A MULTILANGUAGE ONLINE WRITING CENTER FOR PROFESSIONAL COMMUNICATION: DEVELOPMENT AND TESTING

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An online writing center developed at the University of Antwerp, Belgium, called Calliope, provides a modular platform aimed at enhancing learners' professional writing skills in five different languages: Dutch, English, French, German, and Spanish. It supports courses in business and technical communication. The current version includes modules on press releases in English, business letters in French, and minute taking in Dutch. Unlike many online writing centers, it is genre-specific and context-specific, it is highly interactive rather than linear, it uses a process approach to cater to different learning styles, it accommodates different writer profiles, and it is an instructional tool not connected to a physical writing center.

Keywords: online writing centers; press releases; writing processes; learning styles; self-efficacy; peer feedback

CALLIOPE, THE MUSE of writers, is the name of the online writing center developed at the University of Antwerp, Belgium. One of the first of its kind in Europe, the center allows learners to enhance their professional writing skills in one or more of five different languages: Dutch, English, French, German, and Spanish (a prototype version is available at www.calliope.be; see Figure 1).

This article describes the special features of Calliope and provides a preliminary assessment of the effectiveness of one of its modules.

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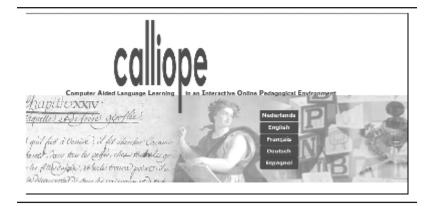


Figure 1. Home Page of the Calliope Online Writing Center: www.calliope.be

BASIC STRUCTURE OF EACH MODULE

Calliope reflects the pedagogical framework of social constructivism and problem-based learning (Evensen & Hmelo, 2000; Glasgow, 1997; Schwartz, Mennin, & Webb, 2001). It is constructed as a (half-)open environment that combines learner-guided learning and system-guided learning. Whereas learning objectives about process and product have been set in advance, learners can choose different paths to meet those objectives. At present, there are modules on the press release in English, business letters in French, and minute taking in Dutch.

As Figure 2 shows, each learning module divides into two branches: One tracks a subset of skills particularly applicable to that module, including theory and practice; and the other provides cases that help students apply those skills. For example, the module on press releases contains information on the following subjects: history, functions, topics, preformulation (matching the expectations of media outlets for such a genre), structure (start, headline, lead, paragraphs, boilerplate, end, disclaimer), style, reference, and quotations. In addition, there is a short bibliography for further reading. The content of the module is based on extensive research (e.g. Jacobs, 1999; Sleurs, Jacobs, & Van Waes, 2003).

The cases include the much-publicized September 2002 explosion at the ExxonMobil distribution terminal on Staten Island, New York. Each case takes learners through the different stages of the writing process. In the ExxonMobil one, students can compare their press release with the original from the company.

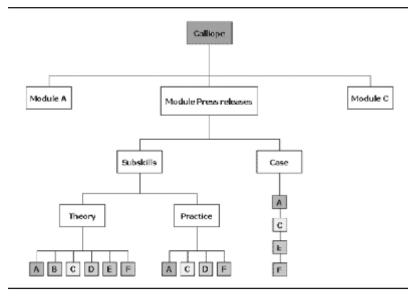


Figure 2. Basic Network Structure of Every Learning Module in Calliope

Cross-references between the branches help learners know where they are in the process and provide different approaches. Icons and textual elements help orient learners and invite them to interactively explore the module (see the Web site). The cases pose problems that learners must solve step by step. At any point as they work, they can go to the theory and practice branch to fine-tune any skills needed to solve the problem. Depending on their own preferences and learning style, learners may also choose to start the case without looking at the theory first. Whatever their approach, by the end of the session they have to master the theory and they should be able to produce an effective document.

PROCESS APPROACH IN CALLIOPE'S DESIGN

Most writing centers provide advice on subprocesses that characterize writing, like planning, formulating (or translating), and revision. Such advice is often grounded in statements about the recursive nature of writing. But the instruction itself is often presented linearly as a series of tips that inform learners. Instead, our approach is more interactive, a strategy that may reflect our different institutional context. For

example, the well-known writing center at Purdue University has both an online component and a physical presence. The center offers tutoring, both face to face and through e-mail. The online component complements this tutoring and disseminates general information to a larger audience (see owl.english.purdue.edu). The University of Antwerp, on the other hand, does not have a physical writing center and does not offer personalized tutoring. Students do most of their writing for specific business communication courses. Calliope is integral to classroom instruction and provides a preliminary learning path.

In the design of Calliope, the process leading to the end product, and not the end product itself, plays the central role. Learners are invited to think about different (nonlinear) possibilities to complete the task. We also opted for a context-based and genre-specific writing approach. Social aspects, characteristics of the writing setting, interaction with peers; all are examples of factors that might influence the organization of the writing process. General advice on writing does not necessarily match this need. The writing process leading to a press release, for example, might be quite different from that needed to compile a set of meeting minutes. We think the structure of the writing center should be flexible enough to adapt to these contextual differences.

We also emphasize metacognitive thinking; learners are encouraged to monitor and reflect on their own writing process. In the practice section, for example, we do this by showing them at various stages how experts solved the problem, and by presenting them with task materials created by their peers and annotated by experts or with videotaped process models of peers solving a writing problem while thinking aloud. For example, here are some expert comments on a student's headline for a press release in the ExxonMobil case:

Headline:

Flames at ExxonMobil's Distribution Terminal Lighten Staten Island

Expert Commentary

Your headline is rather long and it focuses on the bad news of the explosion, using the rather scary, direct vocabulary of flames lighting the sky

Use more neutral words and try to find a positive angle on the story (fire under control?)

ADAPTING TO DIFFERENT WRITING PROFILES

Research has shown that different people organize their writing activities differently, depending on the genre, the writing medium, the task, the deadline, or the social environment. Some writers depend heavily on preliminary planning whereas others prefer to start writing straight away and postpone planning to a later stage in the writing process. Another advantage of Calliope is that it takes these different preferences into account and explicitly supports different profiles.

In an early article, Hayes and Flower (1980) developed a taxonomy of writing profiles. Elaborating on this and other concepts, Van Waes and Schellens (2003) distinguished between five different writing profiles (see Table 1).

For someone who fits the first writing profile, an initial planner, Calliope offers an elaborate set of planning strategies for each element of, for example, a press release. Advice on revising cannot be put off until the end of the writing process but has to be offered immediately to allow writers to make revision decisions on different text levels and at every moment in the writing process.

First draft writers, the second profile, are offered a different approach. Such writers start writing almost immediately, with hardly any initial planning of structure or the content. They revise the first draft of their text quite often and evaluate it thoroughly. In need of more elaborate writing support at discrete stages in the writing process, this writer can access reference-based guidance in the theoretical component of the module.

In the future we would like to build an assessment tool to help learners identify and explore their own writing profiles. When learners are more aware of their preferences—and the strengths and weaknesses of their preferred profiles—they will organize their writing activities more consciously, taking more advantage of the flexibility of the learning module.

PRELIMINARY ASSESSMENT OF CALLIOPE'S EFFECTIVENESS

In the spring of 2004, we tested one module of Calliope, the press release in English, with a single class of 36 postgraduate students of business communication at the University of Ghent, Belgium. First, we were interested in whether learners felt more confident about writing press releases after having gone through the module. Second, we

Table 1. Short Description of Five Writing Profiles

Profile 1: Initial planners

Initial planners tend to make relatively few revisions, especially not during the second writing phase (after having completed a first draft). They devote quite some time to initial planning.

Profile 2: First draft writers

First draft writers tend to focus quite explicitly on the first draft of their text. They start writing their text almost immediately and devote little time to initial planning. During the development of the first draft a lot of revision takes place. Their writing process is highly fragmented and characterized by a high degree of recursion.

Profile 3: Second draft writers

Second draft writers postpone most of their revisions to the stage in which they are rereading/reviewing their first draft, that is, the second writing phase. Many of these revisions are made at a level above the word, and the number of revisions is high in relation to the total number of words in the final text. Second draft writers spend quite some time on initial planning, but once they start writing, they pause relatively infrequently. However, any pauses they do make are relatively long. There is only a slight degree of recursion.

Profile 4: Nonstop writers

Nonstop writers revise very little. The proportion of words to number of revisions is correspondingly high in the final text. They also make relatively few revisions above the level of the word. Nonstop writers hardly ever pause while writing. They tend to spend little time on initial planning and complete their writing task more quickly than others.

Profile 5: Average writers

Average writers combine characteristics of the other writing profiles and do not have a clear profile.

Table 1: Short Description of Five Writing Profiles (Van Waes and Schellens, 2003)

analyzed peer feedback data to see if learners' comments on each other's texts provided information about how effective the Calliope module is in acquainting them with the main issues involved in writing press releases.

All students were nonnative-speakers of English whose mother tongue was Dutch. At the outset, the students filled in a self-efficacy questionnaire that consisted of 26 items relating to the main aspects of press release writing (see Appendix A). Next, they went through the press releases module on the Calliope Web site, at the end of which they were requested to write a press release based on the ExxonMobil case.

After finishing a first draft, students were instructed to write 100 to 150 words of commentary on the press releases written by two or three of their peers (and to point out simple errors on a hard copy of the

release). They used the checklist in Appendix B to frame their comments.

Students then used that peer feedback to revise their own press releases. Finally, some 4 weeks after the start of this study and before handing in their revised versions, the students were asked to do the initial self-efficacy test again. No classroom instruction or teacher commentary intervened before this second test.

Self-Efficacy

Bandura (1986) introduced the term *self-efficacy* in 1977. He defined the concept as "people's judgements of their capabilities to organize and execute courses of action required to attain designated types of performance" (p. 391). In evaluating *writing* self-efficacy, for instance, it is not the learners' writing performance itself that is evaluated but their own judgment on how confident they are about writing in general and about mastering the subskills that are necessary to complete specific writing assignments successfully. Pajares and Kranzler (1995) suggested that learning methods should "more effectively deploy appropriate cognitive strategies during the problem-solving process, but the challenge is to accomplish this without lowering [learner] confidence and optimism" (p. 440). According to their theory, self-assured learners approach difficult tasks as challenges to be mastered rather than as threats to be avoided.

So one of our objectives with Calliope was to help learners develop realistic but more positive expectations of their own writing competencies. To evaluate the self-efficacy of the learners in our study, we adapted a questionnaire that was developed by Raedts, Daems, and Van Waes (2003; Appendix A). The questionnaire was originally designed to assess writing self-efficacy in the context of academic writing; we have adapted the questions to the context of business communication. In this questionnaire both product- and process-related aspects of writing are addressed, as can be seen in the following examples:

I'm able to come up with an adequate title for my press release (product).
I'm able to revise a first version of my own press release in such a way that the structure of my text will be improved significantly (process).

Each statement was scored between 0% and 100%, a score that represented the learners' confidence about their competency at that aspect. We obtained a Cronbach's alpha coefficient of .86 for the first self-efficacy test and a coefficient of .94 for the second, which proves the high reliability of the instrument.

Table 2. Self-Efficacy Scores for the Items With the Three Largest Differences (Minimum Score: 0% to Maximum Score: 100%)

	Mean Before	Mean After	t	df	Significance (Two-Tailed t Test)
Preformulation	67.67	77.34	3.80	25	.001*
Basic structure	71.13	81.62	4.34	25	.000*
Lead	62.42	71.03	3.46	25	.002*
Total	72.78	78.29	5.59	25	.000*

^{*}Significant at the .05 level.

As Table 2 shows, the total average self-efficacy score for the second test is significantly higher than that for the first (5.59 percentage points). Remarkably, there is an increase on all of the 26 items. The rise in learner confidence is the highest for the concept of preformulation, for writing up the basic structure of the press release, and for the lead paragraph. Not unexpectedly, these items constitute the main focus of the Calliope module on press releases that the learners had studied. The self-efficacy scores that hardly increased refer to elements that are not explicitly supported in the learning module, like the cohesion and coherence of written text and grammatical issues. It follows that our self-efficacy test provides interesting evidence of the effectiveness of our Calliope module in boosting the learners' confidence about writing press releases. Clearly, because there was no classroom instruction before the second test, the result can only be attributed to the Calliope module.

Effectiveness of Peer Feedback

Another test of the Calliope module concerned the effectiveness of peer feedback. To measure this, we looked at the aspect of press release writing for which the self-efficacy tests reported the largest effect, namely, the writing of the lead. Our hypothesis was that if learners were confident about how to write a lead, that confidence would translate into detailed discussion of the quality of their peers' leads.

To test our hypothesis, we examined a representative sample of 10 of our learners: 5 who reported the largest effect for lead writing and 5 who reported the lowest or—in 1 case—even a negative effect (see Table 3). We excluded a single learner who reported a disproportionately large fall in confidence and who we therefore consider to be an outlier. We also tested a second hypothesis, namely, that high learners

Table 3. Mean Self-Efficacy Scores of Learners With the Highest and the Lowest Learning Effect Reported

	High Learners			Low Learners	
	Before	After		Before	After
A	40%	60%	Н	65%	60%
В	50%	70%	I	60%	70%
C	50%	80%	Ī	50%	60%
D	40%	80%	K	65%	65%
E	30%	60%	L	60%	70%

NOTE: Ten students were involved in the analysis. The first group is labeled A to E, the second H to L.

produce more comments on lead writing than low learners and that, generally speaking, their comments are different in nature.

For both hypotheses, we used a revised version of the model developed by Liu and Sadler (2003) to distinguish three characteristics of feedback:

- 1. Nature: revision-oriented comments versus nonrevision-oriented comments
- 2. Type: evaluation versus suggestion
- 3. Area: comments on global areas (idea development, audience, and purpose and organization of writing) versus comments on local areas (copyediting on word choice, grammar, punctuation, and layout)

Here are two examples from our data illustrating this categorization:

- "Your lead is very good" is a nonrevision-oriented evaluation on the global area.
- "Write your lead in bold or in italics" is a revision-oriented suggestion on the local area (note also that there can be no nonrevision-oriented suggestions).

We first coded the peer feedback given by the 10 learners. This coding covered both the marginal peer comments written on the drafts themselves and the comments written on the peer review sheet. It was based on meaningful units; that is, comments can range from a single word like "ExxonMobil" written on the word "company" (a local revision-oriented suggestion) or even a question mark on the verb "allege" introducing a quotation (a local revision-oriented evaluation) to a whole paragraph:

"The quote in the second paragraph is quite long. There is a contrast between expressing sympathy because someone has died and apologising for the inconvenience by the smoke. Perhaps you should split the quote in two and add a bridge" (a global revision-oriented suggestion).

We did not take into account any comments that were unrelated to the specific skills required for writing a lead. This means that as far as local feedback is concerned, we have counted in comments related to layout but not spelling or grammar.

Results for Hypothesis 1

Hypothesis 1 about the relation between the level of confidence and the quality of the feedback is confirmed by our data. Let us take the nonrevision-oriented feedback first. If one or two learners simply borrowed the global evaluative statement from the checklist ("The lead is complete"), most other learners gave much more specific comments, which demonstrates that they can actively apply the advice they have learned about in the Calliope module. Here's a more specific global evaluation:

"Your lead is very good because it summarizes the press release very well."

The following comment, in addition to referring to the global (information) in rather general terms, also deals with the local (layout):

"The lead is well written with a good layout, it provides the reader core information about what has happened."

For the revision-oriented comments, we have to distinguish between evaluations and suggestions. Again, a lot of the revision-oriented evaluations are quite specific and detailed, either globally:

"The lead paragraph lacks some important information. You only talk about the result of what has happened, but from this paragraph we do not know what really happened, we only get to know that in the second paragraph."

"It might be confusing to talk about 'Bouchard Barge Company' without explaining what they have to do with it. This information follows in the first paragraph, but maybe that's too late."

"The lead misses some information about the victims. It's quite rude to mention this fact only in the third paragraph."

or locally:

"It's not quite clear if there is a lead or not. That is probably just a matter of layout."

Finally, the fact that the learners made quite a number of suggestions serves as the clearest evidence of the effectiveness of the Calliope module on press releases. Here is a global suggestion:

"In the lead you have focused on what is really important but you should also include the 'who,' i.e. the number of victims caused by the fire."

The next few examples are at the local level:

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"You should mention the hour when the press release is written."
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The specific and detailed feedback on writing leads quoted above shows how confident our learners have become about this matter. Hence, our peer feedback data confirm the results derived from the self-efficacy testing.

Results for Hypothesis 2

For the second hypothesis, that high learners make more comments on lead writing than low learners and that, generally speaking, their comments are different in nature, we have calculated the comments on lead writing for each of the categories spelled out above. Broadly speaking, using Liu and Sadler's (2003) classification and following our main hypothesis on the impact of increased learner confidence about writing a lead, we would expect high learners not just to make more comments on lead writing but also to make more suggestions and more revision-oriented comments. Clearly, if learners feel more knowledgeable about a particular skill, it is fair to assume that they will detect more problems—in addition to making more nonrevision-oriented comments—and to propose more solutions to them instead of only signaling the problems.

To begin with, as far as the number of comments is concerned, our hypothesis is not confirmed: The low learners actually made more comments on their peers' leads than the high learners:

High learners: 15 comments on lead writing in 13 sets of feedback (average 1.15)

Low learners: 24 comments on lead writing in 15 sets of feedback (average 1.60)

[&]quot;Maybe you can add the date of the fire and the name of the company."

Perhaps even more surprising, the low learners made more revisionoriented comments and more suggestions than their high-learning counterparts.

Revision-oriented versus nonrevision-oriented High learners: 7 out of 15 comments were revision-oriented (46%) Low learners: 14 out of 24 comments were revision-oriented (58%)

Suggestions versus evaluations
High learners: 4 out of 15 comments were suggestions (26%)
Low learners: 14 out of 25 comments were suggestions (58%)

Clearly, our second hypothesis is not confirmed. There may be various reasons for this. Perhaps our sample was too small (13 sets of feedback from 5 different high learners; 15 from 5 different low learners). Alternatively, the categories drawn from Liu and Sadler's (2003) model may not be relevant to the high-learner versus lowlearner distinction. Third, because the learners provided feedback on different sets of two or three press releases each, the quality of the leads in the press releases they commented on may have affected our results: Perhaps the high-learners made fewer revision-oriented comments because they were asked to provide feedback on press releases of which the leads happened to be simply better than those in the press releases commented on by the low learners. Therefore, it would be good to complement the present study with a follow-up study in which learners are invited to comment on the same press releases. Finally, and perhaps most interesting, our data may indicate that providing feedback constitutes an integral part of the learning process. Even those who do not feel very confident in the area of lead writing may well make a lot of comments, a lot of revisionoriented comments, and a lot of suggestions on their peers' leads. If this is true, then peer feedback should be more fully integrated into the online writing environment. In addition, the figures for low learners may reflect the general uncertainty of learners who have not received any teacher feedback.

CONCLUSION

Although we have only a preliminary assessment to go on, the approach we have taken to creating Calliope does seem to be a successful one, and we are thus encouraged to continue its development.

APPENDIX A Self-Efficacy Questionnaire (Translated Into English)

- 1. I can write a good quotation for a press release.
- 2. I can write a press release which contains all the information that journalists need for their news report.
- 3. I can write a press release without spelling errors in English.
- 4. I can write an attractive press release.
- 5. I can write a press release with a good structure (headline, lead, paragraphs, boilerplate, etc.) in which every part plays its own role.
- 6. I can write a press release in clear English.
- 7. I can write a press release without grammatical errors in English.
- 8. I can write a press release without jumping from one idea to another. I can connect the different paragraphs in a coherent way.
- 9. I can write a press release that can easily be copied by the journalist, without too many changes.
- I can use sufficient variation in my word choice so that my press release doesn't get boring to read.
- 11. I can write a press release in a single unified style.
- 12. I can come up with a good headline for my press release.
- 13. I can use my peers' feedback to improve my original text.
- 14. I can improve the layout of my press release.
- 15. I can use sources to write up my own press release.
- I can use the right punctuation marks and put them in the right places in my text.
- 17. I can order information before I start writing a press release.
- 18. I can decide which information I will use before starting to write a press release.
- 19. I can write up a good lead.
- I can organize my planning in such a way that I can finish the press release in time.
- I can continue to motivate myself to write a good press release, even if the writing doesn't go smoothly.
- 22. I can think of ways of solving my problems if I get stuck in writing.
- I can come up with solutions to possible spelling or grammatical errors while revising my press release.
- I can rewrite the long, complicated, and confusing sentences in my first draft into clear sentences.
- I can adapt my first draft in such a way that the final version is a lot more coherent.
- I can concentrate on writing a text, even if there are a lot of disturbing factors around.

NOTE: Every statement was scored: minimum = 0 (not at all) to maximum = 100 (perfectly).

APPENDIX B Guidelines for Peer Feedback on Press Releases

Feedback given by:
Feedback on the press release written by:
Checklist
1. Topics ☐ The press release focuses on what's newsworthy. ☐ The press release contains just the right number of details. ☐ The press release sounds credible: not too pushy or promotional. ☐ The reader receives sufficient background information on the case. ☐ The reader receives sufficient background information on the company. ☐ The press release is not too long and not too short.
2. Preformulation ☐ The press release is fully preformulated.
3. Structure ☐ The headline is clear and focused. ☐ The lead is complete. ☐ The other paragraphs are interesting. ☐ The boilerplate is informative.
4. Reference ☐ Reference to ExxonMobil is fully preformulated.
5. Quotes ☐ The press release contains one or more interesting quotes.
6. Crisis communication ☐ The press release meets the requirements of effective crisis communication.
7. Language ☐ The language is correct. ☐ The language is clear. ☐ The language is attractive.
Feedback
Write a short text of 100 to 150 words in which you provide feedback on the press release using some of the points mentioned above. In addition, write down more detailed comments (from spelling mistakes to inadequate word choice) on a hard copy of the press release.

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