Chapter 5

Findings

CHAPTER 5

FINDINGS

5.1 Introduction

This chapter reports the findings of the summative evaluation. Four experts and fourteen users evaluated the program. The findings outlined in this chapter are presented in the same order as the aspects and dimensions that had to be rated. See Table 4.1 (page 82). Where applicable, comments made by the evaluators (users and experts) are included.

5.2 Evaluation of the program

Following is a description of the persons who evaluated the program.

5.2.1 Target group (users)

5.2.1.1 Registered nurses

The group of registered nurses consisted of two distinct groupings:

- Registered nurses who had previously deployed in a military operation/ exercise and who were purposefully chosen; and
- four nurses who had not deployed in a military operation/exercise, who where available at the time to evaluate the program.

Seven of the eight nurses were not familiar with the Internet.

5.2.1.2 Personnel other than nurses

In order to determine if the program would also be suited for groups other than nurses within the military, six users who were not nurses were asked to evaluate the program and were requested to complete the same user evaluation form as the nurses. These personnel consisted of three medical support officers, a personnel officer, a language practitioner and a pharmacist/logistic officer. Two of these users were not familiar with the Internet.

The researcher had to explain the concept of links to navigate through the program before the users who were not familiar with the Internet could start evaluating the program.

5.2.2 Expert evaluators

Four experts evaluated the program:

- The head of media design and development at COLET (SANDF College for Educational Technology).
- A graphic designer employed by COLET.
- A nurse lecturer who is responsible for telematic education of nurses at the University of Pretoria and who is currently busy with the course M.Ed. Computer Assisted Education.
- The Director Language Support, employed by the SAMHS (South African Medical Health Services). He is currently busy with M. Phil. Technology Enhanced Language Instruction.

5.3 Findings

Following is an exposition of the findings after analysing the user evaluation questionnaires and the expert interface rating forms.

The users had to evaluate the program according to a five-point scale with the following meanings attached to the numbers; 1 = strongly disagree, 2 = disagree, 3 = neither agree/nor disagree, 4 = agree, 5 = strongly agree. The questionnaire is attached as **Appendix I**.

The experts had to rate the user interface dimensions on a five-point scale with a different meaning for each of the dimensions. This questionnaire is attached as **Appendix J**.

5.3.1 Design objective 1

In order to determine if the design objectives, as indicated in Table 4.1 were met in the developed program, the user interface design dimensions had to be rated by the experts and certain aspects of these user interface dimensions by the users.

The first design objective that had to be met by the program in order for the main research question to be answered, is the following:

Use **multimedia** to create and develop the program, with the application of sound design specifications.

To evaluate if this objective had been met, the experts had to evaluate the program according to the following **dimensions of user interface**:

- Aesthetics.
- Design stability.
- Closure.
- Navigation.
- Mapping.
- Screen design.
- Simplicity and consistency.
- Metaphor or theme.
- Media integration.

The users had to rate certain **aspects of the user interface dimensions** as set out in Table 4.1.

Following are the findings relating to the dimensions and the aspects of the dimensions that were rated in order to determine if design objective 1 had been achieved.

5.3.1.1 Dimension of user interface: aesthetics

The aspect of this dimension that had to be rated was:

■ The layout of the screen and the overall 'look' is pleasing.

The findings were the following:

Users

All the nurses and the other personnel found the layout of the screen and overall "look" pleasing. The ratings of this aspect are presented in Table 5.1.

Table 5.1 Aspects of user interface dimension: aesthetics

• The ac	, the	Nurse	es de (n=4	ploye	ed	Nu	rses	not o	107.0	yed	Pe	rsonr	nel ot ses (han
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
The layout of the screen and overall "look" is pleasing	ign pha	d. nd	the er of	1	3	e tro	150	ren	ba	4	unk	ado	is to	4	2

All of the experts found the aesthetics of the program design pleasing. The ratings of this aspect are presented in Table 5.2.

Table 5.2 Expert interface rating: aesthetics dimension

Dimensions of user interface	b lost	E	per	t 1		110	Ex	cper	t 2		de	E	per	t 3			Ex	cper	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Aesthetics	ie Sa	esp	ec	We	Х	18	SIR	wir	Х						Х				Х	

Following are some of the comments made by the expert evaluators:

- Maroon and green work well together and in the case of this program
 the "military feel" that was created with the "military background" is
 enhanced.
- The background appears disturbing at times, "I wanted to wipe it clean".
- Language rules were applied incorrectly ("field hospital" as a heading was spelled in lowercase).

- The "small, faint font" next to the logo on the index page is just too faint to balance with the heading.
- The aesthetics of the program fits with the military image.
- The overall look is pleasing and fitting for the military user for which it
 was designed. The use of the transparent background adds to the
 military character of the program.
- The index page creates a "mood" and sets the scene of what is to be expected.

5.3.1.2 <u>Dimension of user interface: design stability</u>

The following aspects of this dimension were rated:

- The program looks professional with high editorial standards.
- The interactive elements of the program work reliably.

The results of these aspect were the following:

Users

All the users found the program to be professional with high editorial standards. All the users found the interactive elements of the program to work reliably. The ratings of these aspects are set out in Table 5.3.

Table 5.3 Aspects of user interface dimension: design stability

4 I na content	ı	Nurse	es de (n=4		ed	Nu	irses	not o	deplo)	yed	Per		nel ot ses (han
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
The program looks professional with high editorial standards	Con	of i	0,1	1	3	sho	wid	60.2	1	3				2	4
The interactive elements of the program work reliably			mai	1	3	2-40			3	1				2	4

All of the experts found the program design stable.

The ratings of this aspect are presented in Table 5.4.

Table 5.4 Expert interface rating: design stability

Dimensions of user interface	1.3	E	cper	t 1	e i	Ay.	Ex	cper	t 2		lagi	Ex	per	t 3	rug.		Ex	per	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Design stability	e se	88	del	Х	ŭ į	er	witi	ıd i	1	Х	5,				Х					Х

Following are the comments made by the expert evaluators:

- The high design and editorial standards will inspire confidence in the user that information is accurate and reliable.
- The index page and the other pages' headings are of different size and font which results the eye to "jump between the pages".

5.3.1.3 <u>Dimension of user interface: closure</u>

The following aspects of this dimension were rated:

- The content is presented in manageable segments.
- I felt overwhelmed by numerous options.
- The organisation of the program should be improved.

The results of the analysis of these aspects are set out below:

Users

Thirteen of the users indicated that the content is presented in manageable segments. One user (other than nursing) was not too sure about it.

Twelve of the users indicated that they were not overwhelmed by numerous options. One of the nurses and one of the other users was unsure.

Thirteen of the users indicated that the organisation of the program does not need improvement. One of the users (other than nurses) indicated that the organisation of the field hospital can be improved by labelling the in tents the same way as the containers.

The ratings of these aspects are presented in Table 5.5.

Table 5.5 Aspects of user interface dimension: closure

more p	ger	Nurse	es de (n=4		ed	Nu	rses	not o	deplo)	yed	Per			ther t (n=6)	
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
The content is presented in manageable segments	ma	ion s m	wes lana	3	1 ea	sily.	inte	, train	ly u	4	ster	dab	1	3	2
I felt overwhelmed by numerous options	2	2	yviii	e lyin	ORE	2	1	1	ENE	Vius	4	1	1	0.20	U
The organisation of the program should be	0.0.3	Yes	and it	No)	nav.	Yes	on.	No)	,	Yes		No)
improved	ni in	0		4			0		4			1		5	

All of the experts found the closure dimension manageable.

The ratings of this aspect are presented in Table 5.6.

Table 5.6 Expert interface rating: closure

Dimensions of user interface	i go	Ex	cper	t 1		har	E	per	t 2		m	Ex	cper	t 3			Ex	per	t 4	
TE TETT LOST	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Closure					Х					Х				Х						X

The following recommendations were made:

 The two columns on the site map and on the "about" page should be changed into one column. The "about" page reads like a newspaper and a person has to scroll down and then up again to read the other column. Information on the site map is too much and should be subdivided into more pages.

- Information contained in the program is presented in manageable segments. Users, even inexperienced ones, should be able to manage the information presented easily.
- Information is managed very well into easily understandable sections.
 The bullets help with this organisation and provides for easy reading.

5.3.1.4 <u>Dimension of user interface: navigation</u>

The following aspect of this dimension was evaluated:

I knew at all times where in the program I was and how to go to another section of the program.

The findings were the following:

Users

Thirteen of the users indicated that they knew at all times where in the program they were and how to go to another section of the program. One of the users stated that she felt lost.

The ratings of this aspect are presented in Table 5.7.

Table 5.7 Aspects of user interface dimension: navigation

The aspect of this di	1	Nurse	es de (n=4		ed	Nu	irses	not o	deplo	yed	Per		nel ot ses (her t n=6)	han
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
I knew at all times where in the program I was and how to go to another section of the program	alu	non	1	as f	2		12		1	3				1	5

Three of the four experts found the program easy to navigate. One of the experts indicated that it was a bit difficult. The ratings of this aspect are presented in Table 5.8.

Table 5.8 Expert interface rating: navigation

Dimensions of user interface) Perc	E	cper	t 1		BY	E	per	t 2		ns i	Ex	per	t 3			Ex	cper	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Closure					Х			Х			nel			Х		nui	56.5	(n=	ŋ	Х

The expert evaluators made the following suggestions:

- Link to the site map from every page.
- It is not necessary to work through the program sequentially, but going through it in sequential order is possible and probably an easier option for the inexperienced user.
- Navigation through this program is very easy.

5.3.1.5 <u>Dimension of user interface: mapping</u>

The aspect of this dimension that had to be evaluated was:

I knew at all times how much of the information I had interacted with (visited) and which parts of it I had not.

The results of this evaluation are as follows:

Users

Eleven of the users indicated that they knew at all times how much of the information they had interacted with and which parts of the program they had not.

Three of the users indicated that they experienced problems with the navigation. (The users that experienced problems worked on the researcher's computer and the program was not "refreshed" and therefore the links did not change colour.)

The ratings of this aspect is presented in Table 5.9.

Table 5.9 Aspects of user interface dimension: mapping

Too ne Davis	ch ne	Nurse	es de (n=4		ed	Nu	rses	not o	1.7	yed	Pe		nel o	ther t (n=6)	han
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
I knew at all times how much of the information I had interacted with	y is	lisite	1	n he	2	α, I	Was	net	2	2	an e	the 1	1	1	3
(visited) and which parts of it I hadn't	OII.	Di de			1440	ECE	len i) Migh							

Two of the experts indicated that the mapping of the program is powerful while two of the experts experienced some trouble with the mapping.

The ratings of this dimension are presented in Table 5.10.

Table 5.10 Expert interface rating: mapping

Dimensions of user interface	ntes	E	cper	t 1	-01	lin	Ex	cper	t 2	ı ıb	-	Ex	cper	t 3		mo	Ex	per	t 4	7.
II II	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Mapping					Х			Х					Х						Х	

The experts made the following comments:

- The presence of a site map and the "about" page being accessed from
 the home page makes mapping extremely easy. The use of hypertext to
 access information referred to in the text, makes the way finding to
 other information very manageable.
- Too much information on the site map makes way finding difficult.
 Divide the information between more pages.
- Way finding between the different pages and back to the site map is easy. At the site map however, I was not sure which of the sections I already visited.

5.3.1.6 <u>Dimension of user interface: screen design</u>

The aspects of this dimension that had to be evaluated were:

- The screen is not cluttered with too much text.
- The colour of the text provides for good visibility.
- More visual material should be added.

The results of this evaluation are as follows:

- Users
 - Thirteen of the users indicated that the screen is not cluttered with too much text and one user found it cluttered.
 - Fourteen of the users indicated that the colour of the text provides for good visibility.
 - Nine of the thirteen users wanted more visual material to be added.

The ratings of these aspects are presented in Table 5.11.

Table 5.11 Aspects of user interface dimension: screen design

· One of times s	nd t	Nurse	es de (n=4		ed	Nu	rses	not o		yed	Pei			ther t (n=6)	han
Aspect of dimension evaluated	1 gra	2	3	4	5	1	2	3	4	5	1	2	3	4	5
The screen is not cluttered with too much text	eni age	bac nex	to t	1	3	cho	DE C	l for	t an	4	olar ust	Thi oo f	1	2	3
The colour of the text provides for good visibility	s 55/16	1	ol er	etu.	3	by t	e u	ers		4				3	3
More visual material		Yes		N	0		Yes		No)		Yes		No)
should be added	90	3		1		SUTT	3	y j D	1	ris is	STILL	3		3	

All four the expert evaluators indicated that the general principles of screen design were adhered to. The ratings of this dimension are presented in Table 5.12.

Table 5.12 Expert interface rating: screen design

Dimensions of		E	per	t 1			E	cper	t 2			E	per	t 3			E	per	t 4	
user interface		1 2 2 4 5 1						per	12			10	(per	1.3			ь		4	
user leverface	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Screen design		2	3	Х	6	1	8	á	Х	5	1	2	3	Х	В		2	3.	Х	

The experts commented on the following:

• The principles of screen design are generally adhered to and no major violations thereof could be found. The use of an appropriate background adds to the impact on the user. The background illustrates that elements of art and invention are present. Appropriate use is made of text, visual material and colour.

- One of the experts indicated that the background appeared disturbing at times and that green was not a good choice of colour for the headings.
- The program is in general visually very stimulating, especially the transparent background, the choice of font and colour. The text on the index page next to the "Field hospital" heading is just too faint to be balanced with the rest of the text.

The following aspects were not evaluated by the users.

5.3.1.7 <u>Dimension of user interface: simplicity and consistency</u>

Four experts evaluated the program. Three of the experts rated the program as consistent and predictable. One of the experts rated the program as somewhat inconsistent and unpredictable.

The findings, after analysing the expert rating forms, are presented in Table 5.13.

Table 5.13 Dimension of user interface: simplicity and consistency

Dimensions of user interface		E	cper	t 1			Ex	cper	t 2			Ex	cper	t 3			E	cper	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Simplicity and consistency			Х							Х					Х					Х

The following comments were made:

- Photos are not consistent. Most of the photos can be "clicked" on to enlarge except four photos which are "roll over" images. This confuses and frustrates the user because the photos could not be enlarged.
- Information regarding the photos on how to enlarge them is not repeated on the enlarged photos to let the user know how to get them to the original size.

5.3.1.8 <u>Dimension of user interface: metaphor or theme for the program</u>

Three of the four experts who evaluated the program found the theme of the program appropriate. One of the expert evaluators found the metaphor/theme somewhat inappropriate. The findings of the expert ratings are presented in Table 5.14.

Table 5.14 Expert interface rating: metaphor or theme for the program

Dimensions of user interface		E	cper	t 1	the	or y	Ex	cper	t 2			Ex	per	t 3			Ex	per	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metaphor or	191	OI	(BC	UV	2															
theme for the					X			X							Х				X	
program		010	allu	2 T	as l	ed	lo:		hel	DY	he.	n) TC	an i	nn	100	591			TI	

Following are the comments of the expert evaluators:

- The theme provided with the background is very applicable to the program's content.
- The logo of the SAMHS could be used as a metaphor.

5.3.1.9 <u>Dimension of user interface: media integration</u>

All four experts who evaluated the program found the media integration dimension coordinated.

The findings of the expert ratings are presented in Table 5.15.

Table 5.15 Expert interface rating: media integration

Dimensions of user interface	ls.	Ex	cper	t 1	tha	ha	E	cper	t 2	ed	101	Ex	per	t 3			Ex	per	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Media integration					Х	i n	SE	in the	X						Х			ici		Х

The following comment was made:

The media integration is coordinated. At a later stage when the program is extended, other types of media (sound, video) could be included to enhance the program. The photographs were absolutely necessary to make the information relevant to the target group. The program would not be able to function equally without them.

5.3.2 Design objective 2

The second design objective that had to be met by the program in order for the main research question to be answered, is the following:

Simulate the deployment of the field hospital.

To determine if this objective had been met, the experts had to evaluate the program according to the **information presentation** dimension of user interface, while the users had to rate certain **aspects** of the user interface dimensions as set out in Table 4.1.

Following are the results of this dimension and the aspects of the dimension that had to be rated in order to determine if design objective 2 had been achieved.

5.3.2.1 <u>Dimension of user interface: information presentation (simulation)</u>

The aspects of this dimension that had to be rated were:

- The simulation of the field hospital deployment provides for sufficient user involvement to make experience meaningful.
- The opportunity to simulate the deployment of the field hospital gives me sufficient information to be able to apply this information during the planning and deployment phases of military operations.

Users

Twelve of the users indicated that the simulation of the field hospital deployment provided for sufficient user involvement to make the experience meaningful.

Twelve of the fourteen users indicated that the opportunity to simulate the deployment of the field hospital gave them sufficient information to be able to apply this information during the planning and deployment phases of military operations.

The ratings of these aspects are presented in Table 5.16.

Table 5.16 Aspects of user interface dimension: information presentation (simulation)

research question to	1	Nurse	es de (n=4	5 (52	ed	Nu	rses	not o	deplo	yed	Pei			ther t	
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
The simulation of the field hospital deployment provides for sufficient user involvement to make				2	2			1	2	1			1	2	3
the experience meaningful.	ma	lie i Iton	pre	berr Verv	etio	the hal	C App	sris Nga	nad plu	lo e	/aiu rterf	ate 1	he p	rogi a yii	2.
The opportunity to simulate the deployment of the field hospital gives me	aun	3.5 p	octs	ol t	le u	er i	iter	108	lim	rigis	inds a	5 54		Ιφ	ab
sufficient information to be able to apply this information during the planning and		erne	3	1	ige ige	ob,e	chv	ST	2	2	e di	eve	2	3	1
deployment phases of military operations.				JEO.				Siki	0.03						<

Comments regarding the simulation of the field hospital were (when requested to make suggestions on how to improve the program) were:

- Develop the simulation section further to incorporate different scenarios and the other military health team's functions.
- Label tents the same as the containers are labelled.

The comments made by the experts are set out on page 107.

5.3.3 Design objective 3

The third design objective that had to be met by the program in order for the main research question to be answered, is the following:

Provide **information** to prepare the military nurse for functioning during **military operations**.

To evaluate if this objective had been met, the experts had to evaluate the program according to the **information presentation** dimension of user interface, while the users had to rate certain **aspects** of the user interface dimensions as set out in Table 4.1.

Following are the results of this dimension and the aspects of the dimension that had to be rated in order to determine if design objective 3 had been achieved.

5.3.3.1 <u>Dimension of user interface: information presentation</u>

The aspects of this dimension that had to be rated were:

- I will be able to use what I learned in this program.
- The content is sufficient to prepare me for functioning during military operations.
- The content covered in the program should be reduced.
- The content covered in the program should be increased.

The users were also asked to recommend:

Improvements to the program;

and

indicate the most valuable aspect of this program.

The findings are the following:

Users

- Thirteen users indicated that they will be able to use what they learned
 in this program. One of the users (other than nurses) was not sure if he
 would be able to use the information.
- Only two of the four nurses that had been deployed indicated that the
 content was sufficient to prepare them for functioning during military
 operations. Four of the nurses that had never deployed before indicated
 that the content was sufficient. Three of the users (other than nurses)
 indicated that the information was sufficient.
- None of the fourteen users wanted the content covered in the program to be reduced.
- All of the users wanted the content covered in the program to be increased

The ratings of these aspects are presented in Table 5.17.

Table 5.17 Aspects of user interface dimension: information presentation

Prophisions of user intertice	Est	Nurse	es de (n=4		ed	Nu	irses	not o	deplo	yed	Pe	rsoni nur		ther t (n=6)	
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
I will be able to use what I learned in this program	leri	an t	j e k	1	3				2	2			1	3	2
The content is sufficient to prepare me for functioning during military operations)nn tice	1	1	2	illov		e Brigor	due	3	1	lly i	nde	3	3	es age
The content covered	iran:	Yes	pre	No	0	the	Yes	gren	No)	ngb	Yes	ple	N)
in the program should be reduced		0	-01 -01	4		Flat	0		4			0		4);
The content covered	rno.	Yes	G L	No	0	lat	Yes	90.11	No)	716	Yes		No)
in the program should be increased	y a	4	SIGN	0			4		0			4		0	

All four the expert evaluators indicated that the information presentation is very clear.

The ratings of this dimension are presented in Table 5.18.

Table 5.18 Expert interface rating: information presentation

Dimensions of user interface		E	cper	t 1	her	166	Ex	cper	t 2	me		Ex	cper	t 3	d th	188	E	cper	t 4	ore
visu	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Information presentation	8 C	nert mer	rel.	exi on:	X	ned gu	with the	el I Vi-	is :	X	on ter		buk The	be y n	X	lo m	dy. Ric	one se	lma Ing	Х

The experts commented on the following:

- The information presentation is very clear and easily understood even to a novice.
- The information presented in the program is comprehensible and clear.
 Users would be able to learn from this program. The inclusion of the
 SOFAS (Status of Forces Agreement) and the ROE (Rules of
 Engagement) is critical information because this is not presently
 generally accessible.
- The information made available is easy to comprehend (user-friendly language).
- The simulation of the field hospital provides valuable information that will orientate the nurse in preparation for a military operation.

Suggested improvements to the program

The question on how to improve the program resulted in the following responses:

 Four of the nurses that had deployed previously wanted more content to be added and two nurses wanted more visual material to be added.

- All four of the nurses that had not deployed previously wanted more content and more photographs to be added.
- Four of the six other users wanted more content and three wanted more visual material to be added. Only three of the users that recommended more content, explained what the content should be and only one made recommendations about the visual material. They recommended the content to be added according their own fields of interest.

Only one of the above mentioned users who wanted more visual material to be added made any recommendations. The additional content they recommended to be included, is presented in Table 5.19.

Table 5.19 Recommendations regarding content to be included in the program

Nurses deployed previously (N=4)	Nurses not deployed previously (N=4)	Other users (N=6)
More visual material.	More visual material.	Map to indicate the location of the SADC countries.
Personal requirements.	Personal requirements.	Interaction between medical post and field hospital
Checklists for the equipment and supplies needed.	ion that can be put into prec	Content of scales, equipment and supplies required by different sections
Guidelines on how to do an appreciation of the expected number of casualties/patients and the planning of equipment and supplies accordingly.	Control and command during military operations.	
Guidelines for the utilisation of other facilities (infrastructure needed) instead of tents.	Functions of each nurse (standing operational procedures).	Simulation section developed further - different scenarios. Label tents.
Exact (fine) details on how to deploy each containerised unit plus checklists of each.	a will be able to recognise the	e best nospsa

The most valuable about the program

The users were asked to list the most valuable aspects of the program. Following is a summary of these comments made by evaluators of the different groups.

Nurses deployed

The information that is compiled in one document with photographs that enables a person to see what is discussed.
 Currently no such document exists.

- Layout of the field hospital.
- The program's suitability to orientate nurses that have never deployed before.
- The program provides essential information as preparation for a military exercise which can then be put into practice.

Nurses not deployed

- Information that can be put into practice on how to deploy a field hospital.
- Everything.
- Few people get the opportunity to see the field hospital deployed before being called up for a military operation and know the different vehicles involved. This program provides information that can be used to prepare the nurse for the operation. At least, the nurse will be able to recognise the vehicles and familiarise herself with the layout and units of the field hospital.
- The information about the field hospital and the simulation thereof.

Other military personnel

- The simulation section.
- The layout of the field hospital and the corresponding information.

- Everything.
- The explanation of the field hospital concept.
- The photographs of the different components of the field hospital.
- This program can be extensively used to orientate especially nurses and to familiarise them with the organisation and layout of the field hospital on a decentralised base. Cost and time away from work can therefore be reduced for the SAMHS.

All four the expert evaluators indicated that the information presentation is very clear.

5.3.4 Design objective 4

The fourth objective that had to be met by the program in order for the main research question to be answered, is the following:

Create/keep attention.

To evaluate if this object had been met, the users had to rate the following aspects:

- This program caught and held my attention.
- I enjoyed using this program.

The findings were the following:

Users

Thirteen of the fourteen users indicated that the program caught and held their attention. One user (other than a nurse) indicated that he was a little bored.

All fourteen of the users indicated that they enjoyed the program (even the bored one).

The ratings of these aspects are presented in Table 5.20.

Table 5.20 Create/keep attention

A sile crap' b	1	Nurse	es de (n=4		ed	Nu	rses	not o		yed	Per		nel of ses (ther t n=6)	han
Aspect of dimension evaluated	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
This program caught and held my attention	103	k' b	icto rely:	1	3	18 6	spe	oizig	lhoy	4	rie i	ceó	1	1	4
I enjoyed using this program	he	md s In	ed in	1	3	F. B	en	ntay		4	1235	ITG S	tou	2	4

5.3.4.1 <u>Dimension of user interface: ease of use</u>

According to Reeves & Harmon (1994), this dimension may be highly correlated with how well users enjoy using a specific program. Not liking an interactive program that is intended to be highly motivating is a major problem. All four experts who evaluated the program found the program very easy to use.

The findings after analysing the expert rating forms is presented in Table 5.21.

Table 5.21 Expert interface rating: ease of use

ndici H tw	E	cper	t 1	na p mo	nog Tva	E	cper	t 2		era era	Ex	per	t 3		ety	E	cper	t 4	
1	2	3	4	5	1	2	3	4	5	1.	2	3	4	5	1	2	3	4	5
1507	riei	ge	th	Х	po.	un	ty.i	Х	r pr	m	16		Х	0)	era	lor	T		Х
	1 SOT	1 2	two of th	1 2 3 4	1 2 3 4 5	1 2 3 4 5 1	1 2 3 4 5 1 2	1 2 3 4 5 1 2 3	1 2 3 4 5 1 2 3 4	1 2 3 4 5 1 2 3 4 5	1 2 3 4 5 1 2 3 4 5 1	1 2 3 4 5 1 2 3 4 5 1 2	1 2 3 4 5 1 2 3 4 5 1 2 3	1 2 3 4 5 1 2 3 4 5 1 2 3 4	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4

The experts commented on the following:

- The program designer succeeded to make the program very easy to use.
- To 'double click' on the enlarged photographs to take it back to the original size would make it easier than using the 'back' button.
- "A 'site map' button on every page to take the user immediately back to the site map would make the use of the program easier. To 'double click' on the enlarged photographs to take it back to the original size would make it easier than using the 'back' button".
- The program is extremely easy to use especially for experienced users of the Internet. With the limited instructions, even inexperienced users should have no difficulty in using the program.

5.3.5 Overall functionality of the program

In order to determine if the program would also be suited for groups other than nurses within the military, the users had to indicate on the questionnaire if the program would be applicable to target groups other than nurses. They were requested to motivate their answers. The responses are set out below.

5.3.5.1 <u>Nurses deployed</u>

All four nurses indicated that the program might be applicable to target groups other than nurses. Only two of them motivated their answers:

- Not all personnel get the opportunity to be part of a military operation. The program can be used to at least show the personnel what they can expect and to prepare them.
- The information presented in the program is not exclusively for nurses. Every person in the Military Health Service should be familiar with the field hospital and the main medical equipment.

5.3.5.2 <u>Nurses never deployed</u>

All four nurses indicated that the program might be applicable to other target groups as well as to nurses. Their motivation were:

- Nurses function as part of a multi-professional team and the program might therefore be applicable to the other team members as well.
- The program gives insight into the sections (main medical equipment) where other professionals than nurses function. This provides for the completion of the whole picture.
- "Everybody that is part of a military operation".

5.3.5.3 Other military personnel

All six users indicated that the program will be suitable for other target groups. Each made the suggestions according to his/her own interest field.

- The medical support officer (operational interest) indicated that if the simulation section is further developed to accommodate different scenarios, it will be more applicable to operational personnel.
- Medical support officer (instructor): "No other information is available in one document or presentation to train personnel than this program".
- The personnel officer (operational Interest) suggested that to make it more applicable, the complete Medical Battalion Group and Medical Health Task Group concept must be included to incorporate other interest groups and not only the certain areas where nurses might be utilised.
- The language practitioner indicated that the program might be applicable for every person in the health environment that might be called up to take part in military operations.
- Pharmacist/logistic officer "This program can be used by members of all musterings within the SAMHS who are not familiar with the field hospital either during conventional or peace operations. It is a very good effort to try and bridge the gap that presently exists with regards to training in the SAMHS".

5.3.5.4 Experts

All four expert evaluators rated the program as functional.

The ratings of these aspects are presented in Table 5.22.

Table 5.22 Expert interface rating: overall functionality

Dimensions of user interface		E	cper	t 1			Ex	cper	t 2			E	per	t 3			E	cper	t 4	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Overall functionality					X-				Х					X						Х

The expert evaluators comments are summarised as follows:

The program is highly functional for the intended use of the program and can be used for other target groups as well.