Governmental miscommunication does not necessarily occur more often than miscommunication in institutions like law or health care (Martindale et al. 1992; Sarangi and Slebrouck 1996; Renkema 2003). However, governmental problems with officialese and bureaucratese seem more serious, because all members of a society are confronted several times a year with official documents; hence the popularity of actions like plain language movements and the many attempts to redesign governmental forms and letters. But until now, the results of governmental attempts at plain language have been more or less disappointing. For example, over the past twenty years, in The Netherlands, at least twenty official attempts have been made to clarify official documents (for more information about the research in The Netherlands, see the papers collected in Janssen and Neutelings 2001). A remarkable fact is that the Dutch government decided in 2007 that all governmental forms and letters should be readable for all citizens, without giving a clear framework for the implementation of this major decision. In this chapter I provide a framework that can be used in this endeavour, not only in The Netherlands but also where governments have not yet succeeded in producing clear or plain documents.

The notions of document design and document quality are elaborated on from the perspective of governmental communication, before introducing this framework for design and quality research. Two examples of its use in research conducted in collaboration with professionals active in governmental departments follow. The first example is research into tax forms and the second has to do with official letters. Strategies for new research and a plea to combine academic insights and professional experience conclude this chapter.

Professionals, especially those with long experience in civil service and legislation, are usually not very enthusiastic when confronted with proposals for
improving documents. In their view, minor changes at sentence and word level will be insufficient to make a document readable, so in many cases the restyling has as a side effect content changes. For them, the real problem is not the language but the content: the documents have the same level of intricacy as the society. However, other professionals, those with long experience in public relations and counselling, argue that even minor changes can help or encourage citizens to cope with the intricate content of forms and letters. This controversy means that, in research on redesign, it is not enough to look only at the formulation. The content level also has to be taken into consideration.

Another intriguing problem is the following. Applied research on institutional communication has resulted in many lists of advice concerning writing good documents. But employees faced with handbooks about style and structure are very rarely in situations that allow them to implement all of this advice in their writing. Even if it was possible to agree about what makes a well-designed document, it remains unclear how to transfer this knowledge to writers in the civil service. Many managers in governmental departments are painfully aware that bad writers will never become good writers. This is the reason that the quest for easy-to-apply rules is never-ending. Thus rules like ‘Always use always “in-between” headings in a long letter’ or ‘Use pictures whenever possible’ can be considered as a sort of document ‘make-up’. But poorly written documents may need such make-up. If they look better with some in-between headings and pictures, perhaps the improved look gives readers some support as they attempt to cope with the content.

From these two problems it can be deduced that, in redesigning documents, content, structure and presentation each play a role in document design. One of the most challenging research problems is determining how these levels interact with the level of formulation.

Redesigning documents is one thing, but the redesign is of little use if it does not improve understanding. Over the past decades, research on document quality has focussed mainly on text evaluation. For example, readers might be asked to fill in seven-point scales or to be videoed thinking aloud while filling in a form. However, text evaluation is only one aspect. Research into real understanding seems more important: how many mistakes are made while filling in the old versus the new version of a form? A form with a photograph, for example, could be evaluated as more attractive than a form without pictures, but if the new version allows as many mistakes as the old version, how can the extra costs for the design of a renewed document be justified?

Furthermore, document quality cannot be defined only from the perspective of the receiver. If producing better documents costs the sender more time and money, then the possible benefits for the receiver could be neutralized by the drawbacks for the sender. Hence, research into document quality cannot be
confined to ‘assessment research’. Economic research is also needed, for example, to question whether a renewed document results in more or fewer phone calls or face-to-face contacts in which citizens ask for more information. It could easily be the case that plain information prompts citizens to ask further, detailed, questions. The extra costs for the sender could neutralize benefits to the receiver.

A commonly neglected aspect of document quality is the image of the sender. Even when a renewed document does not result in a better evaluation and understanding, or fewer mistakes or phone calls, a new document could be preferred if it helps create a better image of the government. If readers judge the government to be more reliable or less bureaucratic after reading a renewed document, this could encourage them to make an extra effort when filling in more difficult forms in future.

A framework for design and quality research

The CCC model

On the basis of comments made by experts and laypeople in discussions on document quality, the CCC model has been developed (see Renkema 2001) in which fifteen evaluation points are presented within a coherent, hierarchical whole.

<table>
<thead>
<tr>
<th>Correspondence</th>
<th>Consistency</th>
<th>Correctness</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Type</td>
<td>1. Appropriateness</td>
<td>2. Purity of genre</td>
</tr>
<tr>
<td>D. Wording</td>
<td>10. Appropriate wording</td>
<td>11. Unity of style</td>
</tr>
</tbody>
</table>

This model is based on three criteria: correspondence, consistency, and correctness. The first criterion, correspondence, is the most important. Good ‘correspondence’ means that the sender achieves a goal and the document fills a need for the receiver. That goal could be presenting information, presenting a
good image, diminishing mistakes in forms, having lower costs in contacts with clients, etc. And of course, the needs of the reader could be getting information, hearing arguments for or against something, being directed (through an operating instruction), etc. Therefore, the quality of a document is to a great extent based on the interplay — the correspondence — between sender goals and receiver needs. When searching for the balance between sender and receiver, we have various choices. This explains the second criterion: consistency. The quality of a document is also affected by the sender's ability to maintain the choices made (e.g. a principle of structure, a manner of wording, layout, etc.). The third criterion, correctness, requires the document to contain no mistakes, whether in content or in form; for example, the document should not contain any false information or incorrect word choice(s).

The three criteria are applied to the five levels that can be distinguished in document analysis: document type, content, structure, wording, and presentation. The CCC model thus contains fifteen evaluation points that can be used with any document type. The evaluation points have to be worked through from top to bottom and from left to right, to reflect their organization according to the relative weight they have in a 'default' communication situation. This means, for example, that if a response letter turns out not to be the appropriate means of communication, evaluation after the first point of evaluation under document type is useless, and if the letter is lacking in quality of content, then evaluation of the wording will have to be postponed until the content has been improved.

The CCC model at work

For the purpose of illustration, here is a short explanation based on a general and well-known type of document, the response letter.

A. Type
1. Appropriateness
   A response letter is only appropriate if a letter is really needed. If the question is not clear or if further consultation is necessary, a response by telephone is to be preferred.
2. Purity of genre
   If a letter contains a lot of background information that is of only secondary importance to the question, a short response letter with reference to enclosures or other documents would be a better solution.
3. Genre rules
   A letter has to contain a salutation, a signature, Internet address, etc. and a phone number for further contact.

Figure 10.1 The CCC model, implemented for a response letter

(continued on p. 177)
(Figure 10.1 continued)

B. Content
4. Sufficient information
   The letter should adequately answer the questions that were asked, and should
   not contain irrelevant information.
5. Agreement between facts
   The letter should not be self-contradictory.
6. Correctness of facts
   The answers given should be correct.

C. Structure
7. Sufficient coherence
   If the ordering of paragraphs is illogical, or if the connection between sentences is
   unclear, the letter scores low on coherence.
8. Consistent structure
   A letter should not change structure halfway through (e.g. consistent use of one
   paragraph per question).
9. Correct use of linking words
   For example, if therefore is used, the link with the previous sentence should be
   clear.

D. Wording
10. Appropriate wording
    Sentence structure and choice of words must be neither too difficult nor too easy.
    Also, a middle course has to be steered between too much terseness and long-
    windedness, between too formal and too familiar. The quality of a document is
    also negatively influenced if the author fails to strike the proper tone. Addressing
    the reader patronizingly or arrogantly has repercussions for the transmission of
    information.
11. Unity of style
    Once the author has decided on a certain style (e.g. formal wording), no words
    should be inconsistent with that style (e.g. a very informal word).
12. Correct syntax and choice of words
    The document should not contain sentence fragments or run-on sentences,
    incorrectly used prepositions, etc.

E. Presentation
13. Appropriate layout
    Because receivers are exposed to an abundance of information these days, the way
    a message is presented is becoming increasingly important. The quality of a
    document is negatively influenced if the layout of the document fails to support
    the goal of the sender or if the receiver's attention is distracted from the main
    content.
14. Adaptation of layout to document
    The layout is maladapted to the document if, for instance, extra blank lines or
    tables do not support the content.
15. Correct spelling and punctuation
    The document should be spelled and punctuated correctly.
The CCC model and the fixed order of five times three evaluation points results in a systematic and well-reasoned framework for document design and quality research. This is an important improvement over more subjective and unsystematic analyses, in which it is very often unclear according how documents have to be (re)designed.

**The function of the model**

In the CCC model, the quality assessment of a document is based mainly on the correspondence between sender and receiver. Not only are the goals of the sender important but also the needs or expectations of the reader. In a response letter, the sender’s goal is, of course, that the questions are answered adequately. The time this takes is part of the quality of the interaction. In other words, effectiveness is more than just ‘sufficient information’ or ‘clear wording’ but provokes the appropriate response. Thus effectiveness can also mean that the document is worded in such a way as to show that the institution sending the document is reliable, provides room for negotiation, or makes clear that in future the client will have other opportunities to contact the sender.

Thus the term *effectiveness* connects to many different aspects of what is vaguely referred to as ‘communicative quality’. This has many aspects, and the CCC model provides only a framework for a reasoned overview of those that might affect effectiveness. The most important factor in effective communication is ‘type’ or ‘means of communication’. For instance, if a brochure is considered sufficient to achieve a change in attitude, or if management thinks a short information film will suffice when a merger lies ahead, it makes almost no sense to consider any other means of communication. If in those instances one were to consider other means of communication, the norms for effective communication would be sinned against ‘on the highest level’.

The model also makes it clear that content is in fact much more important for effective communication than is structure or presentation. If research into effective communication is limited to comprehensible or attractive wording or good presentation, then only the exterior of the message is considered. It goes without saying that communication will become less effective if the presentation is deficient or if the wording is less than ideal, but such imperfections are much more superficial and therefore easier to correct than, for example, faulty content.

The CCC model makes it possible to check which factors can influence effectiveness per document type or means of communication. For a response letter, for instance, evaluation point 3, genre rules, not only means that the letter has to meet the general demands of the genre, but it should also indicate how quickly an inquirer should receive an answer. Similarly, evaluation point 4, sufficient information should include which information the receiver should
get, etc. The CCC model in fact serves as a checklist in which all the different aspects of effectiveness are related to one another.

However, the CCC model does not solve the problem of quality assessment. The model only points out the factors that have to be focused on in quality research. In the most important column, the column of correspondence, the evaluation points contain such words as sufficient or appropriate, without mentioning the criteria used to determine whether something is sufficient or appropriate. An external measure to determine effectiveness is therefore still needed. For evaluation point 4, concerning content, such an external measure could be formed by the judgement of the readers (on whether the questions that were asked have indeed been answered) and, with respect to the question of whether all necessary information has indeed been given, by the judgement of experts. Thus the CCC model serves as a general framework for design and quality research; its application to two research projects is described below.

Improving a tax form

In many societies the national tax department is criticized for ‘inefficient’ or ‘overly difficult’ forms. Often, attempts are made to improve these forms. A good example is a tax form in The Netherlands through which elderly people have the possibility to reduce their payments because of special expenses related to chronic illness. Following is one example of such a possibility.

Expenses for clothing and linens

Did you have extra expenses for clothing and linens as a result of an illness or disability in the past calendar year? If this illness or disability lasted longer than a year, you can declare a fixed amount, also if your expenses were less than this amount. For a whole year this amount is €310 per person. But if the expenses you incurred were higher than €620 you can declare a fixed amount of €775. You can declare an amount for your spouse as well if he/she was ill or disabled for longer than a year.

Figure 10.2 Excerpt from a Dutch tax form

The form designers of the tax department wanted to make this form more accessible. They added information (the content level) and a photograph (the presentation level). The added information contained a general example based on the situation of an ‘average taxpayer’. This information concluded with a question, answered by the person in the photograph. This redesign was inspired by the new communication style of the Dutch tax department, focusing on an image with the key concepts nearness and familiarity.
Table 10.2  A section of the tax form, with example and photograph

<table>
<thead>
<tr>
<th>Extra expenses for clothing and linens as a result of a long illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
</tr>
<tr>
<td>Mrs. Tamminga: ‘In April 2006 I became seriously ill. I’m much better now, luckily. But from the beginning of 2007 up to and including May I was in a wheelchair. Because of that I spent €235 on alterations and wear of my clothes. Can I declare these expenses?’</td>
</tr>
<tr>
<td>photograph</td>
</tr>
<tr>
<td>Anja Tulp of the TaxPhone:</td>
</tr>
<tr>
<td>‘Mrs. Tamminga was ill for more than a year, five months of which was in 2007. In that period, she had extra expenses. She can declare a fixed amount for these expenses. This amount is €310 per year per person. In Mrs. Tamminga’s case it concerns five months. So: 5/12 × €310 = €0130.’</td>
</tr>
</tbody>
</table>

Did you have extra expenses for clothing and linens as a result of an illness or disability in 2007? If this illness of disability lasted longer than a year, you can declare a fixed amount, also if your expenses were less than this amount. For a whole year this amount is €310 per person. But if the expenses you incurred were higher than €620 you can declare a fixed amount of €775. You can declare an amount for your spouse as well if he/she was ill or disabled for longer than a year.

The fixed amount for extra expenses for clothing and linens in 2005, for you and your spouse: €____.00

The real functioning of a form

In this research (for a fuller presentation, see van Wijk and Arts, 2008) four versions of a form were used: (a) the original version, (b) a version with only examples added, (c) a version with only photographs added, and (d) a version with examples and photographs added. Each version was presented to eighty people belonging to the target group of the form (elderly people). They were asked to fill in an enquiry containing questions about their attitude to tax forms, the image of the tax department and several other questions, in order to make it possible to link results to characteristics of respondents. One of the most important tasks for them was to use one of the four versions of the form to help them answer a question about a special case. This case (see Figure 10.3) had been designed in collaboration with form designers and tax employees, all professionals who agreed that the case was easy to handle.
The case

As of last summer, Mr. and Mrs. Pieters had been married for 36 years. Mr. Pieters is 67 years old and enjoys his retirement; Mrs. Pieters is 57 years old and has been happily working for many years in the office of a sawmill. In January 2006, she had to undergo complicated thyroid gland surgery. Because of complications, her recovery took much longer than expected. All in all, she was on sick leave for more than a year. She was not able to work in the first three months of 2007 but she did work the remainder of the year. In the first quarter of 2007, Mrs. Pieters spent €240 for extra clothing and linens.

Assignment

Determine for the question on the form about ‘Extra expenses for clothing and linens as a result of a long illness’ which amount Mr. Pieters should declare.

Figure 10.3 The case and assignment

After handling this case the respondents were asked to fill in a questionnaire and to rank the document’s overall quality, informativeness, attractiveness, and need for information.

Before starting this research, professionals (tax employees, form designers, PR consultants) were asked about their expectations. Their responses were:

1. Content quality
   About 70 percent of the respondents will give the right answer (€77.50) for the case.

2. Overall quality
   The report marks will be higher for the added versions than for the original one, and about two percentage points higher for the full version (d).

3. Informativeness
   The versions with added examples will be judged higher on informativeness than the version without examples.

4. Attractiveness
   The versions with added photos will be judged higher on attractiveness than the version without photographs.

5. Need for information
   The versions with added examples will have a lower score on need for information than the versions without examples.

Form testing

The first and most important question was whether citizens were able to give the right answer in a case the professionals saw as easy. The results (Table 10.3) are shocking. All versions performed far below the estimated 70 percent. If we have a closer look at this part of the form (see Table 10.2), we can see that the
information that was meant as additional is, in fact, necessary to give the correct answer: it is not the total amount of €310, but only three months, i.e. a quarter of this amount, €77.50. But even with the example, the percentages of correct answers are only 24 and 29 percent. The original and redesigned versions show no difference in the percentage of totally wrong answers.

Table 10.3  Content quality: Answers to the case related to versions (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Text only</th>
<th>Text and example</th>
<th>Text and photo</th>
<th>Text plus photo and example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct</td>
<td>3</td>
<td>24</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>Almost correct</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Understandably wrong</td>
<td>44</td>
<td>15</td>
<td>49</td>
<td>17</td>
</tr>
<tr>
<td>Totally wrong</td>
<td>53</td>
<td>61</td>
<td>48</td>
<td>54</td>
</tr>
</tbody>
</table>

In fact the basic question posed in this research could be answered with this finding, but there were even more interesting results. The professionals expected readers to prefer the versions with photo and example and so give these a higher mark than the original one, about two points higher for the full version. This did not happen. It is remarkable that adding an example or a photo had no effect at all, and that adding both created only a slightly significant difference. It is probable that readers saw the example alone as ‘more of the same’ and the photo alone as irrelevant.

Table 10.4  Overall quality: Scores related to versions (min. 1, max. 10)

<table>
<thead>
<tr>
<th></th>
<th>Text only</th>
<th>Text and example</th>
<th>Text and photo</th>
<th>Text plus photo and example</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.07</td>
<td>5.93</td>
<td>6.29</td>
<td>6.88 *</td>
</tr>
</tbody>
</table>

Note: * means significant difference based on paired comparison

To our amazement we found no significant differences for informativeness (Table 10.5). All versions produced an evaluation just above the middle of the seven-point scale. It is possible that the layout of the form (see Table 10.2) is responsible for this result. Citizens who must fill in this form start reading somewhere. If they start with the example, the reaction possibly could be, ‘Oh, this does not refer to my situation’, and they consider the example as something that can be skipped. Hence evaluation of informativeness is mainly based on the comment below the example, and the photo.
The fourth question on attractiveness also produced interesting results (see Table 10.6). Adding a photo did not have the expected effect, significantly lower scores on ‘tedious’ or ‘boring’. There was only an effect on ‘colourful’. The addition of an example alone had no effect. This can be explained in the same way as before: the examples were probably skipped in filling in this form. However, if the example was made more interesting by adding the photo, then there was an effect, not only in comparison with the version without example and photo but also in comparison with the version with only an example. These results suggest that a combined approach of adding information with an example and adding some personalization in a photo could be a method for achieving higher attractiveness.

Table 10.5 Informativeness: Evaluation on three aspects related to versions (min. 1, max. 7)

<table>
<thead>
<tr>
<th></th>
<th>Text only</th>
<th>Text and example</th>
<th>Text and photo</th>
<th>Text plus photo and example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful</td>
<td>4.53</td>
<td>4.63</td>
<td>4.66</td>
<td>4.57</td>
</tr>
<tr>
<td>Handy</td>
<td>4.65</td>
<td>4.85</td>
<td>4.66</td>
<td>4.81</td>
</tr>
<tr>
<td>Clear</td>
<td>4.05</td>
<td>4.17</td>
<td>4.31</td>
<td>4.43</td>
</tr>
</tbody>
</table>

The last question refers to the need for information. It was expected that the versions with examples had a lower score on the need for extra contact. The respondents answered this question both before and after filling in the form. Thus, in the pre-measurement, the question refers to a general attitude, and in the post-measurement, to possible differences as a result of that version of the form. The scores in Table 10.7 indicate the difference between ‘yes, before’ and ‘no, after’.

Table 10.6 Attractiveness: Evaluation of ‘vivacity’ (min. 1, max. 7)

<table>
<thead>
<tr>
<th></th>
<th>Text only</th>
<th>Text and example</th>
<th>Text and photo</th>
<th>Text plus photo and example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colourful</td>
<td>3.54</td>
<td>4.00</td>
<td>4.30 *</td>
<td>4.81 * e</td>
</tr>
<tr>
<td>Varied</td>
<td>3.60</td>
<td>3.79</td>
<td>3.80</td>
<td>4.70 * e p</td>
</tr>
<tr>
<td>Tedious</td>
<td>4.13</td>
<td>3.98</td>
<td>3.95</td>
<td>3.21 * e p</td>
</tr>
<tr>
<td>Boring</td>
<td>4.36</td>
<td>4.35</td>
<td>4.12</td>
<td>3.53 * e</td>
</tr>
</tbody>
</table>

Note: Significance is based on paired comparison. * marks significant difference compared to original version (no photo, no example), e marks a significant difference from versions with an example, and p with a photo.
Remarkably, the photo, but not the example, has an effect. After a version with a photo, the percentage of respondents that need extra information decreases by about 30 percentage points. It may be that adding a photo has a reassuring effect.

This research indicates that even the redesigned version is insufficient although it does have some effect on overall quality and attractiveness. This research also shows that adding information may not have the expected effect on the need for information.

**Improving an official letter**

In developed societies, citizens receive during their life many official letters concerning a variety of topics: extension of a passport, dealing with household garbage, regulations on parking lots etc. For our next project, we researched ten such letters but in this chapter present only the results of one, a passport renewal letter (see, for further information, van Wijk and Arts, 2008). The letter about passports starts like this:

```
Dear Mr/Mrs . . . ,

It appears from our records your passport or identity card will expire on February 1, 2007.
You need a valid document (passport or Dutch identity card) in order to travel abroad or to prove your identity. A passport or identity card is valid for a period of five years. For considerable time it is not allowed to travel abroad with an expired passport or identity card. Also you are obliged to deliver your expired travel document(s) at the council. In case of loss always an official report signed by the Dutch police must be submitted.
```

**Figure 10.4 Original letter**

The letter with this opening was considered too wordy by the professionals. The rewritten version starts like this:

```
To fill in the form
I need extra information

<table>
<thead>
<tr>
<th></th>
<th>Text only</th>
<th>Text and example</th>
<th>Text and photo</th>
<th>Text plus photo and example</th>
</tr>
</thead>
<tbody>
<tr>
<td>To fill in the form</td>
<td>-8.5</td>
<td>-4.9</td>
<td>-30.0</td>
<td>-31.1</td>
</tr>
</tbody>
</table>
```
The differences between these two versions are striking. However, is the new version better than the old one? Why would a city council spend money to use plain language in a situation in which it is unclear whether it is successful? And how do we measure success? These questions were the trigger for the second research study.

The real functioning of a letter

As in the previous example, in this research four different versions of were used: (a) the original version, (b) a version with headings, (c) the rewritten version, and (d) the rewritten version with headings. The reason for inserting headings was a practical one. If headings alone would result in a higher quality, why would officials spend so much time and money in improving a text on the level of wording? In addition, there was a more theoretical question. Inserting headings is a kind of ‘text make-up’, a change at the lowest level of the CCC model, ‘presentation’. We wanted to see how influential changes at this level would be. Because the main aim of letters like the passport letter is to be understood, we measured possible differences in understanding, and evaluated the differences in wording. Apart from these topics, there was a specifically local concern. Many city councils in The Netherlands want to establish (or improve) their image, and have been investing in ‘house style’ (creating consistency in document appearance and projecting an overall image) and communication projects. They generally believe that there is a positive relation between citizen compliance and the image of the city council. Probably the most important reason to improve communication is economic: a good letter should diminish requests for further information, thus reducing phone calls and visits to the city hall. For us, this meant five questions had to be answered:

1. **Text understanding**: Do the four versions differ in text understanding?
2. **Overall quality**: Do the four versions differ in report marks?
3. **Wording**: Do the four versions differ in evaluation of style?
4. **Image**: Do the four versions differ in image?

Dear Mr/Mrs . . . ,

On February 1 2007 your passport or Dutch identity card will expire. You need this document for travelling or identification. Therefore, apply for a new document in due time!

A passport or Dutch identity card is valid for five years. If you want to apply for a new document you have to show your current travel documents and identity cards.

Figure 10.5 Revised letter
5. **Need for information**: Do the four versions differ in need for further information?

Professional expectations were not unanimous. Some employees believed the differences were too small to have any positive result. Others believed that text make-up alone (i.e. adding headings to the letter) would have the same effect as differences in wording.

The research was conducted following the same design as the first study. Each of the four versions was presented to eighty citizens living in the city which produced the letter.

**The results of letter testing**

In order to test their understanding, respondents had to answer yes/no questions about the letter, including ‘A citizen can get a new passport five days after request’. An answer was coded +1 if it was correct and the respondent was sure about the answer, and -1 if the answer was false and the respondent was sure about the answer, and responses were averaged (see Table 10.8).

<table>
<thead>
<tr>
<th>Original version</th>
<th>Original with headings</th>
<th>Reformulation</th>
<th>Reformulation with headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.82</td>
<td>0.85</td>
<td>0.63</td>
<td>0.76</td>
</tr>
</tbody>
</table>

The average scores for the different versions showed no significant differences: the question was answered rather well for all versions. Thus, the difference in wording did not result in better understanding. This suggests that reformulation was in fact not needed, and that a better layout (with headings) had no effect. However, research into overall quality showed that differences in wording did have an effect (Table 10.9).

<table>
<thead>
<tr>
<th>Original version</th>
<th>Original version with headings</th>
<th>Reformulation</th>
<th>Reformulation with headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.20</td>
<td>6.91 *</td>
<td>6.74 *</td>
<td>7.24 * r</td>
</tr>
</tbody>
</table>

Note: Significance is based on paired comparison. * means difference with original version; r means difference with the reformulation.

The reformulation increased overall quality by about half a point. Remarkable here is that only adding headings also gives a significant difference, even between the two reformulated versions. This overall assessment can be disaggregated by the third question on wording (Table 10.10).
The reformulation affected clearness and orderliness, despite not being considered less vague or messy. Not surprisingly, adding headings also has an effect on orderliness. The effect of combining both wording and presentation was remarkable. The fourth version shows differences in all four aspects. Adding headings to the reformulation was more effective than adding them to the original version: there were more differences between this version and the original with headings and the reformulation.

To measure how the document might affect the goal of the city to be seen as more helpful, we asked respondents to fill in the same questionnaire before and after reading the letter. Because interpreting these results meant comparing them to some standard, they were compared with results obtained in the first research: the Dutch tax form (see Table 10.11).

Table 10.10  Wording: Evaluation of the style related to versions (min. 1, max. 7)

<table>
<thead>
<tr>
<th></th>
<th>Original version</th>
<th>Original version with headings</th>
<th>Reformulation</th>
<th>Reformulation with headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>4.31</td>
<td>4.80</td>
<td>5.09 *</td>
<td>5.35 *</td>
</tr>
<tr>
<td>Orderly</td>
<td>4.08</td>
<td>4.82 *</td>
<td>4.78 *</td>
<td>5.50 * oh r</td>
</tr>
<tr>
<td>Vague</td>
<td>3.68</td>
<td>3.63</td>
<td>3.10</td>
<td>2.87 * oh</td>
</tr>
<tr>
<td>Messy</td>
<td>3.62</td>
<td>2.94</td>
<td>3.34</td>
<td>2.41 * r</td>
</tr>
</tbody>
</table>

Note: Significance is based on paired comparison. * means difference with original version, oh means difference with original plus headings, and r difference with reformulation.

The most important result, not shown in this table, was that, in image, there were no differences among the four versions. It is most likely that the differences between the versions of only one letter were not extreme enough to change the image of a municipality. The pre-measurement showed a rather positive outcome for client orientation and reliability, and a slightly negative result for bureaucracy. After reading the letter, in any version, the image remained more or less the same. Compared with the score of the tax office, the municipality had a higher score on client orientation and a lower one on reliability. The lower score on

Table 10.11  Image: Scores for image (min. 1, max. 7)

<table>
<thead>
<tr>
<th></th>
<th>Pre-measurement</th>
<th>Comparison pre-post</th>
<th>Comparison Tax Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client-centred</td>
<td>4.66</td>
<td>-.12</td>
<td>+26 *</td>
</tr>
<tr>
<td>Reliable</td>
<td>4.68</td>
<td>-.11</td>
<td>-.43 *</td>
</tr>
<tr>
<td>Bureaucratic</td>
<td>5.14</td>
<td>-.06</td>
<td>-.27 *</td>
</tr>
</tbody>
</table>

Note: * means a significant difference *next to number
bureaucracy means that the tax office is considered to be more bureaucratic than the municipality.

Our last research question refers to the need for further information. Unlike our first study, the respondents were asked after reading a version about the degree of likelihood in making a phone call for information (Table 10.12).

Table 10.12 Need for information: Likelihood of making contact related to version (0 = certainly not, 1 = yes, certainly)

<table>
<thead>
<tr>
<th></th>
<th>Original version</th>
<th>Original version with headings</th>
<th>Reformulation</th>
<th>Reformulation with headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will call for extra information</td>
<td>0.42</td>
<td>0.41</td>
<td>0.19 * oh</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Note: Significance is based on paired comparison. * means difference with original version; oh means difference from the original version with headings.

Here, the likelihood of asking for more information diminishes remarkably with the reformulation, by about twenty percentage points. The headings seem of no influence here. However, a combination of reformulation and headings results in an insignificantly higher chance on making contact. So, if a municipality wants to reduce time-consuming contacts with citizens, the headings could be deleted.

Conclusion

What can be concluded from these two examples of quality research into governmental documents? Let us first go back to the framework of the CCC model. In this model, the level of content is estimated to be far more important than the levels of structure, wording and presentation. This was the reason that understanding the content was made the cornerstone in both projects. The documents in this research were too short to investigate structural variety, but the levels of wording and presentation could easily be dealt with: the formulation of the passport letter and the presentational variants with photos in the tax form and headings in the passport letter.

Content research

In testing redesigned documents, the ultimate proof of quality is in their efficiency. For forms, this means the ease with which they elicit correct answers; for letters
it means understanding the message. Both projects show that redesigning had no effect on this level of content. For the tax form, the number of correct answers was amazingly low. Our advice based on this research was to rearrange the information in the tax form at the structural level. This project was especially interesting because the redesigners had put in more content but obviously more ‘bad content’ or content that tended to be ignored (the examples). A reformulation is only successful if more readers can get the information they need. In the case of the passport letter, the reformulation could be questioned because understanding of the letter was not improved. Once one is certain that the right type of document has been chosen, research into document quality has to start with the content.

**Effects of redesign**

In both projects, respondents were asked to rank the document they had just read on a scale, without the possibility of comparing the current document with one they have already seen. The changes in rating show that the designers are on the right track: adding examples or photos or improving the style resulted in a higher mark. However, if the original versions receive a high score, then the conclusion could also be that the original version was not that bad. A better procedure could have been to first pre-test the original document in order to detect the exact problems. Then, maybe, adding an example in the tax form would not have been necessary, or reformulation alone in the passport letter would have been seen as only a superficial change to increase attractiveness.

**Levels of changes**

In both projects, changes on a higher level in the CCC model — the content (in the tax form) and the formulation (in the passport letter) — were combined with changes in the level of presentation: adding a photo or a heading. In both cases, changes had more effect in combination. This means that ‘text make-up’ is a strong factor. This result also offers ammunition in discussions about the superficiality of layout, since even changes at this ‘lowest level’ can improve documents to a certain extent.

**Economic aspects**

In both projects, respondents were asked about their plans to make contact with the government after reading a document. This aspect of our research could gain considerable importance in the debate about the pros and cons of redesign. Opponents have argued that the costs of adding photos or restyling documents
are too high if citizens also have the opportunity to ask for extra help. From the point of view of the sender, a new document is only more effective if it can reduce the need for expensive infrastructure for giving help or advice by telephone or face-to-face contact. In both projects, it appears that the need for additional information diminished by about twenty percent. Financial experts in the municipality calculated the possible savings this represents. The average costs of a phone contact between a citizen and an employee (in Dutch society) is about \( \€4.50 \). The passport letter in this municipality alone is sent yearly to about 100,000 citizens. If a new, reformulated version of the passport letter reduces the estimated chance of making a phone call by about twenty percent, then the savings could be as high as \( \€90,000 \) annually.

This type of research can only be conducted in a creative collaboration between academics and the civil service. The starting point was the problems of government employees. Based on an academic approach with a fully fledged apparatus for testing forms, the research questions could only be dealt with in an infrastructure in which the government made it possible to conduct ecologically valid research with respondents belonging to the target group of the document. The case for the tax form could only be developed with tax experts, and the economic aspects could only be put in focus through the work of financial experts. This combined academic and professional approach is a promising one to improving the quality of governmental documents.
Chapter 10


