



▶ *‘Once you know  
you can never not know again’*

The effect of a digital guide in persuading students to go for VCT

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Tilburg, December 2003

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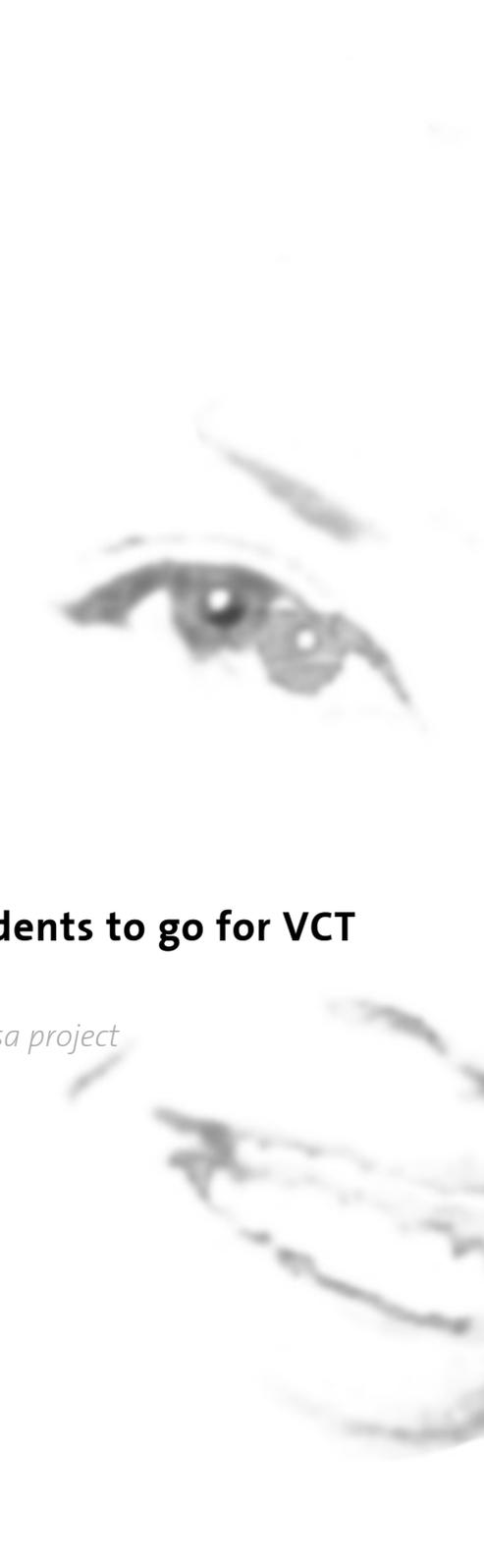
Tilburg, December 2003

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**The effect of a digital guide in persuading students to go for VCT**

*This thesis is written within the framework of the Epidasa project*

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## Preface

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When I learned about the opportunity to write my final thesis in South Africa, within the framework of the EPIDASA project on how to improve HIV communication, I did not have to give it much thought. It was not only an opportunity to travel once again; the topic also gave my studies of business communication the more human and cultural touch I was missing.

It was hard not to become too involved with the HIV/AIDS problems when I started to go into the information material and statistics. The numbers about HIV infected people were shocking. It was hard to believe that those statistics were about real people, people I might meet when conducting my experiment. Nevertheless, in the every day student's life that I was living in South Africa I did not really notice much of the misery. At these moments I enjoyed discovering a new country and my main concerns were about not making enough progress with my theoretical framework. It was not until I went to UNISA to conduct my experiment that I was confronted with reality. Students were grateful that I brought the topic up, they asked questions and even made notes. This was when everything else became irrelevant. No matter how this thesis would end, there were at least some people who would benefit from it.

It was an unforgettable year and a wonderful project, which would not have been the same without the help of many people around me. First and foremost, I wish to thank my tutor Fons Maes for his never ending dedication and his inspiring and constructive criticism. His enthusiasm made this thesis a challenge to work on. I also would like to thank Piet Swanepoel for his support in South Africa and for helping me to make a connection between the societal relevance and the theory in this thesis. Lastly I want to thank Emiel Krahmer for being a member of my exam committee.

Besides these 'official' thank you's there are some people in my personal life I would like to thank. I owe a great part to my dad, who (with my newly bought telephone extension lead) almost functioned as a helpdesk. For hours you were there on the other end of the line, thinking with me about ways of constructing the website, or correcting the English of the website information. There are many other reasons why I could thank you, but I'll summarize it to 'thanks for being there when I needed you.' I wish to thank my mum for all the times she crossed here fingers for me (it worked!), and for her support over the years, but moreover mam, I want to thank you for your never ending optimism (hope you passed some of it on to me). Wieteke, thank you for being the sweetest sister I could wish for and for being there for me in this tumultuous year. Sorry I could not always be there for you when you needed me. I love you!

A special thanks goes to you Rob, more important than your support with my thesis was the fact that you were there for me. Thanks for making me laugh when I was down, but most of all for giving me the freedom to do what I need to do, and to go wherever I want to go.

My last personal thanks goes to Anouk, I had a great time travelling and studying with you in South Africa. Discussing our theoretical problems while climbing the top of the Drakensberg was really something else!

There are many old and new friends who supported me, all in their own special way at times when I needed them. I want to thank them all for their help and unconditional friendship.

*Iris Nieuwboer*  
*Tilburg, December 2003*

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## Table of contents

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<b>Preface</b>	<b>4</b>	<b>Chapter 3 Results</b>	<b>47</b>
<b>Summary</b>	<b>7</b>	<b>3.1 Evaluation data</b>	<b>47</b>
<b>Chapter 1 Introduction</b>	<b>9</b>	3.1.1 Consistency test of the dependent variables	47
<b>1.1 The background of this thesis</b>	<b>9</b>	3.1.2 The effect of website version on the evaluation of the variables	48
1.1.1 The HIV pandemic in South Africa	9	3.1.3 The effect of website version on the evaluation of the testimonials	50
1.1.2 HIV/AIDS and health education in South Africa	10	3.1.4 The effect of website version on nationality	51
1.1.3 VCT in South Africa	11	<b>3.2 Information selection data</b>	<b>55</b>
1.1.4 The target group	12	<b>3.3 Recall data</b>	<b>56</b>
1.1.5 The Internet as medium	13	<b>3.4 Additional expectations and results</b>	<b>57</b>
1.1.6 The goal of the thesis	15	<b>Chapter 4 Conclusions, discussion &amp; recommendations</b>	<b>60</b>
1.1.7 Overview of the thesis	15	<b>4.1 Conclusions</b>	<b>60</b>
<b>1.2 Theoretical framework</b>	<b>16</b>	4.1.1 The effect of version and nationality on the evaluation of the data	61
1.2.1 Introduction	16	4.1.2 The effect of involvement on the evaluation of the data	63
1.2.2 How to persuade students to go for VCT	18	4.1.3 Information selection data	63
1.2.3 The user of the website: the effect of culture	28	4.1.4 Recall data	63
1.2.4 The identity of the guide	33	4.1.5 Additional expectations and results	63
<b>1.3 Hypothesis</b>	<b>35</b>	4.1.6 Summary	63
1.3.1 The effect of website version on the evaluation of the variables	36	<b>4.2 Discussion of the results</b>	<b>64</b>
1.3.2 The effect of website version on the evaluation of the testimonials	36	4.2.1 Addition of a textual guide	64
1.3.3 The effect of website version on nationality	37	4.2.2 Addition of a visual guide	65
1.3.4 Information selection data	37	4.2.3 Additional discussion points	67
1.3.5 Recall data	37	<b>4.3 Recommendations for further research</b>	<b>69</b>
1.3.6 Additional expectations	38	<b>4.4 Recommendations for future design</b>	<b>69</b>
<b>Chapter 2 Method</b>	<b>39</b>	4.4.1 Recommendations for the design of VCT information for Dutch students	69
<b>2.1 Material</b>	<b>39</b>	4.4.2 Recommendations for the design of VCT information for South African students	69
<b>2.2 Subjects</b>	<b>39</b>	4.4.3 Additional remarks: recommendations done by the students	70
<b>2.3 Research design</b>	<b>40</b>	<b>Reference list</b>	<b>72</b>
<b>2.4 The questionnaire</b>	<b>40</b>		
<b>2.5 Procedure</b>	<b>43</b>		
<b>2.6 Instrumentation</b>	<b>46</b>		

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## Summary

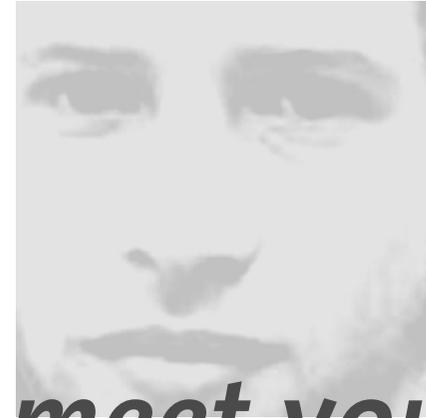
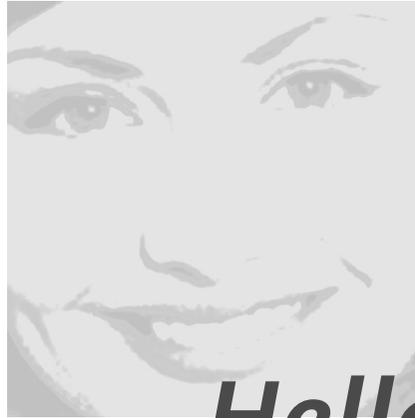
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This thesis is written within the framework of the EPIDASA project that focuses on persuading people to go for Voluntary Counselling and Testing (VCT). VCT is acknowledged as an effective and essential strategy for both HIV prevention and AIDS care, which is a necessary intervention in contemporary South Africa given the high HIV prevalence.

This thesis examines the effect of a peer-guide in a message to persuade South African and Dutch students to go for VCT. Three websites were made and shown to the students to examine the effect of the guide; an objective website with VCT information, a website with the same information but with the impression of a textual guide and a website with a visual guide.

It turned out that the addition of a guide had no effect on the evaluation of the variables by the South African students. The addition of a textual guide had also no effect on the evaluations done by the Dutch students. However, the addition of a visual guide led to a significant higher evaluation by the Dutch students of the variables commitment and appeal of the source, and the variable information. The guide had no effect on the evaluation of the credibility of the source and the persuasive power.

These results indicate that peripheral cues have an effect on Dutch students' evaluation and should therefore be used in persuasive VCT information, whereas the central route to persuasion should be emphasized in VCT information for the South African students.



***Hello, nice to meet you***

## 1. Introduction

### 1.1. The background of this thesis

#### 1.1.1 The HIV Pandemic in South Africa

South Africa is experiencing an HIV/AIDS<sup>1</sup> epidemic of catastrophic proportions. Moreover, governmental denial of a connection between HIV and AIDS and their unwillingness until recently to provide antiretroviral treatment, together with the social turmoil including poverty and social/cultural practices, create an environment in which HIV transmission becomes more likely. This has resulted in an enormous growth of HIV transmission. The latest studies indicate, for example, that

- 5.3 million South Africans (20.2% of adults) are currently infected with HIV, making South Africa the country with the largest number of people living with HIV in the world;
- 40% of adults' cause of death in the age group 15-49 in 2000 was due to AIDS;
- AIDS accounted for 25% of all deaths in 2000, making it the single largest cause of death in South Africa;
- Without effective interventions to prevent AIDS, cumulative AIDS death will rise to 5 to 7 million in South Africa by 2010;
- An estimate of 2000 people with new HIV infection daily; two-third of them aged 15 to 25;
- 26.5% of pregnant women were HIV-positive in 2002;
- By 2008, 1.6 million children will have been orphaned by AIDS.

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1. Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome

- In 2005 the population is expected to be 16 percent lower than it would have been in the absence of AIDS. By 2015 population loss caused by AIDS-related deaths will be 4.4 million. (cf. HSRC 2002, Summary report National HIV and Syphilis antenatal sero-prevalence survey in South Africa 2002).

According to the HSRC report (2002), an effective response to this epidemic requires three kinds of interventions; prevention interventions, interventions for care and support and Voluntary Counselling and Testing (VCT). The prevention intervention concerns behaviour to prevent people from getting HIV. The intervention for care and support focuses on actions to cure or provide care for people. VCT can be seen as a link between the first two interventions; it is now acknowledged within the international arena as an effective and essential strategy for both HIV prevention and AIDS care. The need for VCT is increasingly compelling as HIV infection rates continue to rise. Literature has shown (cf. HSRC 2002; 67) that high quality counselling and knowledge of HIV status helps individuals to assess their level of risk, develop realistic plans to reduce risk, and increase safer sex practices. However, in South Africa the main focus has been on prevention education and, as the disease has spread, on care and support. Therefore, more focus on effective VCT information is needed to persuade people to go for VCT (see appendix A for more information on the process of VCT).

### **1.1.2 HIV/AIDS and health education in South Africa**

Despite the various HIV/AIDS prevention, care and support interventions, programmes by Government and the more than 600

specialised HIV/AIDS organisations active in South Africa, prevention initiatives in South Africa have met with mixed levels of success. In AIDS Foundation of South Africa (2000; 4) it is stated that 'the results of campaigns and prevention programmes have been largely disappointing.' - a fact attested too by the raising number of HIV infected individuals (cf. [www.epidasa.org](http://www.epidasa.org), Swanepoel 2003b).

In South Africa, as in many countries, the initial reaction of the public health authorities as they tried to cope with the AIDS epidemic was to try to persuade individuals and target groups to change their behaviour by providing them with relevant information about HIV/AIDS. Considering the rapid spread of the HIV virus there was no time to pre-test the information material, people had to be informed on how to prevent themselves from getting infected. The material was to a large extent a copy of Western information material for HIV with hardly any cultural adaptations, thus leaving the different South African worldview with respect to relationships, sex and preventives out of consideration.

Considering the rapid spread of the virus and the pandemic status of HIV/AIDS, not only information on HIV prevention, but also information on VCT, treatment and support is needed (cf. Swanepoel 2003b). In the Beyond Awareness Campaign, which was conducted from 1997 to 2000, there was already a focus on VCT. All other campaigns stress the importance of knowing one's status as well. However this has not yet led to the intended behaviour (i.e. going for VCT). In other words, there is a gap between the intention of going for VCT and the actual behaviour. Given the limited success of information and education campaigns it

has become necessary to invest in research on the effectiveness of HIV/AIDS persuasive documents. There is need for a set of effective heuristics on how HIV information should be communicated, so as to reach as many people as possible and persuade them to practise safe sex, use clean needles, undergo VCT and in case of HIV infection, adopt a safe and healthy life style.

This is the background against which the EPIDASA (Improving Effectiveness of Public Information Documents on AIDS in South Africa) project is operating. EPIDASA is a cooperative project of three South African and three Dutch universities with the overall aim to improve the effectiveness of HIV/AIDS prevention messages for South African target groups. EPIDASA focuses on situations in South African society, which are pivotal in effectively fighting the spread of AIDS and in which at the same time effective communication can make the difference:<sup>2</sup>

- Situations in which people are persuaded to have safer sex;
- Situations in which people are persuaded to go for voluntary HIV/AIDS counselling and testing;
- Situations in which people need to be instructed to act safely in order not to endanger themselves or their environment.

This thesis is written within the framework of the EPIDASA research project that focuses on persuading people to go for voluntary HIV/AIDS counselling and testing. Despite of the abovementioned importance of VCT, testing is still low. Therefore, this thesis tries to find a useful intervention to persuade people to go for VCT.

### 1.1.3 VCT in South Africa

The South African government has established more than 450 VCT

centres with more than 800 counsellors around the country (HSRC, 2002; 67). Yet, until now the VCT programme has had little response, even though it is part of several South African prevention programmes. The HSRC report (2002) shows that only 18.9% of people aged 18 years and older had themselves tested and were aware of their status.<sup>3</sup> Of the people who were HIV-positive 47.4% underwent the test for personal reasons, 22.5% because they were pregnant and 14.8% because of external requests (by employers or insurance companies). Of the people who did not go for VCT 71% did not because they felt low at risk. Whereas two-third of the people who tested positive did not believe that they were at risk. UNAIDS estimates that only 5% of HIV-positive people worldwide are aware of their status. Consequences are that low risk perceptions (i.e. a low perception of susceptibility) and not going for VCT are an important factor in the increase of the pandemic.

The structural inadequacy of the South African health system is one of the reasons why people don't go for VCT. Until recently there was no universal and free access to antiretroviral therapy (ART) in South Africa.<sup>4</sup> Therefore, being HIV positive for the majority of South Africans meant knowing that one was going to die. Recent changes in government policy will make it possible to provide ART to all people living with AIDS who are

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2. [www.epidasa.org](http://www.epidasa.org)

3. [www.dfl.org.za/issues/aids/aids\\_statistics.htm](http://www.dfl.org.za/issues/aids/aids_statistics.htm)

4. Currently, fewer than 30,000 South Africans take the medicine, whose cost -\$1,000 to \$1,200 per year- makes them inaccessible to most. South Africa's cabinet has ordered the Department of Health to 'develop a detailed operational plan' to make anti-AIDS drugs available to those South Africans infected with HIV who could benefit from them. Ministers predict that the plan will be completed by the end of September 2003. If the recommendations in the report are carried out, between 730,000 and 1.7 million lives will be saved over the next five to eight years (CNN.com, 08/08/2003).

in a clinical phase of the disease. Swanepoel (2003) claims that, at present, access to ART is one of the major incentives for people living with AIDS to extend their lives and live a healthy, productive and meaningful life. However, to prevent HIV from becoming AIDS by means of ART one needs to know one's HIV status. Although ART is already available to certain high-risk individuals and is soon to become widely accessible, interventions are still needed to persuade people to voluntarily go for VCT. They have to know where to get tested, to be convinced of the professional services of VCT clinics, realize that they are at risk and that knowing one's HIV status can extend life and prevent partners or children from HIV transmission. This raises the question what kind of persuasive message will persuade various target groups to go for VCT.

### 1.1.4 The target group

VCT services in South Africa have mainly aimed at adults and pregnant women around 25 years of age, although more than 60% of new infections occur amongst people between 14 to 25 years.<sup>5</sup> A recently completed VCT assessment study in South Africa shows that only 6.7% of those who went for VCT uptake were between 15 and 19 years old (Magongo et al. 2002), despite the high HIV prevalence within this group. The South African students that participated in this thesis' experiment were all from Pretoria. Pretoria's adult HIV prevalence rate is estimated to be 23% with rates of 31.6% in women attending antenatal clinics. Around 1999, the University of Pretoria (UP) established the Centre for the Study of AIDS (CSA) because of the seriousness of the epidemic: 12% of the University students were HIV-positive.<sup>6</sup> Although this is already a high number, 25% of the students at the University of Durban-Westville

tested positive for HIV.<sup>7</sup> Counsellors on Rhode University assume that HIV prevalence among their students could be anywhere between 14 and 20 percent.<sup>8</sup> These statistics show that students may play an important role in spreading HIV, and thus also can play an important role in the prevention of further spread of the virus if they are aware of the seriousness of HIV and know how to prevent themselves. In many countries with emerging epidemics it is recognized that young people play a pivotal role in slowing the current pace of HIV transmission. Consequently there is great urgency to provide HIV care and support services for young people, including VCT (UNAIDS & WHO, 2001). It is therefore important to know which interventions are needed to persuade this target group.

Besides the research on persuasive interventions for students, this thesis also aims at exploring cultural differences as a variable in persuading students to go for VCT. Therefore it has a comparative component in which Dutch students are persuaded to go for VCT. Going for VCT is a detection behaviour; by going for VCT one will find out whether one is HIV-positive or -negative. The possibility of detecting an illness or problem with one's health evokes fear and too much fear can evoke aversion of the message (cf. Millar and Millar, 1998). This is a universal problem that applies for all target groups. Different target groups may need different interventions to persuade them to overcome

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5. [www.worldvision.com](http://www.worldvision.com)

6. <http://cira.med.yale.edu/research/sasup.html>

7. [http://www.dfl.org.za/issues/aids/aids\\_statistics.htm](http://www.dfl.org.za/issues/aids/aids_statistics.htm)

8. <http://www.dispatch.co.za/2002/08/31/easterncape/CTEST.HTM>

their fears and go for VCT. By comparing the results of the South African target group with the results of the Dutch target group it is tested if an equal intervention causes differences in persuasive power for the two groups.

Although AIDS is a far bigger problem in South Africa than in The Netherlands, HIV infections are also rising in The Netherlands whereas the perceived necessity of safe sex is decreasing, probably influenced by the low HIV prevalence (20,1% in South Africa versus 0,2% in The Netherlands<sup>9</sup>). Boer and Carstens (2003) found that sexual active students in South Africa were more consistent in the use of condoms than Dutch students. 73% of South African students had used a condom the last time they had sexual intercourse, versus 30% of the Dutch students. They conclude that South African students clearly have safer sex, whereas Dutch students are more sexual active with or without a steady relationship (cf. Boer and Carstens, 2003). The unsafe sexual behaviour of Dutch students makes it important to know how Dutch students can be persuaded to go for VCT, since only half of the infected people know their status,<sup>10</sup> and knowing their status can motivate them to stay disease free and prevent others from getting infected.

### 1.1.5 The Internet as medium

In this thesis the focus lies on persuading South African and Dutch university students by means of an experimental website to go for VCT. The Internet as medium is chosen because of the ease with which it can be manipulated and the opportunity it offers for a confidential consult on HIV information. The Internet gives the possibility to search

anonymously for information, thereby increasing confidentiality. Although access to the Internet is not as high in South Africa as in The Netherlands, most students have access at their university (see appendix B for more statistics on internet use in South Africa and The Netherlands). A study from Datamonitor<sup>11</sup> reports that people are increasingly turning to the Internet to look for health information for themselves and their families. They found that 57% of the respondents had consulted Internet resources when looking for health information.<sup>12</sup> Two out of three young people (68%) have used the Internet to search for health information, and one in four says they get 'a lot' of health information online. The survey also found that most young people (82%) identify confidentiality as 'very important' when looking for health information. Most of them also feel that Internet offers that confidentiality: three out of four (76%) agree that the Internet is good because they can look up things without anyone knowing it.<sup>13</sup>

Earlier mass media approaches on HIV information did often not have the desired effect (cf. Swanepoel, 2003b). There is a need to focus on a personal approach and personal development and mass media communication does not lend itself to bringing this about. According to

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9. [www.cia.gov/cia/publications/factbook/geos/](http://www.cia.gov/cia/publications/factbook/geos/)

10. De Volkskrant (1 December 2003)

11. [www.nua.ie/surveys/index](http://www.nua.ie/surveys/index)

12. Similar research in the United States ([www.plannedparenthood.com](http://www.plannedparenthood.com)) also showed that young people more often use the Internet to look up information about health issues. The confidentiality of the Internet makes it an especially appealing source for young people interested in sensitive issues like sex. The survey also suggests that a significant proportion of the youth are acting on what they find: four out of ten (39%) online health seekers say they have changed their own behaviour because of information they found on the Web.

13. [www.plannedparenthood.com](http://www.plannedparenthood.com)

the HSCR report 'a more intensive, intimate and personal register of address is required if changes are to happen in the nooks and crannies of individual lives, where intentions and decisions erode and where communication is constrained (2002; 44).'

Every target group may need a different approach, which makes the mass medium Internet's possibility to personalize so unique. It can be manipulated so as to make it a more intimate, personal medium, more appropriate to communicate HIV information. It can function as a one-to-one delivery mode. With regard to this the computer's function as social actor is interesting. Empirical research demonstrates that people form social relationships with technologies (cf. Reeves and Nass, 1996). Although the precise causal factors for these social responses have yet to be outlined in detail, Fogg et al. (2002) argue that one could reasonably hypothesize that users respond socially when computers do at least one of the following: (a) adopt animate characteristics (e.g., physical features, emotions), (b) play animate roles (e.g., coach, assistant), or (c) follow social rules or dynamics (e.g., greetings, turn taking). A computer as a persuasive social actor is a view that only recently has become widely recognized. Laboratory experiments have demonstrated how computers can be persuasive social actors. In particular, computers as social actors can persuade people to change their attitudes and behaviours by (a) providing social support, (b) modelling attitudes or behaviours, and (c) leveraging social rules and dynamics.

The function of a computer as a social actor and the interactivity of Internet provide health communicators with the opportunity to

strategically use peer education via the Internet. Peer education is a one-to-one delivery mode that has proven to be a highly successful communication strategy in HIV/AIDS education.<sup>14</sup> According to the HSCR report (2002; 50): 'Peers are more likely to be able to understand and engage with each other in talking about sexual and reproductive health issues than with authority figures and health workers who often represent different social and class values.' The Internet provides the possibility to tailor the information in the experimental website in such a way that it seems like the source of the information is a peer-guide. Subsequently, this peer can be tailored to the persona the student prefers to be informed by (cf. Coney & Steehouder; 2000). Thus, by means of a website, the delivery of the information can be tailored by delivering the information either by an impersonal source or a personal source (i.e. a peer). Whereas in the latter case the peer can be tailored to the students needs by giving him the possibility to choose his favourite peer. In this way the mediated peer may function as a social actor and persuade the students to change their attitudes and behaviours by providing social support and modelling attitudes or behaviours.

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14. Campbell and Mzaidume (2001) argue that the success of participatory peer education depends on 3 interlinked factors. First, the experience of participation in project implementation serves to empower members of target groups by placing health-related knowledge (traditionally the province of experts) in the hands of ordinary people. This contributes to an enhanced perceived self-efficacy or empowerment and increases the likelihood that people will engage in health-promoting behaviours. Second, the peer education approach provides a context for the widespread renegotiation of the social and sexual identities of people at high risk of HIV infection. Rather than being governed by individual choice, 'sexual behaviour is inextricably linked with the norms characteristic of the social groups with which we identify.' Third, such approaches succeed to the extent that they promote the development of 'health-enabling communities,' that is, community contexts that enable or support the empowerment and social identity processes outlined above.

### 1.1.6 The goal of the thesis

The discussion above briefly mentions the importance of VCT and the problems that one may encounter when persuading people to go for VCT. Interventions are necessary to enhance the persuasive effect of VCT messages and heuristics have to be developed for the design of effective interventions. This thesis focuses on the influence of a textual or visual 'peer-guide' on the persuasive power of a message. Therefore a website was developed with identical content but with and without the guidance through the website by means of a peer and testimonials delivered by peers. The goal of the experimental website is to persuade South African and Dutch students to go for VCT.

As there is still considerable stigma and discrimination attached to HIV/AIDS, people who are considering VCT need a lot of information and support. The website focuses on the reasons why one should consider VCT by means of arguments and testimonials. The information and the testimonials are delivered to the students by means of peers. Considering the fear of stigma and discrimination it is appropriate to give this information by means of a peer who supports the decision to go for VCT. These peers are either textually or textually and visually present. The implementation of this intervention is chosen as a result of a hypothesis given by Reeves and Nass. According to Reeves and Nass (1996; 12) 'people treat media and mediated people as real people because our brains aren't evolved to twentieth-century technology. Viewers evaluate faces on a screen, and they are prepared to respond to the faces, in the same ways as they would to actual people.' The presence of a guide in the appearance of a peer on the website may therefore

evoke the same reaction and (unconsciously) be treated as a real life peer. This presence may increase involvement because of the personal approach that is chosen and possible identification with the peer at the website may lead to a more positive evaluation of the source.<sup>15</sup>

In general, computers as persuasive tools induce attitude and behaviour changes by increasing a person's abilities or making something easier to do. Although one could propose numerous possibilities for persuasion in this manner, Fogg et al. (2002) suggest four general ways in which computers persuade as tools; by (a) increasing self efficacy, (b) providing tailored information, (c) triggering decision making, and (d) simplifying or guiding people through a process. In this thesis the peer tries to fulfil all four possibilities; increasing self efficacy by showing the students that his friends were able to take the test and profit from it, providing information on VCT that probably interests their student peer group, triggering decision making by mentioning all the advantages of taking a test and guiding the student through the website and explaining the process of VCT.

### 1.1.7 Overview of the thesis

The next section discusses theories that underlie the experiment. There will be looked at the problems that may rise with regard to the students'

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15. According to Hass (in Saal, 2003) identification is 'the desire to establish gratifying role relationships with the source.' Similarity between the guide and the student can increase the student's self confidence as well as the student's confidence in certain values because the guide gives the social support needed for the evaluation. Besides this, identification increases the involvement with the given information, which brings about extra attention for the argument (Hoeken & van Wijk, 1997).

intention to go for VCT. Some behavioural theories with regard to persuasive messages will be discussed to justify the choice of an intervention by means of a peer-guide. Next, the characteristics of the target group will be discussed. Subsequently the effects the abovementioned factors may have on the appearance of the guide will be described. Lastly the hypotheses with regard to the effect of the addition of a (visual) guide and nationality will be discussed.

The research method will be described in chapter 2, there will be a description of the realization of the textual and visual part of the website, the characteristics of the target group, the research design, the design of the questionnaire and the experimental procedure and instrumentation will be discussed. Subsequently, the results of the experiment will be reported in chapter 3. All the hypotheses will be statistically tested on the basis of the collected experimental data. Lastly, the conclusions drawn from the results will be discussed in chapter 4, together with a discussion of the findings, recommendations for further research concerning the topic and recommendations for the design of VCT information.

## 1.2 Theoretical framework

### 1.2.1 Introduction

As is briefly mentioned in Section 1.1, the website developed for this thesis tries to persuade students to go for VCT. Although most students know about the existence of VCT and the high HIV prevalence among their age group, only a very small percentage of this age group has ever taken a test.<sup>16</sup> Obstacles range from low risk perception to fear for the

possible outcome. The aim of the experimental website is to try to remove these obstacles by giving the students information about VCT by means of a website with a textual or visual peer-guide. The main goal of this thesis is to find out what distinctive contribution these guides make to persuasive communication, and if this contribution differs for a group of South African students or Dutch students. By presenting the students either an objective website with arguments and testimonials on VCT; a website with a textual (peer) guide who shows the narratives of his friends to the students; or a website with a visual peer-guide who shows the narratives of his visual friends to the students, the user's perception of the website and the message may be influenced. The research question of this thesis is:

***What is the effect of a (visual) peer-guide on the persuasiveness of a message, and to what extent does this differ for South African or Dutch students.***

The peer in this thesis guides the student through the website and shows stories of his HIV-positive and -negative friends. The peer can be seen as a guide who stays in the background, addressing the student in a more personal way (see appendix C for the screen dumps of the complete website, or visit the websites by means of the supplied cd). The

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16. There are no exact numbers considering the VCT uptake among students. However, according to the Magongo report (2002) only 6.7% of the VCT users were between 15 and 19 years old. 67.4% are between 20 and 35 years old. But considering the fact that 73% of the VCT users are married this probably excludes a huge group of students. 79% of current VCT users are female and 21% male. Van Dyk (2002) does mention that more people with higher education went for VCT; 62.1% tertiary versus 37.4% high school or lower.

guide first welcomes the students to his website and explains the purpose of the website. Subsequently the guide explains the concepts of HIV/AIDS and VCT. Finally the students get to a page where the peer's friends narrate their stories concerning their experience with VCT to the student and list arguments why they think the student should consider VCT. In the end the guide and his peer friends thank the student for visiting their website and wish him 'good luck and a healthy life'. By presenting the guide and his friends only textually or textually and visually the student's opinion towards the guide may be influenced, resulting in a difference in persuasive power of the message.

The goal of the website is to positively influence the student's attitude towards VCT and to persuade him to take a test. Tellis (1998; 101) defines persuasion as 'a change in opinion, attitude or behaviour caused by some communication. It is the change that is brought about either by reason or by other more subtle methods that do not involve reasoning. Examples of the latter include the use of cues, such as endorsers, and of emotions, such as fear and joy.' 'A persuasive message aims at persuading people. It is designed with the goal to change the reader's attitude by means of informing the reader [...] (Hoeken, 1998; 14).' The aim of the website is to change the student's opinion with regard to VCT by means of the arguments and testimonials that plea for VCT or because of the effect the (visual) guide evokes. The intended effect is that this change in attitude will eventually lead to the behavioural intention to go for VCT. In general it is expected that the website with a guide will be more persuasive than the website without a guide, and that the website with the visual guide will be more persuasive than the website with the textual guide. Presented schematically :

Persuasive power		
+ guide	>	- guide
+ visual guide	>	- visual guide

Figure 1.1 Schematical presentation of the expectations of the effect of a guide

This thesis tries to explore whether the addition of a peer-guide leads to more persuasive power of the message (i.e. the student's beliefs, attitude and attention towards VCT). Thereby, increasing the possibility that the student will be persuaded to go for VCT. The persuasive power of the message does among other things depend on the information that is given and on the evaluation of the source. Therefore, it will also be examined whether the addition of a guide leads to a more positive evaluation of the information (i.e. the appeal, comprehensibility, appropriateness and persuasive power of the information); and a more positive evaluation of the source of the message (i.e. the source's credibility, appeal, expertise, formality and empathy).

The theories behind these expectations will be described in this chapter. There are two independent variables in the research question; the version of website (objective, textual guide or visual guide) and the cultural differences between the South African and the Dutch students. First, the behavioural theories that may explain the students' behaviours and attitudes with regard to VCT will be described, which led to the choice of the persuasive intervention by means of a peer-guide. Next, the cultural differences of the South African and Dutch students that may have an influence on the persuasive power of the guide will be discussed. Finally, the effect all these theories may have on the appearance of the guide and the persuasive effect of the guide will be discussed.

### 1.2.2 How to persuade students to go for VCT

In section 1.2.1 it is shown that despite the high HIV infection rate among 15 to 25 year olds only few students go for VCT. Van Dyk (2002) found that subjects were in principle not against VCT but that there exist a number of barriers for people to go for VCT. These barriers cause a gap between the intention to go for VCT and the actual behaviour. To remove these barriers one needs to have some understanding about intentions and behaviour. In the next section some main barriers and possible interventions to overcome these barriers will be discussed with regard to behavioural theories.

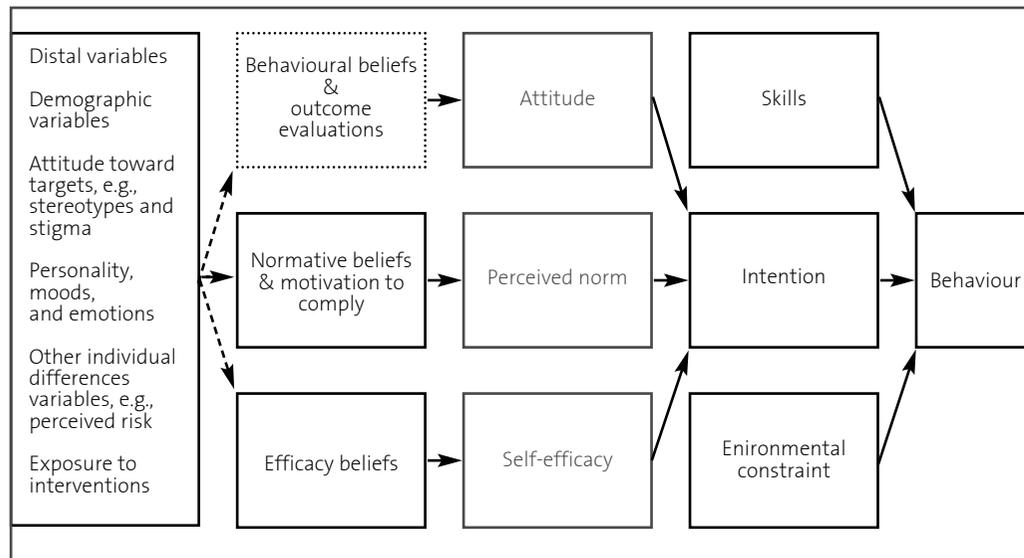


Figure 1.2 The Integrated Model of Behaviour Prediction

### The Integrative Model of Behavioural Prediction

Most behavioural theories suggest three critical determinants of a person's intentions and behaviours (Fishbein & Yzer, 2003); the person's attitude toward performing the behaviour, the perceived norm, and the self-efficacy. Three theories (The Health Believe Model, The Social Cognitive Theory and the Theory of Reasoned Action) that also describe these determinants have been incorporated in an Integrative Model of Behavioural Prediction (IMBP), figure 1.2 shows the model (cf. Fishbein & Yzer, 2003).

According to the IMBP, behaviour, like going for VCT, is most likely to occur if one has strong intentions to perform the behaviour, if a person has the necessary skills and abilities required to perform the behaviour and if there are no environmental constraints preventing behavioural performance. The model recognizes that attitudes, perceived norms and self-efficacy are functions of the underlying beliefs about the outcomes of performing the behaviour in question, the normative proscriptions of specific referents and specific barriers to (or facilitators of) behavioural performance.

The more one believes that performing the behaviour will lead to good outcomes and prevent bad outcomes, the more favourable one's attitude should be toward performing the behaviour. Similarly, the more a person believes that specific others think that he or she should or should not perform the behaviour in question, and the more motivated a person is to comply with those specific others, the stronger will be the subjective norm to perform or not perform the behaviour. Lastly, the

more a person perceives that he can (e.g. has skills and abilities to) perform the behaviour, even in the face of specific barriers or obstacles, the stronger will be the person's self-efficacy with respect to performing the behaviour.

Finally, the figure also shows the role played by more traditional demographic, personality, attitudinal, and other individual difference variables (such as perceived risk or sensation seeking). According to the model these types of variables play primarily an indirect role in influencing behaviour. These distal variables such as culture and personality differences should be reflected in the underlying belief structure.

One implication of the IMBP is that very different types of interventions will be necessary for people who formed an intention but are unable to act upon it, than for people who have little or no intention to perform the recommended behaviour (see figure 1.3).

		Performance of the recommended behaviour	
		NO	YES
Intention to perform the recommended behaviour	NO	<i>Change outcome, normative, and/or self-efficacy beliefs</i>	Change outcome, normative, and/or self-efficacy beliefs
	YES	<i>Improve skills Reduce/help overcome environmental barriers</i>	No intervention necessary or maintain positive intention

Figure 1.3 Different types of interventions

It is already discussed in section 1.2.1 that only a small group of students have taken VCT. Considering the low risk perception among students<sup>17</sup> it is expected that most of the students do not have the intention to go for VCT. Thus, the intention to go for VCT still has to be formed. Figure 1.3 shows that to form the intention the beliefs with regard to the outcome of the behaviour, the normative beliefs regarding the behaviour and/or self-efficacy beliefs (i.e. the attitude toward performing the behaviour, perceived norms concerning performing the behaviour, and one's self efficacy with respect to performing the behaviour (cf. Fishbein & Yzer, 2003)) need to be changed. Nevertheless, it is also mentioned that Van Dyk (2002) found that subjects were in principle not against VCT but that there exist a number of barriers for people to go for VTC. Figure 1.3 shows that it is important for this group of students to remove the barriers that keep them from going for VCT.

### The student's beliefs

A person's attitude is influenced by his behavioural beliefs and evaluations of the outcome. A simple definition of an attitude is 'the general evaluations people hold with regard to themselves, other people, objects and issues' (Renkema, 1993; 128). An attitude can be seen as a preparation for behaviour, a predisposition to respond in a particular

17. According to the Lovelife report (2001) a majority of South African Youth indicate that they do not think it is likely that they will become pregnant, be infected with HIV, or be infected with another STD. One in four say they have no chance of becoming pregnant and an additional 33% indicate that their chances are low or very low. They express the same doubts about their risk of HIV infection. Sexually experienced youth express more concern that these things might happen to them than did those who are not sexually experienced but still seem fairly confident that they will not. While only 15% of youth who have not had sexual intercourse say their chances of becoming infected with HIV are high or very high, over a quarter of youth who have had sexual intercourse say their chances are high or very high.

way to the attitude object. According to Fishbein and Ajzen (1975) an attitude is a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object. According to Rosenstock (in Van Dyk, 2001) people will only change their behaviour if they perceive the new behaviour as potentially effective, beneficial and practically feasible. The probability of a person changing his or her behaviour therefore depends on that person's perceptions of the benefits or rewards that will accrue from the new behaviour, as well as that person's perception of the disadvantages or obstacles that will result from changed behaviour.

With regard to VCT there are several obstacles a person may encounter when considering to go for it. Besides the low self-susceptibility that is discussed above there exist a number of barriers for people to go for VCT. Van Dyk (2002) distinguishes between structural and psychosocial barriers. The structural barriers concern factors such as the shortage of counsellors, the lack of privacy, poor quality of counselling and follow up support and the lack of trust in the health care system. The psychosocial barriers concern the fear of rejection by partners, community or health care professionals, fear of disclosure to sex partners and concerns about testing without treatment or follow-up options (cf. Van Dyk, 2002).

The abovementioned barriers show that people do not only fear a positive result, but that there is also the underlying fear of being stigmatised and discriminated. Although the HSRC report shows that 'the majority of the South African population express attitudes of acceptance of people living with AIDS (2002; 89),' there have been high

levels of HIV/AIDS-related stigma in South Africa in the past. As long as having AIDS can cause stigma and discrimination there is in fact very little incentive for high-risk individuals or people living with HIV/AIDS to voluntarily report for VCT: testing HIV-positive or simply being suspected of being HIV-positive could mean exposure to violence, discrimination, and social isolation (Swanepoel, 2003). This is why people question the ethical part of promoting VCT as long as there is no better access to medication and a decrease in stigmatisation.

Another obstacle can be found in a theory of Millar and Millar (1993; 2). They regard attitudes as encompassing a global evaluation based on both cognition and affect. The cognitive component is generally conceived of as containing the encoding of attributes and beliefs about the attitude object (e.g. going for VCT is time consuming since it is difficult to reach, or going for VCT is good for me). Alternatively the affective component of the attitude is conceived of as containing the encoding of emotions and feelings associated with the object (e.g. going for VCT may raise feelings of anxiety or embarrassment). Going for VCT can be seen as disease detection behaviour; detection behaviours do not provide an immediate plan of action to deal with health threats. Instead of reducing anxiety, detection behaviours may threaten the person's perception of good health and actually generate anxiety by confronting the person with the possibility of finding a health problem. In the absence of coping strategy anxiety may motivate persons to avoid elaborating even those messages that are highly self relevant. Management of anxiety is an important determinant in message processing. In their research Millar and Millar (1998) found that

participants in the high anxiety detection behaviour condition apparently did not cognitively elaborate on the message. That is, they were not influenced by the strength of the message. This finding suggested that the change produced in these conditions was the result of peripheral processing.

A last obstacle can be found in the perceived norms. The perceived norms can be described as the student's subjective norm about what important other people think he or she should do. This can be a reference group or individuals in a student's life. If the student himself or the reference group feel negative about VCT then a great deal of explanation, negotiation and persuasion may be required before he will actually get tested. The more the student wants to comply with that other, and wants to please this reference group or individuals, the more important the beliefs of the other are. According to Oskamp (1991), peers are very important for adolescents. Oskamp describes the peer group as the next major determinant of attitude after family and school: 'From the end of grade school onward, peer-group contacts become increasingly important and time consuming. Peers frequently introduce and reinforce new viewpoints, attitudes, and behavioural patterns (1991; 165).'

### **Changing the student's beliefs by arguments**

To increase the chance that the student's attitude towards VCT is positive and eventually might lead to going for VCT, the three primary determinants of intention (attitude, perceived norm and self-efficacy) that were mentioned above have to be changed. To rebut the barriers

that go together with the outcome of the behaviour (i.e. going for VCT) these barriers and negative thoughts should first be changed. This can be done by providing true information about VCT in an effective persuasive way, for example by providing the students with arguments that argue for VCT and rebut the abovementioned barriers. Since one of the barriers is the lack of trust in the health care system, they have to be convinced of the quality of VCT services. Explaining to them the process of VCT, thereby removing possible fear and misunderstandings may convince them. To remove some psycho-social barriers the students are given arguments such as the life extending possibility by means of good nutritional care and medication once one knows one's status, the possibility to prevent mother to child transmission, prevent transmission to one's partner and receiving quality counselling (see appendix D for the arguments for VCT).

It was also discussed that it is important to reduce the students' level of anxiety and give them a coping strategy. Attitudes towards VCT appear to be mediated by the perceptions that HIV is a fatal condition (thereby creating anxiety). This leads to the perception that there is no point in being tested. Therefore, it is important to provide information on the potential to extend life through managing HIV infection. Millar and Millar (1998) also showed that persuasion merely by arguments may not work in case of anxiety. Therefore there are also peripheral cues needed to persuade the student. These cues will be added to the website in the form of testimonials and peer-guides. Theory that supports these choices will be discussed next.

### **Testimonials**

Testimonials are added to the website to support the arguments and make them more realistic and lively. Additionally, testimonials can also be used to increase the possibility of changing the normative beliefs by making the student feel that others support the behaviour.

In general, a testimonial contains information with regard to the topic, put in an argumentative way to convince the reader of the advantages of the topic (Bakker et al., 1986). In the experiment the guide's friends will tell their stories (testimonials) about their experiences with VCT with the intention to persuade the student to go for VCT. Testimonials are frequently tested and they proved to be an effective cue in persuading people (Hoeken, 1995). When reading a story, people complement it with their own experiences and feelings. To put the story in perspective, people use previous experiences. Stories are, so to speak, aids through which people relive earlier emotions and memories (Duijvestijn, 2001). This can especially be true in South Africa, where students probably have more experience with HIV-positives, making it easier to complement a story with one's own experiences and emotions.

Because of the easy way in which stories evoke emotions, they are capable of influencing people's behaviour. By making the narrator of the stories a peer of the students, the stories may be even easier to empathize with since they are told by people who are at the same phase of life as the students are. Thus, the main characters in the experimental website are the guide's friends who are telling their stories in the testimonials. They are the main characters in their own narrative and

may function as a role model for the audience. Slater and Rouner (2002) claim that narratives can influence beliefs, and attitudes underlying this behaviour as well. Their research with edutainment stories has shown that when processing narratives, the audience may identify itself with the (main) character in the story and become transported into the world evoked by the narrative. Even if this character holds beliefs or values that are incongruent with the beliefs or values the audience holds, the audience may still identify itself with the character. Thus, if the student becomes involved in the peer's story that promotes VCT and that shows the benefits VCT has had for the peer's life, the student's attitude to VCT may improve. Furthermore, the more absorbed the audience, the less likely it is to generate counterarguments and the more likely it is to accept the beliefs and values indirectly expressed in the narrative (Slater and Rouner, 2002). Although the stories in the website are testimonials and not edutainment stories, they are real life stories told by peers of the students. It is therefore interesting to find out if they have the same persuasive effect upon the students as described by Slater and Rouner.

Besides the fact that a testimonial enlivens the argument it can also give the student a cue about the source of the message (Hoeken, 1998; 89). The narrator of the testimonials can give cues about the expertness or trustworthiness of the source, which makes it easier for the students to infer a source. The person giving the testimonial has to be identifiable to the student to convince him. The guide could for example be of the same social group the reader belongs to, thereby making it easier to identify with the guide. It could also be an expert concerning the subject, either by knowledge or by experience or it could be a known or famous person.

In the experimental website the testimonials are given by friends of the guide. As will be discussed next, peers are expected to increase involvement. Since the guide is portrayed as a peer, his friends can also be peers of the students. By making the narrators of the testimonials peers who are experts by experience (because they had VCT or are considering it, are HIV-positive or have HIV-positive friends), the testimonials may have a high impact on involvement.

Lastly the testimonials can also function to increase the self-efficacy belief of the student. Hoeken & Geurts (2003) showed that testimonials with a positive ending, that means testimonials in which the person succeeds in carrying out the desirable behaviour, leads to a more positive intention to actually perform the behaviour. Hoeken & Geurts quote O'Keefe who states that this kind of testimonials increase the perception of feasibility of the behaviour by reasoning that 'If they can do it, I can do it'. Thereby they indicate that a testimonial is easily seen as representative for the whole group. Since the barriers show that the subjective norms can be a main barrier for VCT, the students need to have the impression that going for VCT is approved by their environment. The use of testimonials that are told by peers is already mentioned. Besides the testimonials that are told by a peer, the website has also a persuasive intervention by means of a textual or visual guide of the students' age (i.e. a peer) who guides the student through the website, giving arguments pro VCT. It is hoped that this intervention increases the chance that the student pays attention to and considers the arguments, and that this changes the attitudes, normative beliefs and self-efficacy positively.

### **Intervention by means of a peer-guide**

The abovementioned theory shows that persuading the students to go for VCT by means of a peer-guide may function as a persuasive intervention, since the students need positive information about VCT and the impression that important others also approve one's possible intention to go for VCT. Although the experimental website contains argumentative reasons and testimonials that plead for VCT, the important persuasive variable in this experiment is the use of the peer-guide. Although the arguments and testimonials may be persuasive, differences in persuasiveness between the three different websites can only be subscribed to the addition of the textual guide or the visual guide and the visual peer-narrators since the arguments and testimonials will remain the same in the three experimental websites.

Saal (2003) emphasizes the importance of using peers to communicate effective HIV messages. He mentions several studies that showed that adolescents prefer to go to peers for information or opinions. Reasons that are mentioned for this peer group preference are the knowledge peers have of their peer group which leads to the right choice of language and terminology, and understanding of each others way of thinking, thereby facilitating the difficult topics as sex, HIV or VCT (cf. Saal, 2003). The effect of a peer in a persuasive written message can be evoked by means of language use and/or images. In this thesis the emphasis lies on creating the concept of a peer by means of photographs of peer referents. Saal gives three definitions for the use of peer groups:

- Peers of the same age group (e.g. HIV information from adolescents to adolescents);

- Peers who are slightly older (considering the belief that adolescents judge slightly older peers as more experienced than peers of the same age group);
- Similarity by means of experience (e.g. sexual active students give HIV information to another group of sexual active adolescents).

In this thesis the second definition of a slightly older and thus more experienced peer will be used.

### **The mediated peer-guide**

The peer-guide in the experimental website can be seen as an abstraction of a real life peer. The guide is either textually or textually and visually present, but only by means of small textual cues and photographs. However, according to Reeves and Nass (1996), this can have the same effect on the users as a real life peer. Their research showed that:

- Subjects reacted all in a consistent way. Media equates real life;
- People respond socially and naturally to media even though they believe it is not reasonable to do so;
- Personality can be perceived in the most minimal of places - a simple English sentence - and does not need high-tech applications like virtual reality.

Reeves and Nass' research showed that people react to cues such as distance, eye gaze, flattery and movement from mediated people on screen in the same way they would react to real people (cf. Reeves & Nass 1996). Therefore, it is tried to make the message in the experimental website more persuasive by presenting the arguments and testimonials not only by means of a textual guide, but also by means of a visual guide.

Whether the addition of a guide has an effect on the persuasive message or not can on the other hand also depend on the user's initial attitudes and interests. For example, considering the high percentage of HIV-positive adolescents in South Africa it is expected that South African students are more involved with the HIV topic than Dutch students. Therefore they may not need additional (visual) cues to find the message persuasive. The way in which the persuasive message will be approached may therefore have an influence on the way the message is processed and how possible attitudes are formed or changed.

Attitudes can sometimes change very rapidly, resulting in behavioural change, whereas in other situations they prove very resistant to change. To be successful in changing people's behaviour one needs to understand how behaviour can be affected. Two different approaches will be discussed, that give an insight into persuasion and under which circumstances an attitude or behaviour can be changed, viz. modern social psychology and the classical rhetoric. Social psychology can be used to describe the cognitive and affective processing that occurs when someone reads the persuasive message. The Elaboration Likelihood Model (ELM) and the Heuristic-Systematic Model (HSM) are examples of social psychology models. They will be described next.

### **The Elaboration Likelihood Model**

The Integrated Model of Behaviour Predications gave an insight in the way in which the behaviour can be influenced via the attitude. The ELM, on the contrary, aims at influencing the attitude itself by means of argumentative, informative or persuasive communication. In the case of the website these are the arguments, testimonials and general

information regarding VCT, and the addition of the (visual) guide. According to the ELM people are motivated to hold correct attitudes. However, the amount of effort they are willing to put into evaluating the arguments of the message varies with individual and situational factors, in particular motivation and ability (Petty and Cacioppo, 1986).

Ability refers to the fact that readers need to have the capacities to scrutinise arguments, therefore they need sufficient time to read the arguments and they have to understand the arguments. Since the students will be asked to carefully and attentively read the whole website they will probably read all the arguments. However, since the information is given in English, which is the second language of most of the Dutch, and second or third language of most of the South African participants, this can cause some comprehensibility problems. Yet, a more important factor considering the topic is the motivation the student has to read the website.

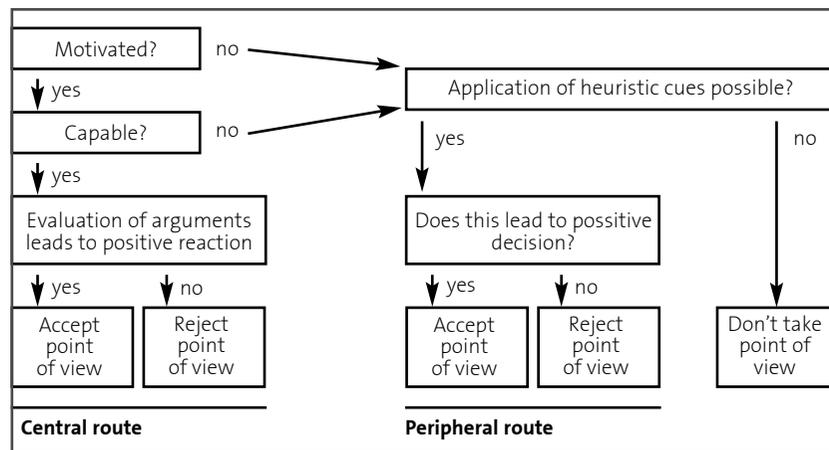


Figure 1.4 The Elaboration Likelihood Model (Petty & Cacioppo, 1986)

Motivation is determined by issue dependent and issue independent factors. One of these independent factors is the reader's need for cognition, which is the difference among individuals in their tendency to engage in, and enjoy thinking. An important issue dependent variable is issue involvement or personal relevance. This factor reflects the idea that readers are more motivated to scrutinise the arguments when the message has important consequences for themselves. In those circumstances people find it more important to hold a correct attitude (Hoeken, 1995; 6). These factors cause different ways of information processing.

According to Petty and Cacioppo (1986) there are two different routes to attitude change (see figure 1.4). There is a central route that is based on the information a person has about the attitude topic. It involves a rational process of learning, gathering information and generating thoughts about the topic. Although the thoughts are often biased, it considers a thoughtful consideration of information. In the central route to persuasion the motivation, ability and need for cognition are high; people will take time to read the arguments and can therefore only be persuaded by the quality of the arguments. Persuasion via this route is stronger, relatively persistent and resistant to counterattack. It is this route that the user of the website uses when he really is interested in, or involved with the HIV topic. Millar and Millar (1998) quote Petty and Cacioppo who found that messages with high self-relevant issues are more likely to be elaborated. HIV is a much more relevant topic to South African students than to the Dutch, considering that 20% of South Africans have HIV versus 0,2% of the Dutch. In spite of this difference, prior knowledge is not necessarily higher in South Africa. The percentage

shows however that it is much more likely that South African students are HIV-positive than Dutch students. Therefore, the involvement of South Africans with the subject is expected to be higher. Since more South African students may be personally involved with HIV than Dutch students it is expected that more South African students will process the information via the central route and thus the visual guide might have less effect on persuading them than on persuading Dutch students.

However, we discussed a theory of Millar and Millar (1998) that may contradict this expectation and explain why people who are personally involved with HIV may not elaborate on the information. This is based on the levels of anxiety a person has with regard to HIV. It may be that high levels of anxiety can motivate cognitive elaboration of a persuasive message when the message is perceived by the person as an effective means of coping with the anxiety or danger. Thus, if going for VCT is seen as a way to prevent getting HIV, or to extend life by preventing HIV to become AIDS people still will elaborate on the message. However, less processing of a message about disease detection behaviour should occur as a person becomes more anxious because detection behaviour does not offer means to cope with anxiety. Thus, in the absence of coping strategy anxiety may motivate persons to avoid elaborating even those messages that are highly self relevant. They will then follow the peripheral route.

Most people will usually not follow the central route because it takes too much time and effort considering the huge amount of persuasive information a person encounters. Even though the students are asked to read the information on the website thoroughly, a low level of

motivation or personal relevance, or the high level of anxiety that is mentioned above can cause a different way of information processing. This is the peripheral route, a route which involves far less thinking or active elaboration of the arguments. It ensues when a person's need for cognition, motivation or ability to process message content or other information is low and the person needs additional peripheral cues to evaluate the message. The peripheral cues provide a shortcut procedure by which a person can decide how to react to a message without taking the trouble to think about all the pros and cons. This shortcut can be seen as a heuristic (a rule of thumb) that a reader uses. In this thesis the peripheral cues are given by means of the testimonials and the guide; the guide gives the same information as the website without a guide, yet in a more personal way which may appeal more to the student. The visual guide is an even more obvious heuristic cue since the student does not have to start reading to notice that the guide is a peer, but directly sees the guide is a peer. This can facilitate the student's evaluation of the source.<sup>18</sup>

Other persuasive cues are the source's credibility and likeability. Within the framework of this thesis, credibility can be separated in two aspects, the source's expertness (degree of knowledge) and its trustworthiness (lack of intention to deceive or manipulate the audience). Though both aspects of credibility are usually related to the amount of attitude

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18. The guide can be seen as the source of the website. On the one hand because the website is presented as if it is an initiative of the guides themselves, and on the other hand because research showed that messengers (that is, people who read or tell a message that has not to be theirs) are seen as the source. Even if people actually know that the read message, opinion or statement is written by someone else, for example as newscasters do, they attribute the message to the messenger (Reeves and Nass, 1996, 183).

change, Oskamp (1991) found that the findings for expertness are typically stronger and more consistent. Research also showed that a source that is only somewhat more knowledgeable or older might have more influence than a greatly superior expert. Therefore, the guide and his friends will be represented as slightly older peers who are experts by experience (i.e. either went for VCT and/or are HIV-positive). In order for the source's expertise to be most effective, it must be known to the audience before the message is delivered (Oskamp, 1991; 216).

The source's likeability consists of the dimensions similarity, liking and familiarity. According to Simons et al. (in Saal, 2003) there are two types of similarity, viz. attitude similarity and group similarities. The group similarities are the most important for this thesis; they include one's origin, religion, social class and age. By presenting the information to the students by means of a visual peer, the chances that the student sees the guide as a real peer and notices similarities between the peer and himself are increased, which additionally may increase the likeability.

When using heuristic cues the student can use the source's credibility or likeability to form an opinion. In this case a student may display agreement with a liked or credible source because a simplifying decision rule ('if I like the source, then I'll agree'). Thus, peripheral cues can be used to increase the credibility of the website in several ways. An aesthetic website can evoke positive feelings which in turn can encourage a stronger belief in the quality of the information. Or, looking into the camera (i.e. into the viewers eyes) shows the source has nothing to hide. Since the website with the visual peer gives the most persuasive cues to

derive the degree of credibility and likeability it is supposed that this website is evaluated as the most credible one and the source is evaluated more positively than in the other websites (see appendix E, section 1.4).

The stronger an attitude is, the more difficult it will be to change the attitude. Persuasion via the peripheral route happens especially if attitudes are weak or not yet formed. These are also the easiest attitudes to change. Since it is expected that Dutch students know less about VCT than South African students and thus have not formed an attitude towards VCT yet, it is expected that the peripheral cues might be more persuasive to the Dutch than to the South African students. If an attitude is strong, people need strong arguments to be persuaded via the central route. Of course these routes do not occur in their purest form, the routes are however, complementary. As the likelihood of elaboration diminishes, the peripheral elements will have a more profound influence on the attitude change. Because the ELM is unclear about the mutual exclusiveness of the peripheral versus the central route, Chaiken's Heuristic-Systematic Model (HSM) will be briefly discussed next.

### **Chaiken's Heuristic-Systematic Model**

Chaiken's HSM model (in Hoeken, 1995; 15) makes a distinction between heuristic processing and systematic processing, what mirrors the distinction between the peripheral and the central route in the ELM. However, one of the important differences is that the HSM claims that systematic and heuristic processing can co-occur and that they can have different effects on the reader's attitude. Often the effects of heuristic

cues, such as source expertise, will be attenuated because the systematic processing of information provides the reader with conclusive evidence with regard to the correct attitude. Nevertheless the HSM allows for the possibility of an additive effect of heuristic cues. On the basis of several results the HSM claims that heuristic cues can influence the attitude even if readers process information systematically. This indicates that although black South African students may be more persuaded by strong arguments, the heuristic cues of the visual guide may still have an effect on them.

### **The Rhetorician's point of view**

The ELM and HSM give little attention to the persuasive message itself and focus on the content instead of the form, and the amount of processing that is involved. Fishbein and Ajzen stress that content is the most important determinant of the persuasiveness of the text (Hoeken, 1995; 18). Rhetoricians, on the other hand, are interested in to what extent the form influences the attitude formation. According to McQuarrie and Mick (in Schilperoord and Maes, 2003): 'rhetoricians maintain that any proposition can be expressed in a variety of ways and that in any given situation one of these ways will be the most effective in swaying an audience. Hence, when persuasion is the overriding goal, the rhetorical perspective suggests that the manner in which a statement is expressed may be more important than its propositional content.' Thus, according to this theory any difference in persuasive power between the version with a textual guide, a visual guide or without a guide can be attributed to the form of the message, since the content is the same in all the websites.

The website is designed in a way so as to reach every level of processing the students may have. For the students who want to elaborate on the message and take the central route there is persuasion by means of arguments and these arguments are supported by testimonials. For the people who take the peripheral route the website has again the testimonials given by (visual) peers and the guidance through the website by means of a (visual) peer.

The emphasis in this thesis lies on the abovementioned form, viz. the heuristic cues or the peripheral route; by varying with textual and visual cues (i.e. the presence and appearance of the guide) it is tried to reach the student who is not interested or involved enough to process the information in a central way and is tried to increase the persuasiveness of the message for those students who are already high involved. This section grounded the choice of a peer as a persuasive intervention to persuade the students to go for VCT. However, the cultural variable may also have an effect on the outcomes of the experiment. The different cultural and individual backgrounds of the students will therefore be discussed next.

### **1.2.3 The user of the website: the effect of culture**

The models and theories that are commonly used in health communication and promotion show that HIV communication is often based on the behaviour and decision-making process of so-called rational individuals who follow an established linear path from awareness to attitude to action. However, decisions about preventing HIV/AIDS are based on cultural norms that often mediate individual

decisions in ways that individuals may not always realize. Moreover, decisions about HIV/AIDS are often based on emotion and thus may not follow any pre-established pattern of decision-making advanced in most of the theories and models (Airhihenbuwa et al, 2001). Therefore, differences in health behaviour are often the function of culture. The website aims at influencing students to go for VCT by means of arguments, testimonials and the addition of a textual or visual peer-guide. This thesis tries to examine whether the addition of a persuasive cue in the form of a peer-guide results in differences of persuasive power for the two culture groups of South African and Dutch students.

### **Cultural differences**

In this thesis Hofstede's definition of culture (1991) will be used. He divides culture into Culture One and Culture Two. Culture One is the more narrow definition of culture, it covers for example art and education. Culture Two is the more important definition for this thesis and can be described as the way people are mentally programmed. This covers thinking, feeling and acting. It indicates things like the way people interact, their body language, the way they express emotions and customs and traditions.

Every culture consists of many subcultures (Shadid, 2000). These subcultures can be based on gender, age, profession, religion and so on. Subcultures emphasize the similarity between people by dividing the mass of people who all belong to the same culture into smaller, more uniform subcultures of people who to some extent have something in common. South Africa and The Netherlands have a totally different history and economical situation and there are much more ethnical

subcultures in South Africa than in The Netherlands, which makes it impossible to talk about the South African culture. South African ethnic groups are often divided into the four divisions of blacks, coloureds, Asian and whites. For this thesis only a group of black and white students was used. Black students because of the high HIV infection rate (13% of black South Africans have HIV (cf. Jansen, 2003)) and the low percentage of people who go for VCT and white students because of their low perceived risk, whereas their infection rate of 6.2% is also high, and to compare their preferences for the guide's visual appearance and the effect the guide has on them with that of their black peer students.

The results of this division may indicate if one should reckon with cultural differences between these two groups for future VCT communication. The outcomes of these two groups will be compared with the outcomes of the Dutch students. There are some cultural differences between the Dutch group and the South African group, which again can be divided in a group of white and black participants. Moreover, the black participants may belong to different ethnic groups; it is therefore hard to speak of a cultural homogeneity within the South African group. Yet it is chosen to evenly divide the students in a group of white- and black students. The possibility to see whether possible differences are cultural or individual will thereby be increased.

Van Dyk (2000) argues that, despite of the differences between Africans from different cultures in terms of geography, linguistics, religiosity and ways of life, there is a dominant socio-religious philosophy shared by all Africans. Van Dyk (2000) claims therefore that it is possible to talk of an overarching African perspective or African worldview that can be

distinguished from a Western and an Eastern perspective. According to Van Dyk 'one can speak with confidence about the traditional African worldview and use it as a useful concept when dealing with the people of the African continent.'<sup>19</sup>

One of the major differences between the cultures of the students in the experiment that may cause differences in everyday life can be the collectivistic worldview of the indigenous African cultures versus the individualistic worldview of white South African and the Dutch culture (Van Niekerk, 1996). According to Mbiti (in Van Dyk, 2001) the identity of the traditional African is totally embedded in his or her collective existence and all decisions are taken with the group's knowledge and approval. This cultural difference is also visible in the way people think they have control over their health status and is therefore important with regard to VCT. According to health locus of control theory, people who believe that they have no control over their own health, i.e. external locus of control, will be less inclined to get involved in preventative behaviour than people who believe that they can do something to improve their health, i.e. internal locus of control (Van Dyk, 2001). Arguments should therefore emphasize that people do (to some extent) have control over their own health, that the right protection behaviours can help someone to stay disease free if he tests HIV-negative and that ART can extend one's life in case one test HIV-positive.

People with an internal locus of control believe that they can influence their health through personal behaviour. Whereas traditional Africans with an external locus of control believe that mental as well as physical

illness can be caused by disharmony between a person and the ancestors, by a god or spirits, by witches, by natural causes or by breakdown in human relationships. According to Van Dyk (2001; 112) most Africans recognise both an immediate cause as well as an ultimate cause for disease. A woman with AIDS may, for instance, fully understand that the immediate cause of her illness is a virus, but she will nevertheless still ask 'why me and not my neighbour'. The only answer that will really satisfy her is that someone, by means of magical manipulation, has 'caused' the virus to make her ill. This is why many black people consult both traditional healers as well as Western health care professionals for the same condition.

### **Collectivism versus individualism**

Generally, what is referred to as 'Western' cultures (e.g., Northern European and North American countries) tend to be individualistic while 'non-Western' cultures (e.g., Asian, Latin American, and African countries) tend to be collectivistic.<sup>20</sup> However, many additional factors contribute to the designation of individualistic or collectivistic cultural

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19. The traditional African worldview is based on a holistic and anthropocentric ontology. This means that man forms an inseparable whole with the cosmos, and that everything (including God, spirits, and nature) is seen in its relation to man who is the centre of the universe (Mbiti, 1969). Within this cosmic whole, Sow (1980) distinguished three cosmic orders to explain the worldview of the traditional African: the macro-cosmos, the meso-cosmos and the micro-cosmos. Without a thorough knowledge of these three cosmic orders, the psychological and social dimensions of AIDS in Africa cannot be fully understood and appreciated (cf. Van Dyk, 2000).

20. According to Hofstede (1991) individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after him or herself and his or her immediate family. Collectivism as its opposite, pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty.

orientation. These may include affluence, socialization, rural/urban environment, mass media exposure, and education (Ting-Toomey, 1994).

The basic difference between individualistic cultures and collectivistic cultures is the relative importance each places on the goals of the individual versus the goals of the group. Individualists emphasize personal goals over group goals and collectivists either emphasize both equally or give preference to group goals (Triandis, 1989). Autonomy and independence are central and important concepts for the individualist. In contrast, collectivistic values are connectedness and interdependence. According to Airhihenbuwa et al. (2000) the decision process with regard to health behaviour (i.e. going for VCT) is an individual and rational decision that is helped to make with rational arguments. It is therefore the question whether this approach works for a more collectivistic cultural context, where the family and community play an important role in everyday decisions. Therefore, the peer counsellors should be involved in prevention programmes because they possess the authority and the prestige to dictate sexual mores and customs (Van Dyk, 2001; 89). However, the knowledge of peers with regard to the interests and cultural norms and values of their peer group makes behaviour change also in individualistic societies more likely to occur if peers educate and support each other. HIV related topics are much more likely to be openly discussed, explored and understood within safe group environments.

Although it is not possible to say that every black South African student is a collectivist and all white students are individualists there may be an

overall tendency of blacks to collectivism and of whites to individualism. This thesis works with that assumption. To persuade the students to go for VCT, the website will contain arguments that plea for VCT. The possible different worldviews that are mentioned above indicate that there is a need for two types of arguments so as to not exclude a group of students. Therefore, the arguments aim at the personal health and well-being as well as at the community's well being. By recording which arguments both groups prefer to read first and which arguments they recall first it will be tested whether the generalizations that are discussed above occur within this group of students.

Besides the cultural differences, access to medication may also play a role in evaluating the arguments. For example, for some groups that have access to medication, appeals to personal health and emotional well-being may be more successful than other appeals, while for other individuals with no access to medication, appealing to cultural, social or moral values might be more appropriate (cf. Van Dyk, 2001). If most black South African students will have a collectivistic way of thinking and less access to medication, and if most white South African and Dutch students tend to individualistic thinking and do have access to medication it is expected that arguments concerning the community are more persuasive to black South African students than to white South African and Dutch students.

### **Effect of culture on the persuasiveness of the peer-guide**

A difference between The Netherlands and South Africa that may have an influence on the student's perception of the peer-guide can be found

in the history of apartheid. Whereas there is no history of apartheid in The Netherlands, apartheid in South Africa has ended only a decade ago, and people still have to determine their place in the new system.

After the first free elections in 1994 South Africa was named the Rainbow Nation to symbolise the unity among the diverse people of South Africa and the many different backgrounds, colours and languages that are spoken.<sup>21</sup> Despite of this proud symbol of unity and the happiness after the elections it is 'realistic to assume that the legacy of decades of racial oppression is unlikely to have dispatched in the short period of time since South Africa has become a nascent democracy' (cf. Franchi & Swart, 2002). This should be taken into consideration when the peer-guide is visually portrayed. In order not to force a peer upon the student, which he or she may not like, there are therefore different peers the student can choose from. Thereby taking into account the existence of racial relationships and the impact this may have on the choice of the source that provides the health info and possible adherence to health advice.

### **Similarity Attraction**

The fact that apartheid has played such an important role in the South African history can influence the users' opinion about the website when it only contains photographs of white or black students. Even if there is not a matter of discrimination, the law of similarity attraction (Byrne & Nelson, 1965) can cause an important difference in the way the guide is appreciated. This law indicates that people with similar personalities, or

traits that resemble their own, prefer interacting with each other. The reason is that people have a strong internal need to reinforce their sense of themselves. They feel closer connected to people they can identify with because it makes them feel that they understand each other, are more connected and that somehow they fit into the bigger picture.

This indicates that the students may prefer a guide they can identify themselves with. Although skin colour (or appearance) is not a personality trait, the guide's appearance on the photograph is the only thing the student sees when entering the website and therefore the appearance of the guide is the only factor that can be used to attribute a personality to the guide. It is therefore expected that the guide's appearance will be used to attribute a personality to the guide, whether it is by means of skin colour or charisma (see section 1.2.4 for an explanation on personality).

To increase the likelihood of identification and diminish the negative effect of stereotyping it is therefore important to give students the possibility to choose between different guides (which will be operationalized in the website by a black and a white man and a coloured and a white woman). Considering the history of apartheid in South Africa it is expected that skin colour might play a bigger role in the selection process of South African students, whereas the choice of Dutch

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21. Black 75.2%, white 13.6%, Colored 8.6%, Indian 2.6%. 11 official languages, including Afrikaans, English, Ndebele, Pedi, Sotho, Swazi, Tsonga, Tswana, Venda, Xhosa, Zulu ([www.cia.gov/cia/publications/factbook](http://www.cia.gov/cia/publications/factbook))

students may rather depend on the extent in which the guide's charisma appeals to them, thereby leaving skin colour out of consideration.

The cultural aspects that have been discussed in this section, and the behavioural aspects that are discussed in section 1.2.2 all more or less may have an effect on the way the guide will be portrayed. The consequences that may concern the persuasive outcomes of the experiment will be discussed in the next section. Consequences that merely concern the design of the guide will be discussed in appendix E (section 1.4 and 1.5).

### **1.2.4 The identity of the guide**

It is impossible to make a website so objective that the visitor will not think of some kind of source. The visitor will always infer some characteristics of the sender from website elements (cf. Van Driel 2000; 52-57). The source can be presented in several ways. It can be anonymous, that means the website contains no photographs of the source and the text is written in an objective way. The anonymity can underline the neutral, informative character of the website and thus add credibility to the information (Coney & Steehouder, 2000) but can also seem a bit too formal and impersonal considering the topic. The source can also be anonymous, yet with a more personal way of writing and giving comment. This way, it is easier to visualize a certain person behind the website. The most identifiable source is created by using photographs of the source at the website. Because of the photographs the visitor knows what the source looks like and can make an inference using the photograph as well as the used text.

In the experiment the source can be inferred in three ways, depending on the version the student gets. There is an objective version whereby the only cues to infer a source come from the textual and visual style of the website (for example the way of addressing the reader and the AIDS ribbon can be used to infer cues). There is a textual guide whereby the more personal textual cues can be used to infer the guide's personality (e.g. friendly, helpful). Furthermore, there is a combination of this textual guide and a visual guide whereby the photographs make it easier to infer the guide's personality, and to see that the guide is a peer. The more cues there are to infer a source, the easier it will be for the user to attribute characteristics to the source like credibility, likeability, and empathy.

Besides the visual and textual presence of the source that can display identity, the identity of the source can also be derived from the source's role. He can play a role such as the host who welcomes the guests, a guide or an advisor. In this experiment the source will fulfil all three of them in the function of the guide. The guide welcomes the students, guides them through the website by explaining what the website is for and advises them on VCT. Because this role becomes clearer when the guide is visual apparent the source's persuasiveness will enhance as the guide is more present and the website may seem more personal and informal, giving the impression of a more involved source.

### **Judging personality; the guide's visual identity**

The source projected by a document may play a powerful role in the user's acceptance of the message. But unlike a face-to-face encounter (where conversants get multiple cues for assessing how the

communication is going through gesture, intonation, facial expression, the setting, and so on) the user of a website has only words and images to go on and the user can stop looking at the website at any moment (Schriver, 1997; 183). It is therefore important that the first impression of the source is a good one.

As Reeves and Nass (1996; 82) say: 'Personality is socially powerful. Give anything eyes and a mouth, it would seem, and personality responses follow.' Although in the experiment there will be no real interaction between the guide and the student, it is important that the photograph of the guide gives the student the idea that he trusts and likes the peer and feels free to ask questions.

Personality is seen as one of the most important human characteristics. It determines for a great deal human action and it influences behaviour as well as attitude. Moreover, personality is an influential factor when interacting with others.<sup>22</sup> It determines, in the first place, with whom interaction takes place and, when interacting it determines one's own and the other's opinion with regard to the course of the interaction (Van Buuren, 2002) and thus is also an important factor in the evaluation of the source.

Humans make value judgments on the basis of appearance (Vonk, 1998). One is drawn to what one considers pleasing, whether it is to a person one finds sexually attractive or else due to a narcissistic element of self-recognition in another's features.<sup>23</sup> According to Vonk (1998; 18) we start classifying people from the moment we see them. Beautiful people are

easier judged as nice and intelligent, just as people with glasses; people with a baby face are judged as weak, passive and sweet. This classifying easily leads to stereotyping.

According to Doeleman (2000), a stereotype can be defined as 'a mental image or set of beliefs which a person holds about most members of a particular social group.' The principle of projection argues that if people are recognized as member of an (ethnic) group, stereotypes with regard to the culture and personality traits of this ethnic group can be projected to the person in question, and therefore can be used to evaluate that person's personality, and can thus be a barrier in interaction.

Because the influence of attributed personality on the evaluation of a person, it is important that the guide's attributed personality fits the guide's task. The previous section already pointed out that the guide should present a member of the peer group, be it slightly older. The guide has to be considered an expert on the field of VCT, credible and the guide has to be liked at first sight. The guide has an accessible charisma, making it the kind of person one can ask questions to or discuss

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22. Personalities can be categorized in a few basic types. Researchers have discovered that all of the personality adjectives can be neatly organized into five basic dimensions (Reeves and Nass, 1996; 77). These dimensions are Extraversion, Agreeableness, Conscientiousness, Emotional stability and Openness. Although all five dimensions are important, there is also reasonable evidence that the first two are the most critical. Dominance and submissiveness represent the first dimension, and friendliness is the second. Friendliness is defined on one end by the words warm, friendly and sympathetic and on the other end by disagreeable, hard-hearted and cold. These 5 dimensions are called the Big Five and are not only used by psychologist to identify people, they are also the ones that all of us use to identify another (Reeves & Nass, 1996; 77).

23. [www.thesaveloyfactory.com/writings/word/realartifice-text.doc](http://www.thesaveloyfactory.com/writings/word/realartifice-text.doc)

problems with. To ensure the guide's pictures reflect these qualities, several pictures were tested on the above mentioned features to see who was evaluated best (see appendix H).

Portraying the guide may lead to emotional involvement with the guide and therefore, more involvement with the message. In this experiment is chosen to portray the guide by means of photographs. Photographs of people are often used in charity campaigns. They have a significant effect on how people understand charity. Research by Radley and Kennedy (in Foster, 2000; 173) indicated that people's decision whether or not to donate money depended strongly on the imaginary relationship they considered with the subject and the narratives they constructed about the moral, ethical and economic aspects of giving money. When looking at such images, 'People are making and transforming the image in the course of explaining and justifying both the photographs presented and their standpoint to the subject [...]' (Foster, 2000; 173). Photographs and images on video are often seen as direct copies of reality. This quality strengthens the user's idea of interacting with real people. Besides this, the use of photographs also often serves as a piece of evidence of what has happened. By seeing someone's picture you know that that person once was located in front of the camera and really exists (Messaris, 1997). Besides this, photographs also facilitate the possibility to identify oneself with the person on the photograph.

The main theories with regard to the possible persuasive effects of a guide on the two different cultures are now discussed. Additional

information with regard to the informative and persuasive content of the experimental website and the appearance of the guide can be found in appendix E. In the next section the expectations about the effects that the aforementioned theories will have on the persuasiveness of the message will be discussed.

### 1.3 Hypotheses

The factors that may have an influence on the persuasiveness of a message are discussed in the previous section. There are two main variables in this thesis: the website version and nationality. The hypotheses concerning the effect these variables have on the persuasiveness of the website will be discussed in this section.

The expectations concerning the website versions are based on two manipulations, namely the addition of a textual peer-guide and the addition of a visual peer-guide (and with it the addition of photographs to the peer-narrators of the testimonials). The hypotheses in this section will be structured according to this division. Besides the expected effects that are based on website versions, there are also some expectations regarding nationality. Because of the cultural differences between The Netherlands and South Africa, and between the diverse cultures in South Africa, different outcomes of the experiment are expected. Therefore there will also be looked at the effect of the website versions on nationality. Lastly, the expectations regarding the selection of information on the website and the recall of the data will be discussed. Besides the cultural differences there are also individual differences, the amount of involvement with the topic and the need for cognition may all

influence the outcomes of the experiment. Nevertheless some general expectations can be drawn in connection with the discussed theories. These expectations will be described next.

### **1.3.1 The effect of website version on the evaluation of the variables**

#### **The effect of a personal guide**

As a result of the discussed theory in section 1.2 it is expected that the personalization of the website by means of a peer-guide will lead to a more positive evaluation of the source and the information, and a more positive attitude towards VCT.

*H1a: The websites with a guide will be evaluated more positively than the objective version.*

#### **The effect of a visual guide**

It is discussed that the addition of photographs can result in higher involvement with the source and the messages. The visual guide can easier be recognized as a peer with whom the student can identify himself. Several studies showed that adolescents prefer to go to peers for information or opinions (Saal 2003). The delivery of information by peers can therefore lead to a more positive evaluation of the information on the website. We also discussed the theory of similarity attraction that indicates that people prefer to interact with people that resemble their own personality. Therefore, the possibility to choose a preferred guide can more easily lead to a 'group feeling' and a more positive evaluation

of the source. It is therefore expected that the visualisation of the guide will lead to more positive evaluations of the variables in the website than the merely textual version.

*H1b: The website with a visual guide will be evaluated more positively than the objective website.*

*H1c: The website with a visual guide will be evaluated more positively than the website with the textual guide.*

### **1.3.2 The effect of website version on the evaluation of the testimonials**

Peers are expected to increase involvement. Since the guide is a peer, his friends can also be peers of the student. Their testimonials may therefore have a high impact on involvement, which may lead to a more positive evaluation of the testimonials.

*H2a: The testimonials in the website with a guide are rated more positively than the testimonials in the objective version.*

As a result of the enhancement of involvement with the visual peer-guide and his friends (whom will be easier identified as peers than the textual peers) it is expected that the involvement with their stories will also increase, what will result in more positive ratings for the testimonials in the visually rich version than in the textual version.

*H2b: The testimonials in the website with the visual guide are rated more positively than the testimonials in the text based versions.*

### 1.3.3 The effect of website version on nationality

The high HIV prevalence in South Africa may result in a higher involvement of South African students with HIV than Dutch students. This higher involvement can cause a central processing of the message, they may, in other words, not need all the persuasive cues to process the message. Nevertheless it is expected, also because of Chaiken's HSM model (see section 1.2.2), that the websites with a guide will be evaluated more positively than the website without a guide by both groups of students.

#### The effect of a guide on the Dutch and South African's evaluation of the variables

*H3a: The websites with a guide will be evaluated more positively than the objective version by both groups of students.*

#### The effect of the addition of a visual guide on nationality

*H3b: The website with a visual guide will be evaluated more positively than the textual versions by both groups of students.*

#### The effect of manipulation in general on nationality

*H3c: The manipulated versions have less effect on the evaluation by the South African students than on the evaluation by the Dutch students.*

### 1.3.4 Information selection data

#### The effect of version

The expectation that the visual guide increases the student's

involvement with the guide, together with the impact photographs have on people leads to the hypothesis that this involvement causes a preferences of the testimonials over the arguments and that people first link to the testimonial if a photograph presents that link.

*H4: In the website with the visual guide the students will first read the testimonials.*

#### The effect of ethnicity

Considering the expected differences in interest for personal or societal arguments (see section 1.2.3) it is expected that South African students will more often start with arguments that concern the community whereas Dutch students will more often start with arguments that concern the individual.

*H5a: Black South African students will start with testimonials and arguments concerning societal concerns.*

*H5b: White South African and Dutch students will start with testimonials and arguments concerning individual concerns.*

### 1.3.5 Recall data

#### The effect of ethnicity on recall

The expected differences in interest for personal or societal arguments leads to the hypothesis that South African students will more often recall the arguments that concern community concerns whereas Dutch students will more often recall the arguments that concern the individual.

*H6a: Black South African students will recall more arguments concerning societal concerns.*

*H6b: White South African and Dutch students will recall more arguments concerning the individual concerns.*

### **1.3.6 Additional expectations**

#### **The effect of ethnicity on guide preference**

Considering the recent history of apartheid in South Africa it is expected that skin colour plays a bigger role in the selection process of South African students, whereas the choice of Dutch students rather depends on the extent in which the guide's charisma appeals to them, thereby leaving skin colour out of consideration. This leads to the following hypothesis:

*H7: South African students more often choose a guide from the same ethnic background than Dutch students.*

# Method

## 2. Method

### 2.1 Material

To test the hypotheses that are motivated by the theoretical framework, three websites were designed for the experiment. One objective website with general VCT and HIV/AIDS information and arguments and testimonials concerning VCT. The other website consists of the same basic information but should give the students the impression of a textual guide who guides them through the website. The third website contains photographs of the guide as well as photographs of the narrators of the testimonials. The main function of the website is to test the hypotheses considering the guide. However, considering the seriousness of the topic, the information on the website had to be selected carefully. The literature that was used and the choices that were made concerning the content of the website (i.e. framing the general information, the arguments and the testimonials) and concerning the design of the website and the guide are extensively described in appendix E.

### 2.2 Subjects

The research was conducted in The Netherlands with students from Tilburg University and in South Africa with students from the University of Pretoria (UP) and the University of South Africa (UNISA). The group of Dutch students was divided in 29 male and 27 female students. The age was varying from 19 to 28 years with a mean of 23.68. In South Africa there were two approaches, an individual and a group approach. Together these approaches led to 30 white South African UP students,

16 male and 14 female students. The age varied from 18 to 24 years with a mean of 21.13. There were 33 black South African participants (19 from UNISA and 14 from UP), 16 male and 17 female students; the youngest was 17 and the oldest 26 years old, with a mean of 21.24 years.

### 2.3 Research design

The research used for this thesis was a between subject design. Every student had to look carefully at one version of the website (viz. the objective website, the website with the textual guide or the website with the visual guide) and fill in a questionnaire afterwards. These versions were approximately evenly divided among the different cultural groups and sexes.<sup>24</sup> Table 2.1 shows the division of the students over the three website versions.

Table 2.1: The division of the different ethnic groups (Dutch, white South African, black South African) over the different website versions (objective, textual guide, visual guide).

	Objective	Textual guide	Visual guide	Total
Dutch male	9	10	10	29
Dutch female	7	10	10	27
White SA male	6	5	5	16
White SA female	3	6	5	14
Black SA male	5	6	5	16
Black SA female	6	6	5	17
Total	36	43	40	119

In The Netherlands the different website versions were given to the students on the basis of frequency matching. This means that prior to

the experiment the amount of male and female students and their age was known in order to evenly divide them over the different versions so as to optimise the possibility of comparisons between the two groups. In South Africa the participants were assigned to a version on the ground of their cultural backgrounds and sexes in order to divide all the groups evenly over the different versions of the websites.

### 2.4 The questionnaire

To test the persuasive influence the experiment had on the students a questionnaire was used. The questionnaire contained the following parts (See appendix I for the complete questionnaire):

- Personal details (gender, age, nationality, population group);
- Evaluation of the source (credibility, appeal, expertise, empathy, formality);
- Evaluation of the information on the website (appeal, comprehensibility, appropriateness, persuasive power);
- Persuasive power (beliefs, attitude and intentions with regard to VCT);
- Involvement with HIV;
- Attitude of society;
- Need for cognition;
- Ratings for the arguments, testimonials and general information on the website;
- Recall question for the arguments pro VCT mentioned in the website.

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24. Except for the objective version since Van Zandvoort (forthcoming) conducted this version for her master thesis and an equal division of ethnics and gender was not that important for Van Zandvoort's research question.

These main variables were each operationalized in four propositions, which resulted in a total of 75 propositions. Half of the propositions were formulated in a positive way, and half of them in a negative way so as to easy track possible blindly filled questionnaires. To what degree the students agreed with the propositions was measured by means of a seven point Likert scale. There where two main types of propositions. One type in which the student could choose between two adjectives that were each others opposites and could be projected to the source and the information on the website (22 propositions). Figure 2.1 shows an example of this type of propostion.

<b>Please tick the appropriate box:</b>								
<b>The source of the website is:</b>								
	<b>Absolutely</b>	<b>Very</b>	<b>Quite</b>	<b>Neutral</b>	<b>Quite</b>	<b>Very</b>	<b>Absolutely</b>	
<b>Honest</b>	<input type="radio"/>	<b>Dishonest</b>						
<b>Competent</b>	<input type="radio"/>	<b>Incompetent</b>						

Figure 2.1 An example of a proposition with adjectives that are each other's opposites.

The other types of questions were put as propositions whereby the student had to indicate to which degree he agreed with the proposition by circling the appropriate number (45 propositions). Figure 2.2 shows an example of this type of proposition.

Additionally the questionnaire had one open question where the students were asked to write down the reasons pro VCT they could recall. Lastly the students were asked to give their evaluation of the stories,

arguments and general information by means of rating them from 1 to 10 (with 10 being the highest).

<b>1 = I totally agree</b>	<b>2 = I agree</b>	<b>3 = I slightly agree</b>	<b>4 = neutral</b>	<b>5 = I slightly disagree</b>	<b>6 = I disagree</b>	<b>7 = I totally disagree</b>
<b>High risk people should apply for VCT.</b>						
1	2	3	4	5	6	7

Figure 2.2 A proposition whereby the student has to indicate to what degree he agrees.

Considering the fact that South African students (especially at UNISA) were said to have few to none experience with questionnaires it was chosen to repeat the meaning of the seven point Likert scale on each page above the questions.

The questionnaire was presented to professor Swanepoel since his experience with the South African target group could lead to some different remarks. As a result of his remarks the final modifications were made and the questions were mixed. Lastly the website and questionnaire were presented to two Dutch students to test the comprehensibility and time that was needed to read the website and complete the questionnaire. It took them 25 and 35 minutes, which was

reasonable, considering the decision that the experiment should not take more than 45 minutes in order not to weaken concentration. They both had no problems understanding the questionnaire.

In the next sections a description is provided on how the above-mentioned variables are operationalized in the questionnaire (see appendix I for the complete questionnaire). The students could indicate by means of a seven point Likert scale to what extent they agreed with the propositions in the questionnaire. Whether the subdivision of the main variables in synonymous variables led to the right main variables was tested with a Cronbach Alpha. These results are described in section 3.1.1.

### **Cultural background**

Information on the students' cultural background was collected by means of a direct multiple choice question considering the population group the students belonged to with 4 possible answers; Asian, black, coloured and white.

### **Evaluation of the source**

The variables that are important for the evaluation of the source (i.e. the peer-guide) were discussed in the theoretical framework. Important peripheral cues for the guide are credibility, appeal, expertise, empathy and formality. To see whether the source is evaluated differently when it is presented as a guide than when it is objective these variables are put into propositions like:

The source of the website sympathizes with the HIV problem;

The source of the website is not sincere.

### **Evaluation of the information on the website**

To find out if the presence of the guide made any differences in the appeal, comprehensibility, appropriateness and persuasive power of the information the following kind of propositions were made:

The information on the website is not touching;

The information on the website is understandable;

The information on the website is adapted to my cultural background.

### **Persuasive power**

The students' beliefs, attitude and intentions with regard to VCT were operationalized by means of the following type of propositions:

VCT will improve the quality of life;

High-risk people should apply for VCT;

I would not consider discussing VCT with my partner.

### **Involvement towards VCT**

The ELM claims that high-involved people probably process the information differently (central route) than low involved people (peripheral route). Therefore it is important to know the student's involvement towards HIV. The following propositions were made to measure the involvement:

I'm interested in HIV related topics;

Most of the time I ignore HIV information;

HIV has nothing to do with my personal situation.

### **Attitude of friends**

The Integrative Model of Behavioural Prediction shows the importance of significant others in the intentions to perform a certain behaviour. To

measure the perceived attitude of significant others and thus the possible influence of the peer-guide the following propositions were made:

My friends would recommend me to take a test;

My friends would not understand it if I took a test.

### **Need for cognition**

The student's need for cognition can, just as the student's involvement, influence the level of information processing. The following propositions measure the student's need for cognition:

I always think carefully about important issues;

I like elaborating on information.

### **Ratings for testimonials, arguments and general information**

To test whether the addition of a visual guide had an effect on the evaluation of the information the students were asked to give ratings to the testimonials, arguments and general information (from 1 - 10 with 10 being the highest).

### **Recall question**

To find out whether there was an effect of cultural preference for the type of arguments (i.e. arguments concerning societal concerns or arguments concerning individual concerns) the students were asked to write down the arguments pro VCT they could remember.

## **2.5 Procedure**

### **The Netherlands: an individual approach**

In The Netherlands a group of students was approached by email with a short explanation of the background of the thesis and the question whether they were willing to participate in the experiment. If so, an appointment was made and the students were visited at home where they could explore the website on a laptop. The students were given an instruction they had to read first (see appendix I) and could subsequently start reading the website. During the experiment the experiment leader was in the background to inspect if everything was clear and if all the pages were read. No problems arose while conducting the experiment. However, some students did want to verify whether they really had to read all the stories or not. It took the participants approximately 40 minutes to read the website and complete the questionnaire. This depended mostly on the student's level of English and reading pace. After they finished they were thanked for their participation and possible questions or remarks considering VCT were discussed.

### **South Africa**

In South Africa the experiment was preceded with a visit of the experiment leader to the HIV/AIDS information centre at UNISA. Considering the high involvement some students may have with the topic some aftercare was needed. At the centre was told that the experiment was to take place and there was asked for names of personnel that could be contacted by the students in case they wanted

additional information. The number of Mr. James<sup>25</sup> was given and his details were given to the students after they finished the experiment.

### **UNISA: the individual approach**

The South African experiment was started at the UNISA library during two days. Students were approached with approximately the following explanation: *'Hello, my name is Iris. I'm a student from The Netherlands and I'm working on a project to improve HIV communication. Therefore a website is designed with information on VCT and I need South African students to take a look at it and give their comment on it. Are you willing to help me?'*

Most students were willing to help. However, it turned out that most of them had no Internet experience. Therefore first some mouse exercises were given and the concept of a website was explained. Subsequently the instructions were given to them and they could start reading the website. It turned out that the English level of most of the participants was low. Often a dictionary was used or the meaning of words was asked to the experiment leader. This prolonged the duration of the experiment. The students often said they were finished when they had not viewed all the pages, making it necessary to point that out to them and asking them to finish the reading. It took the students from 50 minutes to 2 hours to complete the experiment.

After reading the experiment the concept of a questionnaire had to be explained first before the participants could start to answer the questions. The low level of English seemed to cause some problems here

too. Crucial words were often not understood and negative sentences may have not been recognized, causing possible problems for the questionnaire's validity. In two cases the first two questions whereby the students had to evaluate the source and the information by means of several adjectives were misunderstood. For each variable only one adjective was chosen and rated. However, despite the language problems and the time consuming assignment people seemed very interested in the subject, had additional questions and remarks and were grateful that the topics HIV and VCT were discussed and that they had learned something more:

*'I personally think that it was a great honour for myself so that I can improve my understanding concerning AIDS. I hope if one day you could come again and view our drama here at UNISA performing on these issues. Good luck for what you are doing. May God be with you!' (23 years old black male participant, UNISA)*

### **UNISA: The group approach**

The group experiment was also conducted at UNISA with a group of students in the computer laboratory. To approach the students a poster was made and hung on the information board of the library. It contained the following information:

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25. Mr. James worked at the HIV/AIDS information center as a counsellor for students who had questions with regard to HIV/AIDS or were considering going for VCT.

*Explore our website!*

*Hello, we are two students from The Netherlands and we are writing our final thesis on improving HIV documentation.*

*We require South African students to take a look at our website on Voluntary Counselling and Testing and give their opinion on this by completing a questionnaire. Do you have some Internet experience, knowledge of English and are you willing to help us? Please add your name to the list at the information desk.*

There were three sessions planned of which only the last one had subscriptions, viz. 18. Of the 18 people who subscribed 9 showed up. Since there was asked for some experience with regard to English and Internet these levels were clearly higher than with the first group of UNISA students. However, the questionnaire was new to most and again some mistakes were made at the first two questions by only choosing one adjective instead of rating every mentioned adjective. However, this was discovered on time and the students could still fill in the missing questions. It took the students about one hour to complete the experiment. Again students showed a lot of interest afterwards. Notes were made and almost every participant felt the need for a conversation considering the HIV situation in his village.

### **University of Pretoria: an individual approach**

Because of the problems that arose when conducting the individual research at UNISA and the need for white South African students it was decided to try the students at the UP. They were approached with the same introduction as the UNISA students be it this time at the campus.

Almost everyone who was approached was willing to help. The students were taken to a quiet corner of a coffee bar where a laptop with the website was installed. Again they were given the instructions first and could subsequently start reading the website. With some exceptions of white South Africans the level of English was good in general. Therefore it took the students approximately 40 minutes to read the website and fill in the questionnaire. Again most students were grateful for discussing the topic and felt they really learned something. It was striking that quite a lot of white South African students expressed that they felt not really addressed with regard to the topic and felt the website aimed mainly at others:

*'What VCT is doing is great for helping those who aren't educated enough to protect themselves before becoming HIV positive. I will stand proud to say that I will never get HIV positive if I stick with my commitment with GOD. Thanx for helping others. You're great Jesus loves you!' (18 years old white female participant at UP)*

### **Differences in procedures**

It has to be mentioned that there were some differences between the procedures. The Dutch students did the experiment at home whereas the South African students did the experiment at their university, respectively at the library (UNISA) or in the Coffee bar (UP). However, within the different groups the experimental settings were equal. The low level of English and the lack of experience with experiments and questionnaires caused more interventions at the UNISA group for

explaining words or sentence meanings. Lastly the differences in duration between the students from UNISA and the students from the UP and The Netherlands were quite big (largely one hour versus 40 minutes).

### **2.6 Instrumentation**

While the students were reading the website and linking to the arguments and testimonials all their linking behaviour was registered by ProxyPlus. ProxyPlus registered at what time a link was visited, in which order, how often and how long. For the experiment it was important to see in which order the arguments and testimonials were visited and if they were all read.

This data and the data from the questionnaires were all imported in the program SPSS to test the hypotheses listed in section 1.3 and to find out what the effect of the guide and culture are on the persuasive power of a message. These results will be described in the next chapter.

# Results

## 3. Results

This chapter describes the results of the experiment that was carried out to investigate the possible influence of a (visual) guide on the strength of a message for South African and Dutch students. The program SPSS, version 11.5 was used to analyse the results. The results will be structured according to the hypotheses given in section 1.3.

### 3.1 Evaluation data

#### 3.1.1 Consistency test of the dependent variables

As is indicated in section 2.4, the source and the information were evaluated by questioning the credibility, appeal, expertise, empathy and formality of the source and the appeal, comprehensibility, appropriateness and persuasive power of the information. These variables each consisted of a number of questions. Furthermore some questions were asked to measure the persuasive power (beliefs, attitude and intentions with regard to VCT) and the involvement with HIV. Before it was possible to look at the results it was necessary to know whether the questions connected with each variable were answered in a consistent way. The homogeneity between the different questions that together formed a variable was tested by means of Cronbach Alpha. Table 3.1 shows the results.

It is obvious that there is an intolerable degree of inconsistency. With regard to the questions concerning the source only the source's appeal has a moderate score. The questions concerning the information also

scored too low, only the power and the appeal of the information had a respectively moderate and adequate Alpha. Even when some deviate items were deleted the Alpha score was still too low.

Table 3.1: The internal consistency of the dependent variables

Dependent variable	Alpha	Meaning
Credibility source	.55	Insufficient
Expertise source	.51	Insufficient
Formality source	.52	Insufficient
Appeal source	.68	Moderate
Empathy source	.56	Insufficient
Appeal information	.71	Adequate
Power information	.66	Moderate
Appropriateness information	.29	Insufficient
Comprehensibility information	.56	Insufficient
Attitude student	.42	Insufficient
Belief student	.54	Insufficient
Intention student	.50	Insufficient
Involvement with HIV	.50	Insufficient

The low scores required a new categorization of the variables,<sup>26</sup> therefore it was decided to cluster the variables credibility and expertise, appeal, and informality and empathy of the source into the new variables 'credibility', 'appeal' and 'commitment' with a Cronbach Alpha of .71, .71 and .68 respectively. Besides this the variable information was formed, including all information questions. This clustering resulted in a Cronbach Alpha of .83. The low Alpha scores of the variables attitude,

beliefs and intentions of the student led to the decision to group these variables into the variable persuasive power. This led to a Cronbach Alpha of .74. Lastly, the question 'my own health is important to me' was deleted from the variable involvement. This led to the new variable involvement with a Cronbach Alpha of .65.

To determine the possible effects the different versions of websites may have on the groups of respondents, multivariate analyses of variance (MANOVA), multivariate analyses of covariance (MANCOVA) and univariate analyses of variance (UNI-ANOVA) were performed. These tests indicated whether there were individual effects within each independent group on the dependent variables and whether there were effects of each independent group between the three versions of the experimental website. The MANCOVA is done to see if there is an effect of the covariate involvement on the evaluation of the variables.

### 3.1.2 The effect of website version on the evaluation of the variables

#### Effect of the personal guide

It is expected that the addition of a textual or textual and visual guide has an influence on the evaluation of the variables of the source, the information and the persuasive power of the message.

26. A new categorization of the variables by means of a factor analysis led to apparently coherent groups, but also to a clustering of more questions (see appendix J). To keep the data and variables orderly it is therefore decided to cluster all the questions concerning the source and the information in separate groups.

• **The websites with a guide will be evaluated more positively than the objective version**

Table 3.2a shows the comparison of the three website versions in a MANCOVA, and table 3.2b shows the mean scores of the variables source, information and persuasive power for the three website versions. Table 3.2a shows that there is no significant effect of version on the evaluation of the source, the information and the persuasive power ( $F(10,208)=1.12, p=.348$ ). There is a significant effect of the covariant involvement on the evaluations of the variables ( $F(5,104) = 4.80, p<.001$ ) what expresses itself in the variables information ( $F(1, 108)=10.44, p<.005$ ) and persuasive power ( $F(1,108)=8.27, p<.005$ ), but not in the variables of the source. This means that involvement significantly influences the evaluation of the information and the persuasive power of the message.

According to these results there seems to be no effect of version on the evaluation of the dependent variables. However, if we look at the separate UNI-ANOVA's of the variables in table 3.2a, we see that version led to a significant higher evaluation of the variables commitment ( $F(2,108)=3.47, p<.05$ ) and appeal ( $F(2,108)=3.71, p<.05$ ). According to the post hoc analyses (see appendix K) we can conclude that the commitment and appeal of the source in the visual website are evaluated significantly more positive than in the objective website. There is no significant effect of the visual website on the other variables. There is no significant effect at all for the addition of a textual guide to the objective website.

Table 3.2a: The effect of version (objective, textual, visual) on the variables source (commitment, appeal, credibility), information and persuasive power with involvement as a covariant.

	Version	Involvement
Commitment - source	$F(2,108) = 3.47$ $P = .035$	$F(1,108) = .00$ $P = .953$
Appeal - source	$F(2,108) = 3.71$ $P = .028$	$F(1,108) = .96$ $P = .330$
Credibility - source	$F(2,108) = .24$ $P = .789$	$F(1,108) = .33$ $P = .570$
Information	$F(2,108) = 1.91$ $P = .151$	$F(1,108) = 10.44$ $P = .002$
Persuasive power	$F(2,108) = .59$ $P = .558$	$F(1,108) = 8.27$ $P = .005$
<b>Multivariate</b>	<b><math>F(10,208) = 1.12</math></b> <b><math>P = .348</math></b>	<b><math>F(5,104) = 4.80</math></b> <b><math>P = .001</math></b>

Table 3.2b: Mean scores of the evaluation of the source (commitment, appeal, credibility), information and persuasive power (min. 1- max. 7) as a function of website version (objective vs. textual vs. visual). (SD between brackets)

	Objective	Textual	Visual
Commitment - source	5.56 (.62)	5.65 (.65)	5.91 (.49)
Appeal - source	5.51 (.81)	5.69 (.79)	5.98 (.57)
Credibility - source	5.67 (.63)	5.68 (.55)	5.75 (.41)
Information	5.40 (.66)	5.47 (.57)	5.64 (.47)
Persuasive power	5.71 (.85)	5.67 (.65)	5.84 (.51)

**The effect of the visual guide**

In the results above we saw that only the visual guide had a significant effect on the evaluation of the variables commitment and appeal of the source. There was no significant difference between the evaluation of the objective and the textual website. In this section we will therefore have a closer look at the effect of the addition of a visual guide compared with the objective website.

- ***The website with a visual guide will be evaluated more positively than the objective website***

When we compare the website of the visual guide with the objective website in a MANCOVA (see table 3.3), we see that the addition of a visual guide did lead to a significant effect of version ( $F(5,64)=2.41, p<.05$ ) on the evaluation of the variables. UNI-ANOVA's show that this effect expresses itself in the univariates of the variables commitment ( $F(1,68)=7.19, p<.01$ ), appeal ( $F(1,68)=8.82, p<.005$ ) and in the variable information ( $F(1,68)=4.10, p<.05$ ), but not in the variables credibility and persuasive power. There is also a significant effect of the covariate involvement ( $F(5,64)=4.49, p<.001$ ), which again means that involvement influences the evaluation of the variables. This effect expresses itself in the variables appeal ( $F(1,68)=6.84, p<.025$ ), information ( $F(1,68)=14.08, p<.001$ ) and persuasive power ( $F(1,68)=12.16, p<.001$ ). The mean scores for the variables are shown in the aforementioned table 3.2b.

Table 3.3: The effect of version (objective, visual) on the variables source (commitment, appeal, credibility), information and persuasive power, with the variable involvement as a covariant.

	Version	Involvement
Commitment - source	$F(1,68) = 7.19$ $P = .009$	$F(1,68) = 1.37$ $P = .246$
Appeal - source	$F(1,68) = 8.82$ $P = .004$	$F(1,68) = 6.84$ $P = .011$
Credibility - source	$F(1,68) = .44$ $P = .508$	$F(1,68) = 2.69$ $P = .105$
Information	$F(1,68) = 4.10$ $P = .047$	$F(1,68) = 14.08$ $P = .000$
Persuasive power	$F(1,68) = .82$ $P = .367$	$F(1,68) = 12.16$ $P = .001$
<b>Multivariate</b>	<b><math>F(5,64) = 2.41</math></b> <b><math>P = .046</math></b>	<b><math>F(5,64) = 4.49</math></b> <b><math>P = .001</math></b>

**3.1.3 The effect of website version on the evaluation of the testimonials**

It is expected that the addition of a guide would increase involvement with the testimonials and therefore cause higher ratings of the testimonials. This would apply more to the visual guide than the textual guide considering the expected higher involvement of the students with the visualised peer-guide and narrators.

- **The testimonials in the websites with a guide are rated more positively than the testimonials in the objective version**

Table 3.4 shows that the different versions did not lead to differences in ratings for the testimonials ( $F(1,117)=2.08, p=.152$ ) or the arguments ( $F(1,117)=.09, p=.771$ ).

Table 3.4: Mean scores of the ratings of the testimonials and arguments (min. 1- max. 10) as a function of website version (objective vs. guide). (SD between brackets)

	Objective	Guide	All versions
Testimonials	7.64 (1.18)	7.93 (.92)	7.84 (1.01)
Arguments	8.14 (1.15)	8.20 (1.12)	8.18 (1.13)

- **The testimonials in the website with the visual guide are rated more positively than the testimonials in the text based versions**

Table 3.5 shows that the students gave significant higher ratings for the testimonials when they were told by a visual narrator ( $F(1,117)=10.77, p<.001$ ), there were no significant differences in ratings for the arguments in the visual website ( $F(1,117)=1.69, p=.682$ ).

Table 3.5: Mean scores of the ratings of the testimonials and arguments (min. 1- max. 10) as a function of website version (textual vs. visual). (SD between brackets)

	Textual	Visual	All versions
Testimonials	7.63 (1.04)	8.25 (.81)	7.84 (1.01)
Arguments	8.22 (1.14)	8.13 (1.11)	8.18 (1.13)

### 3.1.4 The effect of website version on nationality

Above we looked at the influence the website versions had on the total group of respondents. Since we expect that the website with a guide will

be more persuasive for both groups of students we have to find out whether the groups of students show any differences in their evaluation of the websites. It was also hypothesized that the manipulations in the website will have more effect on the evaluations of the source, the information and the persuasive power by Dutch students than by South African students considering the fact that the higher involvement of the latter group makes the addition of peripheral cues unnecessary. To test these hypotheses we compare the evaluations of the variables of the three different versions of websites by the Dutch students with the evaluations of the variables by the South African students in a MANOVA.

In the theoretical framework a division was made between the white and black South African students. In this chapter this division is only used when there were striking or significant differences between these two groups. To keep the results orderly we will therefore only look at the two nationalities, viz. the Dutch students and the South African students, when there are no such differences.

### The effect of a guide on the Dutch and South African's evaluation of the variables

- **The websites with a guide will be evaluated more positively than the objective version of the website by both groups of students**

Table 3.6a shows the comparison of the effect of version on the evaluation by the two nationalities in a MANOVA. As Table 3.6a shows, Dutch students do not evaluate the three website differently ( $F(10,98)=1.34, p=.222$ ).

## Chapter 3 Results

Table 3.6a: The effect of version (objective, textual, visual) on the Dutch and South African students' evaluation of the variables source (commitment, appeal, credibility), information and persuasive power.

	Version - Dutch	Version - South Africa
Commitment - source	F (2,53) = 3.60 P = .034	F (2,53) = 1.07 P = .349
Appeal - source	F (2,53) = 4.97 P = .011	F (2,53) = 1.20 P = .310
Credibility - source	F (2,53) = 1.14 P = .327	F (2,53) = .10 P = .902
Information	F (2,53) = 5.32 P = .008	F (2,53) = .02 P = .984
Persuasive power	F (2,53) = 1.25 P = .296	F (2,53) = .30 P = .741
<b>Multivariate</b>	<b>F (10,98) = 1.34</b> <b>P = .222</b>	<b>F (10,98) = .58</b> <b>P = .825</b>

However, the separate univariates show that the Dutch students who visited the visual website gave a significant higher evaluation of the commitment of the source ( $F(2,53)=3.60, p<.05$ ), the appeal of the source ( $F(2,53)=4.97, p<.025$ ) and the information ( $F(2,53)=5.32, p<.01$ ). According to the post hoc analyse (see appendix K) we can conclude that this effect counts for the comparison of the objective and the visual website for the variables commitment, appeal and information. And for the comparison of the textual and visual website the effect counts for the appeal of the source.

When we compare the versions for the South African students (see table 3.6a) we see that there is no significant effect of version on the South African students' evaluation of the variables source, information and persuasive power ( $F(10,98)=.58, p=.825$ ). Table 3.6b shows the means of the variables for both groups.

Table 3.6b: Mean scores of the Dutch and South African students' evaluation of the source (commitment, appeal, credibility), information and persuasive power (min. 1- max. 7) as a function of website version (objective vs. textual vs. visual). (SD between brackets)

		Objective	Textual	Visual
Dutch	Commitment	5.31 (.64)	5.51 (.63)	5.81 (.39)
	Appeal	5.16 (.77)	5.29 (.65)	5.78 (.47)
	Credibility	5.44 (.59)	5.38 (.44)	5.59 (.33)
	Information	5.05 (.57)	5.19 (.51)	5.54 (.33)
	Persuasive power	5.40 (.86)	5.50 (.61)	5.73 (.44)
SA	Commitment	5.80 (.52)	5.78 (.65)	6.03 (.57)
	Appeal	5.85 (.71)	6.07 (.73)	6.21 (.60)
	Credibility	5.88 (.60)	5.96 (.50)	5.92 (.44)
	Information	5.73 (.57)	5.73 (.50)	5.76 (.59)
	Persuasive power	6.00 (.76)	5.85 (.65)	5.97 (.56)

### The effect of the visual presentation of the guide on nationality

The post hoc analyse in the previous results showed that the addition of the visual guide does cause some significant differences. Therefore we will have a closer look at the the addition of the visual guide to the objective website version and to the version with the textual guide.

- **The website with a visual guide will be evaluated more positively by both groups of students than the textual versions of the website**

We can see in table 3.7 that the addition of a visual guide to the objective website causes a significant effect of version within the Dutch group ( $F(5,30)=2.64, p<.05$ ), this effect expresses itself in the univariates of commitment and appeal ( $(F(1,34)=8.25, p<.01)$  and  $(F(1,34)=8.75, p<.01)$  respectively), and in the univariate of information ( $F(1,34)=10.75, p<.005$ ). There is no effect on the variable credibility and persuasive power. The version has no effect on the South Africans' evaluation of the variables. The means for the variables source and information were already given in table 3.6b.

Table 3.7: The effect of version (objective, visual) on the Dutch and South African students' evaluation of the variables source (commitment, appeal, credibility), information and persuasive power.

	Version - Dutch	Version - South Africa
Commitment - source	$F(1,34) = 8.25$ $P = .007$	$F(1,33) = 1.60$ $P = .215$
Appeal - source	$F(1,34) = 8.75$ $P = .006$	$F(1,33) = 2.57$ $P = .118$
Credibility - source	$F(1,34) = 1.00$ $P = .325$	$F(1,33) = .04$ $P = .848$
Information	$F(1,34) = 10.75$ $P = .002$	$F(1,33) = .02$ $P = .894$
Persuasive power	$F(1,34) = 2.15$ $P = .15$	$F(1,33) = .02$ $P = .903$
<b>Multivariate</b>	<b><math>F(5,30) = 2.64</math></b> <b><math>P = .043</math></b>	<b><math>F(5,29) = .85</math></b> <b><math>P = .524</math></b>

In table 3.8 we look at the effect of the visual guide in comparison to the textual guide (i.e. the textual website versus the visual website). We see that there is no general significant effect of version for the Dutch students evaluation of the variables. However, the univariates show that there is a significant higher evaluation by the Dutch students' of the appeal of the source ( $F(1,34)=8.75, p<.01$ ) and the information ( $F(1,34)=10.75, p<.005$ ) of the website with the visual guide. The addition of a visual guide has again no effect on the evaluation by South African students.

Table 3.8: The effect of version (textual, visual) on the Dutch and South African students' evaluation of the variables source (commitment, appeal, credibility), information and persuasive power.

	Version - Dutch	Version - South Africa
Commitment - source	$F(1,38) = 3.12$ $P = .085$	$F(1,37) = 1.67$ $P = .205$
Appeal - source	$F(1,38) = 7.36$ $P = .010$	$F(1,37) = .40$ $P = .531$
Credibility - source	$F(1,38) = 2.93$ $P = .095$	$F(1,37) = .08$ $P = .785$
Information	$F(1,38) = 6.58$ $P = .014$	$F(1,37) = .03$ $P = .87$
Persuasive power	$F(1,38) = 1.86$ $P = .181$	$F(1,37) = .41$ $P = .524$
<b>Multivariate</b>	<b><math>F(5,34) = 1.53</math></b> <b><math>P = .206</math></b>	<b><math>F(5,33) = .59</math></b> <b><math>P = .711</math></b>

The results mentioned above lead to the conclusion that the addition of a visual guide results in a more positive evaluation of the commitment and appeal of the source and the information of the website by the Dutch students. The addition of a guide has no effect on the evaluation of the credibility of the source or on the persuasive power. The South African group gives regularly higher scores to the website with the (visual) guide, but this does not lead to a significant difference.

**Personal guide, nationality and ethnicity**

- ***The manipulated versions have less effect on the evaluation by South African students than on the evaluation by the Dutch students***

It was expected that South African students would be more involved with HIV than Dutch students and that this would result in less effect of the peripheral cues on their evaluations of the source and the information. This hypothesis can already be answered with the conclusion of the previous hypothesis; the addition of a (visual) guide had indeed no effect on the South African students. However, table 3.9a shows that there is no significant difference in involvement between the Dutch and the South African students ( $F(1,117)=1.24, p=.268$ ), but table 3.9b shows that there is a significant difference in involvement between the ethnic groups ( $F(2,116)=11.40, p<.001$ ). We will therefore not only look at the two nationalities, but also at the three ethnic groups.

Table 3.9a: Mean scores of involvement (min. 1- max. 7) as a function of nationality (Dutch vs. South African). (SD between brackets)

	Dutch	South African
Involvement	4.13 (1.30)	4.44 (1.68)

Table 3.9b: Mean scores of involvement (min. 1- max. 7) as a function of ethnic group (Dutch vs. white South African vs. black South African). (SD between brackets)

	Dutch	White SA	Black SA
Involvement	4.13 (1.30)	3.59 (1.74)	5.21 (1.18)

Table 3.10a and 3.10b show that it does not matter whether the South African students are taken as a group, or are divided into the two ethnic groups of black and white students when we compare their evaluation of the variables with the Dutch students' evaluation of the variables. Table 3.10a shows that the manipulations have a significant effect on the Dutch students' evaluation of the source ( $F(2,53)=3.50, p<.05$ ) and no effect for the South African students' evaluation of the source ( $F(2,56)=.81, p=.452$ ) or for the evaluation of the source by the separate ethnic groups (white South African students:  $F(2,27)=1.32, p=.285$  and black South African students:  $F(2,27)=1.00, p=.380$ ).

Table 3.10a: Mean scores of source (general) (min. 1- max. 7) as a function of version of website (objective vs. textual vs. visual) and nationality (Dutch vs. South African), or ethnic group (Dutch vs. white South African vs. black South African). (SD between brackets)

	Objective website	Textual guide	Visual guide
Dutch	5.35 (.52)	5.42 (.48)	5.71 (.30)
South African	5.86 (.44)	5.92 (.52)	6.04 (.35)
White SA	5.84 (.52)	6.11 (.21)	6.04 (.38)
Black SA	5.88 (.38)	5.73 (.66)	6.05 (.34)

The same goes for the evaluation of the information. Table 3.10b shows a significant higher evaluation of the source by the Dutch students ( $F(2,53)=5.32, p<.01$ ) and no differences for the South African students

(nationality:  $F(2,56)=.04$ ,  $p=.963$ , white South African students:  $F(2,27)=.10$ ,  $p=.909$  and black South African students: ( $F(2,27)=.36$ ,  $p=.701$ ).

Table 3.10b: Mean scores of information (general) (min. 1- max. 7) as a function of version of website (objective vs. textual vs. visual) and nationality (Dutch vs. South African), or ethnic group (Dutch vs. white South African vs. black South African). (SD between brackets)

	Objective website	Textual guide	Visual guide
Dutch	5.05 (.60)	5.19 (.51)	5.54 (.33)
South African	5.75 (.56)	5.72 (.49)	5.76 (.56)
White SA	5.68 (.56)	5.78 (.34)	5.69 (.74)
Black SA	5.82 (.57)	5.66 (.62)	5.84 (.32)

On the basis of the data discussed above we can conclude that the manipulations have significantly more effect on the evaluation of the source and the information by the Dutch students than on the evaluation by the South African students, regardless of the level of involvement.

### 3.2 Information selection data

Chi-Square tests were done to test the variables in this section.

#### The effect of version

- ***In the website with the visual guide the students will first read the testimonials***

The website gives 9 reasons why the students should consider going for

VCT. These reasons are given by 9 couples of arguments and testimonials (thus, 18 links in total). The students could read these reasons in any arbitrarily order; they could start with reading an argument and subsequently the accompanying testimonial, or vice versa, or read all the testimonials first and subsequently all the arguments, etcetera. Their linking behaviour may indicate a preference for testimonials or arguments. It was expected that the students who visited the website with the visual guide would first link to the testimonials. To measure this effect there was looked at the circle menu that contained 18 links (9 arguments and 9 testimonials). Given the fact that the students had to read all the 18 reasons, there was only looked at the first 9 links, since these first links could indicate a preference for testimonials or arguments. Table 3.11 shows for example that the first 9 links of the 41 students who visited the website with a textual guide were 214 times to a testimonial and 155 times to an argument, whereas the expected number would be 184,5 times each when there was no preference for arguments or testimonials.

Table 3.11: Website version (textual vs. visual) as a function of the preferred first 9 links (testimonial or argument) of the total group of students. (expected value between brackets)

	Textual guide	Visual guide
Testimonial	214 (184.5)	172 (174)
Argument	155 (184.5)	176 (174)
Total links / total students	369 / 41	348 / 38

Contrary to the expectations, table 3.11 shows that there was no significant difference in preference for arguments or testimonials for the

students who had visited the visual guide ( $\chi^2(1)=.011, p=.915$ ). The group that visited the website with the textual guide did show a significant preference to read the testimonials first ( $\chi^2(1)=10.03, p<.005$ ). We will look closer at the data to see what causes this effect.<sup>27</sup>

Table 3.12a, 3.12b, and 3.12c show the preferred links of the separate ethnic groups. When we look at the tables it is clear that the significant result from the previous section comes from the group of white South African students ( $\chi^2(1)=26.27, p<.001$ ). The other ethnic groups showed no significant differences in preference for testimonials or arguments (Dutch visual:  $\chi^2(1)=.38, p=.539$ , textual:  $\chi^2(1)=.10, p=.753$  and black South African visual:  $\chi^2(1)=2.18, p=.140$ , textual:  $\chi^2(1)=.15, p=.700$ ).

Table 3.12a: Website version (textual vs. visual) as a function of the preferred first 9 links (testimonial or argument) of the Dutch students. (expected value between brackets)

	Textual guide	Visual guide
Testimonial	83 (81)	79 (84)
Argument	79 (81)	89 (84)
Total links / total students	162 / 18	168 / 18

Table 3.12b: Website version (textual vs. visual) as a function of the preferred first 9 links (testimonial or argument) of the white South African students. (expected value between brackets)

	Textual guide	Visual guide
Testimonial	<b>75 (49.5)</b>	41 (45)
Argument	<b>24 (49.5)</b>	49 (45)
Total links / total students	99 / 11	90 / 10

Table 3.12c: Website version (textual vs. visual) as a function of the preferred first 9 links (testimonial or argument) of the black South African students. (expected value between brackets)

	Textual guide	Visual guide
Testimonial	56 (54)	52 (45)
Argument	52 (54)	38 (45)
Total links / total students	108 / 12	90 / 10

### 3.3 Recall data

#### The effect of ethnicity on recall

- **Black South African students will recall more arguments concerning societal concerns**
- **White South African and Dutch students will recall more arguments concerning individual concerns**

Table 3.13 shows that there are no significant differences in the kind of arguments that the students recalled (Dutch: ( $\chi^2(3)=.05, p=.997$ ), white South Africans: ( $\chi^2(3)=.77, p=.856$ ) and black South Africans: ( $\chi^2(3)=.27, p=.965$ )). The percentages and the mean of the recalled answers per ethnic group show that the Dutch students in general recalled more answers than the South African students.

27. It would also be interesting to see if the addition of a guide in general leads to a preference for testimonials. However, considering the fact that the data of the objective website came from Van Zandvoort's thesis (forthcoming) and she did not measure the students' linking behaviour in the same way as was done in this thesis it was only possible to compare the version of the textual guide with the version of the visual guide.

Table 3.13: Percentage of recalled arguments (individual-psychological, individual-physical, societal-individual, societal, mean (total / nr. of students)) as a function of ethnic groups (Dutch vs. white South African vs. black South African). (absolute number of recalled arguments between brackets)

	Individual- psych.	Individual- physical	Societal- individual	Societal	Mean
Dutch	75.7% (53)	77.1% (54)	74.3% (52)	77.1% (54)	213/70=3
White SA	56.7% (21)	73.0% (27)	64.9% (24)	67.6% (25)	97/37=2.6
Black SA	47.7% (21)	47.7% (21)	50.0% (22)	54.5% (24)	88/44=2

### 3.4 Additional expectations and results

- **South African students more often choose a guide from the same ethnic background than Dutch students**

There is a significant difference between the South African students and the Dutch students with regard to the choice of their guide (see table 3.14). South African students chose significant more often a guide of their own ethnical background than Dutch students ( $\chi^2(2)=6.40, p<.05$ ).

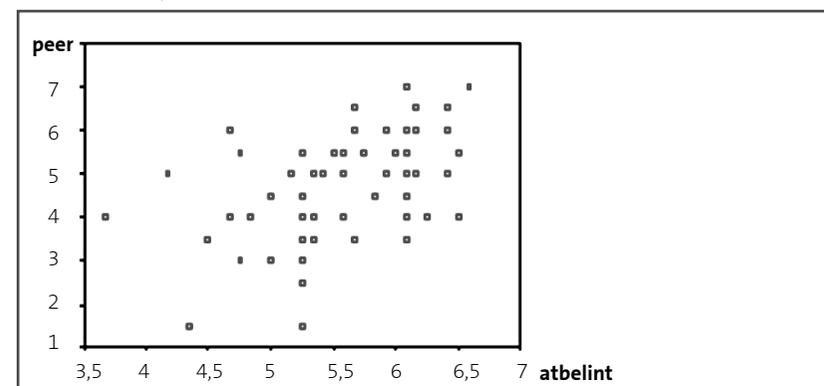
Table 3.14: Chosen guide (black or white) as a function of ethnic groups (Dutch vs. white South African vs. black South African). (expected value between brackets)

	Black guide	White guide	Total
Dutch	9 (10)	11 (10)	20
White South African	6 (10.5)	15 (10.5)	21
Black South African	13 (9.5)	6 (9.5)	19

### The effect of peers

Considering the high level of stigma in South Africa it was considered that the student's friends might have a high influence on the student's intentions and decision to go for VCT. Therefore there was looked for a positive correlation between the support of friends to go for VCT and the scores of the students on their attitudes, beliefs and intentions towards VCT. There appeared to be a positive correlation between the variable attitude and the support of the peers ( $p<.005$ ) for the whole group of students. However, when we split the group into the three ethnic groups we see that this correlation comes from the group of Dutch students ( $p<.001$ ) and not from the white South African or the black South African students ( $p=.269$  and  $p=.326$  respectively). Figure 3.1 shows the correlation between the two variables for the Dutch students.

Figure 3.1: Correlation of the support of the students' friends to go for VCT (peer: min.1- max.7) with the attitudes of the students towards VCT (atbelint:, min. 1- max.7) for the Dutch students.



**Linking preference for societal or individual arguments**

Table 3.15 shows the total of the first 9 links each student of the different groups made to either the reasons considering the individual concerns or the reasons considering the societal concerns, thereby indicating a possible preference for one of these reasons.

Table 3.15: Linking preferences (individual concerns or societal concerns) of the first 9 clicks of students as a function of ethnic groups (Dutch vs. white South African vs. black South African). (percentage between brackets)

	Individual	Societal	Total clicks / students
Dutch	203 (61%)	129 (39%)	332(100%) / 37
White SA	109 (58%)	79 (42%)	188 (100%) / 21
Black SA	116 (59%)	82 (41%)	198 (100%) / 22

It appears that all the student groups significantly preferred arguments and testimonials concerning the individual concerns above the arguments and testimonials concerning the societal concerns (Dutch:  $\chi^2(1)=16.49, p<.001$ , white South African:  $\chi^2(1)=5.09, p<.025$ , and black South African:  $\chi^2(1)=5.84, p<.025$ ). This shows there is no cultural difference in preference for individual or collectivistic arguments within this group. However, this result can be partly caused by the design of the website. The arguments and testimonials were placed in a circle, in order not to emphasize a particular topic. However, the students were told that it was important that they read every argument and testimonial. Therefore a lot of students started with the arguments on top and read them clockwise. The fact that the first ten links contained six arguments

concerning the individual, and four concerning the society can therefore be one of the causes of the seemingly preferences for the arguments concerning the individual concerns. The results can therefore not be used to draw reliable conclusions.

**The effect of nationality**

When we look at all the previous results there appears to be a difference in scores between the Dutch and the South African students. To test this expectation we compare the two nationalities on their evaluation of the source, information and attitude. Table 3.16 shows the results.

The South African students give significant higher scores than the Dutch students on the evaluation of the source ( $F(1,113)=27.03, p<.001$ ), on the evaluation of the information ( $F(1,114)=23.40, p<.001$ ) and on the students' attitude ( $F(1,115)=10.83, p<.001$ ). Table 3.17 shows that the South African students also give significant higher ratings to the testimonials ( $F(1,117)=25.09, p<.001$ ) and the arguments ( $F(1,117)=53.53, p<.001$ ).

Table 3.16: Mean scores of the evaluation of the source (general), information (general) and attitude (general) (min. 1- max. 7) as a function of nationality (Dutch vs. South African). (SD between brackets)

	Dutch	South African	All subjects
Source - general	5.50 (.46)	5.94 (.45)	5.73 (.50)
Information - general	5.28 (.51)	5.74 (.53)	5.52 (.57)
Attitude - general	5.55 (.64)	5.94 (.64)	5.75 (.67)

### Chapter 3 Results

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Table 3.17: Mean scores of the ratings of the testimonials and arguments (min. 1- max. 10) as a function of nationality (Dutch vs. South African). (SD between brackets)

	Dutch	South African	All subjects
Testimonials	7.39 (.85)	7.52 (.95)	7.48 (1.01)
Arguments	7.52 (.95)	8.78 (.92)	8.18 (1.13)

In this chapter we mainly looked at the hypotheses and the outcomes of the experiment. The results showed whether the differences were significant or not. In chapter 4 we will draw some conclusions with regard to the outcomes of the experiment and the hypotheses. We will also discuss the results on the basis of the theoretical framework. Lastly, some recommendations for further research and future design of VCT information will be given.

# Conclusions, discussion & recommendations

## 4 Conclusions, discussion & recommendations

The previous chapter described the results of the experiment. In this section we will look at these results and see what the consequences are for the hypotheses. This will lead to conclusions with respect to the effect of the addition of a guide. Possible explanations of these results are discussed in section 4.2. Subsequently, there will be given some recommendations for further research in section 4.3. Finally, section 4.4 gives some recommendations for the use of a digital guide in VCT communication.

### 4.1 Conclusions

#### **An ascending line, but no significant effect**

In general we can conclude that the addition of a visual guide leads to a significant effect for the evaluation of most of the variables by the Dutch students but not to an effect for the South African students. Even though the effect for the Dutch students is not significant for the credibility and the persuasive power, there is an ascending line. This ascending line is apparent everywhere the visual guide is added. We may therefore conclude that, although the effect has not proven to be significant everywhere, there is at least a positive effect of the addition of the visual guide. This is harder to say for the South African group. In two out of five variables we see an ascending line (viz. commitment and appeal), however, the differences are so small that further research is necessary to test the possible additional effect of the persuasiveness of the visual guide. So far it seems like there is no effect of the persuasive cues.

Table 4.1: General overview of the effect of the addition of the textual guide or the visual guide on the evaluation of the variables by participants (total group, Dutch students, SA students) ( - 'no effect of guide', + 'addition of guide results in (not significant) higher evaluation', ++ 'significant effect of guide')

		Textual guide	Visual guide
Total group	Commitment source	+	++
	Appeal source	+	++
	Credibility source	-	+
	Information	+	++
	Persuasive power	-	+
	Evaluation testimonials	-	++
	Evaluation arguments	+	-
Dutch students	Commitment source	+	++
	Appeal source	+	++
	Credibility source	-	+
	Information	+	++
	Persuasive power	+	+
	Preference testimonial	-	-
	Preference type of argument	-	-
SA students	Commitment source	-	+
	Appeal source	+	+
	Credibility source	+	-
	Information	-	-
	Persuasive power	-	-
	Preference testimonial	++	-
	Preference type of argument	-	-

Table 4.1 shows the general overview of the effect of the addition of a guide on some of the main variables in this thesis. These effects and additional results will be described in this section.

#### 4.1.1 The effect of version and nationality on the evaluation of the variables

##### The effect of a (visual) guide on the total group

The results in section 3.1.2 show that there is no main effect of website version on the evaluation of the three websites, which means that the addition of the guide has no general effect on all the dependent variables. However, univariate analyses gave cause for a comparison of the objective version with the visual website. When we compare the objective website version with the visual website version we see an effect of version on the evaluation of the variables. The students who visited the website with the visual guide gave significant higher evaluations of the commitment and appeal of the source, and of the information of the website than the students who visited the objective version. There was no difference in the evaluation of the credibility of the source or in persuasive power.

##### Conclusion

We can conclude that the addition of a textual guide has no effect on the evaluation of the source, information and persuasive power. The addition of a visual guide has a significant effect on the evaluation of the commitment and appeal of the source, and on the evaluation of the

information. The addition of a visual guide has no effect on the evaluation of the credibility of the source, or on the persuasive power.

### **The effect of a (visual) guide on nationality**

The results that are mentioned above count for the total group of students. However, considering the cross-cultural aspect in this thesis we want to know whether this effect counts for both nationalities or for one group in particular. A comparison of the effect of the three websites on the evaluation of the variables done by the Dutch and South African students showed that there was no main effect of the three website versions on the evaluation of the source, information and the persuasive power for both nationalities. However, univariate analyses of the Dutch group gave cause for a separate comparison of the objective version with the visual website, and of the textual version with the visual version. They will be discussed next for the Dutch and the South African students.

### **The Dutch group**

A comparison of the objective website version and the website with a visual guide shows a significant effect of version on the evaluation of the variables. The Dutch students who visited the visual website gave a significant higher evaluation of the commitment and appeal of the source, and a significant higher evaluation of the information of the website. There was no effect of version on the evaluation of the credibility of the source or on the persuasive power.

The comparison of the textual guide with the visual guide did not lead to an effect of version. However, the Dutch students did give significant

higher evaluations to the appeal of the source and the information of the website when they had visited the visual website.

### **The South African group**

There was no effect of website version on the evaluation of the variables by the South African students.

### **Conclusion: the effect of manipulations on nationality**

We can conclude that the Dutch students give significant higher evaluations of the commitment and the appeal of the source, and of the information if the website is presented by a visual guide. Adding only a textual guide to a website has no significant effect, but the addition of photographs to that textual guide leads to a significant higher evaluation of the appeal of the source and the information of the website. The guide, no matter what appearance, has no influence on the evaluation of the source, the information and the persuasive power by the South African students. We can therefore say that the effect that the visual guide had in the previous section concerning the evaluation of the commitment, appeal and information by the group of students, can be attributed to the significant effect these variables had on the Dutch students. Thus, we can conclude that manipulations have (almost) no effect on South African students, whereas they have a significant effect on the Dutch students.

### **The effect of version on the ratings of the testimonials**

The addition of a textual guide did not lead to significant differences in the ratings for the testimonials. However, the students did give significant higher ratings to the testimonials told by a visual guide.

#### **4.1.2 The effect of involvement on the evaluation of the variables**

It appeared that there was a significant effect of involvement on the evaluation of the variables in the three website versions. This expressed itself in the variables information and persuasive power. There was also a significant effect of involvement in the comparison of the objective website and the visual website, viz. for the variables appeal, information and persuasive power. We can therefore conclude that the students who were highly involved with HIV gave more positive evaluations of the variables appeal, information and persuasive power.

#### **4.1.3 Information selection data**

##### **The effect of version and ethnicity on the information selection**

It was expected that the increased involvement with the visual guide would lead to a preference for testimonials that would express itself in the linking behaviour of the students. It was expected that the students would first link to the testimonials. There was no effect of the visual website version on the preference for testimonials. There was however a significant preference of the students who had visited the website with the textual guide for testimonials. This result is caused by the significant preference of white South African students for testimonials in the textual version of the guide. There were no other significant preferences.

#### **4.1.4 Recall data**

There was no significant difference in the kind of arguments the both nationalities recalled. It is therefore not possible to use the recall question to assign the students to a group of individualist or collectivists.

#### **4.1.5 Additional expectations and results**

##### **Guide preferences**

Black and white South African students prefer a guide of their own ethnic background (skin colour) to a guide of another ethnic group. Dutch students do not show any significant preferences in their choice of guide.

##### **The effect of peers**

It appeared that there was a positive correlation between the support of friends to go for VCT and the Dutch student's attitude towards VCT. There was no correlation between these variables for the white South African or the black South African students.

##### **The effect of nationality on the evaluations in general**

South African students give significant higher evaluations than the Dutch students. On the average their evaluation is half a point higher than the evaluations by the Dutch students.

#### **4.1.6 Summary**

This thesis examines the effect of a peer-guide on the persuasiveness of a message for South African and Dutch students. In the end we can number the following significant effects of the website versions on the evaluation of the variables by the two different nationalities.

##### **Objective website vs. Textual guide**

- No significant difference for any of the evaluations of the variables;
- No significant difference on the evaluations by the two nationalities;

- Significant preference of white South African students for testimonials.

### **Objective website vs. Visual guide**

- Significant higher evaluation by Dutch students of commitment, appeal and information;
- No significant difference in the evaluation of the credibility or the persuasive power;
- No significant difference in evaluation by the South African students;
- Significant higher ratings of testimonials.

### **Textual guide vs. Visual guide**

- Significant higher evaluations by Dutch students of appeal and information;
- No significant difference in the evaluation of the commitment, credibility or the persuasive power;
- No significant difference in evaluation by the South African students;
- Significant higher ratings of testimonials.

## **4.2 Discussion of the results**

In this section we will discuss whether the conclusions correspond with the hypotheses that were drawn in this thesis. It is tried to structure the discussion on the basis of the effects of the addition of a textual guide and the addition of a visual guide. We will first look at the (non) effects when a textual guide was added to the objective website, subsequently we will look at the effect of the addition of a visual guide, and lastly some of the additional findings will be discussed.

### **4.2.1 Addition of a textual guide**

- No significant difference for any of the evaluations of the variables;
- Significant preference of white South African students for testimonials.

#### **No significant difference for any of the evaluations of the variables**

The websites contain a lot of information concerning the topics HIV and VCT. The student was addressed personally in all the website versions. Moreover, because the information had to be consistent in the three websites to be able to compare the results, only small adaptations were made to the text of the objective website to give an impression of the textual guide:

*[...] This website tries to facilitate that decision by explaining you about VCT. Some people who have been tested and know what it is like will also tell their stories. Thereby trying to give you a helping hand. (Introduction objective website)*

*[...] 'I'm here to facilitate that decision by explaining you about VCT. Some of my friends who have been tested and know what it is like will also tell their stories. Together we hope we can give you a helping hand.' (Introduction textual guide)*

It is possible that this attempt to personalize the website by means of a textual guide vanishes in the total of information on the website and in the impression the website evokes. The objective website has, for example, also peripheral cues in the form of testimonials. Even though a

guide does not present the testimonials, these testimonials are real life experiences of people and may therefore already have an involving effect on the students. Thus, to test the effect of the textual guide the website may need to be more simple and/or the textual differences between the two versions need to be clearer, for example by a clearer introduction of the textual guide or by stressing the language (usage) of the peer group.

### **Significant preference of white South African students for testimonials**

The fact that the students were told to read all the information may have caused a systematical approach of the reasons for VCT, whereby the student started either with an argument and subsequently linked to the accompanying testimonials or vice versa. This method leads to an even division of clicks to arguments and testimonials, making it difficult to measure the student's preference for arguments or testimonials. Given the significant preference for testimonials by white South African students, this indicates that most of the white South African students must have started with reading all the testimonials, and subsequently read the arguments at the end. It is not clear why the white South African students prefer testimonials.

The fact that the effect of their preference for testimonials stayed out in the website with the visual guide can be caused by the links by means of photographs. It is possible that it was not immediately clear to the students that the photograph was a link (see appendix C for the screen dumps of the website).

### **4.2.2 Addition of the visual guide**

- Significant higher evaluation by Dutch students of commitment, appeal and information;
- No significant difference in evaluation by the South African students;
- No effect on the variables credibility of the source and the persuasive power;
- Significant higher ratings of testimonials.

### **Significant effect for Dutch students**

The guide had a significant effect on the evaluation of the variables by the Dutch students. This indicates that the peripheral cues work for the Dutch students. However, we do not know yet what the reason for this effect is. It is reasonable to assume that the effect is caused by the lower involvement of the Dutch students. Even if the students are interested in the topic, HIV is not a part of daily life and problems in The Netherlands, whereas it is in South Africa. The guidance through the website by means of a peer, and the realistic real life stories of people of their own age may have made a deep impression on them, thereby increasing involvement with the source. However, if low involvement causes the effect we would expect this effect too for the white South African students, we will have a closer look at the them next.

### **No significant effect for South African students**

There appeared to be a huge difference in involvement between the two ethnic South African groups. The white South Africans had a mean score of 3.59 on involvement, which is more than 1.5 point lower than the

black South African students (5.21). The non-effect of the guide for the black students can be explained by a central route of information processing because of the high involvement. However, there is a discrepancy between the low scores on involvement of the white students and the fact that the peripheral cues had no influence on them. An explanation for their low score on involvement may be that they do not want to show that they are involved and give extra low ratings to the questions concerning the involvement. If we look at their ratings for involvement we clearly see that they are a lot lower than their other ratings. Nonetheless, actually they do worry about the HIV problem and they are involved (it is almost impossible not to worry with the huge HIV prevalence). This means that they will also follow the central route of information processing and that the guide has no influence on their evaluation.

We must also realize that the variable involvement consists of questions considering previous behaviour with regard to HIV, a low score on these questions does not mean that they did not get involved with the people in the website. They may want to ignore HIV information in normal life but became involved while reading the information and the stories. Since the involvement questions ask for former behaviour with regard to HIV, a possible increase in involvement after the student has visited the website could not be measured. However, this possible increase of involvement may result in a more central route of information processing and thus no effect of the addition of the guide.

### **Credibility of the source**

None of the versions had an effect on the evaluation of the credibility of

the source. Different from the other two variables of source (commitment and appeal) that depend more on the effect of visualization (to evoke for example a feeling of involvement or liking) to get a more positive evaluation, the variable credibility is more dependent on the content of the message. The students will mostly infer the source's expertise and credibility from what the website communicates. The fact that the content of the website is the same in the three websites may be a reason that the effect stays out.

### **Persuasive power**

None of the versions had an effect on the persuasive power. When we look at the Dutch scores on persuasive power we see that the score increases from 5.40 to 5.50 to 5.73. There is an obvious ascending line, however the effect is not significant. The South Africans give a score of 6.00, 5.80 and 5.97, no clear effect, but a very positive evaluation. The persuasive power is a grouping of the variables attitude, beliefs and intentions considering VCT. These variables were not measured before the students had seen the websites because it was feared that this could affect the validity of the research. Firstly, the students would know that their attitudes, beliefs and intentions considering VCT were examined, and secondly, they might not want to admit it afterwards if the information had changed their attitudes. It was therefore only possible to see if there was an effect of version on the persuasive power (which was not there), not if there was a change in persuasive power before and after the students had visited one of the website versions.

### **Significant higher ratings of testimonials in visual version**

The testimonials in the visual version scored significantly higher than

the testimonials in the textual versions. This was already expected since involvement with the visual guide was expected to evoke more interest in the testimonials. However, since the website with the visual guide also has an addition of photographs to the peer-narrators of the testimonials it is not clear whether these higher ratings are caused by an increase of involvement with the visual guide, involvement with the narrators of the testimonials or a combination of these two cues.

### 4.2.3 Additional discussion points

#### **Significant higher evaluations by South African students**

The South Africans evaluate the variables significantly higher than the Dutch students. Involvement can have an effect on the high evaluations by black students, but probably not on the high evaluations by white students considering their low scores on involvement.

Cross-cultural research has shown that there are cultural differences in the way people respond to questionnaires (Hoeken and Korzilius, 2002). Some cultures use the extremes on a Likert scale more frequent than others. A recent research on response style differences by white Dutch and black South African students by De Groot (2003) shows that 'participating white Dutch and black South African students did not differ much in response style, and that the influences that were observed did not influence the results of comparative research (cf. De Groot, 2003; 3)' We therefore assume that the differences between the Dutch students and black South African students can largely be subscribed to the differences in involvement with regard to HIV. The

high evaluation by the white South African students could be attributed to the fact that white South African students may have a different response style, resulting in more extreme ratings than black South African and Dutch students and thus causing higher evaluations of the variables.

Another explanation for the high evaluations by the South African students may be attributed to the fact that they do appreciate the attempt to give VCT information and give high evaluations because they value the information. The HIV communication in South Africa is checked thoroughly by an apparently strict ethical committee in order not to offend or traumatize students. However, for an outsider this approach seems extremely cautious, especially because the students were all very interested and grateful for bringing the VCT topic up. The breakthrough of the taboo and the different approach (they were approached by students and the information was on a website (brought by peer students when they visited the website with a guide) instead of the more common leaflets or billboards) may also play a part in their high evaluation of the material.

#### **Low Cronbach Alpha**

While conducting the experiment with UNISA students their level of English appeared to be low. This may have caused some problems concerning the comprehensibility of the website and the questionnaire. The differences in educational and English levels of the three different student groups called for some further research. Therefore the Cronbach Alpha was tested for each group of university students separately, and

## Chapter 4 Conclusions, discussion & recommendations

when different groups of universities were left out. Table 4.2 shows that the UNISA students scored very low on consistency, and that consequently omitting the UNISA students in general leads to an increase of the Cronbach Alpha. The UP students appear to be far more consistent in their answers than the UNISA students. The omitting of UP students results, except for three variables, in an equal Cronbach Alpha or a decrease of the Cronbach Alpha compared with the Cronbach Alpha of the total group. Lastly, omitting the Tilburg University students leads clearly to a decrease of the Cronbach Alpha.

Table 4.2: The internal consistency of the dependent variables for the total group of students (total), for each university separate (UNISA, UP, Tilburg University (TU)) and for the total group without respectively UNISA, UP or TU students.

Dependent variable	Total	UNISA	UP	TU	-UNISA	-UP	-TU
Credibility source	.55	.32	.45	.58	.60	.52	.38
Expertise source	.51	-.06	.41	.58	.55	.52	.33
Formality source	.52	.43	.44	.61	.54	.52	.42
Appeal source	.68	.38	.54	.69	.70	.72	.51
Empathy source	.56	.41	.51	.60	.58	.55	.47
Appeal information	.71	.21	.71	.68	.73	.65	.65
Power information	.66	.64	.44	.63	.63	.70	.50
Appropriateness info	.29	-.03	.30	.35	.31	.30	.23
Comprehensibility info	.56	.02	.55	.65	.64	.51	.43
Attitude student	.42	.34	.37	.48	.46	.41	.34
Belief student	.54	.41	.58	.42	.57	.42	.55
Intention student	.50	.31	.35	.62	.51	.58	.32
Involvement with HIV	.50	-1.12	.58	.58	.59	.40	.43

This indicates that the UNISA students were the most inconsistent in their response. This can be caused by a lower level of English, what may result in the misunderstanding of certain questions because of a smaller vocabulary or the overlooking of negatively posed questions. The main problems arose with questions concerning the expertise of the source, the appeal, appropriateness and comprehensibility of the information and their involvement with HIV. The low consistency of the answers by UNISA students makes it reasonable to assume that the experimental website and the accompanying questionnaire were too difficult for this group of students. Future research may need different language use or measurements of variables to improve the comprehensibility for the students and to improve the consistency of their answers.

It is reasonable to assume some differences between the UNISA students and the UP students, given the noticed difference in the internal consistency of their response behaviour, but also considering their inexperience with the Internet. Therefore, there is looked for a possible difference in evaluation between the students of these two universities. However, a division of the South African students in a group of UP students and a group of UNISA students (instead of white and black students) did not lead to different results of the effect of version. The UNISA students did have (just as the total group of black students) a higher score on involvement (5.36 (SD 1.01)) than the UP students (4.18 (SD 1.74)). However, when the UP group was split in a group of black and white students this difference could again be attributed to the low scores of involvement by the white students (3.59 (SD 1.74) for the white students and 5.11 (SD 1.31) for the black students).

### **4.3 Recommendations for further research**

During the work on this thesis and the evaluation and discussion of the results some ideas, questions and recommendations concerning further research arose. The main recommendations are put into the following research questions for further research:

- What causes the differences in involvement between the black and white South African students (and why does the low involvement of white South African students not lead to an effect of peripheral cues)?
- What is the effect of a textual peer-guide, whose language is adapted to the student's language, on the persuasiveness of a message?
- What kind of measurement of variables improves the comprehensibility for the South African students (and increases the consistency of the Cronbach Alpha)?
- Does a guide applied to printed media has the same persuasive effect on Dutch students as a digital guide?
- What is the persuasive effect of a guide applied to printed media on less literate societal groups in South Africa?
- What is the effect of loss-framed testimonials on the persuasiveness of a message to persuade students to go for VCT?
- What kind of reasons pro VCT are most persuasive to the students?
- Has the VCT website an effect on involvement of the students with HIV?
- Is there a preference for the guide's sex and does this preference differ for male or female students?

The findings of these research questions may lead to clearer guidelines for the framing and design of VCT information material. The recommendations that arose from this thesis will be discussed next.

### **4.4 Recommendations for future design**

The results and information in this thesis can be used to give some recommendations to the Epidasa project for the design of VCT information. These recommendations are discussed below for Dutch and South African students.

#### **4.4.1 Recommendations for the design of VCT information for Dutch students**

- Take the persuasive power of heuristic cues on the Dutch students into account;
- Personalize the information on the website by means of photographs of peers and testimonials of peers;
- Give the students a choice of guides (although the Dutch students did not show a specific preference for the ethnic background of the guide, it is important to give them this choice to increase their involvement and the possibility of a group feeling);
- Adapt the information on the website to Dutch everyday life and culture (an argument like 'keep your community disease free' could for example be changed).

#### **4.4.2 Recommendations for the design of VCT information for South African students**

- Emphasize the central route of the arguments;
- Give strong arguments (the involvement of the black South African students causes a central route of information processing that decreases the effect of peripheral cues and results in extra attention for the arguments. The students can therefore only be persuaded by the quality of the arguments);

- Give also some peripheral cues to persuasion (considering the possible differences in involvement between the different ethnical groups in South Africa it is recommended to give central as well as peripheral cues to persuasion, thereby reaching as many students as possible);
- Reckon with the students' possible preferences for people of their own ethnical background when using photographs or illustrations of people.

### 4.4.3 Additional remarks: recommendations done by the students

Although the students did not know what the actual purpose of the experimental website was, and why some decisions were made, they did give some recommendations considering additional information, or improvement of the present website. These recommendations are quoted below.

- 'I think some real pictures of people suffering could be compelling.'
- 'It would be nice if there were links to where you could go for VCT.'
- 'If you have gone for VCT and would like to share your experience then there should be a link so that you can add your opinion.'
- 'Every story you had, has a happy ending. Maybe you should include some stories where VCT wasn't part of the person's life in order to show the difference between people with and without counselling!'
- 'The dangers around AIDS should be stipulated more clearly. I got the impression that to have AIDS is not so bad but infection with HIV is a death sentence.'
- 'Maybe that some information about safe sex could be an addition to the information.'

The results of further research on the issues that are discussed in section 4.3 can, together with the findings and recommendations in this thesis, hopefully contribute bit by bit to an improvement of persuasive VCT information material.

*'The information in the website is very informative, interesting and realistic. Though I always thought not knowing my HIV status is better than knowing it now I know I was wrong. Thanks for shedding some light about VCT!!' (18 years old black female participant, UP)*

*'I think you should expose or inform more people especially those in rural areas; VCT is the best continue doing the good job.'*

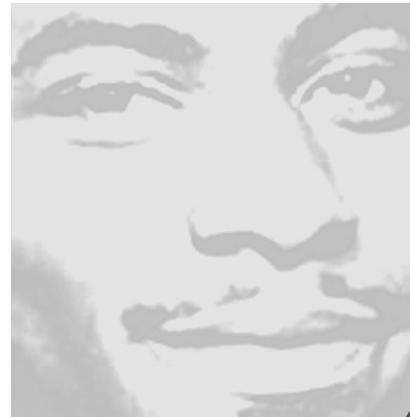
*'I enjoyed this! I'm inspired! Thank you too! :-)'*

*'It is a magnificent website especially to the teenagers since they enjoy informal discussions. It gives a clear imaginative picture of AIDS/HIV'*

*'Reading the real life stories really had an impact on me!'*

*'It was eye opening to realize that problems are everywhere but shocking about the under age category with HIV/AIDS. It was very good.'*

*'I would like VCT to be in all part of SA to educate people about HIV and AIDS. To tell them like they wrote on their website.'*



**Goodbye!**

*'A very good website! Enough information and yet not too much to frighten people.'*

*'I am aware of HIV/AIDS but through this survey things have become more deeper and it helps and make you think about taking more care of your body.'*

*'This kind of testimonials of normal people, makes me more alert of the danger that is out there. Makes me not to be ignorant like before maybe.'*

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