

---

## Appendix 1: E-mail to participants

---

Dear Respondent

I kindly request you to spend a few minutes in reading the attached letter.

Your participation in this survey is crucial for me to obtain a sample as large as possible for my PhD study. Please assist me by completing the questionnaire. It will only take a few minutes.

It would be highly appreciated if you could send the questionnaire to me by 31 March 2004.

Please note: if you merely reply on this message I will receive an empty questionnaire. It is therefore important for you to save this file onto your hard drive for the following reasons:

1. To ensure that the data is saved.
2. To complete the questionnaire in your own time, which means you do not have to be on-line whilst completing the questionnaire. You can complete it, connect to the Internet and merely attach the file called "SC Survey".

I am going to give you a step-by-step process to follow to ensure that you save the data correctly:

1. As you click on the attachment, the computer will prompt you with the following message:  
What do you want to do with this file? "Open it" or "Save it to disk"
2. Click on the "Save it to disk" option.
3. Then click OK
4. The computer will now prompt you with a window called "Save as".
5. You need to select a directory where you would like to save this document.
6. At the top of this window, there is a line stating "Save in".
7. Next to this line there is a drop down list.
8. From this drop down list please select the directory called "My documents".
9. At the top of this window where it states "Save in" the word "My documents" must now appear next to the line stating "Save in".
10. At the bottom of the same window there is a space called "File name". Please make sure that the name that appear in this box next to the line stating "File name" indicates the file name "SC Survey".
11. If this is the case, click on "Save".
12. If this is not the case please name the file "SC Survey" and then press "Save".
13. The document is now saved in the "My documents" directory on your hard drive with the file name "SC Survey".
14. Please go to the "My documents" directory and open the file named "SC Survey"
15. Please start completing the questionnaire.
16. Carefully follow the steps in the questionnaire to ensure that you have saved all your answers.
17. Close the document.
18. Please send me an e-mail and attach the file named "SC Survey" from your "My documents" directory.

I will now receive a completed questionnaire.

Thank you once again for your willingness to participate in this project.

Kind regards  
Elsabé Conradie  
Director: Marketing and Communication (Acting)  
University of Pretoria  
Lynnwood Road  
Pretoria, 0002  
Tel +27 12 420 2211  
Fax +27 12 420 2262  
Cell +27 82 908 4289



University of Pretoria

Pretoria 0002 Republic of South Africa  
Tel (012) 420-4111  
<http://www.up.ac.za>

Department of Marketing and Communication

3 January 2004

Dear Respondent

RE: SCIENCE COMMUNICATION AT HIGHER EDUCATION INSTITUTIONS

Attached to this letter is a questionnaire developed as part of my Doctoral degree in Communication Management. The title of my thesis is "The role of the communication specialist in science communication at higher education institutions: A South African study".

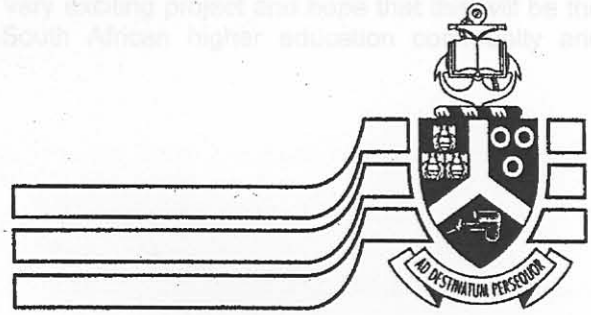
I hereby request that you take time to complete this questionnaire. I know that you, being an executive member/academic/communication specialist/journalist will have a prevailing idea of how important science communication is and specifically the role of the communication specialist at higher education institutions. It is thus of paramount importance that, in answering this questionnaire, you provide your opinion on the importance of science communication and the role of the communication specialist within your institution. Please ensure that you answer ALL the questions in the questionnaire. Your participation in this research project is of great importance in order to obtain the status of science communication in South Africa.

You are kindly requested to complete the questionnaire electronically, and to send it back to me. Please ensure that you follow the step-by-step process as indicated in the questionnaire. This will eliminate any possible problems. If you are uncertain about anything please do not hesitate to contact me via e-mail on [elsabe.conradie@up.ac.za](mailto:elsabe.conradie@up.ac.za), or tel (012) 420 2211, cell 082 908 4289.

---

## Appendix 2: Cover letter (e-mail) to participants

---



University of Pretoria

Pretoria 0002 Republic of South Africa  
Tel (012) 420-4111  
<http://www.up.ac.za>

Department of Marketing and Communication

3 January 2004

Dear Respondent

RE: SCIENCE COMMUNICATION AT HIGHER EDUCATION INSTITUTIONS

Attached to this letter is a questionnaire developed as part of my Doctoral degree in Communication Management. The title of my thesis is: "*The role of the communication specialist in science communication at higher education institutions: A South African study*".

I hereby request that you take time to complete this questionnaire. I know that you, being a **executive member/scientist/communication specialist/journalist** will have a prevailing idea of how important science communication is and specifically the role of the communication specialist at higher education institutions. It is thus of paramount importance that, in answering this questionnaire, you provide your opinion on the importance of science communication and the role of the communication specialist within your institution. Please ensure that you answer ALL the questions in the questionnaire. Your participation in this research project is of great importance in order to obtain the status of science communication in South Africa.

You are kindly requested to complete the questionnaire electronically, and to send it back to me. Please ensure that you follow the step-by-step process as indicated in the questionnaire. This will eliminate any possible problems. If you are uncertain about anything please do not hesitate to contact me via e-mail on: [elsabe.conradie@up.ac.za](mailto:elsabe.conradie@up.ac.za), or tel (012) 420 2211, cell 082 908 4289.

It would be highly appreciated if you could complete this questionnaire as soon as possible and return it to the abovementioned e-mail address, no later 31 March 2004.

I thank you for your willingness to participate in this very exciting project and hope that this will be the start of many lasting relationships amongst the South African higher education community and journalists.

Yours sincerely

Elsabé Conradie  
Director: Marketing and Communication (Acting)

**Step 1:**

Click on the file and save as button to save under 'my documents' to ensure that you have saved this document as "SC Survey" in your directory.

**Step 2:**

Please read the following section to ensure that you understand the examples:

In each of the statements in the section below, please use the scale 1-Strongly disagree and 5-Strongly agree, to indicate your answer. Please mark your answer with an 'X' in the appropriate box.

**FOR EXAMPLE:**

Our institution regards science communication as:	Please mark your answer with an 'X' in the appropriate box				
	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree
1. a high priority	1	2 X	3	4	5
2. effective in our institution	1	2	3	4 X	5

PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.

**Step 3:**

Section A consists of 7 questions. Please answer each question by following the instructions provided below.

## Appendix 3: Questionnaire in MS Word format to executive management

### SCIENCE COMMUNICATION AT HIGHER EDUCATION INSTITUTIONS IN SOUTH AFRICA

The questionnaire will follow a step-by-step process. Please follow the steps very carefully to ensure that all the data is captured.

**Step 1:**

Click on the file and save as button to save under 'my documents' to ensure that you have saved this document as "SC Survey" in your directory.

**Step 2:**

Please read the following section to ensure that you understand the example.

In each of the statements in the section below, please use the scale 1=Strongly disagree and 5=Strongly agree, to indicate your answer. Please mark your answer with an 'X' in the appropriate box.

**FOR EXAMPLE:**

Please mark your answer with an 'X' in the appropriate box.

Our institution regards science communication as:	Please mark your answer with an 'X' in the appropriate box.				
	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree
1.. a high priority.	1	2 X	3	4	5
2.. effective in our institution.	1	2	3	4 X	5

PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.

**Step 3:**

Section A consists of 7 questions. Please answer each question by following the instructions provided below.

## Section A: Importance of science communication

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements:

1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion ...

In my opinion ...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use		
						V0		1-3
1... science communication at our institution is regarded as a high priority.	1	2	3	4	5	V1		4
2... greater understanding of science among non-scientific publics result in less opposition to scientific research.	1	2	3	4	5	V2		5
3... scientists have a duty to communicate their research to the general public.	1	2	3	4	5	V3		6
4... new science discoveries should be communicated to all stakeholders of higher education institutions.	1	2	3	4	5	V4		7
5... social implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V5		8
6... ethical implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V6		9
7. This institution has a science discovery centre.	1	2	3	4	5	V7		10

### Step 4:

Click on the save button to ensure that your answers are saved.

### Step 5:

Section B consists of 7 questions. Please answer each question by following the instructions provided below.

**Section B: Relationship between the key role players**

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

**A relationship between key role players in science communication is important in our institution, therefore ...**

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly	For office use		
						V8		11
8... we as executive management has <i>trust</i> in communication specialists to communicate science related issues with the media.	1	2	3	4	5	V8		11
9... we as executive management <i>empower</i> communication specialists to communicate science related issues with the media.	1	2	3	4	5	V9		12
10... there is a relationship of trust between executive management and <i>communication specialists</i> at this institution.	1	2	3	4	5	V10		13
11... there is a relationship of trust between executive management and <i>scientists</i> at this institution.	1	2	3	4	5	V11		14
12... there is a relationship of trust between executive management at this institution and <i>journalists</i> .	1	2	3	4	5	V12		15
13... a relationship of trust between role players will add to a greater understanding of science by stakeholders.	1	2	3	4	5	V13		16
14... a relationship of trust between the key role players will result in stakeholders trusting information received from this institution.	1	2	3	4	5	V14		17

**Step 6:**

**Click on the save button to ensure that your answers are saved.**

**Step 7:**

**Section C consists of 17 questions. Please answer each question by following the instructions provided below.**

### Section C: The role of communication specialists in science communication

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion the current role of communication specialists in this institution is to ...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V15		18	
15... make a strategic contribution regarding communicating with stakeholders.	1	2	3	4	5	V15		18	
16... influence key strategic decisions of executive management in communicating science to stakeholders.	1	2	3	4	5	V16		19	
17... get the institution's name into the media, specifically regarding science performed at the institution.	1	2	3	4	5	V17		20	
18... use their journalistic skills to establish what the media will consider newsworthy about the institution.	1	2	3	4	5	V18		21	
19... facilitate mutual understanding between the key role players of science communication.	1	2	3	4	5	V19		22	
20... ensure that scientists communicate their science through communication specialists to stakeholders.	1	2	3	4	5	V20		23	
21... assist scientists in communicating their research to stakeholders of higher education institutions.	1	2	3	4	5	V21		24	
22... play a vital role in ensuring a relationship of trust develops between key role players of science communication.	1	2	3	4	5	V22		25	
23... ensure that our institution follows a two-way flow of information in communicating with stakeholders, to enable stakeholders to provide feedback where applicable.	1	2	3	4	5	V23		26	
24... not only obtain favourable publicity, but also to prevent unfavourable publicity in the media.	1	2	3	4	5	V24		27	
25... inform executive management of societal values/norms so that they can adjust institutional decisions/strategies accordingly.	1	2	3	4	5	V25		28	
26... do surveys before starting a science communication plan to find out how well management and our stakeholders understand each other.	1	2	3	4	5	V26		29	
27... disseminate accurate information, but not to volunteer unfavourable information.	1	2	3	4	5	V27		30	
28... influence executive management decisions to ensure that this institution is	1	2	3	4	5	V28		31	



regarded by society as being 'trustworthy'.								
29...develop mutual understanding between our management and the stakeholders that the institution affects.	1	2	3	4	5	V29	32	
30...be a neutral disseminator of information rather than a mediator that connects management to stakeholders.	1	2	3	4	5	V30	33	
31... act as an advocate for key internal publics by explaining their views to executive management.	1	2	3	4	5	V31	34	

**Step 8:**

**Click on the save button to ensure that your answers are saved.**

**Section D: Demographic information**

Please answer the following questions by marking an "X" in the appropriate box.

32. Gender:

Male	
Female	

33. Please indicate your language preference:

English	
Afrikaans	

34. Do you speak any other South African language?

Yes	
No	

35. If your institution has a course in science writing/journalism, please provide the name of the degree/diploma/subject:

36. Please provide the name/s of the tertiary institutions, that you are aware of, that offer science writing/journalism education/training.

For office use		
V32		35
V33		36
V34		37
V35		38
V35		39
V36		40

37. Please indicate the name of the institution of which you are an employee.

UCT	US	RAU	UP	For office use		
UNISA	PUCH / UNW	WITS	KZN	V37		41
UWC	MEDUNSA	UNO	UFH			
UFS	UPE	RU	UT			
UV	UZ	CAPE TECH	VAAL TECN			
DIT	TNG	TNW	PE T			
TUT	ECT	TFS	MT			
TSA	PENT	TWR	OTHER			

**Step 12:**

Click on the save button to ensure that your answers are saved.

**Step 13:**

Close this document. When sending this questionnaire to my e-mail address: [elsabe.conradie@up.ac.za](mailto:elsabe.conradie@up.ac.za) please ensure that you have attached the file "SC Survey" to the e-mail.

**THANK YOU FOR YOUR PARTICIPATION!**

## Appendix 4: Questionnaire in MS Word format to scientists

### SCIENCE COMMUNICATION AT HIGHER EDUCATION INSTITUTIONS IN SOUTH AFRICA

The questionnaire will follow a step-by-step process. Please follow the steps very carefully to ensure that all the data is captured.

#### **Step 1:**

Click on the file button and save as to save under 'my documents' to ensure that you have saved this document as "SC Survey" in your directory.

#### **Step 2:**

Please read the following section to ensure that you understand the example.

In each of the statements in the section below, please use the scale 1=Strongly disagree and 5=Strongly agree, to indicate your answer. Please mark your answer with an 'X' in the appropriate box.

#### **FOR EXAMPLE:**

Our institution regards science communication as:	Please mark your answer with an 'X' in the appropriate box.				
	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree
1. a high priority.	1	2 X	3	4	5
2. effective in our institution.	1	2	3	4 X	5

PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.

#### **Step 3:**

Section A consists of 16 questions. Please answer each question by following the instructions provided below.

**Section A: Importance of science communication**

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

**In my opinion science communication at our institution is ...**

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V0	<input type="text"/>	<input type="text"/>	1-3
1... regarded as a high priority.	1	2	3	4	5	V1		4	
2... important because we participate in science <b>exhibitions</b> .	1	2	3	4	5	V2		5	
3... important because we participate in <b>National Science, Engineering and Technology Weeks</b> .	1	2	3	4	5	V3		6	
4... important because we participate in <b>mobile centres</b> .	1	2	3	4	5	V4		7	
5... important because we participate in <b>SASOL Scifest</b> .	1	2	3	4	5	V5		8	
6... important because we participate in <b>SASOL Techno X</b> .	1	2	3	4	5	V6		9	
7... important because we have our own science discovery centre.	1	2	3	4	5	V7		10	
8... important because our scientists participate in talk shows at schools.	1	2	3	4	5	V8		11	
9... important because our scientists talk to journalists to promote science.	1	2	3	4	5	V9		12	
10... important because our scientists write news releases to promote science.	1	2	3	4	5	V10		13	
11... important because our scientists participate in open days organised by our institution.	1	2	3	4	5	V11		14	
<b>In my opinion ...</b>									
12... greater understanding of science among non-scientific publics result in less opposition to scientific research.	1	2	3	4	5	V12		15	
13... scientists have a duty to communicate their research to the general public.	1	2	3	4	5	V13		16	
14... new science discoveries should be communicated to all stakeholders of higher education institutions.	1	2	3	4	5	V14		17	

15... <b>social</b> implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V15		18	
16... <b>ethical</b> implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V16		19	

**Step 4:**

Click on the save button to ensure that your answers are saved.

**Step 5:**

Section B consists of 7 questions. Please answer each question by following the instructions provided below.

### Section B: Relationship

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

A relationship between key role players in science communication is important in our institution, therefore...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V			
17... there is a relationship of trust between scientists and <i>executive management</i> at our institution.	1	2	3	4	5	V17		20	
18... there is a relationship of trust between scientists and <i>communication specialists</i> at our institution.	1	2	3	4	5	V18		21	
19... there is a relationship of trust between scientists at our institution and <i>journalists</i> .	1	2	3	4	5	V19		22	
20... a relationship of trust between the role players will add to a greater understanding of science by stakeholders.	1	2	3	4	5	V20		23	
21... a relationship of trust between the role players will result in stakeholders trusting information received from our institution.	1	2	3	4	5	V21		24	
<b>In my opinion ....</b>	1	2	3	4	5				
22... scientists at our institution have had contact with the media more than 3 times during last year.	1	2	3	4	5	V22		25	
23... the media has contacted our institution more than 3 times during last year to obtain science information.	1	2	3	4	5	V23		26	

**Step 6:**

Click on the save button to ensure that your answers are saved.

**Step 7:**

Section C consists of 17 questions. Please answer each question by following the instructions provided below.

**Section C: The role of communication specialists in science communication**

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements:

1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree

In my opinion the current role of communication specialists in our institution is to...

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
24... facilitate mutual understanding between the key role players of science communication.	1	2	3	4	5	V24		27	
25... ensure that scientists communicate their science through communication specialists to stakeholders.	1	2	3	4	5	V25		28	
26... assist scientists in communicating their research to stakeholders of higher education institutions.	1	2	3	4	5	V26		29	
27... play a vital role in ensuring a relationship of trust develops between key role players of science communication.	1	2	3	4	5	V27		30	

**Step 8:**

Click on the save button to ensure that your answers are saved.

**Step 9:**

Section D consists of 11 questions. Please answer each question by following the instructions provided below.

PLEASE CONTINUE ON NEXT PAGE...

### Section D: Training

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion...

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V28			31
28... scientists at our institution are equipped to communicate science directly to stakeholders.	1	2	3	4	5	V28			31
29... a basic course in science writing is not a requirement to communicate science to various stakeholders.	1	2	3	4	5	V29			32

#### Step 10:

Click on the save button to ensure that your answers are saved.

#### Step 11:

Section E consists of 3 questions. Please answer each question by following the instructions provided below.

### Section E: Media

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion ...

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V30			33
30... scientists prefer to communicate directly with journalists.	1	2	3	4	5	V30			33
31... scientists provide enough information to communication specialists to distribute to the media.	1	2	3	4	5	V31			34
32... journalists have a good knowledge about science when interviewing scientists.	1	2	3	4	5	V32			35
33... the media sensationalises science.	1	2	3	4	5	V33			36

**PLEASE CONTINUE ON NEXT PAGE...**

**Section F: Demographic information**

Please answer the following questions by marking an "X" in the appropriate box.

34. Gender:

Male	
Female	

35. In which year were you born? Please provide your answer in a four-digit format (e.g. 1965).

\_\_\_\_\_

36. Please indicate your language preference:

English	
Afrikaans	

37. Do you speak any other South African language?

Yes	
No	

38. Please indicate your highest tertiary education level

Certificate	
Diploma	
Degree	
Honours	
Masters	
Doctorate	
Other	

39. Please indicate if you have received any science writing training. If your answer is YES, please continue with questions 40, 41 and 42. If your answer is NO, please continue with question 43.

Yes	
No	

For office use		
V34		37
V35		38-42
V36		43
V37		44
V38		45
V39		46



40. Where did you receive your science writing training?

Locally	
Internationally	
Both	

Please specify the town and country:

41. What type of science writing training did you receive?

Formal (e.g. University, Technikon)	
Informal (e.g. PR Association)	
Both	

Please specify the institution:

42. Please indicate the highest level of **science writing (journalism) training** that you have received.

As an undergraduate subject	
As a degree in journalism	
As a post graduate subject	
As a post graduate degree in science journalism	
As a diploma course in science journalism	
As a certificate course in science journalism	
As a short course in science writing (e.g. a few days)	

43. If your institution has a course in science writing/journalism, please provide the name of the degree/diploma/subject:

44. Please provide the name/s of the tertiary institutions, that you are aware of, that offer science writing/journalism education/training.

For office use		
V40		47
V41		48
V42		48
V43		49

45. Please indicate the name of the institution of which you are an employee.

UCT	US	RAU	UP	For office use		
UNISA	PUCH / UNW	WITS	KZN	V45		76
UWC	MEDUNSA	UNO	UFH			
UFS	UPE	RU	UT			
UV	UZ	CAPE TECH				
DIT	TNG	TNW	PE T			
TUT	ECT	TFS	MT			
TSA	PENT	TWR				
VAAL TECH	OTHER					

**Step 12:**

Click on the save button to ensure that your answers are saved.

**Step 13:**

Please answer the following section. If you choose not to complete this section, you can still submit your completed questionnaire without this information.

**OPTIONAL INFORMATION: PARTICULARS OF RESPONDENTS**

May I please have the following personal information? This information will only be used if I might want to follow-up with you on some of your answers.

Name:

E-mail:

Telephone number:

Employer:

Current position:

**Step 14:**

Click on the save button to ensure that your answers are saved.

**Step 15:**

Close this document. When sending this questionnaire to my e-mail address: [elsabe.conradie@up.ac.za](mailto:elsabe.conradie@up.ac.za) please ensure that you have attached the file "SC Survey" to the e-mail.

**THANK YOU FOR YOUR PARTICIPATION!**

FOR EXAMPLE:

Please mark your answer with an X in the appropriate box.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. a high priority	1	2 X	3	4	5
2. effective in our institution	1	2	3	4 X	5

PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.

**Step 1:**

Section A consists of 15 questions. Please answer each question by following the instructions provided below.

## Appendix 5: Questionnaire in MS Word format to communication specialists

### SCIENCE COMMUNICATION AT HIGHER EDUCATION INSTITUTIONS IN SOUTH AFRICA

The questionnaire will follow a step-by-step process. Please follow the steps very carefully to ensure that all the data is captured.

#### Step 1:

Click on the file button and save as to save under 'my documents' to ensure that you have saved this document as "SC Survey" in your directory.

#### Step 2:

Please read the following section to ensure that you understand the example.

In each of the statements in the section below, please use the scale 1=Strongly disagree and 5=Strongly agree, to indicate your answer. Please mark your answer with an 'X' in the appropriate box.

#### FOR EXAMPLE:

Our institution regards science communication as:	Please mark your answer with an 'X' in the appropriate box.				
	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree
1. a high priority.	1	2 X	3	4	5
2. effective in our institution.	1	2	3	4 X	5

PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.

#### Step 3:

Section A consists of 16 questions. Please answer each question by following the instructions provided below.

**Section A: Importance of science communication**

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion science communication at our institution is ...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V0	<input type="text"/>	<input type="text"/>	1-3
1... regarded as a high priority.	1	2	3	4	5	V1		4	
2... important because we participate in science <b>exhibitions</b> .	1	2	3	4	5	V2		5	
3... important because we participate in <b>National Science, Engineering and Technology Weeks</b> .	1	2	3	4	5	V3		6	
4... important because we participate in <b>mobile centres</b> .	1	2	3	4	5	V4		7	
5... important because we participate in <b>SASOL Scifest</b> .	1	2	3	4	5	V5		8	
6... important because we participate in <b>SASOL Techno X</b> .	1	2	3	4	5	V6		9	
7... important because we have our own science discovery centre.	1	2	3	4	5	V7		10	
8... important because our scientists participate in talk shows at schools.	1	2	3	4	5	V8		11	
9... important because our scientists talk to journalists to promote science.	1	2	3	4	5	V9		12	
10... important because our scientists write news releases to promote science.	1	2	3	4	5	V10		13	
11... important because our scientists participate in open days organised by our institution.	1	2	3	4	5	V11		14	
<b>In my opinion ...</b>									
12... greater understanding of science among non-scientific publics result in less opposition to scientific research.	1	2	3	4	5	V12		15	
13... scientists have a duty to communicate their research to the general public.	1	2	3	4	5	V13		16	
14... new science discoveries should be communicated to all stakeholders of higher education institutions.	1	2	3	4	5	V14		17	

15... <b>social</b> implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V15	18
16... <b>ethical</b> implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V16	19

**Step 4:**

Click on the save button to ensure that your answers are saved.

**Step 5:**

Section B consists of 11 questions. Please answer each question by following the instructions provided below.

### Section B: Relationship

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements:

1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

A relationship between key role players in science communication is important in our institution, therefore...	Strongly disagree	Disagree	Neutral (Neither disagree)	Agree	Strongly agree	For office use		
						V		
17... our executive management has trust in communication specialists to communicate science related issues with the media.	1	2	3	4	5	V17	20	
18... our executive management empower communication specialists to communicate science related issues with the media.	1	2	3	4	5	V18	21	
19... there is a relationship of trust between communication specialists and <i>executive management</i> at our institution.	1	2	3	4	5	V19	22	
20... there is a relationship of trust between communication specialists and <i>scientists</i> at our institution.	1	2	3	4	5	V20	23	
21... there is a relationship of trust between communication specialists at our institution and <i>journalists</i> .	1	2	3	4	5	V21	24	
22... there is collaboration between communication specialists at our institution and communication specialists of other higher education institutions.	1	2	3	4	5	V22	25	
23... a relationship of trust between the role players will add to a greater understanding of science by stakeholders.	1	2	3	4	5	V23	26	
24... a relationship of trust between the role players will result in stakeholders trusting information received from our institution.	1	2	3	4	5	V24	27	

In my opinion....									
25... journalists do not regard news releases received from communication specialists at higher education institutions as being important.	1	2	3	4	5	V25		28	
26... journalists are sceptical of science information received from communication specialists.	1	2	3	4	5	V26		29	
27... communication specialists at our institution have had contact with the media more than 3 times during last year.	1	2	3	4	5	V27		30	

**Step 6:**

Click on the save button to ensure that your answers are saved.

**Step 7:**

Section C consists of 17 questions. Please answer each question by following the instructions provided below.

**Section C: The role of communication specialists in science communication**

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements:

1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree

**The current role of communication specialists in our institution is to...**

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
28... make a strategic contribution regarding communicating with stakeholders.	1	2	3	4	5	V28		31	
29... influence key strategic decisions of executive management in communicating science to stakeholders.	1	2	3	4	5	V29		32	
30... get the institution's name into the media, specifically regarding science performed at the institution.	1	2	3	4	5	V30		33	
31... use their journalistic skills to establish what the media will consider newsworthy about the institution.	1	2	3	4	5	V31		34	
32... facilitate mutual understanding between the key role players of science communication.	1	2	3	4	5	V32		35	
33... ensure that scientists communicate their science through communication specialists to stakeholders.	1	2	3		5	V33		36	

34... assist scientists in communicating their research to stakeholders of higher education institutions.	1	2	3	4	5	V34	37
35... play a vital role in ensuring a relationship of trust develops between key role players of science communication.	1	2	3	4	5	V35	38
36... ensure that our institution follows a two-way flow of information in communicating with stakeholders, to enable stakeholders to provide feedback where applicable.	1	2	3	4	5	V36	39
37... not only obtain favourable publicity, but also to prevent unfavourable publicity in the media.	1	2	3	4	5	V37	40
38... inform executive management of societal values/norms so that they can adjust institutional decisions/strategies accordingly.	1	2	3	4	5	V38	41
39... do surveys before starting a science communication plan to find out how well management and our stakeholders understand each other.	1	2	3	4	5	V39	42
40... disseminate accurate information, but not to volunteer unfavourable information.	1	2	3	4	5	V40	43
41... influence executive management decisions to ensure that our institution is regarded by society as being 'trustworthy'.	1	2	3	4	5	V41	44
42... develop mutual understanding between our management and the stakeholders that the institution affects.	1	2	3	4	5	V42	45
43... be a neutral disseminator of information rather than a mediator that connects management to stakeholders.	1	2	3	4	5	V43	46
44... act as an advocate for key internal publics by explaining their views to executive management.	1	2	3	4	5	V44	47

**Step 8:**

Click on the save button to ensure that your answers are saved.

**Step 9:**

Section D consists of 11 questions. Please answer each question by following the instructions provided below.



### Section D: Training

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion...

In my opinion...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use		
45...communication specialists at our institution received basic training in science writing to communicate science.	1	2	3	4	5	V45		48
46... a basic course in science writing is not a requirement to communicate science to various stakeholders.	1	2	3	4	5	V46		49
47... our institution offers a course in Science Journalism.	1	2	3	4	5	V47		50
48... scientists prefer to communicate directly with journalists.	1	2	3	4	5	V48		51
49... scientists provide enough information to communication specialists to distribute to the media.	1	2	3	4	5	V49		52
50... journalists have a good knowledge about science when interviewing scientists.	1	2	3	4	5	V50		53
51... the general coverage of science in the national newspapers is efficient.	1	2	3	4	5	V51		54
52... the general coverage of science in the local newspapers is efficient.	1	2	3	4	5	V52		55
53... the general coverage of science in magazines is efficient.	1	2	3	4	5	V53		56
54... the general coverage of science on the radio is efficient.	1	2	3	4	5	V54		57
55... the general coverage of science on TV is efficient.	1	2	3	4	5	V55		58

#### **Step 10:**

Click on the save button to ensure that your answers are saved.

#### **Step 11:**

Section E consists of 3 questions. Please answer each question by following the instructions provided below.

**Section E: Media**

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use		
56. Our institution is satisfied with the amount of coverage of science in the media.	1	2	3	4	5	V56		59
57. Science articles do not sell newspapers.	1	2	3	4	5	V57		60
58. The media sensationalises science.	1	2	3	4	5	V58		61

**Section F: Demographic information**

Please answer the following questions by marking an "X" in the appropriate box.

59. Gender:

Male	
Female	

60. In which year were you born? Please provide your answer in a four-digit format (e.g. 1965).

\_\_\_\_\_

61. Please indicate your language preference:

English	
Afrikaans	

62. Do you speak any other South African language?

Yes	
No	

63. Please indicate your highest tertiary education level

Certificate	
Diploma	
Degree	
Honours	
Masters	
Doctorate	
Other	

64. Is your qualification related to public relations?

Yes	
No	

65. Please indicate if you have received any science writing training. If your answer is YES, please continue with questions 66, 67 and 68. If your answer is NO, please continue with question 69.

Yes	
No	

For office use		
V59		62
V60		63-66
V61		67
V62		68
V63		69
V64		70
V65		71

66. Where did you receive your science writing training?

Locally	
Internationally	
Both	

Please specify the town and country:

---

67. What type of science writing training did you receive?

Formal (e.g. University, Technikon)	
Informal (e.g. PR Association)	
Both	

Please specify the institution:

---

68. Please indicate the highest level of **science writing (journalism) training** that you have received.

As an undergraduate subject	
As a degree in journalism	
As a post graduate subject	
As a post graduate degree in science journalism	
As a diploma course in science journalism	
As a certificate course in science journalism	
As a short course in science writing (e.g. a few days)	

69. If your institution has a course in science writing/journalism, please provide the name of the degree/diploma/subject:

---

70. Please provide the name/s of the tertiary institutions, that you are aware of, that offer science writing/journalism education/training.

---

For office use		
V66		72
V67		73
V68		74
V69		75

71. Please indicate the name of the institution of which you are an employee.

UCT	US	RAU	UP	For office use		
UNISA	PUCH / UNW	WITS	KZN	V71		76
UWC	MEDUNSA	UNO	UFH			
UFS	UPE	RU	UT			
UV	UZ	CAPE TECH				
DIT	TNG	TNW	PE T			
TUT	ECT	TFS	MT			
TSA	PENT	TWR				
VAAL TECH	OTHER					

72. Please provide the number of communication specialists at your institution.

--	--

For office use		
V72		76-77

73. How many of the communication specialists at your institution are involved in science weeks, exhibitions, etc?

--	--

For office use		
V73		78-79

**Step 12:**

Click on the save button to ensure that your answers are saved.

**Step 13:**

Please answer the following section. If you choose not to complete this section, you can still submit your completed questionnaire without this information.

**OPTIONAL INFORMATION: PARTICULARS OF RESPONDENTS**

May I please have the following personal information? This information will only be used if I might want to follow-up with you on some of your answers.

Name:

E-mail:

Telephone number:

Employer:

Current position:

**Step 14:**

Click on the save button to ensure that your answers are saved.

**Step 15:**

Close this document. When sending this questionnaire to my e-mail address: [elsabe.conradie@up.ac.za](mailto:elsabe.conradie@up.ac.za) please ensure that you have attached the file "SC Survey" to the e-mail.

**THANK YOU FOR YOUR PARTICIPATION!**

Our institution regards science communication as ...

Strongly disagree

Disagree

Neutral (neither disagree nor agree)

Agree

Strongly agree

1 ... a high priority.

1

2

3

4

5

2 ... effective in our institution.

1

2

3

4

5

PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.

**Step 1:**

Section A consists of 5 questions. Please answer each question by following the instructions provided below.

## Appendix 6: Questionnaire in MS Word format to journalists

### SCIENCE COMMUNICATION AT HIGHER EDUCATION INSTITUTIONS IN SOUTH AFRICA

The questionnaire will follow a step-by-step process. Please follow the steps very carefully to ensure that all the data is captured.

#### **Step 1:**

Click on the file button and save us to save under 'my documents' to ensure that you have saved this document as "SC Survey" in your directory.

#### **Step 2:**

Please read the following section to ensure that you understand the example.

In each of the statements in the section below, please use the scale 1=Strongly disagree and 5=Strongly agree, to indicate your answer. Please mark your answer with an 'X' in the appropriate box.

#### **FOR EXAMPLE:**

Our institution regards science communication as ...	Please mark your answer with an 'X' in the appropriate box.				
	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree
1... a high priority.	1	2 X	3	4	5
2... effective in our institution.	1	2	3	4 X	5

**PLEASE NOTE FOR THE PURPOSE OF THIS RESEARCH, COMMUNICATION SPECIALIST INCLUDES PUBLIC RELATION OFFICERS, LIAISON OFFICERS, MARKETING STAFF.**

#### **Step 3:**

Section A consists of 6 questions. Please answer each question by following the instructions provided below.

### Section A: Importance of science communication

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion ....

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V0			1-3
1... science communication is regarded as a high priority.	1	2	3	4	5	V1		4	
2... greater understanding of science among non-scientific publics result in less opposition to scientific research.	1	2	3	4	5	V2		5	
3... scientists have a duty to communicate their research to the general public.	1	2	3	4	5	V3		6	
4... new science discoveries should be communicated to all stakeholders of higher education institutions.	1	2	3	4	5	V4		7	
5... <b>social</b> implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V5		8	
6... <b>ethical</b> implications of science prohibit scientists to communicate their research to non-scientists.	1	2	3	4	5	V6		9	

**Step 4:**

Click on the save button to ensure that your answers are saved.

**Step 5:**

Section B consists of 6 questions. Please answer each question by following the instructions provided below.



## Section B: Relationship

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

**A relationship between key role players in science communication is important in Higher Education Institutions (HEI), therefore...**

	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use			
						V			
7... there is a relationship of trust between journalists and <i>executive management</i> of HEI.	1	2	3	4	5	V7		10	
8... there is a relationship of trust between journalists and <i>scientists</i> at HEI.	1	2	3	4	5	V8		11	
9... there is a relationship of trust between journalists and <i>communication specialists</i> at HEI.	1	2	3	4	5	V9		12	
<b>In my opinion...</b>									
10... journalists do not regard news releases received from communication specialists at HEI as being important.	1	2	3	4	5	V10		13	
11... journalists are sceptical of science information received from communication specialists.	1	2	3	4	5	V11		14	
12... the media has contacted HEI more than 3 times during last year to obtain science information.	1	2	3	4	5	V12		15	

### Step 6:

Click on the save button to ensure that your answers are saved.

### Step 7:

Section C consists of 2 questions. Please answer each question by following the instructions provided below.

### Section C: Training

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion...

In my opinion...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use		
13... journalists in South Africa received basic training in science writing to be able to write science articles.	1	2	3	4	5	V13		16
14... a basic course in science writing is not a requirement to communicate science to various stakeholders.	1	2	3	4	5	V14		17

PLEASE CONTINUE ON THE NEXT PAGE.

#### Step 8:

Click on the save button to ensure that your answers are saved.

#### Step 9:

Section D consists of 6 questions. Please answer each question by following the instructions provided below.

### Section D: The media

Use the following scale to indicate the **extent of your disagreement or agreement** with the statements: 1=Strongly disagree, 2=Disagree, 3=Neutral (Neither disagree nor agree), 4=Agree, 5=Strongly agree. Please mark with an "X".

In my opinion...

In my opinion...	Strongly disagree	Disagree	Neutral (Neither disagree nor agree)	Agree	Strongly agree	For office use		
15... scientists prefer to communicate directly with journalists.	1	2	3	4	5	V15		18
16... journalists have a good knowledge about science when interviewing scientists.	1	2	3	4	5	V16		19
17... the general coverage of science in the <b>national newspapers</b> is efficient.	1	2	3	4	5	V17		20
18... the general coverage of science in the <b>local newspapers</b> is efficient.	1	2	3	4	5	V18		21

19... the general coverage of science in <b>magazines</b> is efficient.	1	2	3	4	5	V19		22
20... the general coverage of science on the <b>radio</b> is efficient.	1	2	3	4	5	V20		23
21... the general coverage of science on <b>TV</b> is efficient.	1	2	3	4	5	V21		24
22... science articles do not sell newspapers.	1	2	3	4	5	V22		25
23... the media sensationalises science.	1	2	3	4	5	V23		26

**Step 10:**

Click on the save button to ensure that your answers are saved.

**PLEASE CONTINUE ON THE NEXT PAGE:**

27. Please indicate your highest tertiary education level:

Certificate	
Diploma	
Degree	
Honours	
Master's	
Doctorate	<input checked="" type="checkbox"/>
Other ..	

28. Is your qualification related to public relations?

Yes	
No	<input checked="" type="checkbox"/>

29. Please indicate if you have received any science writing training. If your answer is YES, please continue with questions 30, 31 and 32. If your answer is NO, please continue with question 33.

Yes	
No	<input checked="" type="checkbox"/>

**Section F: Demographic information**

Please answer the following questions by marking an "X" in the appropriate box.

24. Gender:

Male	
Female	

25. Please indicate your language preference:

English	
Afrikaans	

26. Do you speak any other South African language?

Yes	
No	

27. Please indicate your highest tertiary education level

Certificate	
Diploma	
Degree	
Honours	
Masters	
Doctorate	
Other	

28. Is your qualification related to public relations?

Yes	
No	

29. Please indicate if you have received any science writing training. If your answer is YES, please continue with questions 30, 31 and 32. If your answer is NO, please continue with question 33.

Yes	
No	

For office use		
V24		27
V25		28
V26		29
V27		30
V28		31
V29		32

30. Where did you receive your science writing training?

Locally	
Internationally	
Both	

Please specify the town and country:

\_\_\_\_\_

31. What type of science writing training did you receive?

Formal (e.g. University, Technikon)	
Informal (e.g. PR Association)	
Both	

Please specify the institution:

\_\_\_\_\_

32. Please indicate the highest level of **science writing (journalism) training** that you have received.

As an undergraduate subject	
As a degree in journalism	
As a post graduate subject	
As a post graduate degree in science journalism	
As a diploma course in science journalism	
As a certificate course in science journalism	
As a short course in science writing (e.g. a few days)	

33. Please provide the name/s of the tertiary institutions, that you are aware of, that offer science writing/journalism education/training.

\_\_\_\_\_

For office use		
V30		33
V31		34
V32		35
V33		36

THANK YOU FOR YOUR PARTICIPATION!

34. Please indicate the name of the newspaper / magazine of which you are an employee.

BEELD	PTA NEWS	STAR	BURGER	For office use		
ARGUS	NATAL MERCURY	SOWETAN	MAIL & GUARDIAN	V34		37
SUNDAY TIMES	RAPPORT	VOLKSBLAD	HUISGENOOT			
FINANCIAL MAIL	FINANSIES & TEGNIK	THIS DAY				

**Step 11:**

Click on the save button to ensure that your answers are saved.

**Step 12:**

Please answer the following section. If you choose not to complete this section, you can still submit your completed questionnaire without this information.

**OPTIONAL INFORMATION: PARTICULARS OF RESPONDENTS**

May I please have the following personal information? This information will only be used if I might want to follow-up with you on some of your answers.

Name:

E-mail:

Telephone number:

Employer:

Current position:

**Step 13:**

Click on the save button to ensure that your answers are saved.

**Step 14:**

Close this document. When sending this questionnaire to my e-mail address: [elsabe.conradie@up.ac.za](mailto:elsabe.conradie@up.ac.za) please ensure that you have attached the file "SC Survey" to the e-mail.

**THANK YOU FOR YOUR PARTICIPATION!**

---

## Appendix 7: Coding used in the content analysis

---





