as a task performed by students, and "learning to write," as a process of acquiring increased understanding and skill in writing (Braaksma, Rijlaarsdam, & Van den Bergh, 2002; Braaksma, Van den Bergh, Rijlaarsdam, & Couzijn, 2001; Couzijn & Rijlaarsdam, 2005; Rijlaarsdam & Couzijn, 2000). They claim, moreover, that "learning-by-observing" can in fact, under certain circumstances, have more impact on student writing than practicing writing ("learning-by-doing"). Their position on observational learning is grounded in the theoretical and empirical work of Bandura (1986) and in the research developed by Schunk and Zimmerman (1994) on the processes of self-regulation that are enhanced when learners observe cognitive modeling by adults or peers. For Rijlaarsdam and co-workers, learning about writing through observation is effective because it allows the learner to "step back" from executing the writing task and engage in metacognitive reflection about the processes involved in writing and the attributes of the text to be produced.

In the comments that follow, I will first revisit key findings from experimental research conducted by Rijlaarsdam and co-workers on the role of observation in learning to write. Secondly, I will offer some reflections on implications for future research on writing instruction in classroom settings, with a focus on students in grades 5 through 9.

2. RESEARCH FINDINGS ON OBSERVATION IN LEARNING TO WRITE

An article published in the inaugural issue of the *Journal of Writing Research*, by Rijlaarsdam, Braaksma, Couzijn, Janssen, Raedts, Van Steendam, Toorenaar, and Van den Bergh (2008), provides an overview of the research they have conducted, individually and collaboratively, on the role of observation in learning to write. It also discusses the relations between their investigations and those of other researchers. I will focus here on some of the important findings from the experimental studies

conducted for the doctoral dissertations of Michel Couzijn (1995) and Martine Braaksma (2002), under the supervision of Gert Rijlaarsdam, Bernadette Van Hout-Wolters, and Huub Van den Bergh.

The studies were designed to elucidate the effects and the processes involved in learning to write by observation of peers. The participants were students in grades 8 and 9 learning to write in Dutch. Both dissertations included a series of studies characterized by a high level of rigor and originality in the conception of the experimental designs and in the analysis of the data. Interconnections between the dissertations, both theoretically and empirically, mean that they constitute together a remarkably coherent body of research. One characteristic of this research is its focus on what students are doing and thinking when learning to write: "on the role of peers instead of teachers, on observing instead of modelling, and on learning instead of instruction" (Rijlaarsdam et al., 2008, p. 74). The following is a brief summary of key findings from the studies conducted and what they tell us about the role of observation in learning to write.

Couzijn (1995, 1999; Couzijn & Rilaarsdam, 1996, 2005) carried out studies that concerned two text genres: instructional text and argumentative text. In both studies several conditions of learning-by-observing were compared with control conditions in which students practiced writing (learning-by-doing). The first study showed that when students wrote an instructional text for the execution of a physics experiment, and then observed (by videotape) another student reading the text and thinking aloud while attempting to carry out the experiment, this led to significant improvement in the revised version of the texts (more extensive and precise object descriptions, explanations and indications of precautions to be taken). The effect was stronger when the author also received written comments from the reader. The effectiveness of this combination (observation plus written feedback) was also demonstrated on a task designed to assess the declarative knowledge students had acquired about instructional text (i.e., composition of a "letter of advice" explaining how to write a good text of this type). In the study of students learning to write argumentative text, all participants used highly structured self-instruction workbooks that provided explanations and criteria for producing argumentation, as well as examples and exercises applying the criteria. Two conditions of observation were found to be more effective than learning-by-doing alone (i.e., executing the writing exercises): (1) learning-by-observation as feedback: in this condition, students carried out writing exercises and then observed peers who read and analyzed orally what had been written; (2) learning-by-observation of models: in this condition, students observed peers on videotapes doing the writing exercises while thinking aloud and evaluated the adequacy of their performance. These two conditions of observation had positive effects on writing posttests and on transfer tasks of reading and analyzing argumentative text.

The research conducted by Braaksma (2002; Braaksma et al., 2002; Braaksma, Rijlaarsdam, Van den Bergh, & Van Hout-Wolters, 2004; Braaksma, Rijlaarsdam, Van den Bergh, & Van Hout-Wolters, 2006) concerned students learning to write

argumentative text using self-instruction materials adapted from Couzijn's workbooks. The main focus of her research was on the processes involved in observational learning. In an experiment conducted in school settings, classes were assigned to one of three conditions: a control condition in which students carried out argumentative writing tasks, and two observation conditions in which students viewed pairs of models who performed writing tasks while thinking aloud. Students viewed two peer models via video recordings and subsequently two live adult models. In both cases, one model carried out the task more effectively than the other model. The observational learning conditions differed with respect to the questions the students were given and which led them to focus either on the performance of the "good" model ("Which model did well? Explain briefly what this model did well"), or on the performance of the "weak" model ("Which model did less well? Explain briefly what this model did less well"). The results of the study showed that students with high verbal aptitude profited more from focusing their observation on "good" models, while students with low verbal aptitude benefited more from focusing on "weak" models. Braaksma pursued the investigation of the processes involved in observational learning in two more studies using think-aloud methodology. An experimental study showed that learning-by-observation of peer models led students to engage in more metacognitive reflection (particularly planning) when they subsequently wrote argumentative texts. A multiple case study of students thinking aloud while observing peers revealed the types of metacognitive and cognitive activities (comparing, evaluating, reflecting) that are stimulated by observational learning.

The insights from the above studies provided the basis for the development of an instructional sequence—the Yummy, Yummy candy bars case—to be used by teachers in grade 7 classes (Rijlaarsdam et al., 2008). The sequence was designed to allow students to take on several roles (as writers, readers, observers, evaluators) within a "community of learners" that fosters the development of shared communication competence in writing argumentative letters.

The studies summarized above, as well as other research by Rijlaarsdam and coworkers, have demonstrated that when students observe readers who provide feedback on an author's text, or when they observe models carrying out writing tasks and thinking aloud, these activities have a positive impact on their understanding of writing and their writing skills. Both Couzijn and Braaksma emphasize, in the conclusions of their dissertations, that learning-by-observation, which is often totally absent in the writing curriculum, can contribute significantly to students' progress in writing, but they also insist that practice in writing (learning-by-doing) is necessary. They suggest that the main question for writing instruction is how to find an appropriate balance between learning-by-observation and learning-by-doing.

3. OBSERVATION, MODELING, AND INTERACTION IN CLASSROOM SETTINGS

In the comments that follow, I will consider three aspects of the research on learning-by-observation and possible implications for writing instruction and for future research. My comments are influenced theoretically by the perspective of "situated learning" in classroom settings (Allal, 2001). This perspective emphasizes the idea of learning as the appropriation of culturally significant practices through students' participation in a community of learners. A basic premise of the situated perspective is that "how" something is learned (the context, the social interactions, the tools and artifacts) are part of "what" is learned (Brown, Collins & Duguid, 1989). Resnick (1990) has described important features of a situated perspective on learning to write in classrooms as follows:

> Children work to produce a product that will be used by others …: They work collaboratively, but under conditions in which individuals are held responsible for their work; they use tools and apparatus appropriate to the problem; they read and critique each other's writing; they are called upon to elaborate and to defend their own work until it reaches a community standard. (p. 183)

My own research on students learning to write in upper-elementary classrooms (Allal, 2018) has focused on "co-regulation" of writing defined as "the *joint* influence on student writing of contextual sources of regulation (structure of the teaching/learning situation, teachers' interventions and interactions with students, peer interactions, tools and artifacts) and of processes of self-regulation" (p. 30). The comments below include several examples based on studies of writing conducted in Geneva classrooms.

3.1 Instructions for observing

Instructions, prepared by the teacher or proposed in curriculum materials, are an important feature of any learning activity in the classroom. What a student learns from observing a reader or a model depends on what the reader or model says and does. But observational learning also depends on the instructions that students are given and that orient their activity of observation. In Couzijn's and Braaksma's research on learning to write argumentative text, the students received instructions (in the form of questions to be answered) prior to their observation of models performing writing tasks. The questions induced the comparison of models, the evaluation of the adequacy of their performance, and the elaboration of explanations. This meant that "learning-by-observation" included observation PLUS writing answers to questions about what was observed. Braaksma (2002) points this out in the discussion of her research: "One might say that the added instruction, although effective, distorted the 'natural way of observing'. So, the observational processes I analyzed are embedded in an instructional environment" (p. 103). I would argue that in classroom settings, students' observations are *always* embedded in an instructional

environment. So the main issue, I believe, would not be whether to give students instructions for observing, but what instructions can best optimize learning from observation. One direction for future classroom research would be to study different types of instructions for observing models. For example, instructions can be focused on what the model does and says (which is the most common use of instructions) but could also include questions on the student's reflections about the model's actions (e.g., "Note the questions that come to your mind while observing …"), which could reinforce the metacognitive dimension of observation. Instructions may need to vary depending on the age and writing competency of the students. Inexperienced writers may need to focus solely on observing the model, whereas more competent students may be able to coordinate observation of the model and self-reflection about what is observed.

3.2 Interactive modeling

In Couzijn's and Braaksma's dissertations, as in many other studies of learners observing models (Harris & Graham, 1996; Schunk & Zimmerman, 1994), during the modeling of cognitive and metacognitive processes there is no direct interaction between the model and the observer. This allows the observer to focus fully on analyzing and reflecting about the activity being observed, without the added cognitive charge of responding or intervening. In classroom settings, however, teachers often want to encourage student participation in whole-class activities. They see it as a way of motivating student engagement in the tasks being studied and as a way of co-constructing shared conceptions about how to carry out the tasks. It could therefore be useful to develop forms of "interactive modeling" that would provide a bridge between learning-by-observing and learning-by-doing.

Here is an example that combines several practices observed in a study of students learning to revise in grades 5 and 6 (Allal, 2018). The teacher proposes a sequential strategy for students to use when revising their drafts: first, re-read to correct spelling and punctuation errors; then pinpoint organizational features that are important for the text genre being studied (e.g., choice of verb tense, transition words); finally, think about possible transformations of content (improvements, interesting details). She writes a long sentence containing various errors and inadequacies on the blackboard and begins modeling the sequential revision procedure in front of the class. For each part of the sequence, after modeling a couple of revisions, she asks the students to make proposals. This means that, as observers, the students see both the teacher and peers formulating revisions, and as actors, at least some of the students engage in the formulation of revisions.

Classroom-based research has shown that non-interactive modeling by the teacher, followed by student practice emulating what was observed, has positive effects on student writing (e.g., Lopez, Torrance, Rijlaarsdam, & Fidalgo, 2017). It would be useful to determine the extent to which interactive modeling—in which there is continual interplay between teacher demonstration and student emula-

tion—can contribute effectively to students' progress in writing. This is a topic to explore further in experimental and classroom-based research. It is interesting to note that although the "Model it" phase of the SRSD instructional approach developed by Harris and Graham (1996) was normally conducted without student intervention, in a more recent study (Harris, Graham, & Mason, 2006), the instructor engaged in modeling a story-writing strategy and students were encouraged to make suggestions of ideas and words to use in the story.

In the experiments conducted by Braaksma (2002) and Couzijn (1995), as well as in many studies based on the SRSD approach of Harris and Graham (1996), modeling by adults or peers and the accompanying instructions for student observers tend to reinforce the idea that there is one appropriate writing strategy to be mastered for the type of text under consideration. Interactive modeling could allow a more nuanced approach. Here is an example based on a case study of argumentative writing in a grade 9 classroom in Geneva where the teacher (Rordorf-Wiblé, 1988) developed guidelines for several different stances that are possible when writing argumentative text: The writer can speak as a "representative of humanity" ("One …"; "People …"), or as an individual ("I …"; "My view …"), or as a member of a group ("We, young people …"). The teacher could model different ways of opening an argumentative text and give instructions that lead the students to compare the openings ("How are they different?", "When would each be appropriate?"). An integrated sequence of modeling and classroom interaction could help students understand that argumentation requires taking into account the intended audience (e.g., for a petition by students to the school principal, the stance "We, the students of Grade 9 …" may be most appropriate), but that argumentation can also entail choosing a voice that reflects the identity the writer wishes to assert. In the letters to the editor in major newspapers, for example, there are letters written with each of the three of the stances mentioned above. Interactive modeling could be a means for helping students understand the diversity of text genres and the choices they can make as writers.

3.3 Peer observation and interaction

In order for the writing curriculum to include opportunities for observation of peers, it would be possible to provide teachers with sets of video recordings of students thinking aloud as they perform various writing tasks, as well as suggestions of instructions to be provided to student observers. In classroom settings, it could be more difficult, on the other hand, for teachers to organize direct observation of "live" peer modeling of high instructional quality. To do so would mean that the teacher would have to identify students who would be proficient in think-aloud modeling and coach them in preparation for modeling in front of classmates. Moreover, in the perspective of a classroom "writing community," it would not be coherent to divide students into "writers" and "observers"; each student should be able to take on several roles over time: as an author or co-author of texts, and as an observer, reader,

and reviewer of other students' work. In a writing community approach, observation of peers would necessarily be combined with interaction between peers, even though the moments of observation and interaction may be separated in time.

Here is one example focused on students learning to revise drafts of their texts. Two students choose (among options proposed by the teacher) a topic they will both write about. Each student produces a draft. The students then exchange copies of their drafts and each student makes annotations of possible revisions and comments. Next, in a face-to-face setting, each student reads aloud the draft composed by his/her partner, makes comments, and expresses suggestions for revisions, which are discussed with the author. The author of each text decides which suggestions to retain and also adds any additional revisions or improvements he/she thinks are needed. In this type of scenario, both students exercise their role as writer, but also take on the roles of reviewer and of observer.

In my research in grade 5 and 6 classrooms (Allal, 2018), interactive peer revision led to improvement of student texts, but some forms of peer interaction—namely, episodes of reciprocal error correction with little discussion—tended to restrict the range of revisions considered (i.e., students tended to focus on mechanics, rather than on issues of text organization and content). In order to develop constructive peer interactions that broaden students' perspective on revision, it could be useful to provide students with a scenario of prompts regarding questions to ask one's partner (e.g., "Why did you write that?", "How can you make it more interesting for the reader?") and ways of responding (e.g., "I don't agree because …", "I think it would be better to …"). Use of the prompts could be reinforced by guided practice of peer interaction in whole-class situations where the teacher and students would observe and comment on peers who engage in interactive revision. One challenge for the development of this sort of "scripted" peer interaction is to find the right balance between the script structure, which can enhance higher-order cognitive, metacognitive and sociocognitive processes, while avoiding the risk of "over-scripting," which can decrease student motivation and engagement (Kollar, Fischer, & Hesse, 2006).

4. SUMMING UP

Research by Gert Rijlaarsdam and co-workers has shown that observation of readers and models can have a significant impact on student learning and needs to have a recognized place in writing instruction. Its integration in classroom writing communities will require, nevertheless, continuing research on appropriate instructions for observation, on interactive forms of modeling, and on ways of combining peer observation and peer interaction.

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