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**Master Thesis**  
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## **Improving texts with multiple summaries by aiding readers to build a text model**



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## ABSTRACT

**Background.** Readers often have difficulties getting the gist of a text. Organizational devices can improve understanding by signaling the text structure and helping readers to distinguish between details and key ideas. This study examines a new design solution to support reading for understanding and recall: QuikScan (QS). QS presents within-document summaries that are formatted as numbered list items.

**Aim.** Empirical studies have shown that QS improves understanding and recall, but the underlying reasons how it works are still unclear. Two rivaling hypotheses are examined. According to the text model hypothesis, QS is effective because it leads to the development of an elaborate and coherent text model. The repetition hypothesis states that QS enhances recall because the reader encounters key ideas twice, namely in the QS-summaries and in the body text.

**Method.** The participants were 170 students from two secondary schools from the three highest grades. They were assigned randomly to one of six conditions: (1) Control, (2) Concept, (3) Detail, (4) Label, (5) Concept + Label, or (6) Detail + Label condition. Recall was assessed with an open answer test for main concepts and details.

**Results.** Labels had no effects on text recall. Therefore, conditions with labels were merged with the corresponding condition. The QS Concept condition yielded a significant higher outcome on overall test score than did the Control or QS Detail condition. This effect stemmed from the concept questions which indicate a text model effect. The repetition effect was refuted.

**Conclusions.** QS significantly improves text understanding and recall. It does so by helping readers construct a coherent text model, rather than from sheer repetition.

## SAMENVATTING

**Achtergrond.** Lezers hebben vaak moeite de essentie uit een tekst te halen. Tekst designs kunnen tekstbegrip verbeteren door de tekststructuur te signaleren en lezer te helpen een onderscheid te maken tussen centrale punten en details. Deze studie onderzoekt een nieuwe design dat lezers bij het begrijpen en onthouden van teksten ondersteunt: QuikScan (QS). QS gebruikt meerdere samenvattingen die de tekst structureren en door het hele document geplaatst zijn.

**Doelen.** Empirische studies hebben aangetoond dat QuikScan begrijpen en onthouden van teksten verbeterd. Twee onderliggende verklaringen over hoe QS precies werkt zijn onderzocht. Volgens de tekst model hypothese is QS effectief omdat het tot de ontwikkeling van een uitgebreid, coherent tekst model leidt. De herhalingshypothese stelt dat QS effectief is doordat de lezer tekstelementen twee keer tegenkomt, namelijk in de QS-samenvattingen en in de tekst zelf.

**Methode.** 170 scholieren uit de bovenbouw (havo, vwo en gymnasium) van twee scholen hebben aan deze studie deel genomen. Zij kregen random een tekst uit één van de zes condities te lezen: (1) Controle, (2) Concept, (3) Detail, (4) Label, (5) Concept + Label, of (6) Detail + Label conditie. De Concept conditie presenteert kernpunten van de tekst in de QS samenvattingen. De Detail conditie doet hetzelfde maar dan met tekst details. De Label conditie toont alleen segmenterende categorie labels (bijv. geschiedenis, of vaardigheden). Met open vragen over concepten en details is getoetst hoe goed de deelnemers informatie uit de tekst hadden onthouden.

**Resultaten.** Labels hadden geen effect op het onthouden van teksten. De Concept conditie leidden tot een significant hogere totale testscore dan de Controle en Detail conditie. Dit effect komt tot stand door de concept vragen. Dit duidt op een tekst model effect. Er werd geen repetitie effect gevonden.

**Conclusies.** QuikScan verbetert het begrijpen en onthouden van informatie in teksten door lezers te helpen een uitgebreid en coherent tekst model op te bouwen, en niet door een puur herhalingseffect.

## Introduction

Young readers are faced daily with texts in the classroom. Reading comprehension is fundamental for all subjects at school (Buehl, 2009). It is described as the ability to understand the ideas and the relationships between ideas conveyed in a text (McNamara, 2007). Yet, even skilled readers can have difficulties getting the gist of a text when the text is high in (detailed) information, poorly structured and complex. Often, not all the information that is given in a text is needed; only parts of the text or specific information are required. When a text is long and unstructured, it can be difficult and time consuming to getting a clear picture of the information that is essential. Not getting the essence of a text can influence the text recall.

There are a number of aids which can improve text comprehension by giving a clearer structure and help readers to distinguish between the core points and details. These organizational devices emphasize aspects of the organization of a text and its content without affecting it (Meyer, 1975). The designs help, because they provide a retrieval scheme that facilitates recall (Dwyer, Hogan, & Stewart, 2010). Devices can help by clarifying the structure of the text and help the reader to gain access to a text. Devices include well known organizational strategies which improve text understanding and memorization, like headings and summaries. There are also some newer strategies, like Hartley's structured abstracts (Hartley & Sydes, 1996).

In this study, we want to examine one of these new and promising designs, QuikScan, invented by Quan Zhou and David Farkas from the University of Washington. With its design of multiple summaries, QuikScan (QS) is a method that makes complicated texts accessible. It divides the text in small comparable units, depicts the structure to make it clearer, and summarizes the main points (Zhou, 2008; Zhou & Farkas, 2010).

The idea behind the design of QS is simple, but sophisticated. Instead of the often used summary before or afterwards a text, QS uses multiple short summaries which appear several times throughout the text (see Figure 1). A summary is presented in a grey box to highlight it. The box summarizes the part of the original text that is placed directly after the box, till the point where the next QS box is placed. Normally, one sentence in the QS-box summarizes one paragraph in the text. One box includes approximately four sentences. A new and inventive feature is the numbering system that QS uses. In front of every sentence, a number is stated with a special brace to let it stand out. The number can be found in the text, so that the reader can quickly see which sentence summarizes which part of the text.

**Figure 1.** A QuikScan summary

- 1} There are copywriters and literary writers.
- 2} An important partner of the writer is the publisher.
- 3} A literary writer must make publicity for himself.

{1 The job of the writer has two sides. On the one hand, there are text writers, so called copywriters. They produce for example advertising texts. But a copywriter can also write accompanying texts for medicine or manuals for complex machinery. A journalist is also a copywriter. On the other hand, writers can write to create art with prose or poetry. Such a literary writer publishes stories, poems, novels and so on. {2 Almost all literary writers publish their work through a publisher. Such a publisher takes care of the definite formation of the book. Large publishers use designers, illustrators and editors, work that is done in little publishing company often through only one person. On average, a writer gets 10% of the gross price per soled book. Therefore, it is not easy for a writer to make a living with his writing.

{3 It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.

Van der Meij and Van der Meij (2011) investigated the effects of QuikScan on text recall. Students were significantly better in recalling a text when the text was supported with QuikScan than students who read a text with a structured abstract. Still, little is known about why it works.

QuikScan combines different methods in its design. To shed light on how QuikScan works, we will take a closer look at the signal devices or elements of the devices used in QuikScan. QS integrates summaries and structured abstracts into its format. By examine these strategies, we can come to valid hypotheses about the working mechanisms of QuikScan.

QuikScan comes in the form of multiple summaries that are mostly placed at the beginning of a paragraph. Summaries<sup>1</sup> give information about what the following text body is about and by that can help to organize the subsequent reading. Summaries emphasize the organization of a text, the content or both. They introduce the major topics and show how they are related, so readers do not have to identify main ideas and their relationships on their own. A representation of the topic structure provides a plan for the retrieval of text information. An organized and complete representation can facilitate memory for these topics and thereby make information about each topic more accessible. This effect is especially beneficial, when a text is poorly organized and difficult to understand. A summary may provide the reader with a more coherent topic structure than they would be able to construct on their

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<sup>1</sup> When we speak of summaries in this paper, we always refer to summaries that are presented before the main body text.

own. Studies have supported this by showing that summaries produced better recall of difficult and poorly organized texts (Lorch & Lorch, 1995; McLaughlin-Cook, 1981).

Summaries also influence memory by signaling the main ideas of a text. By stating the main ideas, the reader does not have to discriminate the main ideas from minor details. This directs the reader's attention to the relevant parts of the text, heightening the probability that important facts are recognized as such (Lorch, 1989). Summaries can influence memory also for the relationships they indicate. Signaling a relationship between two paragraphs via a preview statement caused clustering of the corresponding content in recall (Glover et al., 1988).

An abstract is a summary that is placed in front of a scientific article. Structured abstracts are a recent refinement of the traditional abstracts. Structure is added to the traditional abstract by placing headings that reflect the structure of the article. Research has shown that structured abstracts are more informative, more readable and more appreciated by readers than are traditional abstracts (Hartley, 2003). They represent an improvement over traditional abstracts, because the information is organized and presented in a systematic way that makes scientific articles easier to read by first giving a structured, global summary (Hartley, 2003). Even though studies about structured abstracts showed that they improve searching and reading, and are favored by readers (Sharma & Harrison, 2006; Guimarães, 2006; Hartley & Betts, 2007), the exact working mechanisms are still unclear, as with QuikScan.

These studies indicate that signaling and organizing important content seem to be essential in organizational devices to improve recall and text understanding. QuikScan has both a signaling and an organizing function, which is likely due to its effectiveness. But how does signaling and organizing of important text content help readers? The answer lies in the support they give readers to build a good text model.

### **Text models**

A number of theories have been developed to explain how readers deal with texts. What many of them have in common, is that they state that readers build a cognitive model of the text. A classic and influential theory, Kintsch's (1998) theory of discourse processing, implies that when reading a text, the readers constructs a mental model of the situation described in the text. Other theories use different terms, but also empathize the importance of building a cognitive or mental model of a text. The Documents' Model by Britt et al. (1999) for example, states that readers construct a mental representation of texts. The reader constructs a representation of the central information in the text, as

well as a representation of where the different information units come from and how they are interrelated. Graesser, Singer and Trabasso (1994) affirm that the global-level representation (global gist) objectifies people's interpretations through a mental framework that organizes the relations among the explicitly and implicitly stated notions into a coherent whole, which may also predict further developments in the text. Recent theories are not so new in their central ideas: The Fuzzy Trace Theory (Miller & Bjorklund, 1998) also empathizes the idea that a so called 'gist trace' is needed for processing knowledge representations. The gist traces retain the essence and meaning of the informational representations. So seemingly, some kind of text model, however called, is needed for reading comprehension. Why is a mental model so essential for understanding and remembering a text?

To answer this question, we focus on Kintsch's classic theory of discourse processing (Kintsch, 1998). It is too memory intensive to remember every fact from a text. Therefore, a gist of the text, also called macrostructure, is stored in memory, which is in fact a summary of the information a reader considers important. As a reader cannot remember all information of a text he reads, he instead only recalls the macrostructure (Kintsch & Vandijk, 1978). Kintsch's theory further illuminates this mechanism. He states that when reading a text, the reader constructs a mental model of the situation described in the text. He distinguishes between three main processing levels in comprehension: the local level, the macro-level and the situation model. Local level processes connect sentence meanings. Macro-level processes establish the gist level, which means that the meaning of the text content illuminates the relationship of sentences and paragraphs to the global topic. By this, a mental representation of the text content is built, which supports recognition of ideas stated in the text and recall of the text. The mental representation is supplemented by the situation model. Here, a mental representation of the situation described in the text is built. To form such a model, deeper processing is required, which integrates ideas in the knowledge base of the reader. Here, effortful and conscious comprehension is required. By this, true understanding and learning can take place, wherein new knowledge can be easily accessed from memory (Kintsch, 1998; van Dijk & Kintsch, 1983; Kintsch & Kintsch, 2005, Caccamise & Snyder, 2005).

QS does not influence the local level processes. It rather supports the macro-level processes. The reader does not have to build a mental representation of the text content on his own, but gets the gist by the QS summary. Macro-rules reduce and organize detailed information of the microstructure of a text. They describe the facts from a more global angle. When readers have to read texts on a complex topic, ruling out less useful information can help them to construct a coherent representation (Kintsch & van Dijk, 1978). The QS-summaries can help the reader to judge which information they should give

priority in the comprehension process. Important points are cued, so it is expected that QS facilitate reader's performance.

The theories indicate that the effect of QuikScan could be due to a better text model that readers of QS build. This finding corresponds to one of the two possible explanations, van der Meij and van der Meij (2011) propose: the text model hypothesis. This hypothesis states that summaries support readers by assisting them in the construction of a text model. By this, summaries provide anchorage for readers in finding the text's topic structure and for comprehension and recall (Lorch & Lorch, 1995; Ritchey, Schuster, & Allen, 2008). The readers interpret signals from the summary as direct indicators of a topic's importance. In this case, signals possibly not only draw attention to signaled content, but actually may deemphasize unsignaled content, decreasing the likelihood that this content would be encoded into one's text representation, and thus, decreasing the likelihood of it being recalled.

A second, alternative explanation given by van der Meij and van der Meij (2011) is the repetition hypothesis, which states that signals do not alter how readers process a text, but exert their influence through the sheer repetition of the topical phrase from the text within the signals. This passive rehearsal increases the likelihood that the topic will be included in one's knowledge representation, and therefore increases the likelihood of that topic being recalled.

To test the two hypotheses, different summaries were designed. They either stated details from the text (to test the repetition hypothesis) or concepts of the most important text content (to test the text model hypothesis). These two options were both combined with general structure labels (labels), which gave purely information on the abstract structure of the text, without holding any information on the content. Together with the Control condition (a text without any summaries) and a condition with only labels, six conditions were tested.

As labels lack content and only give pure structural information, we assume that they will not improve text recall. They don't yield a repetition effect, as the information they give is not present in the text. They probably are also not helpful in building a text model, as they give no information on text content and they are not making explicit which information is important and which are only details. On the other hand, they organize the information by giving structure. As described above, organizing is one of the working mechanisms of text designs. Therefore, we do not want to exclude the possibility that labels have an effect and consequentially will test if labels influence text recall. If no effect can be found, we can reduce the six conditions to three by combining the label conditions with the corresponding condition with no labels.

## Research questions

There are two hypotheses about how QuikScan works; the text model hypothesis and the repetition hypothesis. The text model hypothesis presumes that QS summaries lead to the development of an elaborate and coherent text model. The repetition hypothesis states that QS summaries enhance recall, because the reader encounters the key ideas twice; firstly in the QS summary, secondly in the text. Accordingly, the main research question is:

*Is the positive effect of QS due to the support of readers in building a text-model or due to repetition?*

We suppose that the effect of QS is due to the support it gives in building an accurate text model, whereas repetition is only a supporting factor that improves text understanding additionally. So our hypothesis concerning the main research question is that the text-model is due to the positive effect of QS on text recall, rather than the repetition effect. But before we can answer the main research question, we have to look at the effects of labels:

*Question 1) Do labels matter; do they influence the test scores?*

We wonder if giving general labels is enough for supporting the reader in the recall of text. Our hypothesis is that there is only a small effect of the Label condition on text recall. To examine the first research question, we have to examine if there are differences in the test scores between the Control and the Label condition, the Concept and Concept + Label condition, and the Detail and Detail + Label condition. Our hypotheses are that there is neither a difference between the test scores of students who were in the Control condition and students who were in the Label condition, nor between the scores of the Concept and Concept + Label condition. Furthermore, we assume that the Detail + Label condition does not score significantly better than the Detail condition. If this hypotheses are found to be true, and labels do not have any positive effect on text recall, the six conditions could be joined into three conditions:

- 1) *Control* (Control & Label)
- 2) *QS Concept* (Concept & Concept + Label)
- 3) *QS Detail* (Detail & Detail + Label)

The second research question concerns the effects of QuikScan.

*Question 2) Does QS improve recall? Thus do the QS conditions (QS Concept and QS Detail) score better on total test scores than the Control condition?*

We hypothesize that QS indeed do have a positive effect, as in past research on QS, and that the QS Concept and the QS Detail conditions therefore score better on the total test scores than the Control



condition. After having examined if QS have an effect, we finally can come to the main research question.

*Question 3) Is the effect of QS due to a text model effect or a repetition effect?*

To examine if the positive effect of QS is due to repetition or to the help in building a text model, we have to look at two sub questions.

*3.1) Is there a repetition effect; thus does the detail condition score better than the concept condition on detail-questions?*

Our hypothesis is that there is no, or only a small repetition effect. Accordingly, we assume that the Detail condition does not score significant better than the Concept condition on detail questions.

*3.2) Is there a text-model effect; thus does the concept condition score better than the detail condition on concept questions?*

We suppose that the support of a text model does significantly affect the test scores. So we hypothesize that the QS Concept condition scores significantly higher on concept questions than the QS Detail condition.

## **Method**

### **Participants**

170 students from two secondary schools participated in the study. Firstly, the Cygnus Gymnasium, a secondary school in Amsterdam from the three highest grades (one gymnasium 4 class, one gymnasium 5 class and two gymnasium 6 classes). Secondly, 'De Thij', a mixed secondary/vocational education school in Oldenzaal from the three highest grades (one havo4 class, one havo5 class, one vwo4 class and one vwo6 class). These were the two schools that reacted first on a mail, were different schools were asked if they would like to participate in a study on summaries.

The age of the participants ranged from 15 to 20, with a mean age of 16,8 years. 73 of the students were boys, 97 were girls. Four boys were excluded, leaving the final dataset n=170, as described above.

### **Design of the study**

The aim of the study was to further establish the effectiveness of QS and the underlying rationale (i.e., to examine the text model versus the repetition hypothesis). This was done by systematically varying three types of summaries: labels, conceptual statements and detail statements.

The experiment was set up as a comparison between six conditions: (1) Control condition, (2) summary of the important concepts, (3) Details, (4) Labels, (5) Concept + Labels, and (6) Detail + Labels. The complete target text is structured in maximally six segments for seven types of creative professions (e.g., author, interior decorator, photographer). Each segment in the text body is demarcated by a QS number that can be represented in the QS summary by a label, a concept statement, and/or a detail statement (see Figure 2). For an overview of all possible conditions and an explanation of the other figures, see Figure 1.

**Figure 2.** An illustration of a QS summary statement in its three variants.

<i>QS statement</i>	
Label:	<b>9} Tasks</b>
Concept:	<b>9} A literary writer must make publicity for himself.</b>
Detail:	<b>9} Willem Frederik Hermans was famous for clashing with nearly everybody.</b>
<i>Text segment</i>	
<b>{9</b> It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.	

In the original study material, there were always four to six summary statements in a QS box, whereas only one statement is used in the illustrations to demonstrate the different conditions in a simple manner. One type of statement comes in the form of a *label*. There are six different label in the summaries, namely facts, characterization, skills, tasks, history, and collaboration. Each label represents a text segment and gives conceptual information of an abstract nature. It is placed highly visible as a bold heading in the summaries, so that readers quickly recognize that they signal important, conceptual information. For an illustration of a label see Figure 3.

**Figure 3.** An illustration of a segment in the Label condition

<b>9} Tasks</b>
<b>{9</b> It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.

Another type of statement is the *Concept* condition (see Figure 4). A concept statement covers a super-ordinate idea. It is nearly always an abstraction from the text. The third type of statement is the

*Detail*, as shown in Figure 5. A detail statement covers a sub-ordinate idea. It is taken as literally as possible from the text.

**Figure 4.** An illustration of a segment in the Concept condition

**9}** A literary writer must make publicity for himself.

**{9** It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.

**Figure 5.** An illustration of a segment of the Detail condition

**9}** Willem Frederik Hermans was famous for clashing with nearly everybody.

**{9** It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.

In a fourth condition, which we saw as the central condition, a label is combined with a concept statement (see Figure 6). A fifth condition is a combination of a label with a detail statement, as showed in Figure 7. These five conditions were compared to the Control condition, the plain text without any summary boxes.

**Figure 6.** An illustration of a segment of the Concept + Label condition

**9}** **Tasks**

A literary writer must make publicity for himself.

**{9** It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.

**Figure 7.** An illustration of a segment of the Detail + Label condition

<p><b>9} Tasks</b>          Willem Frederik Hermans was famous for clashing with nearly everybody.</p>
<p><b>{9</b> It is nowadays necessary for a literary writer to become known to a wide audience. It is virtually a must for him to appear on television. The writer Maarten 't Hart presented himself in women's clothes a few years ago on the yearly Book Fair, and succeeded in this way to appear on television. Another means that writers employ to get publicity is to quarrel. Willem Frederik Hermans was famous for clashing with nearly everybody. Ronald Giphart too stands his grounds in this respect.</p>

Compared to the original visual design of the QS summaries, several modifications were made. First, the text segments to which the QS statements refer, no longer are distinguished by white space between the segments. Frequently, segments are presented one after the other in a single paragraph. When a QS statement refers to a text segment that really stands apart and has a fair length (of around 7-9 sentences), that segment is demarcated as a distinct paragraph (one tab indent).

The numbers are bold, and the labels are also demarcated in bold so as to signal their nature as label. To further strengthen this, they appear in a separate line above the concept statement or detail statement if these are presented. The number for a detail statement does not directly refer to the place where that statement appears in the text, but rather to the segment to which it belongs.

Based on a literature research on guidelines how to make a good summary (for further information on the literature research, contact the author), we chose five rules to base our summary statement on:

- 1) *Rule of macrostructure*: "Help the reader to understand the text structure by making clear which are the super-ordinate ideas and which are the subordinate ideas and their relationship to each other." See Birnbaum (1981), Dunn & Bridwell (1980) and Kintsch & Van Dijk (1978).
- 2) *Rule of abstraction*: "Use a high level of abstraction in the summary statements of the concept conditions." See Zhou & Farkas (2010).
- 3) *Rule of approach*: "Summaries tend to be written either following an extractive or abstractive approach. In an extractive approach, the sentences in a summary are taken directly, that is without modification, from the text. In an abstractive approach, completely new sentences are created with little resemblance to the original text (see Cai & Li, 2011; Ye, Chua, Kan & Qui, 2007). For the Detail condition, use the extractive approach, thus take the sentences directly out of the text without altering them. For the Concept condition, use the abstractive approach, thus produce completely new sentences which resembles the

original text as less as possible. The labels above the summary statements cannot be found directly in the text and by that, also fit well into the abstractive approach.”

- 4) *Rule of non-redundancy*: “There should be no unnecessary repetition in the summary. The number of overlapping answers among the different sentences should be as small as possible (Dank, 2005). Do not use incidental content but only provide key information.”
- 5) *Rule of grammaticality*: “The summary should consist of stand-alone sentences. There should be no, capitalization errors or obviously ungrammatical sentences (e.g., fragments, missing components) that would make the sentences difficult to read.” See Dank (2005) and Zhou & Farkas (2010).

Based on the rules above, a guideline in five steps was supposed on how to construct a summary for the experiment. Thereby, a difference was made between the structure and the content:

### **Structure**

1. *Step*) Divide a text into separate paragraphs. Often, the division of the author can be taken as a good basis.
2. *Step*) Find a label for every paragraph, which describe the function of it. The labels must signal the major structure.

### **Content**

3. *Step*) Classify every sentence as major or minor information.
4. *Step*) Thereby, consider that major points must include a new, important piece of information; a new concept. To create a concept statement, only use major information. Make sure that you use the concept. Rewrite the concept statement in your own words.
5. *Step*) Divide the minor statements into categories like detail, example, definition, story, repetition, etc. Minor points are subordinate, less important and often additional information, where no new concepts are given. Take the summary statements for the detail condition directly out of the minor points, if possibly without changing them at all or only making minor adjustments.

### **Instruments**

An *oral instruction* was given before the start of the experiment, in front of the whole class. The class was told that they were going to get a text about different professions and that they have to read the text in order to be able to answer questions after they read the text. They were told that they are not allowed to make notes or talk to each other. Furthermore, it was said that they have maximal 20

minutes to read the text and that they have to raise a hand when they finished reading; Then, they would have to answer a couple of questions on the text in maximal 10 minutes.

The *text* was from a career choice book (Swinkels & Schoen, 1999). The pure text was six pages long, with 2880 words. It described seven different professions from the arts sector: artist, writer, photographer, comedian, actor, fashion designer and interior designer. Above and below the text, the participants were asked to write down their name. Below the text, there was also the note that the reader had to raise his hand when he had finished reading. There were six conditions of the text with different summaries: the Control condition, the Concept condition, the Detail condition, the Label condition, the Concept + Label condition and the Detail + Label condition. Appendix 2 presents the text of the Concept + Label condition.

A *background questionnaire* gathered information about participant characteristics, such as gender, age and the type of school (see Appendix 1). The questions were given together with the test, on the first page.

The *recall test* (see Appendix 3) contained 14 open questions about the text. A short instruction, written above the questions, reminded the participants that they have 10 minutes to answer the questions, that they should try to answer as many questions as possible in this time and that their answers should be short. It was also stated how many points could be obtained for every question. For the first two questions, three points could be reached, for all other questions, one point could be obtained. The questions were divided into different types of questions, according to their information level and appearance in the summaries. Six questions asked about details from the text; three of the details were only stated in the text, and the other three details were given in the summaries of the Detail condition. Five questions asked about the concept information that was given in the text. As the summaries from the Concept condition summarized the most important content, this information also appeared in the Concept and the Concept + Label conditions. There were also two questions that demanded of the participants to make connections between pieces of important information. One more conceptual questions asked to give a set of keywords that could be used for the division in the text. The questions covered all professions and all labels.

### **Procedure**

The participants were given a short oral instruction. Then, of one of the six text conditions was handed out randomly to every student. They had a maximum of 20 minutes to read the text. If they finished earlier, they had to raise a hand, the text was then taken back by the experimenter and a sudoku puzzle

was given to them. By giving them a sudoku, no one had to wait and everyone who was ready early did the same activity. After the maximum time of minutes, all texts were taken back. The reading time was noted on the texts. Then, a document with demographic questions and 14 questions about the text was given. They had 10 minutes to answer the personal information and the questions on text recall. When they were ready, they could give the test back and go on with their sudoku. After 10 minutes, all tests were collected. The participants received candy as a reward for their participation. At last, the experimenter explained the rationale and the aim of the experiment shortly and answered questions. The schools received a document with tips for students about how to make a good summary.

### **Analysis**

All tests were scored by an undergraduate research assistant who was unaware of the experimental conditions. One of the researchers scored the tests of nine participants and compared it to the scores the assistant gave to these tests. The raters scored an agreement of 94.4 % on the non-summary questions, 96.8 % on the concept questions in the summaries, and 88.9 % on the detail questions in the summaries. These constitute good interobserver agreement.

Before conducting the analyses of variance, Homogeneity of Variances was tested for significance (there was none). If found significant (Pillai's statistic), a MANOVA was followed by an ANOVA to assess effects of conditions on the three main question types in the knowledge test. All analysis were two-sided with alpha set at 0.05.

## Results

### Effects of labels: 'Do labels matter?'

Firstly, we examined if labels influenced the test scores. Three pairwise comparisons were made between the Control and Label condition, between the Concept and Concept + Label condition and between the Detail and Detail + Label condition. No significant difference was found between the total test scores of the Control condition and the Label condition,  $F(1,58) = 0.05$ , n.s. Likewise, there were no differences for question types (see Table 1).

**Table 1.** Means (standard deviation) for the Control condition and the Label condition

	Control	Label-only	F-value, sig.
Questions not in summaries (max 4)	2.18 (1.08)	2.13 (1.00)	$(F(1,58) = 0.03, n.s.)$
Concept questions in summaries (max 8)	3.38 (1.03)	3.45 (1.23)	$(F(1,58) = 0.05, n.s.)$
Detail questions in summaries (max 3)	1.63 (0.70)	1.48 (0.90)	$(F(1,58) = 0.50, n.s.)$
Total (max 15)	7.19 (2.11)	7.05 (2.39)	$(F(1,58) = 0.05, n.s.)$

No significant difference was found between the total test scores of the Concept condition and the Concept + Label condition,  $F(1,55) = 0.41$ , n.s. Likewise, there were no differences for question types (see Table 2).

**Table 2.** Means (standard deviation) for the Concept condition and the Concept + Label condition

	QS Concept	QS Concept + Label	F-value, sig.
Questions not in the summaries (max 4)	2.45 (0.97)	2.36 (1.11)	$(F(1,55) = 0.10, n.s.)$
Concept questions in summaries (max 8)	3.89 (1.49)	4.19 (1.32)	$(F(1,55) = 0.63, n.s.)$
Detail questions in summaries (max 3)	1.46 (0.79)	1.68 (0.82)	$(F(1,55) = 0.99, n.s.)$
Total (max 15)	7.80 (2.53)	8.23 (2.45)	$(F(1,55) = 0.41, n.s.)$

No significant difference was found between the total test scores of the Detail condition and the Detail + Label condition,  $F(1,54) = 1.30$ , n.s. Likewise, there were no differences for question types.



**Table 3.** Means (standard deviation) for the Detail condition and the Detail + Label condition

	QS Detail	QS Detail + Label	F-value, sig.
Questions not in the summaries (max 4)	2.28 (1.20)	2.17 (1.18)	$(F(1,54) = 0.05, n.s.)$
Concept questions summaries (max 8)	3.35 (1.60)	2.87 (1.15)	$(F(1,54) = 0.05, n.s.)$
Detail questions in summaries (max 3)	1.84 (0.69)	1.62 (0.80)	$(F(1,54) = 0.05, n.s.)$
Total (max 15)	7.47 (2.68)	6.66 (2.52)	$(F(1,54) = 1.30, n.s.)$

In sum, we can conclude that general labels have no significant effect on text recall. In the remainder of the analyses, we therefore combined the six conditions into three conditions, following the comparisons made in the Tables above. The new conditions were the following:

1) *Control* (Control & Label); 2) *QS Concept* (Concept & Concept + Label); 3) *QS Detail* (Detail & Detail + Label).

#### **Effects of conditions on test scores: Does QuikScan improve recall?**

To answer the second research question, if QS influence the test scores, we analyzed if the QS Concept and the QS Detail condition scored better than the Control condition. A pairwise comparison between the Control condition and the QS Concept conditions yielded a significant difference,  $F(1,113) = 4.18, p = 0.04$ ; Control and Detail,  $F(1,112) = .004, n.s.$ ; and a trend for the QS Detail versus the Concept condition,  $F(1,109) = 3.69, p = .057$ .

A MANOVA with the three question types as dependent variables indicated that there was a significant effect of condition,  $F(6, 332) = 3.94, p = 0.001$ . Univariate analyses for each question type revealed that this difference lies in the Concept questions. For the other question types, there was no effect of condition. Pairwise comparisons for the concept questions revealed that the QS Concept condition scored significantly higher than the Control condition ( $p = .012$ ) and the QS Detail condition ( $p = .000$ ).

**Table 4.** Means (standard deviation) for the Control, QS Detail and QS Concept condition

Test scores	Control	QS Detail	QS Concept	F-value, sig
Questions not in summaries (max 4)	2.15 (1.03)	2.23 (1.18)	2.40 (1.03)	$F(2,167) = 0.80$ , n.s.
Concept questions in summaries (max 8)	3.42 (1.13)	3.12 (1.41)	4.04 (1.40)	$F(2,167) = 7.07$ , $p = 0.001$
Detail questions in summaries (max 3)	1.55 (0.,81)	1.74 (0.74)	1.57 (0.80)	$F(2,167) = 0.96$ , n.s., $p = 0.465$
Total (max 15)	7.12 (2.24)	7.09 (2.62)	8.02 (2.47)	

**Effects of QuikScan on recall: Is there a repetition or text structure effect of QuikScan?**

To examine the question, whether the influence of QS can be ascribed to a repetition effect or to a text model effect, we first analyzed the scores on the detail questions because they give an unequivocal estimate of the repetition effect. If there had been a repetition effect, this would have yielded a significant advantage of the QS Detail condition over the QS Concept condition for the Detail questions. Table 5 reveals that the scores for the two conditions do slightly favor the QS Detail condition, but the difference was not statistically significant,  $F(1, 109) = 1.26$ , n.s., the QS detail condition does not score significantly better on detail questions than the QS concept condition; there is no significant repetition effect.

**Table 5.** Means (standard deviation) for text scores on detail questions

Test scores	QS Detail	QS Concept	F-value, sig
Detail questions in summaries (max 3)	1.74 (0.74)	1.57 (0.80)	$F(1, 109) = 1.26$ , n.s.

In Table 6, it can be seen that there is a significant text-model effect. The QS Concept condition scores significantly better on the concept questions than the QS Detail condition.

**Table 6.** Means (standard deviation) for text scores on concept questions

Test scores	QS Detail	QS Concept	F-value, sig.
Concept questions in summaries (max 8)	3.12 (1.41)	4.04 (1.40)	$F(1,109) = 11.83$ , $p = 0.001$

## Conclusion and Discussion

This study confirmed that QuikScan is an effective text design and also explained its working mechanisms.

Firstly, we found that general structure labels had a slight positive effect on test scores. However, the effects were marginal and the minimal effect they had on text recall and understanding were not significant. This finding is in line with what we expected. Labels seem contain too little content information to be of value for text recall. Only signaling pure structure information seems to be of no help for readers. Labels do not repeat important information, as they only give structure information that is not directly stated in the text. Labels also make no contribution to the text model, as they give a label to every paragraph, thereby making no difference between the important points of a paragraph and less central points, like examples or details. Our finding supports the hypothesis that only organizing texts by giving general structure does not improve text recall significantly. Therefore, we merged the six conditions into three conditions; the Control, QS Detail and QS Concept condition.

Secondly, we found that QS improves text understanding and recall. The significant effect of the QS conditions stemmed from the concept questions. For the total test score, a clear trend was found; the Control group had a total mean score of 7.12, versus a score of 8.02 of the QS Concept Condition. The QS Concept condition scored significantly better than the Control condition, whereas there was no significant difference between the QS Detail and the Control condition. The QS Concept condition also scored higher than the QS Detail condition. Foster's (1979) research on signals could explain these results. She stated that the effectiveness of a signal is partly determined by the relevance of the signaled information. Signals can only improve the performance of a reading task, when they signaling important information. Readers do not attend to signals that cue unimportant information. In the QS Detail condition, the signals are not relevant to the reader, because the details are not relevant for the understanding of the text and they do not contain the main points. That gives plausible explanation for the finding that the QS Detail condition is less effective. It can be concluded that the QS Concept condition is the best condition in improving text recall. This is not surprising, as the QS Control condition is in fact designed like the original QS statements.

The finding that QuikScan improves text recall is in line with all earlier studies on QS. Meanwhile, the QuikScan design has been tested with different texts on different topics, with different levels of complexity. Different groups of participants, with different ages. There have even been studies on QS in different countries; the United States (Zhou, 2008; Zhou & Farkas, 2010), the Netherlands (van der Meij & van der Meij, 2011) and Indonesia (van der Meij, van der Meij & Farkas, submitted). All

studies found substantial support for QuikScan, with readers remembering more relevant information. As the effects of QuikScan have been repeated several times, including the present study, we can speak of a robust effect of QS on text understanding and recall by now. We also found that the QS Concept condition is the best version of QuikScan, compared to the weaker QS Detail condition. That supports the supposition that the effect of QuikScan lies in providing important concepts from text. By summarizing the essence of the text, readers can recognize the important points in the text body and probably differentiate the gist from the details.

We found reasonable proof that the QS Concept condition does not cause any loss of details or information not stated in the summaries (see Table 4). Recall for facts, that were not stated in the summaries, revealed no significant effects between the different conditions. This supports the thought that QuikScan works as an anchor. It does not improve recall for main points at the expense of details, but rather making it possible for the reader to recognize details as such, including them into the whole cognitive model of the text. The possibility, proposed in the introduction, can be eliminated. It was reasoned that possibly, by drawing attention to signaled content, signals deemphasize unsignaled content, decreasing the likelihood that this content would be encoded into one's text representation, and thus, decreasing the likelihood of it being recalled. This is not the case for QuikScan.

Thirdly, we looked at the mechanism that accounts for the positive effect of QuikScan. We applied an exact measure to examine if there was a repetition effect. In the QS Detail condition, details were taken literally from the text. By that, readers read the same information twice, possibly causing a repetition effect. If that would have been the case, the readers would have scored much better on the questions about these details. However, there appeared to be only a small, insignificant effect. Test scores on the detail questions, which were read twice by readers in the QS Detail condition, were not answered better than by readers who were in the QS Concept condition. This reveals that the positive effect of QuikScan was not due to a repetition effect.

After having excluded the repetition hypothesis, another hypothesis was left that could account for the effect of QS: the text model hypothesis. To test this hypothesis, we compared the QS Concept condition to the QS Detail condition, with respect to how well they answered the concept questions. It turned out that the readers of the QS Concept condition scored significantly better on the concept questions than the QS Detail condition, indeed. We can conclude that there is conclusive proof for the text model hypothesis. In sum, the results showed that the text-model accounts for the positive effects of QuikScan on text understanding and recall, rather than a repetition effect. We can conclude that the text-model hypothesis is supported by the data.

Based on the results of the study, there are first indications how such a text model works. It gives the reader a clear structure, yet not by a generic picture of the structure, but by concepts from the text. These concepts seem to be central in supporting readers in building a text model. As the QS summary statements were paraphrases of the most important concepts in a paragraph, the statements had a higher abstraction level than the information in the text body. Summaries with a higher level of abstraction, still containing concrete information about the most important concepts from a text, seem to support the building of a text model, as the QS Concept condition improved text recall of central ideas. The situation model is likely to be created in a top-down process. First, the reader reads the QS summary, signaling the most central information. Then, when reading the text body, readers already know which points are important, probably giving more attention to these points. It makes reading easier, as they already know the structure of a text and the central ideas. By that, they can embed new information in this framework. The reader begins with a coarse, but correct frame, which gets finer and more detailed when reading the text body, but not losing its original frame.

How are these findings related to the theories on reading processes? First of all, this study supports the assumption, that signaling and organizing the most important text content, are essential elements that make organizational devices successful in improving text understanding and recall. Two of the main functions of QuikScan are signaling and organizing important concept. This study showed that QuikScan is an effective design. It is likely that these two functions make the design successful. If these functions are such important factors as the study indicates, this also explains why structured abstracts are better than traditional abstracts (Hartley, 2003) and why summaries that are stated before a text, improve text recall (Lorch & Lorch, 1995): They structure and organize the main topic points from a text.

The text model hypothesis was confirmed by the results, whereas the repetition hypothesis was rejected by the data. But what exactly does it mean that there is a text model effect? In many theories on text processing, it is stated that readers build a cognitive model of a text. Kintsch (1998) called this process the construction of a mental model. It is necessary to construct such a model of the text, as it is too memory intensive to remember all the information stated in a text. Kintsch's (1998) theory of discourse processing explains why QuikScan works. QuikScan supports the macrostructure, which comprises the gist of text. Without text devices, a reader has to build this macrostructure, which can be described as a summary of the information a reader considers important (Kintsch & Vandijk, 1978). QuikScan gives readers a coherent and correct macrostructure, even before they have read the text. This way, they don't have to build the macrostructure on their own. This also minimizes the possibility

that reader constructs a faulty model. It may also reduce the cognitive load during the reading process (Paas, Renkl & Sweller, 2003).

Macro-level processes establish the essence of a text, the gist level, which means that the meaning of the text content illuminates the relationship of sentences and paragraphs to the global topic. QuikScan supports the macro-level processes, so that readers know directly which are the global topics and therefore probably can make sense of the text in a faster and easier way. Thereby, QS supports the building of a mental representation of the text content, which in turn supports recall of the text. This theory is supported by the results of the study, as QS has been showed to improve text recall on concepts by supporting the reader in building a text model.

Macro-rules organize and reduce detailed information of the microstructure of a text. They describe the facts from a more global point of view. When a reader is faced with a text on a complex topic, ruling out less useful information helps to construct a sound representation (Kintsch & van Dijk, 1978). The QS-summaries can help the reader to judge which information they should give priority in the comprehension process, thereby function as macro-rules. Important points are cued, which leads to a reduction of less important information. This is expected to facilitate reader's performance (Kintsch & van Dijk, 1978).

Another theory that is in line with the findings of this study, is the Documents' Model by Britt et al. (1999). This theory states that readers construct a mental representation of the central information in the text, which also depicts where the different information units come from and how they are interrelated. QuikScan supports this mental representation by doing this task for the reader; QS makes clear where different information units come from, as the summaries are numbered and the numbers correspond with numbers in the text. So the reader quickly sees where the summary information comes from.

### **Limitations and recommendations for future research**

A possible limitation of this study could lie in the fact that students may have expected to get questions about the most important concepts of the text, as this is common in most school exams, and read the text in an accordingly manner. This study has not taken this into account in the given instruction. It would be interesting if the study would be replicated with the explicit instruction that the students have to answer questions about concepts and details after reading the test.

The test was taken in different grades and different educational levels, as well as in different schools in different towns. These factors could have influenced the data. For a replications study, we therefore

recommend to only take the test in one grade and one educational level and preferably also in only one school, to make the results more comparable. Furthermore, the conditions could be limited to the three conditions that had been finally used in this study. As the labels made no significant difference, they can be left out. Still, it would be interesting to keep a fourth condition, the Concept + Label condition, to compare it to the Concept condition. This could give more information whether or not QuikScan should adapt labels into its design.

### **Practical implications**

This study is also of practical value. Given the results, the guidelines on making summaries seem to have worked well. Based on the rules and the guidelines how to make a good summary statement, practical guidelines were made for the schools that participated in the experiment. In these guidelines, it was described what accounts for a good summary and how students can construct a good summary on their own. The schools had great interest and use for these guidelines, as reading, understanding, and recalling texts is part of many lessons. Furthermore, several exams ask students for text recall. Therefore, schools want to support their students in the reading process. Having an instrument for students to summarize a text was therefore seen as very valuable. As there is not much material teachers can rely on, as also found in the literature search for recommended practice on constructing summaries, the guidelines are of great practical value. They can also be used in further research on QS or summaries in general.

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## Appendix 1: Personal Information

Vul alsjeblieft de volgende vragen in

1. Wat is je voor- en achternaam?	.....
2. Wat is je geboortedatum?	.....
3. Wat is je geslacht?	<input type="radio"/> man <input type="radio"/> vrouw (kruis het juiste antwoord aan)
4. Op welk type school zit je?	<input type="radio"/> Havo <input type="radio"/> VWO <input type="radio"/> Atheneum <input type="radio"/> Gymnasium (kruis het juiste antwoord aan)
5. In welke klas zit je ?	

Hartelijk bedankt voor je medewerking

## Appendix 2: QS-Concept text

### *De kunstsector*

#### Beeldend kunstenaar

- 1} Weetje**  
Veel meesters van de beeldende kunst hebben een noodlottig leven geleid.
- 2} Beroepstypering**  
Een beeldende kunstenaar maakt twee- of drie dimensionale objecten.
- 3} Vaardigheden**  
Een beeldende kunstenaar moet beschikken over verbeeldend vermogen en grondige kennis van materialen.
- 4} Samenwerking**  
Het commerciële deel van het werk van een beeldende kunstenaar wordt vaak door anderen gedaan.
- 5} Geschiedenis**  
Beeldende kunstenaars worden vaak geplaatst in een kunststroming.

Het is misschien wel een raar advies. Maar iemand die beeldend kunstenaar wil worden, doet er goed aan vooral niet te kijken naar de levensloop van beroemde voorgangers. **{1}** Veel grote meesters, van bijvoorbeeld de schilderkunst, zijn ongelukkig aan het einde van hun leven geraakt. Rembrandt van Rijn overleed eenzaam en achtervolgd door schuldeisers. Graffitiartiest Keith Haring werd noodlottig getroffen door het HIV-virus, en Vincent van Gogh stierf met ernstige gehoorproblemen.

**{2}** Onder de algemene benaming van beeldend kunstenaar worden een heleboel verschillende beroepen geschaard, zoals beeldhouwer, decorontwerper, pottenbakker, meubelontwerper en kunstschilder. Al deze beeldende kunstenaars hebben gemeen dat ze ‘afbeeldingen’ maken die een platte of ruimtelijke vorm kunnen aannemen. **{3}** Van een beeldend kunstenaar wordt verwacht dat hij over de gave beschikt om mensen of dingen in beelden te vangen, te ‘verbeelden’. Behalve talent, ruimtelijk inzicht en gevoel voor kleuren is ook een gedegen kennis van materialen vereist. Een beeldend kunstenaar zal, meestal vanuit een atelier, werken met verschillende soorten materialen zoals diverse verfsoorten, boetseerlei, ijzer, of hout. Dat lijkt simpel, maar is het niet. Bijvoorbeeld het gebruik van olieverf vereist een volstrekt andere schildertechniek dan het gebruik van acrylverf. **{4}** Een kunstenaar moet ook ondernemer zijn. Hij moet actief op zoek gaan naar publiciteit en opdrachtgevers. Daarom wordt in de huidige opleiding tot beeldend kunstenaar ook aandacht besteed aan deze commerciële kanten van het beroep. Veel kunstenaars hebben desalniettemin moeite met het aan de man brengen van hun werk. Vaak wordt dit dan ook uitbesteed aan een PR-manager of galeriehouder. Deze ontvangt daarvoor een percentage dat kan oplopen tot wel zestig procent van de verkoopopbrengst.

**{5}** Het werk van een beeldende kunstenaar wordt meestal binnen een bepaalde kunststroming geplaatst. Een bekend voorbeeld is het impressionisme met vertegenwoordigers

zoals de schilder Monet en de beeldhouwer Rodin. Een ander voorbeeld is het expressionisme, waartoe Van Gogh en Mondriaan worden gerekend. Uniek is ook het surrealisme, met Dali als bekendste vertegenwoordiger. Soms zie je zelfs dat een beeldende kunstenaar zich een plaats heeft verworven in een aantal kunststromingen. Zo wordt in het werk van Picasso wel onderscheid gemaakt in een kubistische, een klassieke, een surrealistische, en een abstracte periode.

## Schrijver

- |            |   |
|------------|---|
| <b>6}</b>  | <b>Weetje</b><br>Boeken hebben de geschiedenis beïnvloed en hun schrijvers soms veel roem gebracht. |
| <b>7}</b>  | <b>Beroepstypering</b><br>Er zijn literaire schrijvers en copywriters.                              |
| <b>8}</b>  | <b>Vaardigheden</b><br>Een literaire schrijver moet beschikken over verbale kwaliteiten.            |
| <b>9}</b>  | <b>Taken</b><br>Een literaire schrijver moet reclame voor zichzelf maken.                           |
| <b>10}</b> | <b>Samenwerking</b><br>Een belangrijke partner van de literaire schrijver is de uitgever.           |

Er zijn tal van gezegden over boeken die mensen al dan niet waarheidsgetrouw typeren. Zo kan iemand goed te boek staan, zijn boekje te buiten gaan, of een open boek zijn. Een zegswijze die niet over mensen gaat maar vooral over de invloed van boeken is dat ‘de pen scherper is dan het zwaard’. In deze uitspraak zit een kern van waarheid. {6 Een aantal boeken heeft zelfs meer een stempel op de wereldgeschiedenis gedrukt dan welke oorlog ook. Denk bijvoorbeeld maar aan het meest gelezen boek ter wereld, de Bijbel. Het geschrevene kan ook de schrijver zelf eeuwige roem opleveren. Denk maar aan de blinde Griekse dichter Homerus van de ‘Ilias’ en ‘Odyssee’. Dat de roem ook negatieve kanten kan hebben bewijst Salman Rushdie. Zijn boek ‘De Duivelsverzen’ werd door de Iranese Ayatollah Khomeini in de ban gedaan en vogelvrij verklaard. Hij moest daardoor jarenlang in angst en onzekerheid onderduiken.

{7 Het beroep van schrijver kent eigenlijk twee kanten. Enerzijds is er de tekstschrijver of copywriter. Deze kan bijvoorbeeld reclame teksten schrijven. Maar een copywriter kan zich ook bezighouden met teksten als de gebruiksaanwijzing bij medicijnen of ingewikkelde apparatuur. Een journalist is ook een copywriter. Aan de andere kant is er het schrijverschap in de betekenis van een schrijver die met proza of poëzie poogt kunst voort te brengen. Zo’n literaire schrijver publiceert verhalen, gedichten, romans, novellen en ga zo maar door. {8 Een literaire schrijver onderscheidt zich door zijn bijzondere verbale expressie. Zo zijn er schrijvers die heel goed zijn in het bedenken van spannende of romantische verhalen. Stephen King heeft zich bijvoorbeeld gespecialiseerd in horror verhalen. Annie M.G. Schmidt was weer heel goed in het bedenken van kinderverhalen. Sommige schrijvers zijn vooral bekend door hun enorme productie. Zo schreef Heinz G. Konsalik ruim 200 boeken. Vooral dichters hebben het verbale talent om moeilijk te vatten emoties in woorden uit te drukken. Van Shakespeare is bekend dat hij geweldig kon ‘spelen’ met woorden en zinnen. Door zijn omvangrijke vocabulaire zijn er soms twijfels gerezen of diens werk wel door een enkel persoon geschreven is.

{9 Het is tegenwoordig noodzakelijk dat een literair schrijver ervoor zorgt dat hij bij een breed publiek bekend wordt. Het is bijna een ‘must’ dat hij op televisie verschijnt. Zo vertoende de schrijver Maarten ’t Hart zich enkele jaren geleden op het Boekenbal in vrouwenkleren en haalde daarmee het NOS-journaal. Een ander middel dat schrijvers graag gebruiken om in de publiciteit te komen, is ruzie maken. Willem Frederik Hermans stond erom bekend met iedereen in de clinch te liggen. Ook Ronald Giphart weet op dit gebied van wanten. {10 Bijna alle literaire schrijvers publiceren hun werk via een uitgever. Zo’n uitgever houdt zich bezig met de totale totstandkoming van het boek. Grote uitgeverijen maken voor dit proces gebruik van vormgevers, illustratoren en eindredacteuren, werk dat bij kleine uitgeverijen soms door één persoon wordt uitgevoerd. Gemiddeld ontvangt een schrijver ongeveer tien procent van de bruto verkoopprijs per verkocht boek. Het is daardoor niet gemakkelijk voor een schrijver om met zijn werk in zijn onderhoud te voorzien.

## Fotograaf

- |                            |   |
|----------------------------|---|
| <b>11} Weetje</b>          | Foto’s hebben vaak een grote emotionele betekenis.  |
| <b>12} Beroepstypering</b> | Fotografen werken in loondienst of als freelancer.  |
| <b>13} Vaardigheden</b>    | Een fotograaf moet beschikken over een goed inlevingsvermogen.  |
| <b>14} Taken</b>           | Voor een fotograaf is of het binnenhalen van opdrachten of het maken van kunstige foto’s de belangrijkste taak.           |
| <b>15} Samenwerking</b>    | Veel fotografen maken gebruik van professionele ontwikkel-laboratoria.  |
| <b>16} Geschiedenis</b>    | Waar vroeger vooral het positieve aanzien van de fotografie naar voren kwam, komt nu ook de negatieve kant meer in beeld. |

Mensen hechten vaak aan bepaalde objecten. Dat hoeft lang niet altijd om dure dingen te gaan. {11 Op de vraag welke dingen men zou meenemen uit een brandend huis is het eerste antwoord vaak foto’s.

{12 Een fotograaf probeert de realiteit vast te leggen in een kunstzinnige vorm. Dit kan hij in loondienst doen. Bij een bedrijf of instelling verzorgt hij dan bijvoorbeeld de reportage van een trouwerij of hij levert de foto’s voor de reclame. Er zijn ook fotografen die hun geld verdienen als zelfstandig ondernemer; zij worden freelancers genoemd. Sommige freelancers maken, net zoals de fotografen in loondienst, vooral foto’s om in hun levensonderhoud te voorzien. Maar er zijn ook freelancers die zichzelf op de eerste plaats zien als kunstenaars. Voor hen is de fotografie een vorm van kunst en het maken van foto’s is belangrijker dan het verdienen van geld met de foto’s.

{13 Een fotograaf moet zich meestal goed kunnen verplaatsen in anderen. Portretfotografen krijgen bijvoorbeeld alleen dan goede foto’s als er een klik ontstaat met de

mensen die ze op de gevoelige plaat willen vastleggen. Heel belangrijk daarbij is dat de fotograaf de modellen op hun gemak stelt.

**{14}** Als een fotograaf als freelancer werkt is het van het grootste belang dat hij genoeg opdrachten binnen haalt. De meeste freelancers maken gebruik van een portfolio van hun beste werk om eventuele opdrachtgevers te overtuigen van hun kwaliteiten. Fotografen kunnen hun werk echter ook op de eerste plaats zien als het maken van kunst. Hun belangrijkste doel is het om ideeën en emoties over te brengen door middel van hun foto's. Helaas is het vaak zo dat de meer artistieke fotografen niet van hun foto's kunnen leven.

**{15}** Toen er nog uitsluitend zwart-wit foto's bestonden, deden veel fotografen al het ontwikkelwerk zelf. Ze konden zich dan soms uren opsluiten in hun doka (de donkere kamer). Tegenwoordig wordt dat werk vaak uitbesteed. Vooral bij kleurenfoto's zien we dat de fotograaf een beroep doet op professionele laboratoria.

**{16}** Na de ontdekking van de fotografie door de Fransman Joseph Niepce, verspreidde deze zich al heel snel over de hele wereld. In ons land zorgde vooral meneer Kiek, één van de eerste Nederlandse fotografen, voor bekendheid van de fotografie. Aan deze fotograaf danken we ook de uitdrukking 'een kiekje maken'. Fotograferen is nog steeds een geweldig populaire hobby in Nederland. Fotografen zijn de laatste jaren bij tijd en wijle echter ook minder positief in het nieuws. Zo werd de schuld van de dood van prinses Diana in de schoenen geschoven van de haar achtervolgende paparazzi. En een expositie in het Groninger Museum van de Amerikaanse fotograaf Andres Serrano deed veel stof opwaaien vanwege de expliciet erotische foto's.

## Cabaretier

### 17} Weetje

Mensen denken soms dat het hele leven van een cabaretier om grappig zijn draait.

### 18} Beroepstypering

Een cabaretier is een artiest die op het podium amusement brengt.

### 19} Vaardigheden

Een cabaretier moet beschikken over goede taalvaardigheid en improvisatietalent.

### 20} Samenwerking

In een cabaretvoorstelling werkt vaak een grote groep mensen met uiteenlopende vaardigheden samen.

**{17}** Het leven van een van een cabaretier is niet altijd een pretje. Zo verzuchtte Herman Finkers ooit: "Het vervelende van cabaretier zijn, is dat mensen die je tegenkomt gaan proberen leuker te zijn dan jijzelf." Wat ook regelmatig voorkomt is dat mensen van een cabaretier verwachten dat hij altijd en overal leuk of humoristisch uit de bus komt. En ze zijn dan teleurgesteld als de cabaretier niet met een goede mop, kwinkslag of woordspeling voor de dag komt.

**{18}** Het beroep van cabaretier valt onder de zogenaamde 'kleinkunst'. Hiertoe worden naast de cabaretier zelf ook komische duo's, zangers, showdansers en musicalspelers gerekend. De 'Dikke van Dale' definieert een cabaretier als een optredend artiest in een grappig programma waarin dans, voordracht en muziek afwisselend gebruikt kunnen worden. Er is een grote verscheidenheid aan cabaretiers. Zo spelen de cabaretiers Youp van 't Hek en Freek de Jonge in

hun theatershows in op actuele gebeurtenissen en geven maatschappijkritiek. Cabaretiers zoals André van Duin en Mister Bean brengen in hun shows meestal nauwelijks een zinnig woord uit. Ze zijn grappig doordat ze op het podium de volslagen idioot uithangen. Er zijn ook muzikale cabaretiers. Heel apart in dit genre is de cabaretier Hans Liberg, die het strenge karakter van de klassieke muziek vermorzelt door klassieke melodieën te vermengen met popmuziek en steeds maar weer te onderbreken met absurde commentaren.

{19} In de meeste gevallen schrijft een cabaretier de teksten voor zijn eigen shows. Een goede beheersing van de Nederlandse taal – zowel schriftelijk als mondeling – is dan ook noodzakelijk. Daarnaast is improvisatietalent een vereiste omdat de cabaretier moet kunnen reageren op onverwachte reacties van het publiek zoals een bulderende lach of een rare opmerking. Cabaretiers bedenken hun ‘geïmproviseerde’ reacties soms vooraf aan hun show. Zo kunnen ze, bijvoorbeeld als een bezoeker te laat komt, daarop ‘spontaan’ met een grap reageren. {20} Sommige cabaretiers schrijven ook de muziek voor hun programma’s zelf. Anderen maken gebruik van een componist. Er zijn echter nog veel meer personen in de werkomgeving van de cabaretier die een substantiële bijdrage leveren aan het succes van zijn show: de manager of impresario, de redacteurs of ‘meelezers’ en het technisch personeel, dat zorg draagt voor de kostuums, het decor en de belichting. Zonder hen geen goede voorstelling.

## Acteur

### 21} Weetje

Acteurs leven zich soms te sterk in hun personage in.

### 22} Beroepstypering

Een acteur is iemand die een rol speelt.

### 23} Vaardigheden

Een acteur moet emoties kunnen overdragen op het publiek.

### 24} Taken

Acteurs bereiden zich vaak voor op het spelen van hun personage via een combinatie van onderzoek en repetities.

{21} Acteren is een vak waar je soms letterlijk in ‘op’ kunt gaan. Dit geldt vooral voor ‘method actors’. Dit zijn acteurs die zich, vaak gedurende een aantal maanden, volledig inleven in de belevingswereld van hun personage. Dat zulke ervaringen minder goed kunnen aflopen, bewijst het geval van de Engelse acteur en komiek John Cleese, die psychiatrische hulp nodig had om uit de rol te komen van hoteleigenaar ‘Basil Fawlty’ (uit de serie ‘Fawlty Towers’) waarin hij, zegge, was blijven hangen. {22} Een acteur kan een rol spelen in, onder andere, een film, een soap, een reclame of een toneelstuk. Het aantal rollen is schier eindeloos. Een betrekkelijk nieuw rol-type is de ‘performance actor’. Dat is een acteur die wordt ingehuurd om een geanimeerde figuur zo natuurlijk mogelijk te laten bewegen. Gollum uit de film “The Lord of the Rings” werd door zo’n acteur gespeeld.

{23} Een acteur moet zijn publiek iets laten (mee)belevén. Om dat publiek in de juiste gemoedstoestand te krijgen moet de acteur in woord en gebaar geloofwaardig zijn. Hij moet zichzelf goed kunnen verplaatsen in zijn rol. Verder moet hij emoties kunnen oproepen die de gevoelens van zijn personage overtuigend weergeven. Dat inlevingsvermogen is grotendeels een kwestie van aanleg. Andere capaciteiten van een acteur zijn goed aan te leren, zoals de



ontwikkeling van inzicht in de eigen dramatische expressie, verschillende acteertechnieken en geheugentechnieken om teksten te kunnen onthouden. {24} In veel gevallen doet een acteur vooraf onderzoek om de belevingswereld van het personage te begrijpen. Wanneer hij bijvoorbeeld een bekend persoon moet spelen, zal hij gebruik maken van schriftelijke bronnen, zoals biografieën, of filmopnames. Een method actor zal veldwerk willen verrichten. Wanneer zo'n acteur een politieagent moet spelen zal hij bijvoorbeeld enkele maanden meegaan op patrouille. Zelfs met een grondige voorbereiding komt het regelmatig voor dat de personage die een acteur uitbeeldt bij aanvang van de repetities nog niet goed uitgewerkt en nog vrij algemeen is. Pas bij herhaald oefenen werkt hij zijn personage dan uit tot een karakter en persoonlijkheid met unieke eigenschappen.

## Modeontwerper

### 25} Weetje

Een aantal modeontwerpers is vooral bekend door andere zaken dan hun kledingontwerpen.

### 26} Beroepstypering

Voor veel modeontwerpers is het bedenken van gewone kleding en bijpassende accessoires de hoofdzaak.

### 27} Vaardigheden

Een modeontwerper moet de menselijke anatomie kennen omdat zijn kunst door mensen wordt gedragen.

### 28} Taken

Een modeontwerper maakt een creatief concept van een kledingstuk.

### 29} Samenwerking

De ontwerper is aangewezen op anderen om van een schets naar een model te komen.

Eén van de beroemdste modeontwerpers is Gabrielle 'Coco' Chanel. Als enige slaagde zij erin haar grote modezaak open te houden gedurende de Eerste Wereldoorlog. Eén van haar befaamde ontwerpen was een kleine zwarte jurk, die, hoewel zwart, voor het eerst niet bedoeld was voor een begrafenis. {25} Naast kleding ontwierp Coco Chanel ook sieraden, tassen en parfums. Vooral haar parfums, en dan met name 'Chanel no. 5', hebben bijgedragen aan haar grote bekendheid. Coco Chanel vernoemde dat parfum naar haar geluksgetal, en het bracht haar inderdaad geluk. 'Nummer 5' is nog steeds het beroemdste en best verkochte geurtje ter wereld. De meeste mensen kennen Paco Rabanne ook eerder van zijn parfums en aftershaves dan van zijn modeontwerpen. Gianni Versace werd op slag wereldberoemd nadat hij vlak voor zijn huis in Florida vermoord werd op 50-jarige leeftijd

{26} Bij het beroep van modeontwerper denken de meeste mensen in eerste instantie aan personen die exclusieve mode ontwerpen voor rijke particulieren. Bij deze zogenoemde 'haute couture' worden slechts enkele exemplaren van de kledingstukken gemaakt, die met de hand op maat worden gemaakt voor de drager ervan. Aangezien de doelgroep die zich haute couture kan veroorloven betrekkelijk klein is, verdienen de meeste couturiers hun geld niet met haute couture (ook wel aangeduid als 'de grote mode'). Verreweg de meeste ontwerpers werken op de

ontwerpafdeling van een confectiebedrijf of modeatelier waar ze zich bezig houden met het maken van de daarvan afgeleide ‘prêt-à-porter’ collectie (‘de kleine mode’) en bijpassende accessoires. Dit is confectiekleding, mode die gewoon klaar is om te dragen en niet op maat gemaakt is.

{27} Het ontwerpen van mode, zeker van haute couture, is een kunstvorm. Een modeontwerper onderscheidt zich van andere beeldende kunstenaars doordat zijn ontwerpen door mensen gedragen moeten worden. Daarom is een grondige kennis van de menselijke lichaamsbouw vereist. {28} Eén van de centrale taken van de modeontwerper is het maken van een creatief concept. Meestal kiest hij eerst het soort kledingstuk dat hij wil maken. Daarna denkt hij na over de stof en de kleuren van de kleding. Daarna zal de modeontwerper overgaan op het maken van schetsen. Nadat het kledingstuk is gepast op een model, kan hij er nog enige veranderingen in aanbrengen. {29} Om van een schets naar een kledingstuk te komen zijn er anderen nodig. Zodra de schetsen hun definitieve vorm hebben aangenomen, worden zij uitgewerkt door een patroonmaker of door speciaal daarvoor ontwikkelde software. Een modellenmaker maakt vervolgens van de gekozen stof het uiteindelijke kledingstuk.

### Binnenhuisarchitect

#### 30} Weetje

Nederlanders hechten steeds meer waarde aan de inrichting van hun woning.

#### 31} Vaardigheden

Een binnenhuisarchitect moet vernieuwend zijn.

#### 32} Taken

Een binnenhuisarchitect moet bij zijn werkzaamheden rekening houden met beperkingen zoals ruimte.

#### 33} Samenwerking

Bij de realisatie van het ontwerp door woninginrichtingbedrijven en soms ook aannemers is de binnenhuisarchitect de projectmanager.

{30} De waarde die door Nederlanders aan het interieur van hun woning wordt gehecht, lijkt de laatste jaren steeds groter te worden. Dit is alleen al te zien aan de relatief grote hoeveelheid televisieprogramma's die over dit onderwerp worden uitgezonden. Ging het aanvankelijk nog uitsluitend om programma's waarin de ‘doe-het-zelf’-klus voorop stond, tegenwoordig bestaan er speciale programma's die helemaal gaan over binnenhuis-architectuur. In een van de eerste programma's, TV Woonmagazine, verzorgde binnenhuisarchitect Jan des Bouvrie de favoriete ‘metamorfose’. Het ging daarin om een gedaanteverwisseling van keuken, badkamer, slaapkamer of woonkamer. De mensen die niet waren ingelicht over de keuzes van Jan des Bouvrie werden (hopelijk positief) verrast met een totaal nieuwe inrichting van hun leefruimte.

{31} Een binnenhuisarchitect moet in de eerste plaats vernieuwende ideeën kunnen verkopen. Hij moet over de vaardigheid beschikken om een oudbakken interieur om te toveren in een frisse en vaak moderne leefomgeving. Daarvoor moet hij of zij uitstekend op de hoogte zijn van de nieuwste trends en mogelijkheden op interieurgebied. Ruimtelijk inzicht en een goede kennis van de modernste stoffen en materialen voor de inrichting van een huis zijn ook onontbeerlijk. {32} Om een project te laten slagen moet de binnenhuisarchitect in staat zijn een ontwerp te realiseren dat tegemoet komt aan de wensen en financiële mogelijkheden van de

klant, en dat voldoet aan technische beperkingen. De binnenhuisarchitect begint meestal de ruimte(s) te bekijken en voert dan een gesprek met de klant om te bepalen wat hij wil en niet wil en hij vraagt de klant naar diens financiële mogelijkheden. Als de opdracht binnen is, begint de binnenhuisarchitect de leefruimtes op te meten die moeten worden ingericht. De klant heeft immers niets aan een kast, die niet in de ruimte past. Daarna maakt hij voorlopige schetsen, waarbij natuurlijk rekening wordt gehouden met bouwvoorschriften en technische mogelijkheden. Anders dan in de 'metamorfose' van Jan des Bouvrie volgt dan vaak een nieuw overleg met de klant dat kan leiden tot aanpassingen in de schetsen. Een relatief nieuwe ontwikkeling is de trend dat binnenhuisarchitecten elementen uit het interieur zelf ontwerpen, zoals vazen en lampen, maar ook huishoudelijke apparatuur. Een goed voorbeeld hiervan is de Italiaanse ontwerpstudio Alessi, die een tijdje geleden een ware rage ontketende met haar karakteristieke 'ronde' design.

**{33}** De binnenhuisarchitect beschikt vaak over een groot netwerk van leveranciers van meubelen, bouwspullen, vloeren en dergelijke. Die schakelt hij in zodra hij een opdracht van de klant heeft verworven. Bij ingrijpende vernieuwingen waarbij ruimtes verbouwd moeten worden werkt de binnenhuisarchitect samen met een aannemer. De binnenhuisarchitect heeft dan de rol van manager. Hij moet ervoor zorgen dat het project netjes en op tijd wordt afgerond.

## Appendix 3: The recall test

Je naam: .....

### Vragen over de tekst

*Je krijgt 10 minuten de tijd. Probeer zoveel mogelijk vragen te beantwoorden.*

*Bij de vragen 1 en 2 krijg je maximaal 3 punten voor je antwoord. Voor de vragen 3 t/m 14 levert elk goed antwoord steeds 1 punt op. Geef korte antwoorden.*

1. Vat het beroep van acteur samen in maximaal 6 zinnen. (3 punten)
2. Bij kookboeken zie je vaak dat elk recept beschreven wordt aan de hand van enkele algemene trefwoorden zoals beschrijving, ingrediënten, bereiding en menusuggesties. Zo'n algemene indeling zou je ook kunnen bedenken voor de tekst over beroepen uit de kunstsector. Met welke 6 trefwoorden zou jij elke beroepsgroep willen typeren? (3 punten)
3. Wat hebben Vincent van Gogh en Keith Haring met elkaar gemeen? (1 punt)
4. Welke beeldende kunstenaar heeft zich een plaats verworven in meerdere kunststromingen? (1 punt)
5. Welke twee soorten schrijvers zijn er? (1 punt)
6. Ongeveer welk percentage van de verkoopprijs per boek ontvangt een schrijver? (1 punt)
7. Waarom is er twijfel gerezen of de werken van Shakespeare geschreven zijn door één auteur? (1 punt)
8. Op welke twee manieren kan een fotograaf zijn inkomen verdienen? (1 punt)
9. Wat gebruiken fotografen om potentiële opdrachtgevers te overtuigen van hun kwaliteiten? (1 punt)
10. Op welke twee manieren reageren mensen als ze een cabaretier tegenkomen? (1 punt)
11. Welke twee soorten kledingcollecties worden er onderscheiden? (1 punt)
12. Welk kledingstuk van Coco Chanel was befaamd? (1 punt)
13. Welke rol heeft een binnenhuisarchitect bij de realisatie van zijn ontwerp door bedrijven of aannemers? (1 punt)
14. Wat is een nieuwe trend bij binnenhuisarchitecten? (1 punt)