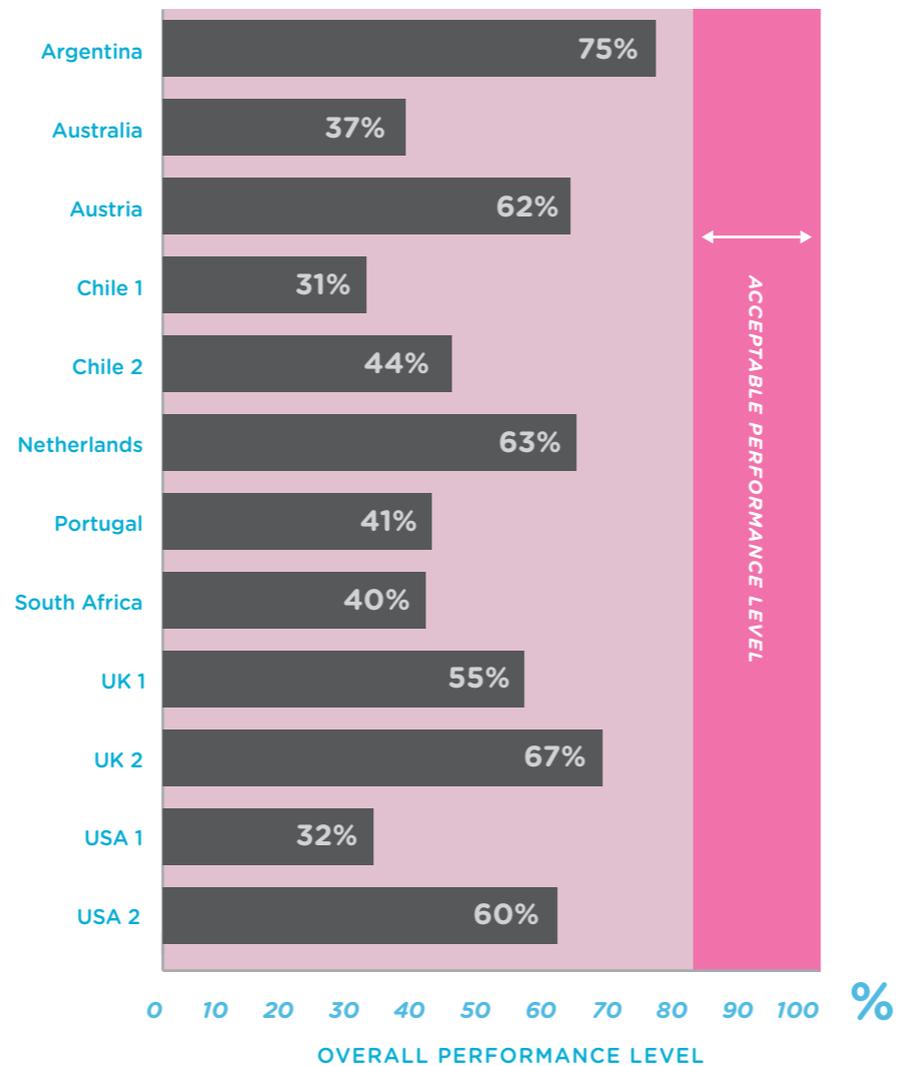


Credit card statements

BASELINE MEASUREMENT 2009



DAVID SLESS





e-papers

Credit Card Statement

Baseline measurement 2009

David Sless

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What are communication baseline measurements?

30 years ago the Communication Research Institute (CRI) began communication baseline measurements studies of communication practices used by business and government in their communication with the public.

The types of communication studied included such things as voice systems, forms, legal documents, bills, letters, product labelling, consumer instructions, and websites — the stuff of ordinary life that originates from business and government and makes up a large part of the daily communication between organisations and the public.

Baseline measurements quantify the number and types of faults in a design and how far short they fall of an acceptable performance level. They also provide a great deal of qualitative data on the causes of the failure.

In the mid-1990s CRI undertook communication baseline measurements in Australia of banking websites ⁽¹⁾, medicine labelling ⁽²⁾, Financial Services Guides ⁽³⁾, government and business forms ⁽⁴⁾, utility bills ⁽⁵⁾, Consumer Medicines Information (CMI) ⁽⁶⁾, and many other types of designed information.

Detailed data from these studies are used by CRI Fellows to help our Corporate Members. Wherever possible, we avoid drawing attention to specific institutions. We have no interest in 'naming and shaming'. Rather, our interest is in drawing attention to current public communication practices, in order to encourage the whole of industry and government

to improve their practices in the future. The data we provide establish the communication baseline measurements against which we can measure their future improved practices.

Background to this study

Credit cards are used by billions of people all over the world, and in the wake of that use come the inevitable credit card statements (CCS), the bills to be paid. These statements are at the heart of the communication between credit providers and their customers. They are the main instrument through which customers conduct their business with the credit providers.

This communication baseline measurement study is the first international study of its kind. We chose for this first international study a document that is relatively widespread around the world, and which has attracted considerable public attention recently—Credit Card Statements (CCS)

All those involved in the baseline measurements activities were volunteers. Twelve CRI Fellows and Subscribers from Australia, Austria, Chile, Netherlands, Portugal, South Africa, UK and USA gave freely of their time as investigators on the project, and they recruited other volunteers to participate in the study. The whole project was managed by CRI in Melbourne.

Figure 1: The investigators

Consuelo Amenabar, *Chile*

Thomas Bohm, *UK*

Veronika Egger, *Austria*

Sandra Fisher-Martins, *Portugal*

Martin Gallo, *Argentina*

Frances Gordon, *South Africa*

Claudine Jaenichen, *USA*

Judith Moldenhauer, *USA*

Jane Teather, *UK*

Alexander Tyers, *Australia*

Karel van der Waarde, *Belgium*

Carola Zurob, *Chile*

With the help of our volunteers, we collected a convenience sample of CCS from around the world. These were depersonalised to remove any information that would identify the specific card holders.

This is a report of their work; the findings made possible by their collective efforts and collaboration. Both the investigators and participants have made an important contribution to our field, and we hope they will continue to collaborate with us in the future. Indeed, we hope that their example will encourage many others to join us in our Communication Baseline measurements program.

Method

Diagnostic testing sessions

The method used in this study is called diagnostic testing (7). It is conducted in a session involving an investigator and a participant. As its name suggests, the method was developed specifically to help information designers identify and diagnose design faults.

There is now a body of evidence and experience in the use of diagnostic testing that confirms its technical reliability, sensitivity and validity (8). There are also good research conclusions on the best types and numbers of people that are needed as participants, in order to get useful data (9).

Like diagnostic tools used in medicine, diagnostic testing in information design is at its most powerful when used in a clinical context, where the presence or absence of symptoms of pathology is used to guide the most appropriate 'treatment'.

Diagnostic testing sessions are conducted one-on-one in a quiet room. The investigator and each participant, on their own, collaborate in a conversation around the use of a particular document. The investigator makes it clear to the participant at the outset that the purpose of the diagnostic session is to find out through the diagnostic testing what, if anything, is wrong with the document. The investigator asks the participant to undertake a number of tasks with the document, recording what they do and say whilst trying to complete the task. Participants are prompted to talk about what they are doing and any problems they encounter.

Three types of quantitative observations are made by investigator with each participant:

- ❖ Can they find the information?
- ❖ Do they have difficulty finding the information?
- ❖ Can they use the information appropriately once they have found it?

Alongside this quantitative data, investigators report their detailed observations on the types of difficulty participants have in finding information, and report the verbatim comments of participants throughout the diagnostic sessions.

Performance requirements and protocol

Using the CCS as our starting point, we developed a set of performance requirements for this type of document. Performance requirements consist of two things: a list of the tasks that we believe people should be able to perform with the document, and an acceptable level at which we expect people to perform those tasks.

Usually, the process of compiling and agreeing to a set of performance requirements involves extensive consultation with all stakeholders. However, in this case, we used our own prior experience with many similar documents. The tasks people might be expected to perform with these documents are of two sorts. Tasks that have to be performed on any bill that needs to be paid, and tasks that might be appropriate for anyone using a credit card. Figure 2 shows the performance requirements developed for this study.

Figure 2: Performance Requirements for CCS

IDENTIFICATION TASKS	BASIC USAGE TASKS	INTERACTIVE TASKS
Identify what the document is (a credit card statement)	Find and explain the date range covered by the statement	Find and explain how to make a payment*
Find and identify who is providing the statement (company name)	Find and explain the opening balance	Find and explain how to find more information
Identify who the credit card statement is for (name, address, account number)	Find and explain the closing balance	
Find and explain the statement period (i.e. monthly statement, annual statement)	Identify the total of any cash advances for the statement period and the interest rate that applies*	
	Identify the total of any purchases for the statement period and the interest rate that applies	
	Find and explain any interest that has been charged to the account	
	Identify any transaction dates	
	Find and explain any transaction descriptions	
	Find and explain the overall credit limit	
	Find and explain any available credit	
	Find and explain any payments that have been made*	
	Find and explain any payments due (when, how much, any overdue amounts)*	
	Find and explain any terms and conditions*	
	Find and explain how many pages are included in the statement	

The target performance level that we aim for is that any customer using a credit card statement be able to find at least 90% of what they are looking for, and

then appropriately act on (i.e. demonstrate they understand) 90% of what they find.

These two figures are based on:

1. our information design experience
2. our research findings which demonstrate that these levels are achievable.
3. our extensive consultation with stakeholders from industry, government, and consumer advocates who have agreed to these target performance levels are acceptable.

To provide a 'headline' figure, we multiply the percentage found by the percentage used appropriately. This gives us a target performance level of 81%. ie $90\% \times 90\% = 81\%$.

As an example of this at work in practice see the [Australian Self Medication Industry \(ASMI\) Labelling code of practice for designing usable non-prescription medicine labels for consumers.](#)

The above performance requirements were then used to develop the test protocol used by the investigators in the diagnostic sessions: that is, the list of questions and requests to participants to undertake the tasks specified in the performance requirements.

The test protocol is designed to form the basis of a one-on-one conversation between an investigator and a participant. The test protocol needed to work across all credit card statements. This protocol was piloted by an investigator in two diagnostic sessions to detect any problems that needed to be resolved before finalising it for use. The test protocol was also vetted for individual statement suitability with each investigator prior to commencing the study.

Twelve credit card statements from around the world were provided by our volunteer investigators.

Our investigators followed the diagnostic procedure outlined above, using the same protocol, translated into the local language where needed. They collated the data on standardised spreadsheets and returned them to CRI in Melbourne, where we checked them, conferred with each investigator to resolve any queries, and then analysed and aggregated the data.

All personal information about the specific participants at each session remained confidential and were not passed on to our project manager. The performance data collected are presented in this paper.

Results

A total of 97 diagnostic sessions were conducted with 12 CCS in 9 countries.



The overall performance level of the CCS

In a word 'alarming'.

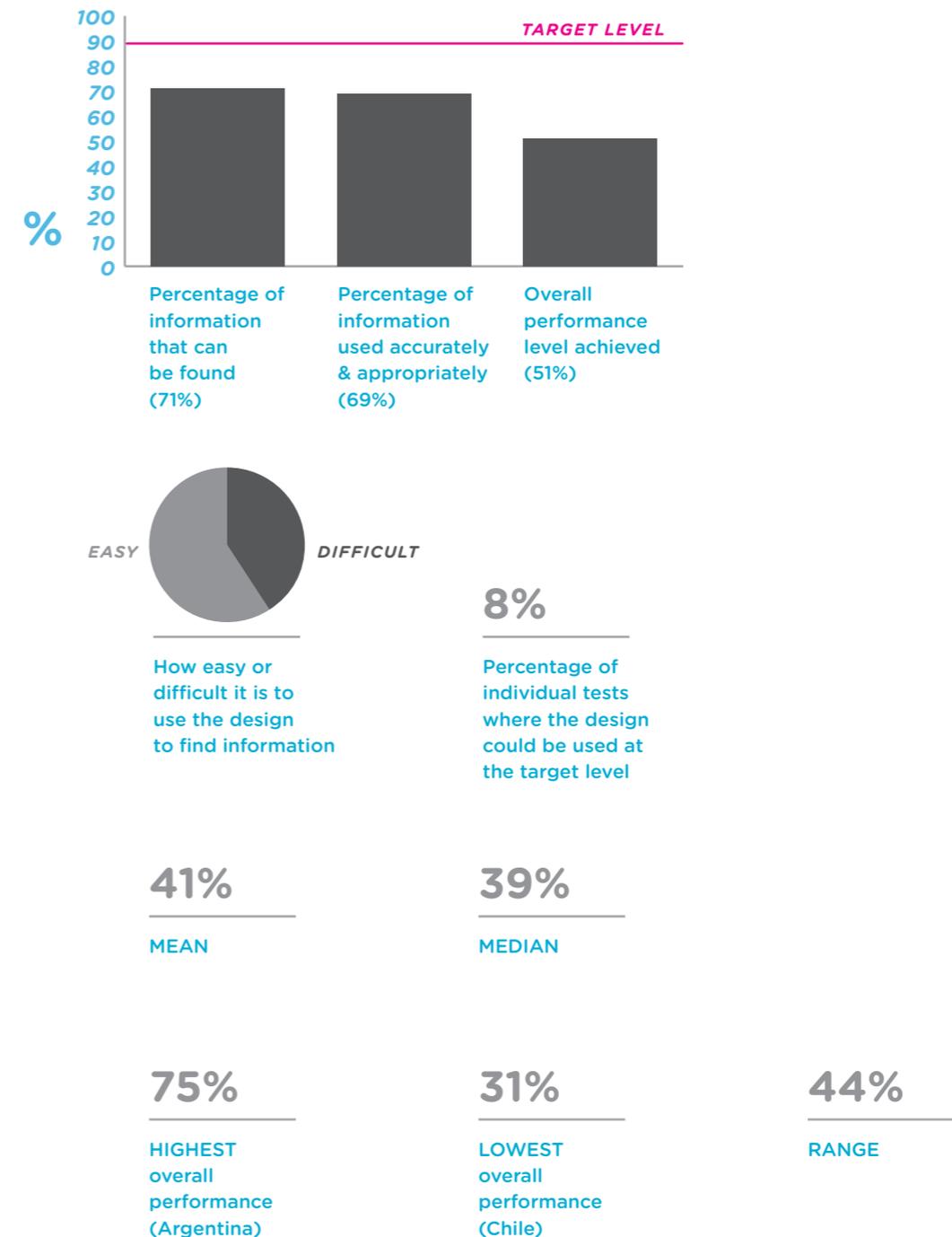
The credit card statements that we tested performed at varying levels – ranging from a low of 31% to a high of 75% – and all far below the target performance level. The best performed statement was the Argentinian sample, at an overall level of 75%; followed by the UK (2) sample at 67% and the Netherlands sample at 62%. The worst performances were by the Chilean (1) sample at just 31%, the USA (2) sample at 32% and the Australian sample at 37%.

Only 8 of the 97 participants could successfully use the statement above the target performance level of 81%.

Participants struggled to find what they were looking for 41% of the time, which, given most content appears on a single A4 page, is very poor. Only 71% of the information participants were looking for could be found.

A mere 69% of the information on the statements could be used appropriately. In other words, 3 out of every 10 content items on the statement were unusable. A summary of the overall performance across all credit card statements appears on the adjacent page.

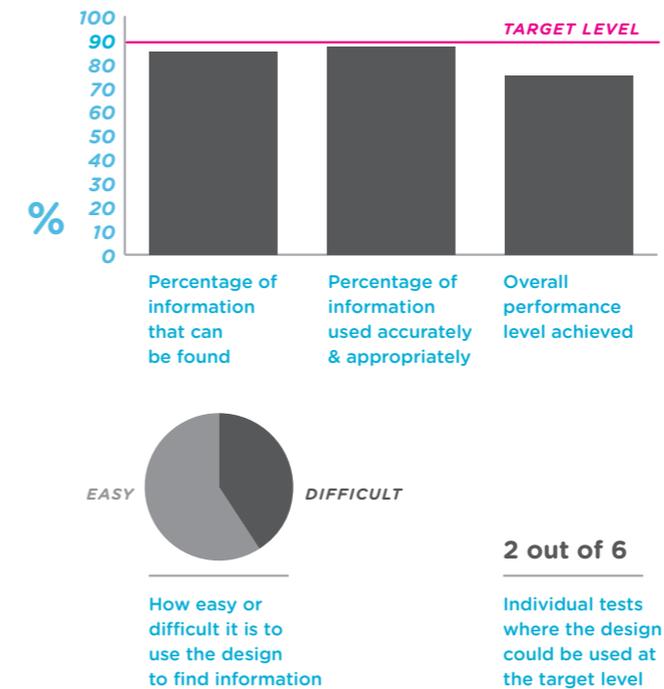
Figure 7: Summary of overall performance across all CCS



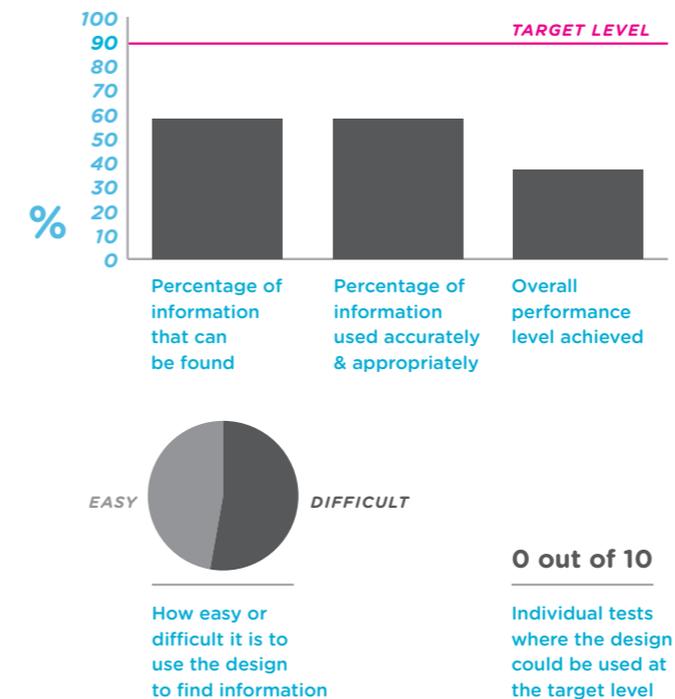
We were actually surprised by just how poor the performances of the statement designs were, and how universally poor the performances were across all of the designs. Given the simplicity of much of the information provided on a credit card statement, there is a huge scope for improvement.

Individual performance for each credit card statement are shown across the following 6 pages.

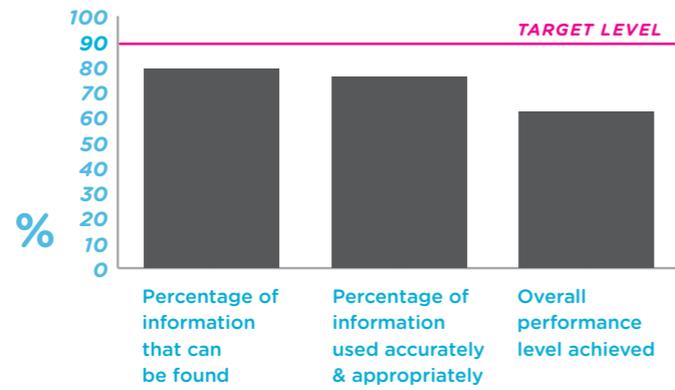
ARGENTINA



AUSTRALIA



AUSTRIA

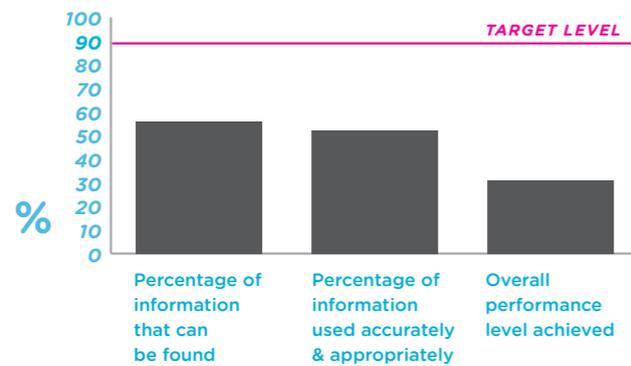


How easy or difficult it is to use the design to find information

1 out of 9

Individual tests where the design could be used at the target level

CHILE 1

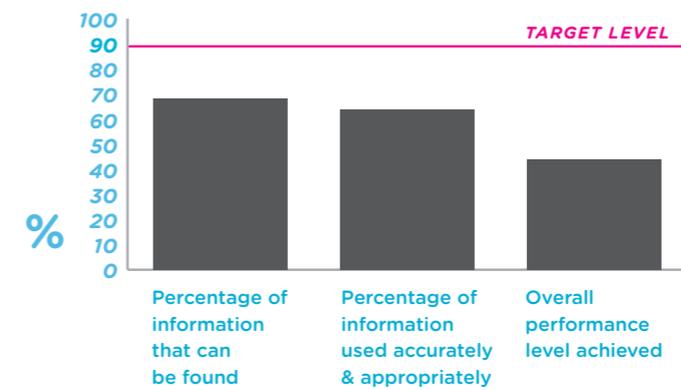


How easy or difficult it is to use the design to find information

0 out of 5

Individual tests where the design could be used at the target level

CHILE 2

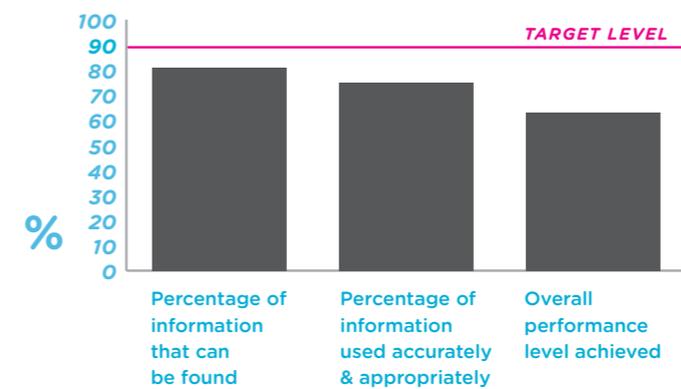


How easy or difficult it is to use the design to find information

0 out of 10

Individual tests where the design could be used at the target level

NETHERLANDS

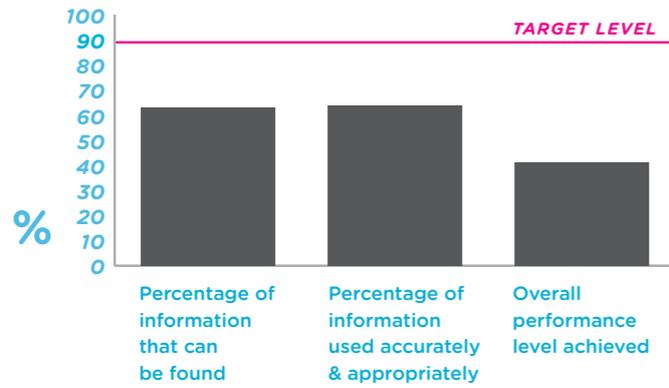


How easy or difficult it is to use the design to find information

3 out of 10

Individual tests where the design could be used at the target level

PORTUGAL

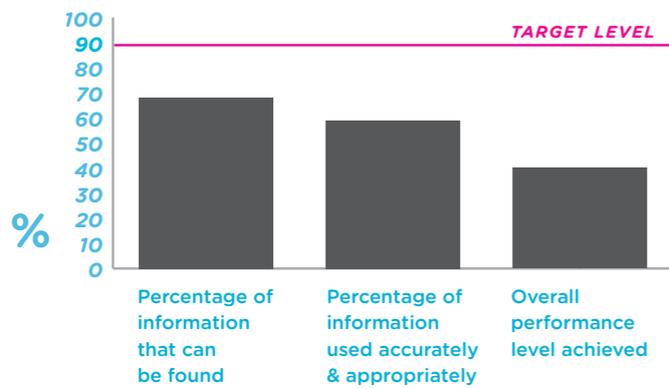


How easy or difficult it is to use the design to find information

0 out of 6

Individual tests where the design could be used at the target level

SOUTH AFRICA

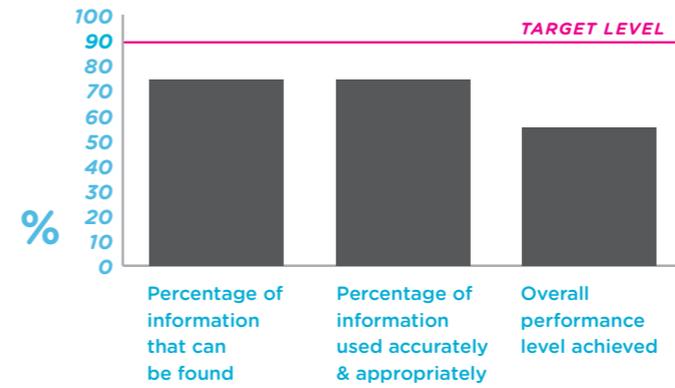


How easy or difficult it is to use the design to find information

2 out of 8

Individual tests where the design could be used at the target level

UK 1

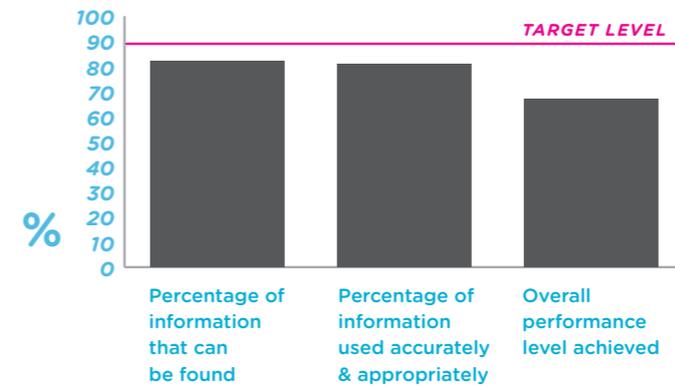


How easy or difficult it is to use the design to find information

0 out of 6

Individual tests where the design could be used at the target level

UK 2

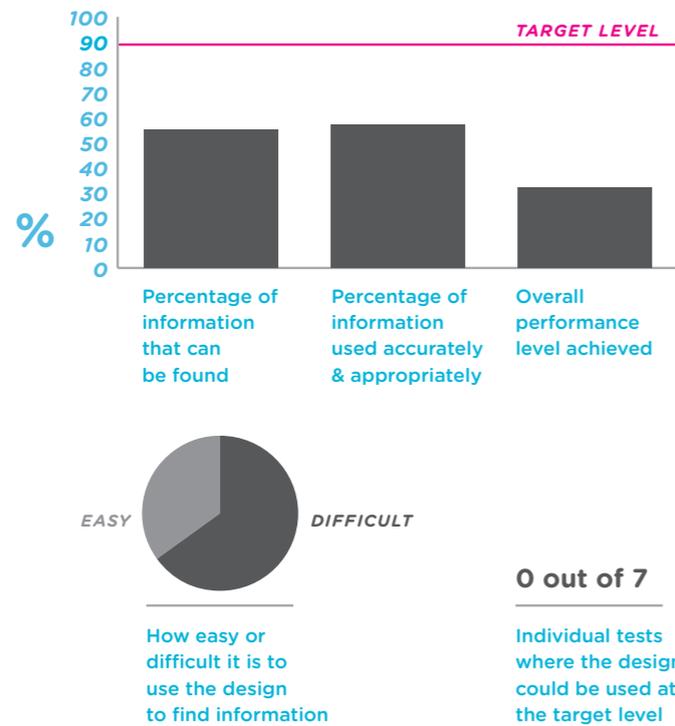


How easy or difficult it is to use the design to find information

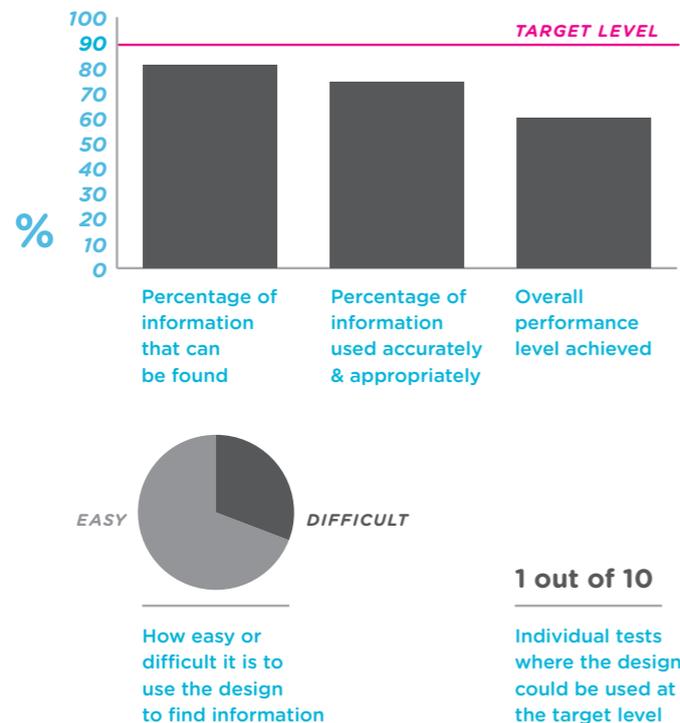
1 out of 10

Individual tests where the design could be used at the target level

USA 1



USA 2



The performance level of each CCS tested

None of the statements could be used at the overall target performance level of 81% that was set by our study.

The Argentinian and Netherlands statements could be used by 30% of participants in testing, followed by the South African statement at 25%, and the Austrian, and second UK and US samples, at just 10%. None of the other statements could be used appropriately (i.e. at the target performance level of 81%).

The worst individual test was registered for the Australian credit card sample with an overall performance of just 6%. The second worse was registered by the first Chilean sample, at just 8%. The best individual performance was 100% registered by a participant using the Austrian sample, who could use the design to find and explain information for every task. The next best performance was by the Argentinian sample, which could be used on one occasion at a level of 94%.

Most of the problems stemmed from the inability of participants to use the design to find what they were looking for, or any information in the statements to guide participants as to what they should be looking for.

Some statements, such as the Austrian, USA 2, Portuguese and Chilean (1) statements were missing key information that a customer requires to gain a basic understanding of their credit card use and the charges that apply. Others, such as the Australian sample tested, provide key information as fine print in obscure, and difficult to find locations on the statement (e.g. amount of interest that has been charged for the statement period).

The fact that no statements could be used to perform the basic tasks one would expect customers to use them for indicates that the standard approach to statement design is fundamentally flawed and suggests that improvements can only be made through a fundamental shift in design thinking and approach.

The top 10 requests by participants in the CCS testing

Below is a summary of the main problems identified for the statements in testing by participants and their requests to deal with those perceived problems.

The table shows a hierarchy of their concerns, from their most common requests to their lowest. The hierarchy has been arrived at by recording the individual requests for each statement, and counting how many times this request occurred across all statements. Where there is more than one request (e.g at 2), we received an equal number of requests.

Figure 7 : Requests for change in priority from 1 through to 10.

PRIORITY	PROBLEMS IDENTIFIED BY PARTICIPANTS
1	Improve the typesetting (type layout, typographic hierarchy).
2	Make it easier to find out how much interest has been charged (both percentage and \$ amounts). Make it easier to find the contact details. Make the statement look better.
3	Have less , or remove, the advertising and marketing material on the statements. Provide better navigation (make it easier to find things).
4	Use language and terms that are easier to understand.
5	Make it easier to find out how to pay. Provide more simple account details. Make the overall statement easier to understand.

PRIORITY	PROBLEMS IDENTIFIED BY PARTICIPANTS
6	Include less information on the statements. Make the print larger.
7	Make it easier to find out what the minimum payment due is, and when it is payable.
8	Make the terms and conditions easier to understand.
9	Make the date of bill/transactions easier to follow.
10	Make it easier to find out how much credit is left. Make it easier to see if there are any late fees and what these are.

The main activity that customers perform using a credit card statement is 'reading'. However, across all of the statements tested, the ability to use the typesetting provided to do so proved too difficult for most participants, resulting in the most common request to be to improve this aspect of the statement design. Typefaces used should be based on their ease of reading, rather than the dictates of any corporate style. High speed laser printing restrictions may have an influence on the typefaces available to statement designers – but in our experience this aspect of statement production is becoming far less restrictive, especially with the advent of Open Type fonts. We also received a large number of requests for larger print sizes. A combination of larger type, improved typesetting and a typographic hierarchy that supports

the use of the statement information will respond to these participant requests.

It is an indictment on credit providers that the second most common request was to make it easier to find out how much interest has been charged. In testing, this task could only be performed at an overall level of 29%. We also received a request (5th most requested) to make it easier to find out how to pay off some or all of the credit card debt. In testing, this task could only be performed at 39%. Given the main purpose of a statement is to tell customers what they owe and encourage them to repay this debt, our results show that the designs fail on the very two core reasons for their existence.

Equal second was the request to make the contact details more accessible. A well designed statement will reduce the need to contact the credit card provider, and unfortunately the statements we tested were difficult to use and understand. Consumers feel more at ease if these contact details are more readily accessible.

Participants also asked for the overall look and feel of the statement designs to be improved. By this, they are referring to the page design, including colours, typography and general layout, not the logo

or branding items, which, at the end of the day, do nothing to improve the usability of the statements. For example, participants could use the branding to identify who had provided the statements 85% of the time, but could only identify that what they were looking at was a credit card statement 78% of the time. Surely it is either more or equally as important to be able to do both?

The third biggest request was to remove, or reduce the amount of any advertising and marketing material on the statements. A common sentiment amongst participants was ‘Why ask me to spend more money on what is effectively an invoice for money I have already borrowed and spent?’ Inclusion of advertising material angered many participants:

‘This [marketing information] is extremely annoying and it should all go — you don’t need to be told, when you get your bill, to ‘spend more money’.’

This finding corroborates with data we have collected on every other invoice we have tested at the Institute. Basically, companies should be advised to not include any advertising or marketing material on, or with the credit card statements they are providing to their customers.

Equal third was the request to improve the document navigation. Given that most of the statement information appears over just 2 pages there is no requirement for a contents page, or panel. Navigation for a document such as a statement can be achieved through better type hierarchies, page structure and layout.

Other requests provide valuable clues as to how to address the current design and content problems inherent in the statement designs. Make them simpler, easier to use and provide guidance on what a customer must do. Pretty basic stuff really, but unfortunately basics that current statement designs fail to provide.

The performance level of individual tasks

In keeping with earlier baseline measurements studies we set a target performance level for each of the tasks participants were asked to perform. We used a performance level that has been found to work in many other information design contexts, namely that any literate participant should be able to find at least 90% of what they are looking for on a CCS and then use appropriately 90% of what they find. We used these percentages to arrive at an overall target performance score of 81% by multiplying these two

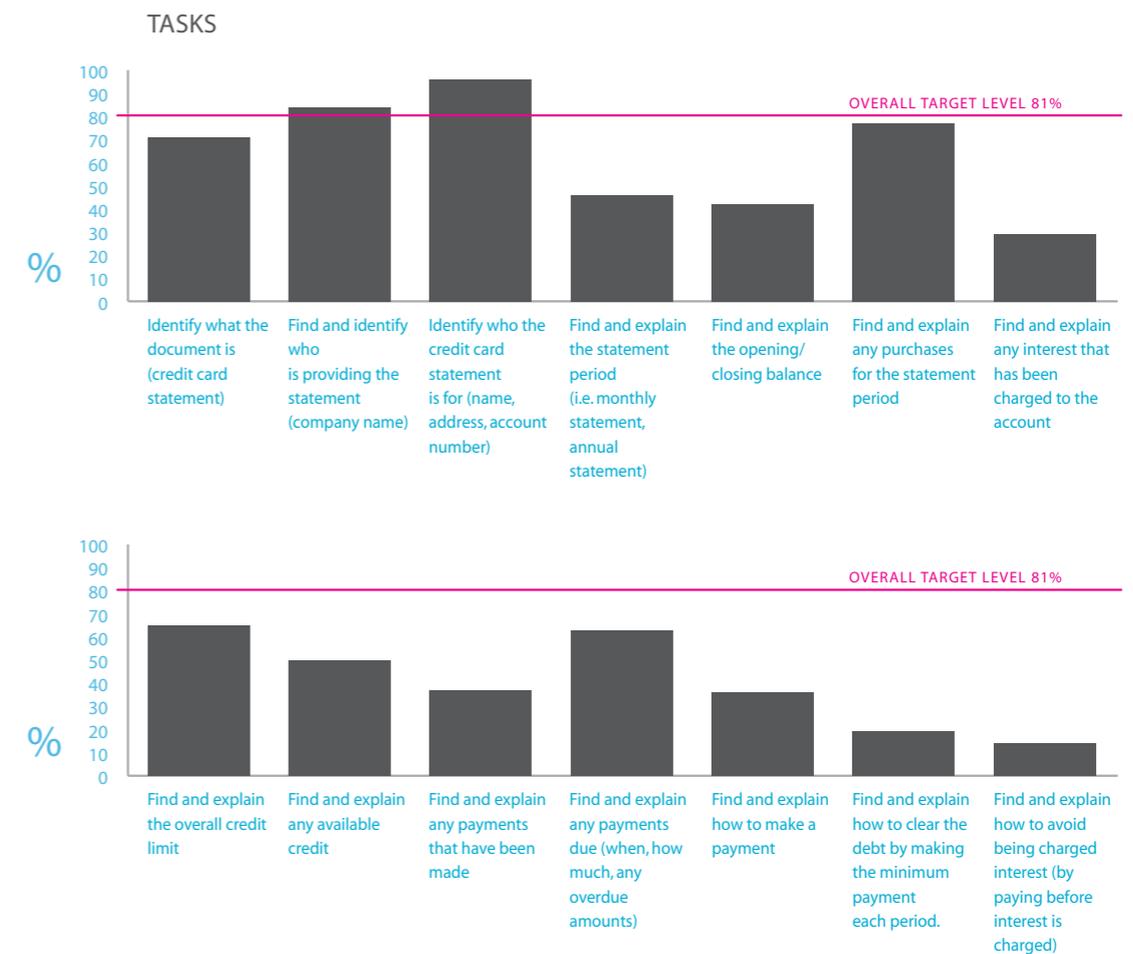
figures together. This composite figure is a 'headline'; it draws attention to the presence of faults in the design. When the components making up these numbers and their related qualitative data are examined together, a full diagnosis of each fault can be undertaken. These overall figures provided us with a picture across all the tasks participants performed and all the CCS that were tested.

The aggregated data for each of the tasks, across all the CSS tested and all diagnostic sessions (Figure 7) show that only 2 tasks out of 14 reached the target performance level:

- Find and identify who is providing the statement (company name).
- Find and identify who the credit card statement is for (name, address, account number).

Twelve tasks were below the target performance level, some well below. These under performing tasks ranged from 17% (avoiding interest charges) to 78% (identifying purchases on card for statement period).

Figure 7: Performance level of tasks across all CCS



Should we discuss these results in detail here?

before and after impressions

In testing we asked participants for their before and after impressions. Generally, the after use impressions are more focussed on problems they may have experienced using the statement design and are more helpful when analysing the design. Negative feedback is in 'blue'. As shown below and on the following pages, we received a lot of negative criticism of the credit card statements design, layout and content – both before and after use. The individual's overall performance level using the documents has also been included – helping to put their comments in perspective. Tests where the statement design reached our target performance level are highlighted with a tint.

As shown, even those participants that could use the statement designs at an optimum level were harsh in their criticisms. For example, the one participant that could use a statement at 100% had nothing positive to say:

'It looks complicated, has too many colours, I can't see at a glance what I owe. ... it even leaves a somewhat seedy impression. There is more advertising than billing information!'

One worrying aspect of the following comments is that many participants seem oblivious to the fact that they were unable to use their sample credit card design to perform any of the tasks successfully. For example, one Portuguese participant claims:

'Its clear. The information is quite visible and explicit.'

Despite these assertions, this participant only managed to use the credit card sample at an overall level of 25%! Meanwhile, in the first US sample a participant that scores a mere 17% actually compliments the sample they are using:

'Legible. Easy to understand. The way it's listed pointed to headlines in matrix...it's all here. Good oversight. Well done. Organized. Easy to read.'

While consumers may be used to receiving poorly designed statements, and have even come to accept such communications as 'standard', this is not an excuse for credit card companies to continue this practise.

Argentina

BEFORE	AFTER	%
(Looks like) a regular credit card statement	Some data is hard to find. It (relies) a lot on the common sense of user.	73%
It's a little monochromatic to me.	Some info is hard to find, but it's quite clear.	63%
A regular credit card statement	I'm used to this kind of document: the information is sometimes visible, other times not.	94%
My first impression is: It will be hard to find information	A very poor credit card statement	58%
A little "full of ink" kind of statement.	Some information is missing. There's poor distinction between sections. A poor credit card statement. This statement needs a redesign.	78%
A regular credit kind statement, but with a lot of information unsectioned.	There's lot of missed information. I had seen better statements than this.	83%

Australia

BEFORE	AFTER	%
It's confusing and not easy to find things. Too many boxes. There's no overall structure hierarchy.	Its too confusing! There's too many boxes, the amount due isn't there and the late fees aren't there. How can I pay?	39%
Its not clear, if I didn't know what I was opening up, I think id struggle to know what it was. The first section seems really cluttered.	I don't really know how much credit I have left. The list of transactions is clear, but the blob of text I'd not want to read nor do I understand what its about. There's a lot of figures I don't know what to make of.	32%
Crowded, really crowded, competing messages, no hierarchy of communication.	Its s**t. It needs to be freed up. It has a mixed message. Has too much crap advertising themselves	77%
There's a lot to take in.	I feel really stupid now, I hate it.	14%
It's daunting, there's so much going on.	It's confusing. It would be nice to have more direction on where to go to pay and to cancel the card if I wanted to	47%
It's full on. I don't know where to start reading.	A little bit confusing, actually its really confusing.	14%
It looks complex.	It's really bad.	32%
Lots of info on it. Some of it appears twice.	It's not very easy to use.	66%
Things in boxes are quite clear but I wouldn't read the fine print. It looks cluttered. I don't know what this is. Not clear what cards it covers.	I don't really like it. It makes a big deal of the points scheme, and all the good things about having a card but doesn't tell you anything about the interest and how much you are being charged. It does show the transactions and statement dates etc. - basic tuff.	43%
Its not as designed as well. It looks half done.	It's a f***ing nightmare	6%

Austria

BEFORE	AFTER	%
Looks normal, nothing unusual.	I'm shocked that I've never read the small print in my own bill before. I didn't know that I could pay the bill in different ways. Either all within 10 days or as part payment of 10 %.	41%
I receive the same bill, I just notice that the logo has changed.	I'd like to know how much interest you pay, what this is really costing me, there 773 EUR. Why these bonus points have to disappear at the end of the year if you don't use them. I check all that on the computer, what I have to calculate laboriously myself on the statement is always there online.	62%
Mine looks similar. The conditions are in very small print, but you have to sort them out at the bank anyway.	The conditions are very small, the items in the (transaction) list are ok. I don't need all this rubbish (advertising).	80%
It looks complicated, has too many colours, I can't see at a glance what I owe.	No better than at the beginning. I find this bill is unsatisfactory for a customer, it even leaves a somewhat seedy impression. There is more advertising than billing information!	100%
Looks like advertising, not like a bill.	Information is in very small print. Advertising has no place on a bill, but it seems to be the most important thing, even before the bill starts you have advertising. No idea what a "Kiesel" is, it's not explained.	62%
First impression - they advertise something, and that there is something is very small print - that's very difficult for me.	I think this is just information, not a bill, this is just to tell you, what will be deducted from your account next month.	41%

BEFORE	AFTER	%
Too much on it.	Too much advertising, very small print, I want an orderly bill where I can find what I need.	33%
It's clear, the information is there.	The information on interest charges should be much clearer. where GBP are converted to EUR, they should say how much they charge. So much handling charge. It should say somewhere from which account this is paid to Visa.	56%
I don't like it, the advertising distracts me. There seems to be something like a bonus point system.	Text much too small, it should be highlighted much bigger, most people don't know that they have to pay so much for cash withdrawal. It's all there.	80%

Chile 1

BEFORE	AFTER	%
Good, because everything is detailed.	The information is not displayed in a easy way, and it makes it more complicated.	41%
Lot ´s of information, too many numbers and letters.	It ´s easy but at the same time has a lot of info	52%
It has lots of numbers, is kinda good.	Hmmm more than a credit card statement is a bank account statement, so is not really good.	19%
Too much of the small letters	Too much info, too small, it should be more simple because you just need to know how much you want to pay.	8%
Complicated, too many numbers.	It is confusing. It should be more simple and less numbers or maybe use colour or bold letters to show primary info.	37%

Chile 2

BEFORE	AFTER	%
Good.	There is a lot of information I don't understand or know what its there for.	31%
It looks like it has a lot of information.	This document has a lot of information but it is not clear or simple enough to use it.	45%
A document with a lot of information. It looks clear. Good.	Very bad. Even though it has a lot of information, it is very hard to understand.	34%
Good, it has a nice colour.	I think the document could be a little clearer.	63%
Good, like a regular bank account statement.	It's a bit complicated and confusing.	45%

BEFORE	AFTER	%
It seems confusing.	Terrible. It is not well explained, I don't understand the vocabulary they use and they way the sum appears on the top of the list is extremely confusing.	38%
Good, I am used to reading this kind of document.	It's not as simple as it seems.	53%
It doesn't look too complicated, but it doesn't look easy to understand either.	There is a lot of information that I don't understand what it means and there is other information that I miss from the statement. It is somewhat hard to read.	38%
It looks complex, too much information.	I think it is not as complicated as it looks.	53%
It doesn't seem like a very clear document; there is too much information, there is no clear title and the type is too small.	Terrible, there is too much information and not well explained. I find it very confusing.	38%

Netherlands

BEFORE	AFTER	%
It's fairly full on top. In this green frame.	Once you've studied it, it gets clearer and you know for the next time. This is not for people who are not used to forms. It's a disaster.	59%

BEFORE	AFTER	%
For me, these numbers start to dance. I don't know what is credit or debit. I see her 'total received' (Total ontvangsten), but I don't know from who's direction this is.	I have now studied it sufficiently, but I still don't understand which people have deducted money from my account.	81%
I don't see immediately what this is. There is no heading "Dear Sam Green, this is a ...". But what it really is, I only see when I look in detail. It's only the address of the credit card services that tells me. I need something like: 'Credit card statement'.	I'm thoroughly confused.	64%
There is a lot of information. I get these too. I find them awful. There is always something that is incorrect. These numbers here. You never know if it is correct and you don't understand.	You should not buy such a card. It is a useless statement. It is only there to confuse you.	44%
Apart from the ABN-AMRO, I recognize these things, yes.	Ok, this is the amount, [points to 1963] that I still can use. I have never read these things. It occurs to me that... that figure in the coloured bar here. I don't understand what that is. Is that against forgery or something? I don't understand those numbers, and I don't understand why it is printed like that.	64%
It looks familiar.	It's a nice and fresh form: clear and plain.	54%
It's an invoice. This is only sent to businesses, not to individuals. I do have a credit card, but I don't get these kinds of papers. I only see this at the normal statements.	...I'm taking care of the finances of my family and I can't find anything (using this statement).	16%
It's got nice colours.	No comment	93%

BEFORE	AFTER	%
Yeah, (it is good) everything can be seen in one glance. The new amount, the payments, and the total spending. Huh? The previous amount and the total receipts are the same amount. Is that normal? The new amount is not negative, so that is good. There is still enough money to spend.	(The transaction history is) incomprehensible.	87%
It's quite a normal one. I get these things every month.	No comment	68%

Portugal

BEFORE	AFTER	%
Normal for a card statement, it has dates and amounts.	It's ok. The very few doubts I had, I would call to clarify them; it would be easy to solve my doubts over the phone.	25%
Too much information in one go	Very confusing, too much information, often repeated, leading to doubts	47%
Very detailed, at least appears to be.	The information is too condensed; there should be more space between sections; the transactions should all be together.	56%
It's clear.	The information is quite visible and explicit; I'm one who is not used to this kind of document.	25%
Boring and heavy; it looks like a PT (telephone) bill.	The information all broken down and mixed; it all look very similar.	66%
Too compressed, there is no breathing space between the information there is small print and i don't like small print in this sort of document, It means they're trying to deceive us.	the information is all here but it don't like the excess of thin lines, thick lines, bold. Graphically, it doesn't flow as it should.	61%

South Africa

BEFORE	AFTER	%
Confusing.	Bad. There are 40 things on here and I can't find anything easily! The list of items bought is not too bad though.	42%
Far too busy and confusing.	In such disarray - to me it looks like a high school project with the pie graph etc.	30%
(I am) indifferent. (It looks) professional, (but a) bit intimidating.	Sh*t! You don't know what a lot of it means. Messy. They show interest in the corner, but there is a big advert on the side. Why?! They just want to hide stuff. Everything is condensed in the middle, squashed.	30%
Its confusing, don't know where to look first, it doesn't give me a clear summary, I need to know how much I owe, not set out nicely.	A little bit confusing, but still able to work out what the minimum payment would be, and the transactions that I have made. Could be set out more clearly. Not in such a daunting table.	34%
Very messy, very busy, quite intimidating.	Confusing, doesn't clarify any of my spend, intimidating, doesn't give me information that I'd need, Little bits of info 'FIFA world cup' is confusing.	42%
Not easy to read, lot of information, even though it's got bold, I automatically think it's not going to be easy to understand. I don't like tables - it is too hard to follow the lines. I can't read across them.	I still wouldn't use it. I don't see it's importance to me. I still don't get how 'this' [deposit slip] would work. It talks about ebucks - I suppose you would know how it works. I don't like the table as I can't read across.	62%
Indifferent, chart bothers me, not used to seeing the chart, don't see the purpose.	Doesn't give you what you want to see. You have to search for what you want to know. The pie-chart wastes space that could be used for something else. How do they know what's entertainment and what's travel?	40%

BEFORE	AFTER	%
It's OK – looks like any other statement	Very confusing and does not give enough information about what to do or how to pay.	42%

UK 1

BEFORE	AFTER	%
Cluttered, all text is of equal size.	Crap!	50%
Good.	Easy to make payment in full or make a minimum payment. But very unclear, if you have made your payment and the interest charge you would incur.	68%
Rather unclear.	Not very clear or user friendly.	50%
Good.	Not very good.	42%
The person has quite a lot of money.	No comment.	42%
Okay.	Relatively easy to understand.	78%

UK 2

BEFORE	AFTER	%
There's lots of stuff — lots of different sections	The sections are a little bit confusing... I'd probably ignore it. Apart from that it looks pretty usual — transactions...	69%

BEFORE	AFTER	%
It's OK — it's a typical statement. Nothing particularly stands out.	It looks like a typical account statement. This is the sort of information that I'd expect to see on it... it's just as unclear and unhelpful as any other statement I've seen... but for me it gives me the information I need to know — what the balance is, what the details are, and when I need to pay that balance. To that extent, I'm happy with it; I don't get involved in all the interest rates and all that, so for my purposes it would be absolutely fine.	89%

It's pretty clear; it's quite self-explanatory. This person's got quite a large credit limit, though he's pretty much within his limit... yes, it's pretty clear.	The first page is very clear. On the second page, there's a lot of information on the overleaf side, which I'm not sure most people would actually read. It looks like tiny writing, as well.	65%
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For me, it's a little busy. I got to... straight away, I looked for the name of the actual person. Then I got to the 'John Lewis' the got a little bit distracted reading about living outdoors... Then I thought "Is it Waitrose as well?", then I slipped back.	Now I've got more used to looking at it, I still find it confusing... I'm not a fan of these documents, with pages 1, 2, 3, 4, 5... it's confusing because pages 2 and 3 don't go right to the bottom of the page... this is broken up with its logo, this thing about insurance... what I'd like is one page, that starts at the top and runs down, a bit like a phone bill or a traditional bank statement.	48%
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It's too busy — bad, I'd say.	It's OK... It's a bit too busy, and you do have to search for things' [the information on the reverse] is very small, very confusing. Some of it is alright, like the list of purchases. It's a bit messy; it could be cleaner and clearer, and slightly bigger in certain places ... Why would you be interested in all this information, and all this rubbishy advertising?	79%
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It just looks like a normal statement.	It's really confusing... that print on the back is absolutely tiny... There isn't any clear contact [information].	44%
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BEFORE	AFTER	%
Indifferent, to be honest...	It's relatively user-friendly, but it needs tweaking a little bit... Credit card statements are not nice things. I go 'Oh my god!' I have credit cards with two companies and they could make it a little bit easier to understand... making the payments easier, and 'if you do need help, contact...'	65%
Well, it looks good to me, because it's got 'payments to your account', 'payment received', so it's telling me what I would pay, and what I've got left to spend on my account; and then it's telling you interest.	It's pretty good. It's giving you all the details you want, what you expect to see.	56%
No comments available	No comments available	79%
No comments available	No comments available	79%

USA 1

BEFORE	AFTER	%
It's busy (there's too much information, advertisement eye pollution, I don't want to look at the rest of it).	It is more difficult than I thought and visually overwhelming. I'm glad my spouse deals with these bills.	31%
JCPenny Optical...about optical?	Because so many documents are like this, I don't find it more or less frustrating on a daily basis. I think it could be arranged in a more helpful way.	22%
Sort of wondering why the advertisement is on top and so big. When I get my bill the first thing I want to know is how much I owe, not ads.	It's hard to say because I don't use printed statements because I use the website, I log in and pay. All I care about when using the printed statement, is the balance.	42%
It's 'regular'. Small wording. Don't like ad, it's confusing.	It's a typical bill, otherwise ads is confusing. It's the standard.	34%
It's misleading because of the advertisement. The bill area at the bottom is the only thing that gives me a clue it is a credit card bill because of the 'fill-in' area.	Slightly worse than typical. I never read the back of these things. It seems to compare to bank statements, but more confusing and particularly the first matrix of numbers, when it's due, minimum, available balance, etc. Compacted and dense, disorienting. It seems to be less information about how to make payments. Hidden charges are intentionally nasty. Threatening tone rather than helpful.	42%
It looks like an average bill that I would get.	It initially looked like it was for an optical company. Other than that, it looks like an average credit card statement.	38%
Legible. Easy to understand. The way it's listed pointed to headlines in matrix...it's all here. Good oversight.	Well done. Organized. Easy to read.	17%

USA 2

BEFORE	AFTER	%
It's easy to see because it's separated into parts. Seems clean. I like how it's structured. It's logical.	I like it, but I couldn't find the last question.	83%
Lots of info; it's dense; there is order to it. It's similar to what I am used to seeing for credit card statements.	It is easy to find transactions, can tell what previous payment was. I could find balance and minimum payment due - most important for me. Name on statement could be easily lost if I'm not specifically looking for it.	63%
It seems regular, not out of the ordinary.	It has most of what I need. It doesn't have items from previous month listed - but I should have done something then if there were any problems at that time.	49%
It looks clear, puts everything in front of me - purchases and transactions for over a month and shows a payment.	I feel like it has all the info I need - previous balance, payments last month, monthly transactions, if I paid a finance charge; it gives me a new balance, my line of credit; that I can pay the minimum due and the due date.	72%
There's so much on there. Like middle part where the details of the transactions are. Top is more than you need - it should be a summary. Don't need to repeat the account number. Variable rates info confusing - didn't know that advances and balance transfers were different.	A lot that doesn't need to be on there - make it simpler.	49%

BEFORE	AFTER	%
I find it confusing. Too much info and lines are too close together. At bottom, things are in all capital letters which makes it hard to read. Too much info smashed into too little space. Lots of space given to WorldPerks Visa miles and that's too much.	It's really confusing, made worse by the fact that I use a statement like this all the time.	66%
It's much easier to read than mine because it lists the people you were buying from and you can tell what you bought.	It's better than the one I have but this one is negligent in explaining to me what happens if I did not want to make the full payment. It does seem to suggest that I owe \$1,469.68 - it's under Activity Summary - the New Balance could appear instead under Credit and Payment info. It does not show what the minimum payment is (\$13). New Balance under payment info and interest isn't mentioned.	54%
It's typical. It seems like most other statements I've seen.	It's pretty good. I've complained about my checking account (bank) statement before.	67%
It looks pretty complete.	I think it's good - it gives the info you need.	54%
It's boring; looks like any old statement I've ever seen.	It needs a warning - that you could spiral into deep horrible debt if you are late. Print could be larger.	42%

Discussion

The three types of quantitative observations made by investigators with each participant (could they find the information, did they have difficulty finding the information, could they use the information appropriately once they found it) leads to simplified scoring which provides useful headline figures indicating the overall performance of a document.

But when taken with the investigators' notes from observing participants' actions and writing down participants' verbatim comments, the result is a detailed story rich with data, much of it providing invaluable qualitative insights into the faults and the reasons for them. These data are extremely valuable not only for information designers helping industry improve their designs, but also for regulators to identify key performance indicators to incorporate into regulations to lift the minimum standards of CCS to an acceptable level. Here we concentrate on the headline figures which are of more interest to the general reader rather than the specialist information designer.

Diagnostic logic

Conventional thinking suggests that the focus of diagnostic sessions is people, that it is people who are being tested. But if we take that view, then we would be required to offer an explanation of the results in terms of people—not just their actions but their inner cognitive processes as well. While we can observe people's actions, we have no access to their inner cognitive processes, and consequently we would be involved in a set of inferences based on current cognitive theory—not the firmest foundation on which to build an explanation of what is happening in this context. Moreover, we do not have to be cognitive scientists, as we are not in the business of changing people. We are in the business of changing designed information.

Also, if the focus is on the people, there is an implied criticism of them: it is the people who are having difficulty using a document and the implication is that it is their fault. Most commonly this leads to the easy argument that if people are having difficulty reading, they have a 'literacy problem'. (In many countries the term 'financial literacy' is used as little more than a way of excusing poor document design in the financial sector.) Thus there is no need to redesign a document, because the problem lies in the people's deficiency.

Time and time again, our research shows that if there is a 'literacy problem' it is in the organisations producing the documents, not in the people who are the hapless victims of this illiteracy. Blaming the victims does not get to the cause of the problem, nor does it solve it.

The diagnostic logic we follow is to take people's actions with a document as symptoms of the underlying condition of the documents themselves. If a document cannot be used for a particular reasonable purpose, then there is a fault in the document. The pathology is in the document, not the people who try to use it and fail. Moreover, if the document is redesigned, so that it can be used successfully, we take this as evidence that the sick document has been cured of its pathological condition.

Sample size and data quality

We are often asked—How many people do you test in order to get useful data? The short answer, using the above diagnostic logic, is 'None'. We don't test people, we test the information they try to use. This may seem an odd answer, particularly if you come from a background steeped in social science research methods, but the force of this quick answer lies in the way it directs attention away from the study of people

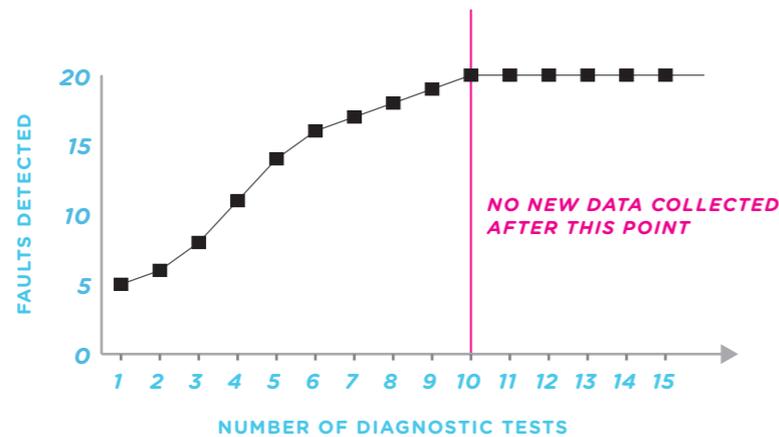
to the study of information. We aim to bring about desirable change in everyday information, not, as stated earlier, to bring about change in the people who have to put up with this information.

The longer answer is very much tied to what we are investigating, namely the faults in designed information. The question we ask is subtly inflected by this interest: we ask, 'How many diagnostic sessions do we need to conduct, to identify all the faults in a design?

Looked at from that point of view, our approach has been to keep on conducting diagnostic sessions until we stop collecting any new data about a design's faults.

The cumulative evidence from research and experience suggests that the first 6 diagnostic one-on-one sessions, each with a different participant, enable the researcher to identify approximately 80% of the faults in a design arising from the tasks participants are asked to perform. After 10 such sessions, approximately 100% of these faults have been detected. So in the eleventh and subsequent sessions, no new data is collected. Figure 8 shows a typical pattern of the cumulative data in such studies.

Figure 8: Typical cumulative data on design faults



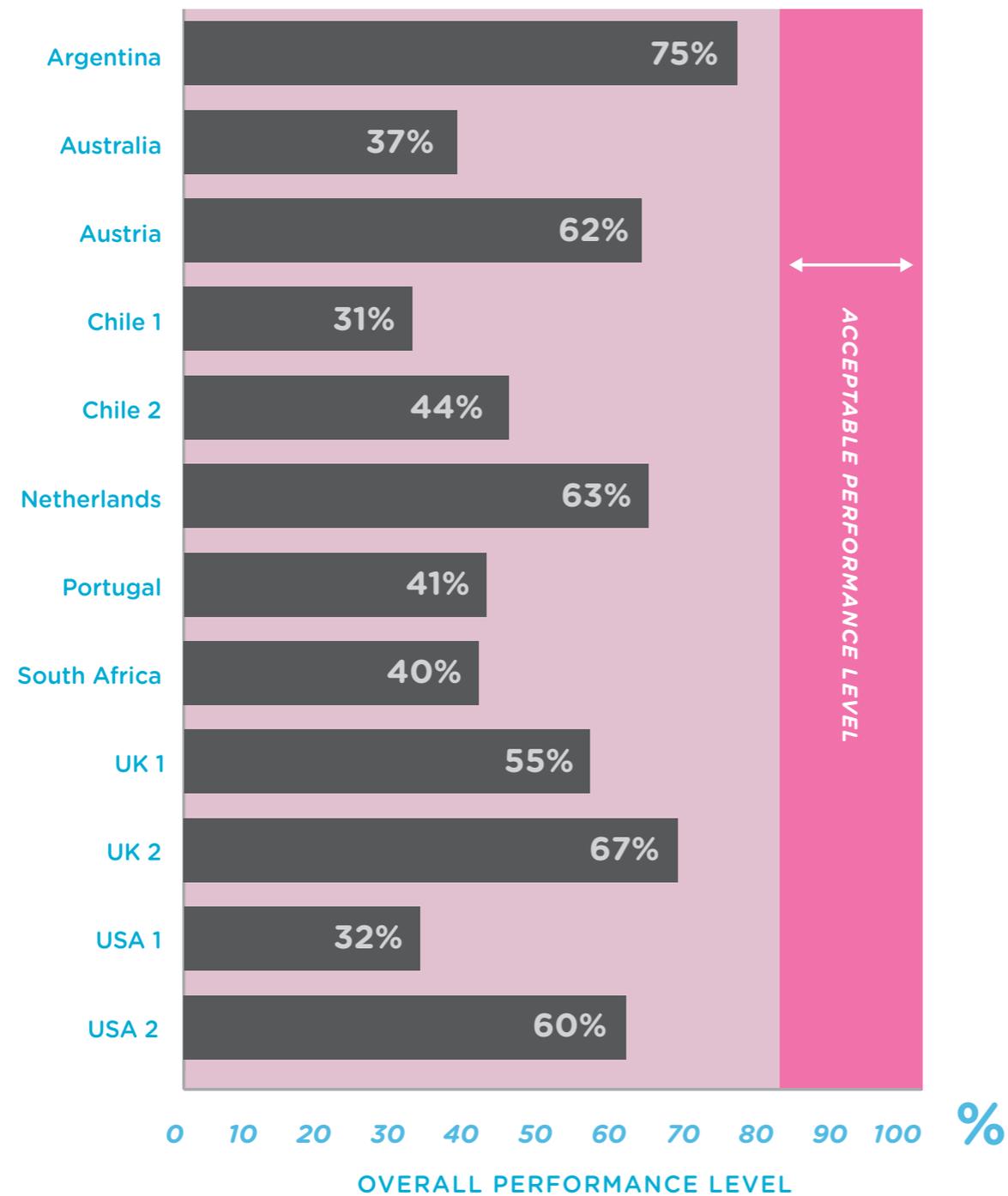
The percentage of likely detected faults in each CSS is shown in Figure 9.

As Figure 6 shows, with the exception of one of the samples from Chile, we have probably captured 80% or more of the faults for the main tasks one would expect the statements to be used for. Of course, there are many more tasks that participants might have performed for which we have no data, and there are probably far more faults waiting to be discovered in these designs. However, we can be reasonably confident that the data we have collected have identified many major faults in these designs.

Poor performance

We were surprised by the overall poor performance of these documents. We expected that at least some of the 11 CCS studied might achieve an acceptable performance level. But aggregating the data for all tasks performed on each CCS showed that none achieved an acceptable overall performance level of 81%. That is, none of the CCS tested could be successfully used to find 90% of the information, and when found, successfully used on 90% of occasions. Figure 9 shows this aggregated set of results and the number of sessions for each CCS that were at or above an acceptable level.

Figure 9: Average of overall failure across all CCS



an account of the business rules applied by the service provider.

The most important information that consumers want to know about a bill is how much they have to pay, when they have to pay by, and how to make a payment.

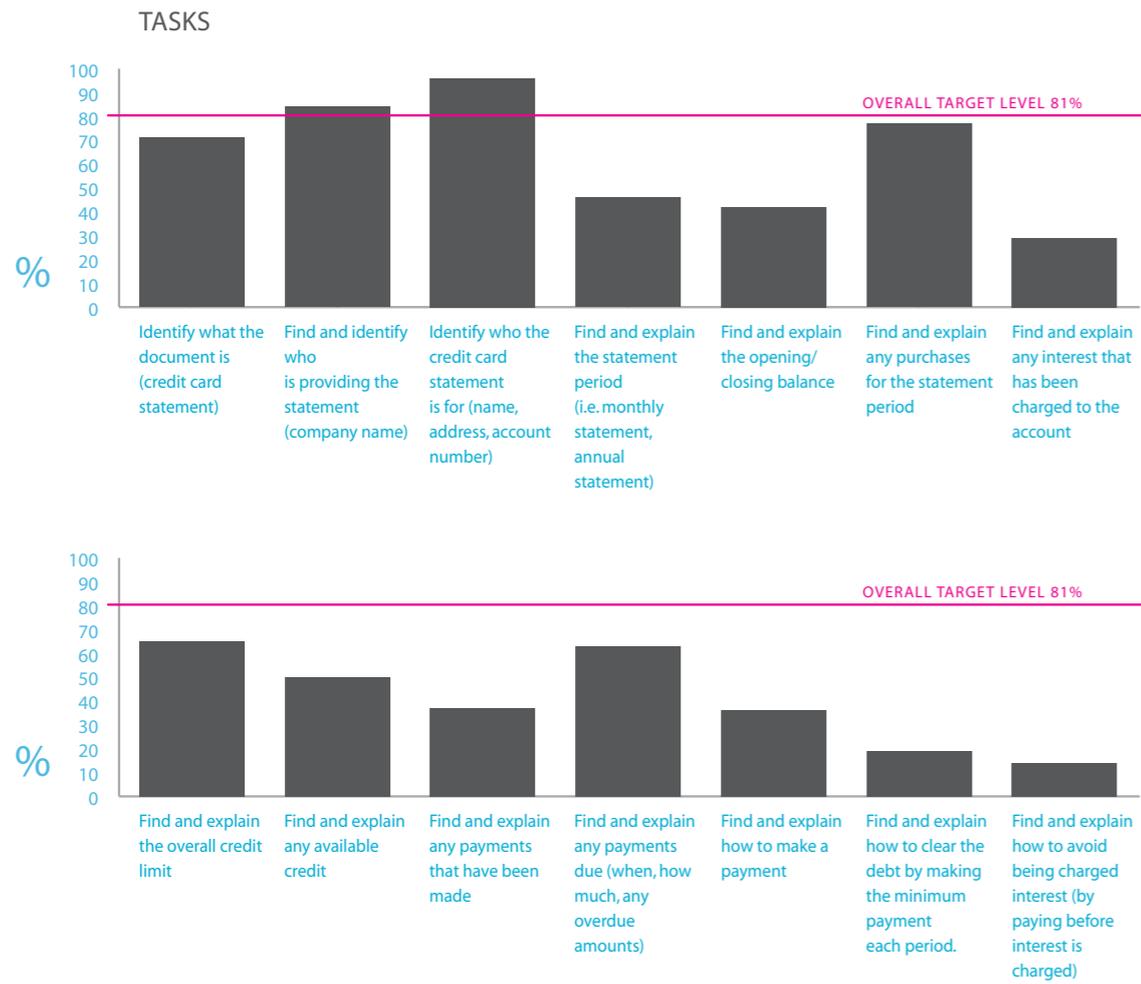
As Figure 7 (next page) shows only:

- 63% could use the CCS to work out what payment was due and when
- 39% could use the CCS to work out how to pay.

A few consumers will go to the next level of detail and want to know the way in which the various items on the bill are charged. Here too the CCS presents consumers with a challenge. On average, 78% could use the CCS to work out the items that were being charged for (this percentage would probably be higher if they were looking at their own transactions.).

A CCS is firstly an itemised bill, secondly a detailed record of transactions within the bill, and thirdly, it is

Figure 7: (repeated) Performance level of tasks across all CCS



And when it comes to using the CCS to work out the business rules, the CSS provides little help. On average, the CCS could only be used 29% of the time to work out the interest rate that was being charged. In 3 cases this was because the information was simply not there to be found. On average, only 17% could work out how to avoid interest payments, and only 17% could use the CSS to work out the consequences of paying the minimum amount due each month.

Only 65% could identify the credit limit, and, related to this, only 52% could identify how much credit was left, and as a consequence that may not be able to work out what they have spent.

These are the tasks that the diagnostic sessions explored. We suspect that many of the other business rules applied by credit card providers would be equally if not more difficult for consumers to work out in the current designs.

We get a sense of the frustration and irritation for consumers from their comments after using the credit card statements for what should be straight-forward tasks:

Figure 10: Participant comments following their attempts to use CCS

'It's confusing and not easy to find things. Too many boxes. There's no overall structure hierarchy. I don't know what interest applies. Where are the fees and how much are payments and interest? There's too many boxes, the amount due isn't there and the late fees aren't there. How can I pay?'

'It even leaves a somewhat seedy impression.'

'There is a lot of information I don't understand or I don't know what it is there for.'

'Terrible! It is not well explained, I don't understand the vocabulary they use and the way the sum appears on the top of the list is extremely confusing.'

'This is not for people who are not used to forms. It's a disaster.'

'You should not buy such a card. It is a useless statement. It is only there to confuse you.'

'(The layout) is very confusing, too much information, often repeated, leading to doubts.'

'Bad. There are 40 things on here and I can't find anything easily! (It does not tell you) how I can pay; when a payment due date; and what the statement period is.'

'It is in such disarray – to me it looks like a high school project.'

'Sh*t! You don't know what a lot of it means.'

'Confusing! It doesn't clarify any of my spend, intimidating, doesn't give me information that I'd need.'

'Not easy to read, lot of information, even though it's got bold, I automatically think it's not going to be easy to understand. I don't like tables - It is too hard to follow the lines. I can't read across them.'

'It doesn't give you what you want to see. You have to search for what you want to know. It is very unclear as to whether you have made your payment and the interest charge you would incur.'

'It is more difficult than I thought and visually overwhelming. I'm glad my spouse deals with these bills.'

'I would love to see information on how to reduce interest rate and state very clearly where customer service can be accessed—it's ridiculous!

'It feels like a deliberate withholding of information and obfuscation, I would like to see a clearer more up-front, visually.'

'It's really confusing, made worse by the fact that I use a statement like this all the time.'

'This [marketing information] is extremely annoying and it should all go — you don't need to be told, when you get your bill, to 'spend more money'.'

'It's a bit too busy, and you do have to search for things. [The information on the reverse] is very small, very confusing. Some of it is alright, like the list of purchases. It's a bit messy; it could be cleaner and clearer, and slightly bigger in certain places ... Why would you be interested in all this information, and all this rubbishy advertising?'

'It's really confusing... that print on the back is absolutely tiny... There isn't any clear contact [information].'

'Credit card statements are not nice things. (when I get my statements) I go 'Oh my god!' I have credit cards with two companies and they could make it a bit easier to understand... making the payments easier, and 'if you do need help, contact...'

The final comment sums it up :

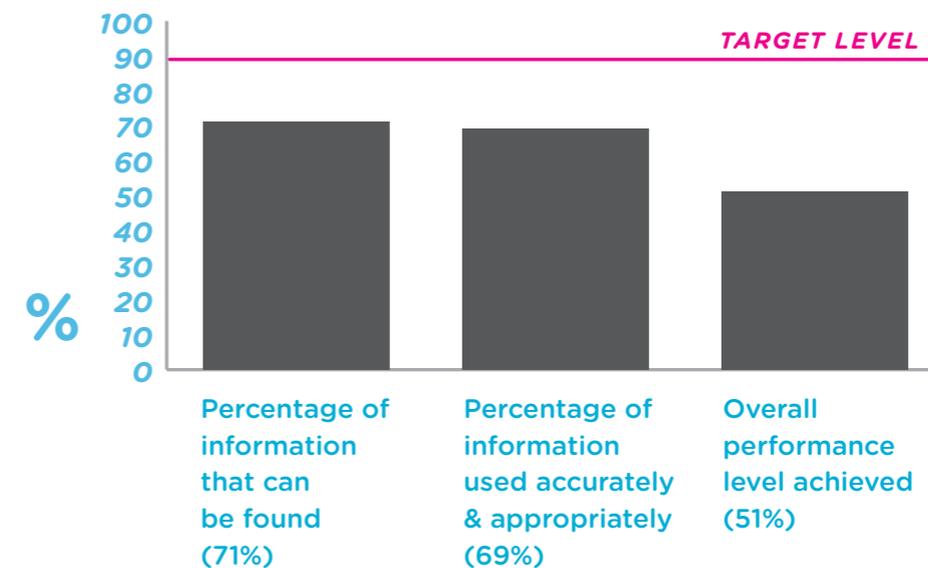
It's a f*****g nightmare!

Conclusion

The picture to emerge from these findings is one of systemic failure.

This is most tellingly illustrated by aggregating the data across all tasks for each of the statements tested. Not one of them gets to the acceptable target performance level of 81% (See Figure 9).

Figure 9 (repeated) : Average of overall failure across all CCS



It is tempting to see this systemic failure as a symptom of conspiratorial action by credit card providers. However, to do so would require us to ascribe a degree of wilful dissembling and deliberate engineering or design of the documents to make them unusable. This would require the Credit Card Providers to have at least some skills in sophisticated information design, and there is absolutely no evidence of this in the designs we tested. Indeed, these documents look like many others to emerge out of contemporary information factories, not through a process of deliberate design, but as the end product of amateur typography and a lack of systematic and rigorous information design processes.

More likely, then, these documents and the pathological symptoms they display are the result of uncaring neglect. Insofar that this neglect provides cover for some unacceptable business practices, regulators need to take firm measures to protect consumers. But, based on our experience, we would advise regulators to specify the tasks that customers should be able to perform with the documents and the acceptable level at which they should be able to do so, leaving the execution of particular designs to professional information designers. The current practices in some regulatory bodies to specify both the content and appearance of a document with

the same low level of skill as is currently applied by industry in creating these documents will assist no one, least of all the consumers, and an industry with predatory intentions will use their compliance with the letter of the law as a new form of cover for some new predatory practices.

By specifying the tasks (and leaving the information design to enable those tasks with industry), the room is left open for innovation and for market forces to provide incentives for good design. As we have seen in other industries, businesses which are first to market with new and innovative designs can capture a significantly increased market share, and the less innovative then copy the winning designs. In the end the customer benefits.

We were disappointed that this Communication Baseline measurements study found such uniformly poor designs, and we want to encourage industry to do better in the future.

However, we would not recommend any of the opportunistic suggestions by graphic designers. These are highly speculative sketches not based on any baseline measurements data, nor have they been tested. As the evidence from many previous studies

suggests, such speculation is rarely an acceptable solution, and may not even be a good starting point.

We would like to repeat this particular study in 2010, when companies have had an opportunity to see these results and learn from them, and also after they have had time to respond to some of the newer regulatory requirements for this type of document. We would like industry to offer us their best examples for the next Communication Baseline measurements study and we hope we can at that time publish a happier set of numbers.

I reckon it looks like they are deliberately hiding the interest details - the rate, and what has been applied, and they are also deliberately unclear on how to pay, or avoid paying interest, which is also a boon for them... Can we be a little more critical maybe? Maybe we could disguise the criticism, e.g.

From a consumers perspective the information in relation to the interest rate that applies, the amount of interest that has been charged and the ways to pay, or avoid paying interest or other charges appears to be deliberately unclear or difficult to follow.

(It is) more confusing (than a normal bank statement) ...particularly the first matrix of

numbers, when it's due, minimum, available balance, etc. Compacted and dense, disorienting. It seems to be less information about how to make payments. Hidden charges are intentionally nasty.'

Obviously from a credit card companies perspective it is imperative that such negative impressions are reduced.

A fantastic opportunity awaits the company that provides an understandable, easy to navigate and use statement design, one that respects customer wishes by providing clear information on interest charges, guidance on reducing or avoiding credit debt and removes all extraneous advertising material.

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