The Calliope online writing center developed at the University of Antwerp, Belgium, provides a modular platform aimed at enhancing learners’ professional writing skills. Drawing from the module on press releases it is first shown how Calliope caters for different learning styles and what the main features are of its process approach. Next, we will report on a preliminary investigation into the effectiveness of the writing center, using the results of learners’ self-efficacy testing as well as peer feedback data.

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, and one of the first of its kind in Europe. It is a modular platform that allows learners to enhance their professional writing skills and get feedback on their individual writing processes in five different languages, viz. Dutch, English, French, German and Spanish. At the time of publication, a prototype version is available at www.Calliope.be, featuring modules on press releases in English, business letters in French and minute-taking in Dutch. Crucially, Calliope is not supposed to replace regular classroom sessions; instead, it has been conceived as a complementary instrument to optimize learning.

In this article, we will first briefly present in what ways Calliope is different from existing online writing centers (cf. Inman 2000). In particular, we based our center on the pedagogical framework of social constructivism and problem-based learning (Glasgow, 1997; Schwartz et al., 2001; Evensen & Hmelo, 2000). We will show how we have tried to adapt the platform to different learning profiles as well as how we have created a process approach to writing. In the second part of this article, we will report the results of a preliminary investigation into the effectiveness of Calliope in enhancing learners’ writing skills. Throughout the article we will draw from the English-language press releases module to illustrate some of the claims we make. In designing this module we have used the results of extensive corpus-based research on press releases that we have been involved in (see e.g. Jacobs 1999) as well as more recent preliminary work on the process of writing press releases (Sleurs et al 2003).

1. The Calliope online writing center

1.1 Optimal adaptation to different learning profiles

It is a typical feature and indeed one of the unique selling propositions of e-learning environments that learners can go through them at their own pace, individually and independently. However, somewhat paradoxically most e-learning environments cater for a
single learning style, e.g. by means of wizard-like courses, and more or less disregard all other learning styles. In Calliope then we have set out to develop an environment that accommodates a wide range of different types of learners. To do so we have embraced the principle of problem-solved learning. It follows that Calliope is constructed as a (half-)open environment that allows different types of learners to create their individual learning paths.

In particular, we have opted for a combination of learner-guided learning and system-guided learning. While learning objectives about process and product have been set in advance, learners can choose from a wide range of learning paths to try and meet those objectives; generally speaking, these learning paths belong to one of the following two approaches: viz. a subskill-oriented approach (focusing on theory and practice) or a case-oriented approach.

Figure 1: Basic network structure of every learning module in Calliope

Figure 1 shows a broad outline of the modules in Calliope. In the subskill-oriented approach you find both theory and practice. The letters represent different, corresponding pages of content. The theory on writing press releases, for example, contains information on the following themes: history, functions, topics, preformulation, structure (start, headline, lead, paragraphs, boilerplate, end, disclaimer), style, reference, quotes, beyond press releases. In addition, there is a short bibliography for further reading.

For most of these themes, there are corresponding pages in the practice and case sections. Such cross-references are shown in the right frame of every page and indicated by a logo (see figure 2). In the left frame the structure of each module is shown, and the page currently being consulted is highlighted to give the learners a good orientation on the material at any time during the learning process.
In the case learners are faced with a communicative problem that they have to solve step by step. They can leave this case at any moment to go to the theory and practice to fine-tune any skills needed to solve the problem. It is even possible to start the case without looking at the theory first.

An example. In the module on writing press releases learners are presented with the facts of the much-publicized September 2002 explosion at the ExxonMobil distribution terminal on Staten Island, New York. They are asked to write a press release about the event. The case takes the learners through the different stages of the writing process for press releases, including the headline, the lead, the disclaimer, etc. At the end they can compare their press release with the original from ExxonMobil. In contrast with the exercises in the practice section, no annotated solutions are offered in the case. Instead, learners are asked to send their press releases to one or more peers, who will review them using a specially designed feedback form (with checklist). Finally, the press releases and the peer feedback are discussed and commented on by the teacher during the next classroom session.

The objective of this structured openness of the system is to invite learners to organize their individual learning processes according to their own preferences, taking into account their own learning profiles. Learners have to rely on self-regulation techniques and are to a large extent responsible for their own learning process. No matter which approach they choose, at the end of the session they have to master the theory and they should be able to produce effective press releases.

1.2 Creating a process approach to writing

Most writing centers offer a selection of subprocesses characterizing writing, e.g. planning, formulating (or translating) and revision. However, these stages in the writing process are
invariably offered in a linear instruction, through lists of tips for idea collection, approaches for revision, etc.

The trouble is that this linearity conflicts with the recursive character of the cognitive subprocesses which have been shown to dominate most writing processes. Therefore we have tried to create a more open and realistic non-linear writing approach by implementing process characteristics on different levels. In particular, it is not the end-product that plays a central role in the design of Calliope, but the process leading towards it. One way of focusing on the process is that at the end of each step in the case learners are invited to think about different (non-linear) possibilities to complete the task (see references to lead and boiler plate in figure 3). This process approach plays an important role at various levels and it has influenced the way in which the modules are constructed.

![Figure 3: Screen capture indicating non-linear writing process development](image-url)

In the rest of this section we will now further clarify our process approach by presenting a number of its central features.

**Writing process modules and metacognition**

In Calliope we aim at stimulating the learners’ metacognitive reflection about the different components of the writing process (planning, formulating, and reviewing), and we would like the learners to reflect on the importance of good and strategic monitoring of their own writing process. We do this by presenting them at various stages of the writing process with exercises solved by experts, task materials of peers annotated by experts, or videotaped process models of peers solving a writing problem while thinking aloud. Here’s an example, including the headline of a press release for the Staten Island ExxonMobil case referred to above followed by selected teacher feedback:
FLAMES AT EXXONMOBIL’S DISTRIBUTION TERMINAL LIGHTEN STATEN ISLAND

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?).

Writing process and context

We have opted for a context-based and genre-specific writing approach instead of a general writing approach, which means that we take into account the particular context of a specific genre. Social aspects, characteristics of the writing setting, interaction with peers are all examples of factors that might influence the organization of the writing process. Obviously, the characteristics of the writing process leading to a press release are entirely different from those that lead to a set of meeting minutes. The structure of the writing center should be flexible enough to adapt to these contextual differences.

Writing process and writing profile

Finally, we would like to refer to the connection between the process approach and the way we take different writing profiles into account. Research has shown that there’s no such thing as “the” writing profile. Different people organize their writing activities differently, depending on the genre, the writing medium, the task, the deadline or the social environment. One of the advantages of Calliope is that it takes these different preferences into account and that it explicitly supports different profiles.

In one of their earliest articles on the writing process, Hayes & Flower (1980) already developed a taxonomy of writing profiles. Van Waes & Schellens (2002) have elaborated on this and other concepts, and distinguish five different writing profiles (see table 1).

Table 1: Short description of five writing profiles

<table>
<thead>
<tr>
<th>Profile 1: Initial planners</th>
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<tbody>
<tr>
<td><em>Initial planners</em> 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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Profile 2: First draft writers</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>First draft writers</em> 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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Profile 3: Second draft writers</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Second draft writers</em> postpone most of their revisions to the stage in which they are rereading/reviewing their first draft, i.e. 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</td>
</tr>
</tbody>
</table>
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: Non-stop writers

*Non-stop 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. *Non-stop 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 don’t have a clear profile.

For the first writing profile, viz. the initial planners, Calliope offers an elaborate set of planning strategies: learners are systematically guided through the different elements of a press release for example. Advice on revising cannot be put off until the end of the writing process, but has to be offered immediately to allow writers to take revision decisions on different text levels and at every moment in the writing process.

Writers that are characterized by the second writing profile on the other hand, viz. first draft writers, are offered a different approach. Such writers start writing almost immediately, with hardly any initial planning of the structure or the specific content. They revise the first draft of their text quite often and evaluate it thoroughly. This kind of writer is in need of more elaborate writing support at discrete stages in the writing process, compensating for the lack of initial planning. In the theoretical component, reference-based guidance is offered to this type of writer.

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.

2. Testing Calliope’s effectiveness

In this part we would like to report the results of a preliminary investigation into the effectiveness of the Calliope module on writing press releases. First, drawing from the concept of self-efficacy, we will try to find out if learners feel more confident about writing press releases after having gone through the module. Secondly, we will address the question of effectiveness by analysing peer feedback data: in particular, we’ll try to find out if learners’ comments on each others’ texts provide information about how effective the Calliope module is in acquainting them with the main issues involved in writing press releases.

2.1 Procedure

The participants for this study consisted of a single class of 36 postgraduate students of business communication at the University of Ghent in Belgium in the spring of 2004. They
were all non-native speakers of English whose mother tongue was Dutch. At the outset, the students were asked to fill in a self-efficacy questionnaire that consisted of 26 items relating to the main aspects of press release writing (see appendix 1). Next, they went through the press releases module on the Calliope website, at the end of which they were requested to write a press release based on ExxonMobil Staten Island fire case referred to above.

After finishing a first draft, the students were instructed to give feedback on the press releases written by two or three of their peers. They were asked to use the checklist in appendix 2 as well as following these instructions:

*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.*

The next step was that the students used the feedback they had received from their peers to revise their own press releases. Finally, some four weeks after the start of this study and before handing in their revised versions to the teacher, the students were asked to do the initial self-efficacy test again.

### 2.2 Self-efficacy

Bandura 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” (1986: 391) In evaluating writing self-efficacy, for instance, it is not the learners’ writing performance itself that is evaluated, but their own judgement on how confident they are about writing in general and about mastering the subskills that are necessary to complete specific writing assignments successfully. Pajares & Kranzler (1995: 440) suggest 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.” 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 et al. (2003). 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, i.e. writing press releases. 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% which represented the learners’ confidence about their competency at that aspect. We obtained a Cronbach 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 % - maximum 100 %)

<table>
<thead>
<tr>
<th></th>
<th>mean before</th>
<th>mean after</th>
<th>t</th>
<th>df</th>
<th>significance (2-tailed t-test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preformulation</td>
<td>67.67</td>
<td>77.34</td>
<td>3.80</td>
<td>25</td>
<td>0.001 *</td>
</tr>
<tr>
<td>Basic structure</td>
<td>71.13</td>
<td>81.62</td>
<td>4.34</td>
<td>25</td>
<td>0.000 *</td>
</tr>
<tr>
<td>Lead</td>
<td>62.42</td>
<td>71.03</td>
<td>3.46</td>
<td>25</td>
<td>0.002 *</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72.78</strong></td>
<td><strong>78.29</strong></td>
<td><strong>5.59</strong></td>
<td>25</td>
<td><strong>0.000</strong> *</td>
</tr>
</tbody>
</table>

As for the results, table 2 shows that the total average self-efficacy score for the second test is significantly higher than that for the first (5.59 percent 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 (which means that the press releases should be written in a journalistic style that can easily be copied by the media), for writing up the basic structure of the press release and for the so-called ‘lead’ paragraph. Crucially, these items constitute the main focus of the Calliope module on press releases that the learners studied in between the two tests. On the other hand, the self-efficacy scores that hardly increase 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.

2.3 Peer feedback

The other question we would like to address here is whether the effectiveness of the Calliope module, as shown in the results of the self-efficacy tests, is reflected in the way the learners made comments on each others’ press releases.

From the wide range of peer feedback materials in our data, we would like to focus on one of the aspects of press release writing for which the self-efficacy tests reported the largest effect, viz. the writing of the lead. Our hypothesis is that increased confidence about how to write a lead means that learners will discuss the quality of their peers’ leads in detail. We’ll present a qualitative analysis of the feedback on lead writing to test this hypothesis.

For this study, we zoom in on a representative sample of ten of our learners: we have selected those five who reported the largest effect for lead writing and those five who reported the lowest or – in one case - even a negative effect (table 3), excluding a single learner who reported a disproportionately large fall in confidence and who we therefore consider to be an outlier. The set-up of these data brings us to a secondary hypothesis: viz. that the high learners produce more comments on lead writing than the low learners and that, generally speaking, their comments are different in nature. We’ll approach this issue in a quantitative way.
Table 3: Mean self-efficacy scores of learners with the highest and the lowest learning effect reported

<table>
<thead>
<tr>
<th></th>
<th>high Learners</th>
<th></th>
<th>low Learners</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>before</td>
<td>after</td>
<td>before</td>
<td>after</td>
</tr>
<tr>
<td>A</td>
<td>40 %</td>
<td>60 %</td>
<td>H</td>
<td>65 %</td>
</tr>
<tr>
<td>B</td>
<td>50 %</td>
<td>70 %</td>
<td>I</td>
<td>60 %</td>
</tr>
<tr>
<td>C</td>
<td>50 %</td>
<td>80 %</td>
<td>J</td>
<td>50 %</td>
</tr>
<tr>
<td>D</td>
<td>40 %</td>
<td>80 %</td>
<td>K</td>
<td>65 %</td>
</tr>
<tr>
<td>E</td>
<td>30 %</td>
<td>60 %</td>
<td>L</td>
<td>60 %</td>
</tr>
</tbody>
</table>

For both hypotheses, we’ll start from a revised version of the model developed by Liu & Sadler (2003). We have distinguished the following three characteristics of feedback:

1. nature: revision-oriented comments vs. non-revision-oriented comments
2. type: evaluation vs. suggestion
3. area: comments on global areas (idea development, audience and purpose and organization of writing) vs. comments on local areas (copy-editing on word choice, grammar and punctuation)

Here are two examples from our data illustrating this categorisation:

- “Your lead is very good” is a global non-revision-oriented evaluation.
- “Write your lead in bold or in italics” is a local revision-oriented suggestion (Note also that there can be no non-revision-oriented suggestions).

We have first coded the peer feedback given by the ten 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: i.e. comments can range from a single word like “ExxonMobil” written over the word “company” (a local revision-oriented suggestion) or even a question mark over the verb “allege” introducing a quote (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, like comments related to spelling or grammar.
Results for the main hypothesis

As for our main hypothesis, viz. that increased confidence about how to write a lead means that learners will discuss the quality of their peers’ leads in detail, we can see that it is confirmed by our data.

Let’s take the non-revision-oriented feedback first. If one or two learners simply borrow the global evaluative statement from the checklist (“The lead is complete”), most others are a great deal more specific, which demonstrates that they can actively apply the advice they have learnt 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 of 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 make quite a number of suggestions should serve as the clearest evidence of the effectiveness of the Calliope module on press releases. Here’s 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:

“You should mention the hour when the press release is written.”

“Maybe you can add the date of the fire and the name of the company.”
Generally speaking, all of 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 the secondary hypothesis**

For the second hypothesis, viz. that the high learners make more comments on lead writing than the 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 & Sadler’s classification, we would expect the high learners to make more comments on lead writing as well as more suggestions and more revision-oriented comments.

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:

**Number of comments**

High learners: 15 comments on lead writing in 13 sets of feedback (av. 1.15)
Low learners: 24 comments on lead writing in 15 sets of feedback (av. 1.60)

Perhaps even more surprisingly, the low learners made more revision-oriented comments and more suggestions than their high-learning counterparts while the number of local comments was relatively low for both groups

**Nature of comments**

*Revision-oriented vs. non-revision-oriented*

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

*Suggestions vs. evaluations*

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

*Local vs. global*

High learners: 2 out of 15 comments were local (13%)
Low learners: 6 out of 24 comments were local (25%)

Clearly, our secondary 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 & Sadler’s model may not be relevant to the high-learner vs. low-learner distinction. Thirdly, since 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. Finally, and perhaps most interestingly, our data may indicate that providing feedback constitutes an integral part of the learning process: what we mean is that even those who do not feel very confident in the area of lead
writing may well make a lot of comments, a lot of revision-oriented 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.

By way of an afterthought: it should be borne in mind that the second self-efficacy test was done before the learners received feedback from the teacher. Hence, the figures for the low learners may partly reflect the uncertainty of learners who have not received any teacher feedback.

Bibliography


Appendix 1

**Self-efficacy questionnaire (translation into English)**
Every statement was scored: min. = 0 (not at all) – max. = 100 (perfectly)

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.
10. 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.
15. I can use sources to write up my own press release.
16. 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.
20. I can organize my planning in such a way that I can finish the press release in time.
21. 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.
23. I can come up with solutions to possible spelling or grammatical errors while revising my press release.
24. I can rewrite the long, complicated and confusing sentences in my first draft into clear sentences.
25. I can adapt my first draft in such a way that the final version is a lot more coherent.
26. I can concentrate on writing a text, even if there are a lot of disturbing factors around.
FEEDBACK 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.
Authors

Geert Jacobs is an assistant professor of English and Business Communication at the University of Ghent in Belgium. He received a PhD in linguistics in 1997 from the University of Antwerp, where he wrote a dissertation on press releases. His research focuses on the study of professional and institutional discourse in a pragmatic perspective.

Luuk Van Waes is a professor of Business and Technical Communication at the University of Antwerp in Belgium. In his research, Van Waes focuses on different aspects of writing in digital environments (hypertext, speech technology) and on the development and evaluation of methods for writing research. Together with C. Neuwirth and M. Leijten he is editing a new book on ‘Writing and Digital Media’.

Liesbeth Opdenacker is a research fellow at the University of Antwerp in Belgium. Before joining the University, she worked as a consultant and web developer in a company specializing in interface design. Together with Luuk Van Waes she started the Calliope-project in 2001.

The project was first funded by the Flemish Community till 2003, and the prototype received a Best Practice award by the European Commission for its innovative approach to language learning. Currently the project is being further developed in the context of Scribani, a Minerva project funded by the European Union.

Contact

Geert Jacobs: geert.jacobs@ugent.be
University of Ghent
Hoveniersberg 24, B 9000 Gent, Belgium
tel: +32 9 264 35 29 - fax: +32 9 264 41 76

Luuk Van Waes: luuk.vanwaes@ua.ac.be - www.ua.ac.be/luuk.vanwaes
University of Antwerp
Prinsstraat 13, B 2000 Antwerpen, Belgium
tel. +32 3 220 40 57 – fax: +32 3 220 47 99

Liesbeth Opdenacker: liesbeth.opdenacker@ua.ac.be – www.scribani.org
University of Antwerp
Prinsstraat 13, B 2000 Antwerpen, Belgium
tel. +32 3 220 40 91 – fax: +32 3 220 47 99