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Rijlaarsdam, G.; Braaksma, M.; Couzijn, M.; Janssen, T.; Kieft, M.; Raedts, M.; van Steendam, E.; Toorenaar, A.; van den Bergh, H.

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The Role of Readers in Writing Development: Writing Students Bringing Their Texts to the Test

Gert Rijlaarsdam, Martine Braaksma, Michel Couzijn,
Tanja Janssen, Marleen Kieft, Mariet Raedts,
Elke van Steendam, Anne Toorenaar, and
Huub van den Bergh

INTRODUCTION

Readers helping writers to 'test' their text

For over thirty years, writing has been portrayed in research literature as a way of *problem solving* (Moss 1975; Flower and Hayes 1977; Hayes and Flower 1979; Hayes 1989; Bryson et al., 1991). The translation of this idea to the educational field followed soon after (e.g., Berkenkotter 1982; Coe et al., 1983). In this chapter, we will discuss the usability in writing instruction of *pretesting texts with real readers*, a way to embody the often-omitted final stage of the problem-solving model: the implementation and evaluation of the problem 'solution' that is the written text. We focus on pretesting texts by

writing students through *reader observation* instead of readers' comments. We use observation as a means to collect feedback on the qualities of the text for the purpose of revision, enhancing the writer's *audience awareness* as part of his/her writing expertise.

In the problem-solving view of writing, the writer is supposed to solve a communicative problem by producing a text that fulfils the communicative needs of the writer and the reader (the *task goal*), thus making the communication *effective*. The writing task is a 'problem' insofar as it is not directly obvious for the writer what the qualities of the text should be or how he should arrive at such a text. The contribution of this line of research to writing education lies in the cognitive approach to instruction: an orientation on the writer's mind, on writing processes and on the constituting strategic activities.

Modern textbooks on writing (e.g., Newsweek Education Programme, 2006; Srebanek, 2006) or online academic writing tools (e.g., Writing@CSU, 2008) almost invariably show a step-by-step guide on how to move through the stages of text composition: define the writing task, collect and process information, conduct prewriting activities, start writing or 'translating ideas into text', and revise the text. Strategic advice may be given, such as 'you probably want to sketch an outline first', 'try to delay revision on the word or sentence level', and 'do a last check on spelling errors before you hand in the text'. Peer feedback is often advised: students exchange papers and produce feedback. Peers are put in the role of the instructor, and provide advice on text improvement. Yet the 'solution' that the writer invented for the 'writing problem' is hardly ever put to the test. In this respect, writing education seems to fall short of the problem-solving metaphor. Theories on problem-solving processes (Newell and Simon 1972; Frederiksen 1984; Wilson 1993) all stipulate a final stage in which the chosen solution is *implemented*, and its success is monitored and evaluated. In writing education, this is hardly realized. Rarely does the writer get the opportunity to witness *real readers'* interaction with their text, responding to its particular qualities. The communication remains *virtual*.

Nevertheless, writing researchers who took a problem-solving view have always regarded it essential that writers develop a sense of *audience awareness* (Flower and Hayes 1980; Berkenkotter 1981), enabling them to make decisions in their writing to accommodate their readers' communicative needs. Audience awareness as part of writing expertise is subject of ongoing educational research that varies from quasi-experimental (e.g., Carvalho 2002) and experimental studies (e.g., Sato and Matsushima 2006; Midgett et al., 2008) to descriptive case studies (e.g., Zainuddin and Moore 2003) and educational evaluations and recommendations (e.g., Piretti 2006). With the exception of Sato and Matsushima (2006), these studies have in

common that there is *no actual audience* for the student writer to get acquainted with. Students are postulating or are being presented with a number of presumed *audience characteristics* that they are to take into account. Descriptive and experimental studies demonstrate whether writing students actually follow these guidelines, which is taken as a symptom of developing audience awareness.

In professional strands of writing, however, such as technical and business writing, real test audiences are employed to assess text quality (e.g., Schriver 1996; De Jong 1998; Janssen and Jaspers 2002; see for an application in educational course materials McGovern (2007)). The main goal of this *pretesting* or *usability testing* is to gather factual information by which the text can be effectively improved, better suiting the readers' communicative needs and habits. De Jong and Schellens (1997) present a review of research on reader-focused text evaluation.

Beside this obvious stimulus for text revision, the question arises whether usability testing by means of real readers can also be advantageous to writing education. Already in the early 1990s, Schriver (1991; 1992) conducted research into potential learning effects of this *pretesting* for writers. Does feedback from real readers contribute to the writer's audience awareness, in a way that is transferable to future writing or revision tasks? Schriver presented writing students (college level) with a number of *readers' think-aloud protocols* in written format and had them practice to revise their texts in accordance with this feedback. She found that both junior and senior writers improved significantly in taking the reader's point of view when planning to revise, diagnose readers' problems caused by textual omissions, characterize problems from the reader's perspective, and attend to global text problems. In sum: by getting to know their *real readers' responses*, the writing students acquired concrete knowledge about their readers' communicative needs and behaviours. This knowledge helped them to anticipate

potential problems in text that had not yet been commented on by any reader.

In line with the practice of *pretesting texts* in professional writing, we will discuss possibilities for enhancing audience awareness in young writers by means of factual and meaningful observations by writers and their readers.

In the next section, we discuss studies in the field of referential communication that yielded evidence for the effectiveness of observation activities, followed by studies of writer-reader role changing, and studies on writers observing readers as a way to collect feedback. In the third section, we will present two examples from educational practice, which illustrate how reader observation can be incorporated in educational practice. We conclude with an outlook on future writing classrooms, where more technical means will be available to writing students to observe actual communication processes and some recommendations for future research.

LEARNING TO WRITE BY EMPLOYING READERS: A BASIS FOR REVISION AND THEORIES OF A GOOD TEXT

Acquisition of audience awareness in referential communication

Yule (1997) defines referential communication as those 'communicative acts, generally spoken, in which some kind of information is exchanged between two speakers. This information exchange is typically dependent on successful acts of reference' (1). This kind of communication emerges in infancy, and includes pointing at or verbally referencing to objects in the environment ('doll'), giving directions ('there'), describing qualities of or differences between objects ('big'), and telling stories about familiar people or animals in known settings ('pussy kitchen').

Within the domain of referential communication, writing is seen as a cognitive and social process. The cognitive task is to decide

about the information to communicate and how to communicate it. Writers must coordinate two representations of the text; the communicative intent (what do I want to say?) and the actual text produced-so-far (what have I written?). These representations interact, that is, the intended text guides the composition of the actual text, and the actual text and its composing process may take the writer on unexpected tracks of thoughts, reasons, and arguments, and renewed intentions. Additionally, writers must consider audience and context of the writing. This social task requires that writers construe a third representation of the text: the reader's perspective (how are my readers likely to interpret my writing, apart from my own intentions and my own interpretation of what I have written?). This is well in line with the notion of 'audience awareness' as discussed in the previous section.

Basic research on *oral* referential communication was done by Sonnenschein and Whitehurst (Sonnenschein and Whitehurst 1983, 1984; Sonnenschein 1988) in the developmental perspective of younger children. They studied the effect of participating in communication vs. observing communication on the acquisition of referential skills. Their idea was that the absence of transfer they found between speaking and listening skills might stem from a lack of metacommunication, which is a more abstract, higher order skill than speaking or listening itself. Then they tested the hypothesis that *observation and evaluation* of speakers and/or listeners in communication tasks would result in metacommunicative knowledge, and that this knowledge contributes to the speaking and listening skills.

Sonnenschein and Whitehurst (1984) used a referential communication task; speakers (6 y.) were asked to describe one object from a pair (similar or different in colour, size and shape) so clearly that a listener could identify it correctly (e.g., 'the blue triangle' or 'the big pink one'). In the listening role, students listened to a doll referring to one of the objects, and had to decide whether they could

identify the object, or that the message was not clear enough (e.g., 'the triangle' or 'the big one'). In two conditions, the participants were trained in either the listener or the speaker role, thus participating in the communication. In a third condition, participants observed two dolls playing the game, and evaluated the performances of both speaker and listener: they had to decide whether the object was described adequately, and whether the listener identified it correctly. Furthermore, observation conditions varied according to activity (observation with or without evaluation), feedback on trials (yes/no) and the object of observation (listener, speaker, or both). As learning and transfer tasks, speaking skill, listening skill, and commenting skill on others' performance were measured.

Observation and evaluation of both speakers and listeners—i.e., of the complete communication—resulted in very high scores on all posttests; the transfer to speaking, writing, and evaluation tasks. This is a stunning result, indicating that it is possible to acquire such speaking and listening skills without practising them. Moreover, critical awareness was significantly higher than in the practising conditions. Observation of both roles without giving evaluative comments, however, yielded much smaller effects. Observation of only one role, either speaker or listener, yielded large learning effects, but no transfer effects, neither to the complementary mode, nor to the commenting tasks.

The researchers conclude that speaking and listening tasks are 'subordinated' to the commenting or evaluation task, in the sense that a student who masters the commenting task appears to master the speaking and listening tasks as well, but not vice versa. In addition, they conclude that an effective acquisition of speaking or listening skill can be accomplished by observation and evaluation of others performing such tasks.

This study provides some important suggestions for effective learning activities: (a) intermodal transfer can only be obtained by observation of both complementary roles in the communication, not by training in or

observation of one role only; (b) learning and transfer effects increase strongly if the student adds evaluative comments to the observations. The act of commenting probably focuses the observer's perceptions on the criteria for successful communication.

Traxler and Gernsbacher (1992; 1993) applied the referential communication paradigm to writing instruction. Their goal was to make writers understand how readers envision or experience their text. This can be seen as the acquisition of audience awareness, developing the reader's perspective on the text they had written ('what have I written? what will my audience make of it?') as opposed to the text they intended to write. This would help to overcome one of the major problems for writers; their 'egocentric position' as Moffett (1968: 195) called it. Traxler and Gernsbacher (1992) showed that writers who received feedback from their readers successfully revised referential descriptions of geometric figures, whereas writers who did not receive feedback were unable to revise. The first group also succeeded in transferring their learning result to descriptions of new sets of geometric figures. Even a minimal form of feedback may help writers learn to envision how readers will interpret their texts.

In their subsequent study (1993), Traxler and Gernsbacher placed writers 'in their readers' shoes'. In three experiments, half the writers performed a reading task that their readers would subsequently perform, and the other half of the writers performed a control task. In the first and second experiments, the writers who gained their readers' perspective successfully revised their written descriptions of geometric figures, whereas writers who performed the control task could not. In the third experiment, the authors found that these effects could not be attributed to the fact that the writers were exposed to examples of other writers' descriptions, but that the reader enactment itself produced the learning effect. It was concluded that gaining their readers' perspective helps writers communicate more clearly, because perspective-taking helps

writers form a mental representation of how readers interpret their texts.

Recently, Sato and Matsushima (2006) reported on the effects of an audience awareness enhancing intervention in referential writing, with students in various age groups (from seventh-grade to undergraduate). Some of the participants acted as writers and the others as readers. Writers wrote a text describing a more or less complex geometrical figure. Readers read the text and tried to draw the figure according to the description.

The researchers designed a learning arrangement in which the writing instruction focused on audience awareness: writers determining which information readers would require in order to produce the figure correctly, and how such information should be conveyed in text. It turned out that writers in this 'high audience-awareness' condition spent considerably more time planning and writing their texts than writers in a low audience-awareness condition, and that the texts written in the high audience-awareness condition were longer, containing more complex descriptions. In a second experiment, students were given 'prototype texts' containing adequate descriptions of complex figures. Students in the high audience-awareness condition, who developed prior knowledge on information needs for readers, were found to draw the figure more accurately. In a third experiment, these authors focused on the effect of reader feedback for writers, and employed secondary students (ninth-grade). Merely being told to attend to an audience did not improve the quality of texts. However, visual and verbal feedback from the readers (seventh-grade) was effective: writers could improve the texts by revising them to the received feedback. In addition, the experience of revising the text according to feedback transferred to later writing tasks.

In sum, the referential communication paradigm yielded some interesting results for writing education. Because of relatively clear 'success criteria' for written references, even young students succeed in developing an audience awareness that is productive in their

subsequent writing. In the Sonnenschein and Whitehurst studies, the position of observer of 'what works' in communication was the most effective, more so than training in the speaker or listener roles that made up the posttests. The studies by Traxler and Gernsbacher demonstrated that even minimal reader feedback and reader enactment helps writers to develop a useful image of actual readers' needs. The Sato and Matsushima experiments show that an instructional focus on audience awareness primed writers and readers to communicate more effectively, and that even young writers develop a productive audience awareness due to reader feedback, which transfers to novel tasks.

Writers experiencing the reader's role: Perspective taking

Experiencing problems as a reader may motivate people to write better. When Vernon et al., (2005) introduced punctuation in writing lessons for young children, they realized that learning to punctuate accurately assumes knowledge of the writing system, of sentences and clauses, knowledge that is lacking at that early age. They decided to stimulate this awareness by having children read badly punctuated texts, which raised a number of comprehension and interpretation problems. Thus, the need to punctuate arose, due to having been in the role of the reader and experiencing typical readers' problems.

This principle was explored by Holliday and McCutchen (Holliday 2000; Holliday and McCutchen 2004). Would young writers (grades five and seven) benefit from learning to read and experience comprehension problems as their readers do? In the first of three sessions, all writers produced descriptions of three Tangram figures. In the second session, the writers received a typed version of their own description, and all writers were randomly assigned to one of three perspective-taking conditions; feedback-only, feedback and rating, and feedback and read-as-the-reader. In all three conditions, writers received

some written feedback (one sentence) on their description, stating whether they had been successful in unambiguously describing the Tangram figure. In the condition feedback-only, students were asked to revise their original descriptions. In the condition feedback and rating, writers also received three descriptions written by other students in the group, rated the descriptions on informational adequacy, and wrote one sentence to the writer about what could be improved. They then revised their own descriptions. In the third condition, feedback and read-as-the-reader, writers were given three descriptions written by other students in the group, and were asked to match these descriptions with Tangram figures. Then writers revised their own original descriptions.

In the posttest writing session, writers composed descriptions for Tangrams they had not previously seen. Each set contained three separate groups of four similar looking Tangrams. Each group contained one 'Targetgram' and three distracters. For both grades, the read-as-the-reader condition scored significantly higher in revising their Tangram descriptions (second session) and writing descriptions for a new set of Tangrams. This led to the conclusion that perspective taking supports the development of referential writing ability.

The rating condition is more or less similar to regular peer feedback conditions. It did not yield an improvement of writing skill, except for new tasks (session 3) in grade five. Possibly, students in the rating condition lacked a frame of reference to evaluate adequacy, while in the condition read-as-the-reader students underwent typical reader problems, comparing a written description with the object and the distracters. They had to construct a frame of reference themselves: which quality in the text enables me to match a particular figure?

Holliday's study shows that minimal instruction can be sufficient to improve referential writing skill: if students experience a reader's role as a postwriting activity, an idea of reader's needs and a theory of 'good text'

may emerge. Essential is that the writer experiences how the text really 'works' when a reader uses the information. In this study, a realistic writer-reader experience was created, as Moffett (1968) argued for, in which the reader had to *use* the text rather than read, rate, or comment on it from a distant, nonparticipant role. Reader enactment gives way to the development of ideas about 'what works' in this type of communication; ideas that students successfully transferred to their own writing.

Learning to write by reader observation: Creating a feedback loop

A number of studies by Lumbelli et al. demonstrate the use of adult reader observations as a means to collect feedback for writers, and as a means to enhance their audience awareness. Witnessing the factual problems of readers may help to understand how reading works, what it takes, and how texts can either help or hinder reading (Crasnich and Lumbelli (2004). Lumbelli and Paoletti (2004) provided learners with audio-tapes, containing experts' spontaneous comprehension processes that '*contained all the flaws and redundancies of oral language; the expert reader's uncertainty had been fully verbalised, so that uncertainty about the possible different interpretations of the same passage could be traced back to uncertainty about which processes would most adequately integrate the explicit information, as read and decoded*' (Lumbelli and Paoletti 2004: 206). Gárate and Melero (2004) implemented a similar procedure. Eleven-year-olds learned to use counter argumentation in argumentative writing by using the modelling technique carried out by an expert reader, thereby fostering the transition from text comprehension to production. In these studies, students observed the reading behaviour of adults, while in this section, we will focus on studies receiving reader feedback from peer students.

In this vein, Couzijn (1995); Couzijn and Rijlaarsdam (1996); Couzijn and Rijlaarsdam (2004); and Rijlaarsdam et al. (2006) studied the effects of writers being confronted with real readers. His question was: do children develop knowledge about effective communication by witnessing how (peer) readers actually deal with texts? He focused on a particular text type with a strong and overt communicative effect: a manual for a simple physics experiment. First, Couzijn taught the children individually how to perform this physics experiment by manipulating a number of objects (glass bottle, cork, funnel, straw, water, etc.). He showed students the experiment by means of three illustrations, step-by-step, and added the physical explanations. He coached the student to do the experiment, until the student was able to carry out the experiment flawlessly and understood what it was about. Then, the student was asked to write a manual for a classroom peer. The manual should be so clear that the reader could perform the experiment perfectly and understand what it was about.

In the second stage, the written manuals were used by other students (not involved in the first stage) who were asked to perform the experiment while thinking aloud. These performances were videotaped. Three weeks after the initial writing session, the writer was shown two of the readers on video. Some writers observed readers of their own text, while others were confronted with readers of texts written by other writers. Some students had access to written comments by readers; others did not receive this support. Then, the student received his or her original text, with the request to improve its quality.

In this experiment, all three reader-observation conditions scored significantly better than a control group who had to revise their text without reader observation. The revised manuals showed many improvements over the first version (for the conditions 'observing one's own reader', 'observing one's own reader plus written comments', and

'observing someone else's reader', the effect sizes were 1.74, 2.56, and 0.47 respectively). For teaching practice, this would mean that after a class has written a certain communicative text, simply showing one or two readers on video actually 'using' such a text for its communicative purpose would stimulate the revision phase strongly. In a similar study, with another physics experiment, now in primary education (Grade 8), De Jong (2006) found effect sizes of respectively 1.49 and 2.0 for revisions after explicit prompting and after observing readers, with an effect size of the experimental condition of .96.

In education, however, we want to accomplish more; we aim at generalization of experiences and transfer to other tasks. Therefore, Couzijn asked participants three weeks later to write a 'letter of advice' to a new classroom mate, about how one should write a manual. In this way, the students' knowledge about the manual as communicative text type was assessed, a prerequisite for transfer to similar manual-writing tasks. Students from the 'observing one's own reader plus written comments' condition produced many more pieces of advice than students from the other conditions (effect size = 2.33).

Couzijn and Rijlaarsdam (1996) concluded that simply adding a revision task does not work, that observing readers before revising your own text improves the revision significantly, and that observing your own readers after having written your first draft helps even more. Furthermore, processing external feedback (written comments) enhances the generalization of transferrable knowledge (see also Rijlaarsdam et al., 2004).

These results indicate that in some instances, young writers are capable of constructing knowledge about what a good text entails. Without further help or instruction, they can build a set of criteria for a good text from observing what readers are doing and thinking while trying to comprehend the text. They can apply the criteria in their revisions. For the constructed knowledge to become durable and transferable, some reflective activity seems to be necessary.

Students making observations in the writing classroom: Two examples

The two classroom practices presented here have in common that student writers somehow get in touch with a communicative role that is complementary to their own writing role. ‘Complementary’ refers to two things: either a *communicative* complement, changing from writer to reader or vice versa; or a *learning* complement, changing from enactive learning-by-doing to vicarious learning-by-observation, or vice versa. This pedagogy relies on the notion that in an effective language curriculum, students learn to participate in various functional roles (see Figure 30.1).

First, they must be in a position to participate in communication in order to experience the effects of written and spoken text. As *writers*, they experience how their communicative intentions must be transformed into text. As writers moving into the *observer* role, they can witness, investigate, and learn how (their) texts affect readers and how readers actually read and respond (Couzijn and Rijlaarsdam 2004; Crasnich and Lumbelli 2005; Lumbelli and Paoletti 2005). Having moved from the writer role into an observer role, students may act as pure readers, feeding back their authentic responses; but they can also show signs of acting like ‘instructors’, adding advice for the readers to

their responses. Writers may also step into the reader’s role themselves, to experience how similar texts work and then apply the newly acquired knowledge in a second round of writing (Hollaway and McCutchen 2004).

Writing students can learn from observing how texts work in readers by comparing and evaluating their own writing strategies, as well as by abstracting and generalizing from their observations of readers and their experiences as an imagined reader. From all of these perspectives, they learn about effective factors in communicative texts. It is the teacher’s role to organize communicative opportunities to learn from, to help students discover ‘what works’ in their various roles, and to help them make generalizations that can be applied in future communication.

The Yummy Yummy Case

As an example of changing writing, reading, and observing roles in writing classes, we present the *Yummy Yummy Case* (Fig. 30.2). This lesson series (4 lessons, 45 minutes each) was designed to test the practical relevance of our student participation model (Fig. 30.1). It stresses the acquisition of pragma-linguistic knowledge: what makes a particular text effective? Students (12–13 y.) not just choose and apply, but experience and investigate text qualities. In this way, they develop a kind of ‘tested’ knowledge and

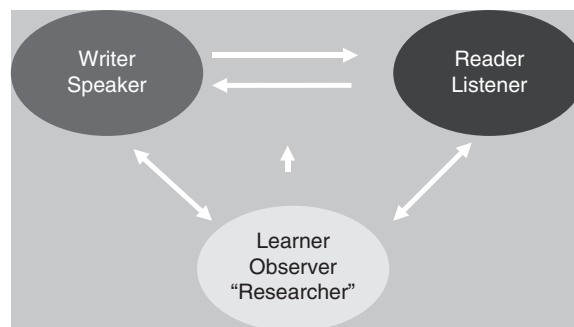


Figure 30.1 Designing interrelated communicative roles or functions in the L1 classroom (Adapted from Rijlaarsdam and Van den Bergh, 2004).

Lesson 1: Goal: writing a convincing letter of complaint, using argumentation.
 Place: computer room.
 Activity: Teacher presents the case to all students and students write their letters.

Imagine: you are a real fan of the *Yummy Yummy Candy Bars*. One day you read the following advertisement:

Save up for two free movie tickets!

How to get them:
On the wrapper of each Yummy Yummy Candy Bar you will find 1 saving point. Save 10 points. Send the points in an envelope to Yummy Yummy Saving Action, PO Box 3333, 1273 KB Etten-Leur, The Netherlands.
Include a stamp of 39 cents for the mailing costs. Mention clearly your name, address, residential town, and zip code. The two free (FREE!) movie tickets will be sent as soon as possible to your address.

This offer ends on April 15th 2003.

Communicative situation: It is April 7th. Suppose you have already saved 8 points. Nearly all 10 points that are required! But alas! you cannot find any more Yummy Yummy Bars with points on the wrapper, although it is not yet April 15th. You tried a large number of shops. Strange! It seems you will not be able to collect 10 points! But you still want to get the two free movie tickets. Therefore you decide to send your 8 points and two Yummy Yummy wrappers without points.

Goal: write a letter that you send with the 8 points and the wrappers. Explain why you cannot send 10 points. Convince the Yummy Yummy Company that it isn't your fault that you didn't collect 10 points and that you still want to receive the two movie tickets. Be sure they will send you the tickets! Then address the envelope.

Note: This first version of your letter will be put in your portfolio.

- Save your letter on a disk.
- Print your letter and hand it in to me.
- Give me the envelope too.
- Send your letter to [teacher's emailaddress] (or give me your disk.)

Lesson 2: Board Meeting Yummy Yummy Candy Bars
 Place: classroom.

Activity: the teacher makes six groups of 4-5 students. Each two groups are paired (A and B)
 Group A: 'Management board'. The task of the board is to read and select two out of nine letters that win the movie tickets. A harsh selection must be made, because just two pairs of tickets are left in stock...)
 Group B: Parallel group of 'Researchers'. The task of the researchers is to study the arguments and the criteria used by the management board during the board meeting, when they discuss and select the letters.

Goal: half of the writers have changed to 'readers', who interpret and assess the convincing qualities of each letter. As a group, they must choose the two most convincing letters and be able to explain their choice. The other half of the writers change to the 'observation of readers' position, listening and establishing 'what works' in a convincing letter of complaint. They must be able to present a list of criteria at play.

Lesson 3: Poster composition and presentation.
 Place: classroom

Activities:
 A. Inquiry: The students from the research team work on listing and ordering the criteria of the *Yummy Yummy Candy Bars board* and write them on a poster. At the same time, the *Yummy Yummy* board group composes a letter to the children who did *not* win the cinema tickets.
 B. Presentation: The research team presents a poster with criteria applied by the management board.
 C. Presentation: The management team presents the two selected letters, referring to the poster on which the special qualities of the letters are reported.

Lesson 4: Rewriting/revision original letter & Evaluation
 Place: computer room.

Activity: students all move back to their 'writing role' and use the criteria for 'convincing letters of complaint' that they, as board members or researchers, have collected and externalized. The evaluation of the lessons focuses on 'what was learned', 'what was new' and 'how did the two versions of your letter differ'.

Figure 30.2 Overview of Yummy Yummy lessons.

learn how such knowledge can be acquired. The lessons draw on implicit knowledge in students, which they groupwise collect and externalize. The developer tried to cover all

roles from our student-participation model, both as participants in the communication (writers and readers) and as researchers (observers).

Prior to these lessons, the teacher made a plan and designed the work sheets. During the lessons, she stuck to her role as organizer and stimulator, and did not 'teach' about criteria. In fact, the students did all the work themselves collecting, investigating, and discussing the criteria for effective communication. Lesson 4 was a lively revising activity, indicating that students were very motivated to improve the letters. They evaluated the lessons very high (8 out of 10). Revised letters showed many improvements, especially in the domain of rhetoric. Students in the research teams made more improvements than children in the board teams (Effect size 1.30 versus 0.30; Rijlaarsdam and Braaksma, 2004). See, for similar effects of observing versus participating in writing synthesis texts, Raedts et al., 2006); argumentative texts Braaksma et al., 2002); Braaksma et al., 2004); Braaksma et al., 2001) and Couzijn (1999); for business letters in L2 Van Steendam (Van Steendam et al., 2008a and 2008b).

This Yummy Yummy lesson model shows that students (12-13 y.) can create their own frame of reference on qualities of this particular genre: the posters presented by the 'research teams' each contained about ten items, representing at least 80% of the criteria used in the board discussion. Awareness about what works in communication was expressed (board discussion) and fed back to the whole group (research presentations). Groupwise sharing and constructing communicative awareness led to ownership of the criteria for a good text, which stimulated children to revise their own texts: it was an important experience to find that texts are actually 'improvable' and that this is within their own reach.

The Yummy Yummy Case also demonstrates that it is possible in language classes to effectively distribute writer, reader, and observer roles, when students are 'simulating' authentic readers (board teams), as has been advocated for a long time (Moffett, 1968). The key feature of the Yummy, Yummy lessons is that students are motivated to think about what

works in a text, to raise awareness about the quality of communication and, implicitly, about rhetorical strategies. The board and research teams both experience their task as a meaningful learning task that inspires and stimulates genuine dialogue about relevant content. The whole case relies on the meaningfulness of the letter of complaint, in a setting that suits students of this age quite well.

The 'Activity Morning' and storybook case

A second example from classroom practice shows how subject teachers and writing teachers from prevocational education cooperatively create motivating writing lessons, in which roles of writers, readers, and learners/observers (Figure 30.1) are distributed.

In a four-year study, Anne Toorenaar (Toorenaar and Rijlaarsdam (2005a, 2005b) investigated the learning community format, inspired by Brown and Campione (1994), Cobb and Yackel (1996), and Wells (2000). She focused on prevocational education with students preparing for 'Care and Well-being' professions (15-16 y.). In cooperation with content-area and writing teachers, Toorenaar iteratively designed instructional units, which were then tested in classroom settings. Students learnt to work and communicate with various target groups, such as elderly people, young children, or mentally handicapped persons. Normally the students would learn from textbooks about how to communicate with such clients or audiences. In the 'community of learners' format, however, the students actually met them, and prepared and evaluated the meetings and communication tasks in the classroom.

One of the instructional units focused on the target group of young children (6-7 y.). Teachers made arrangements for an 'activity-morning' in primary school during which ninth-grade vocational students had to guide the young children like 'professional coaches' in challenging and entertaining activities. In three preceding weeks, various activities

were designed during the vocational and writing classes by students collaborating in 'design groups' of three or four peers. During the writing classes, students in 'author groups' collaboratively wrote, illustrated, and published a story book for the primary school children. Each author group took responsibility for one of the stories in the book. This lesson format was tested in two consecutive years, Y1 and Y2.

The writing teachers focused primarily on the social aspects of writing: the relationship between writers and their real audience, and the authentic purpose and context of writing (real storytelling, real entertainment). In the Y1 design, students generated ideas and content for their stories through interactive classroom discussions guided by the teacher. A teacher read aloud various kinds of stories, followed by a discussion of possible reactions from the primary school children ('Would they like this story?', 'Why or why not?'). Elaborating their ideas in stories written by themselves, author-groups would continue this discussion on a smaller scale (e.g., sharing their own history as a listener of bedtime stories). In this way, students built up 'audience awareness': they tried to understand and externalize the perspectives, needs, and wishes of their soon-to-be audience, thereby developing dialogical skills that support text production and revision (Englert et al., 2007).

In the first year, the collaborative writing processes and written stories varied strongly in quality across author groups. Therefore, two pedagogical changes were made for Y2, with a view to enhancing learning-by-observation. First, author groups watched video fragments of Y1 students reading aloud their stories in primary school. In this way, students would acquire a clearer picture of their real audience, and the authentic purpose and context of writing. They could also develop criteria for 'what works' in successful stories, based on either their own preference as listeners, or responses from the videotaped children. In addition, each author group interviewed a peer about their writing

and storytelling experience of last year. Thirdly, each author-group invented a main character, story events, and a fitting surrounding for their story, and presented their ideas for all other author groups to comment on. By means of a whole classroom discussion, guided by the teacher, students collaboratively chose the best character, most interesting events and most inspiring surrounding for their joint picture-and-story book. Each author group elaborated this idea into their own written story. Author-groups pretested their story by reading it aloud for peers, who commented on the quality of the story (appropriateness for target group) and on the read-aloud session (audibility, and voice variation).

The stories were read aloud during the activity morning with the young pupils (6–7 y.). An independent jury consisting of primary teachers assessed all read-aloud stories. All teachers valued the Y2 stories as better, as more suitable stories to be read aloud for their young pupils. The Y2 students had clearly gotten a better grasp of criteria for successful storytelling to young pupils, by the extra activities they undertook: observation of actual storytelling and of actual listeners' responses, interview with an 'experienced' peer writer, classroom discussion about criteria for successful storytelling to the specific audience, and classroom observation of writers reading-aloud their text as a pretest.

This example shows how students can be involved in various ways and roles in learning-to-write experiences: they write, they simulate readers, they observe the targeted communication (observing other students on video reading a story to small children), and apply the invented criteria during a final pretest of the written stories. It should be noted that a genuine writing task, designed for real-life communication, will lead students to genuine discussions about audience traits (young pupils), communicative goals (entertainment, understanding), and the qualities of 'good texts' that serve goals and audience.

Query: Question mark needed at the end of the sentence?

OBSERVATION OF WRITERS AND READERS IN WRITING EDUCATION: WHAT THE FUTURE MAY BRING

From the research results and examples discussed in the former sections, we conclude that actual readers and actual reading processes deserve a place in effective writing instruction. Reader feedback, reader observation, and role switching between writers and readers can be essential complements to a cognitive, process-oriented view on writing education. They may be considered embodiments of the 'implementation and evaluation' stage of the problem-solving process that is often taken as a metaphor for writing. Observations of real readers who actually 'use' the text for the intended communicative purpose (instruct, explain, argue, entertain, etc.) yield opportunities for writing students to collect feedback for the purpose of text revision; but students also develop transferable knowledge about readers' needs and behaviour, as well as criteria for 'effective texts' of a particular genre. Experiences with real readers probably contribute more to the development of audience awareness than the traditional practice of learning to write with an imaginary audience with postulated properties in mind.

Therefore, we advocate an educational environment for writing students that presents them with ample opportunities to get to know their audience, to collect real responses to their texts, and to make discoveries about 'what works' in communicative tasks. To this end, the concept of the 'classroom community of learners' is suitable, such as described by Brown and Campione (1994), because it allows for writing students to act as *learners* first, and *writers* second. Or better: to derive writing activities, reading or observation activities, and more reflective activities from the main goal that is *learning* (cf. Fig. 30.1). The social world of the community classroom is a suitable environment in which students help each other to learn by taking up various interacting roles, thus, helping themselves in the process (Englert et al., 2007). The research

results presented in section 2 form a good reference to explain why the examples of 'community of learners' presented in section 3 turned out to be effective.

We expect that for practice and research, new technology can be very helpful. As a writer is his own worst critic (Moffett 1968; Traxler and Gernsbacher 1992; 1993), we must support writers to pinpoint weaker and stronger elements in their texts. Information technology can help to separate the act of writing and other acts that are supportive of observation and reflection. Schriver (1991; 1992) used audiotape recordings to present readers' responses to the writers. Couzijn (1995; Couzijn and Rijlaarsdam 1996) used videotape recordings to present real readers' responses and behaviours to written text. Lindgren (2005) used keystroke logging as input for writer reflection (see Van Waes and Leijten (2006); or the handbook for advanced users, detailing technical aspects, research backgrounds and applications: Sullivan and Lindgren (2006)). Van Steendam et al. (2008a, 2008b) and Raedts et al. (2007), both in combination with thinking-aloud and keystroke logging (see Degenhart, 2006) used Camtasia (screen recording, free trials at <http://www.techsmith.com/camtasia.asp>): this tool is easy to implement; recorded are actions on screen when working with word processors, PowerPoint, web-browsers, etc.; it also records audio input (thinking-aloud, and discussion in pairs). Easy to replay, and can be used as input for research, reflection, discussion, or as instruction content (two approaches for the same task: which is better?).

RECOMMENDATIONS

For future research into reader observation as part of writing instruction, we formulate two recommendations. First is to study the relation between learner characteristics and learning activities. Most interventions studies in writing education focus on main effects, irrespective of students' individual differences,

which can be significant. Meta-analyses do not report interaction effects, while their well-founded conclusions might be valid for only a part of the participating students. At least two types of individual differences are of interest when applying learning-by-observation in the writing classroom. First, the difference between high and low self-monitoring students, i.e., students with a tendency to let their task behaviour be guided by external or internal stimuli. Galbraith (1996) reported a strong interaction effect on idea generation between self-monitoring and mode of writing. High self-monitors (who are strongly directed towards rhetorical goals) tended to discover new ideas by making notes, but not by writing full text. Low self-monitors (directed towards dispositional goals, i.e., spelling out spontaneous thought) tended to discover new ideas by writing full text, but not by making notes. Thus, it is likely that low and high monitoring students may benefit differently from observational learning tasks. High self-monitors, by nature more focused on rhetorical aspects of writing, may benefit from feedback on the content of their text (their 'blind spot'), thus from observations of readers coping with content problems. Low self-monitors, by nature more focused on the intrinsic value, suitability or originality of text content, may benefit more from observation of readers dealing with rhetorical problems in their texts. A second type of individual differences to take into account is writing preference. Some students prefer to write in a planned and controlled way, relying on prewriting activities ('Mozartians'), while others like to move ahead intuitively, start writing, and rely on their capacity to shape and revise the text when the urge is felt ('Beethovians'). Kieft, Rijlaarsdam, and Van den Bergh (2008) found that students with a strong writing preference (either 'planning' or 'revising') learnt more from a writing course that was adapted to this preference. Consequently, adaptation of learning-by-observation to students' writing preference may be a useful idea. Students with a planning preference

might benefit from observation as a prewriting activity, or as feedback on planning problems. On the other hand, students with a revising preference may be better off receiving feedback on their first full draft, by observations of real readers coping with particular revision problems. In general, studying interactions between learner characteristics and learning activities helps to frame a theory of effective writing instruction. See Rijlaarsdam et al. (2004) for aptitude-treatment-interactions in observing reader responses.

A second recommendation is to include process measures as dependent variables in the research design (see Braaksma et al., 2002), using think-aloud techniques; Torrance et al., (2007), using a handy self-report technique). Adding these measures into the research design is advantageous in two respects: it helps to see which cognitive subprocesses are affected by the intervention, and it makes it possible to relate resulting text quality to subprocesses, which contributes to insight in effective writing processes (Rijlaarsdam and Van den Bergh, 2004).

For writing education practice, we recommend creating learning environments in which all roles or functions of the student participation model (Figure 30.1) are implemented; a community of learners where writing students can explore interactions between texts and readers. Nowadays information technology makes it easier to observe writing processes (screen recording and keystroke logging) and reading processes (think-aloud recordings and screen recordings), thus, we would recommend that teachers and their students collect such processes and use them for instructional purposes.

The learning activity of 'pre-testing your text by observing readers' responses' can be inspired by all kinds of methods used in the design of business and technical communication. Reader demonstrations as a prewriting activity that stimulates audience awareness; readers' responses as a postwriting activity that yields feedback for revision; protocol-aided revision; groupwise comparisons and

assessment of functional text qualities; demo's of complete writer-reader interactions by means of ample texts and recordings; recordings of observers who report on their findings—there is a large variety of roles and functions, and of instructional settings in which reader observations can help to improve text and/or to enhance audience awareness.

Even if students do not start out by writing, composing, or designing particular texts by themselves, they may find it useful to start as a 'researcher', studying the quality of a sample texts, documents, or hypertexts by observing their 'users' (usability testing). In this way, students can simulate descriptive research activities and accumulate knowledge that helps to understand 'what works' in written communication. This motivates students to start writing or improve their texts and to build up both genre and audience awareness.

To sum up, observation and inquiry are important learning activities in the writing classroom, stimulating the students' reflection both as writers and as readers. Most importantly, the methods presented here may assist teachers in promoting their students' self-assessment skills, in view of their life-long learning as communicators.

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