

# APPENDIXES

**APPENDIX A: REQUEST FOR PERMISSION TO OBTAIN RECORDS OF  
COCHLEAR IMPLANT RECIPIENTS**

Prof. J. Swart  
Pretoria Cochlear Implant Team  
Ear-Nose and Throat Department  
Pretoria Academic Hospital  
June 2003

Dear Prof. Swart

**RE: REQUEST FOR PERMISSION TO OBTAIN RECORDS OF COCHLEAR  
IMPLANT RECIPIENTS**

I am a Master's student in the Department of Communication Pathology at the University of Pretoria. I am currently conducting a research project on the use of telephones by individuals fitted with a cochlear implant.

Telephone usage is one of the most vital imperatives of contemporary modern day life. Hearing impaired people though, experience varying degrees of difficulty in using telephones as a verbal communication medium. My research will be aimed at determining which type of telephone best enables Individuals fitted with a cochlear implant to verbally communicate effectively via a landline or mobile telephone.

The research methodology comprises of various sentences, which will be verbally communicated via the telephone to a volunteer group of individuals fitted with a cochlear implant, using the different telephones in order to determine which device provides the individual with the best speech perception score.

In order to conduct my research project, I shall need to obtain relevant information from the records of recipients implanted. I respectfully request that these records made available for me in order to obtain relevant information and contact the prospective participants. Kindly inform me of your decision at your earliest convenience.

I would be happy to share the results of my research with you at the conclusion of the project.

Should you require more information, please feel free to contact me at +27 84 529 7464.

Yours sincerely

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Louise Hönck  
M. Communication Pathology

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Mrs. N Venter  
Supervisor

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Prof: B.Louw:  
Head of the Department of Communication Pathology  
University of Pretoria

\*Permission granted/not granted

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Prof J Swart  
Ear-Nose and Throat Department  
Pretoria Academic Hospital

## **APPENDIX B: BRIEF OM DEELNAME IN NAVORSINGS STUDIE**

10 Junie 2003

Geagte Mnr/Me.

Ek is tans 'n Meesters student in Kommunikasie Patologie by die Universiteit van Pretoria. 'n Voorvereiste vir die graad is om 'n navorsingsprojek uit te voer. Ek het besluit om my navorsing te doen oor die gebruik van verskeie telefoon apparate by persone met 'n kogleêre inplanting.

Die hoofdoel van die studie is om te bepaal watter landlyn en/of sellulêre telefoon die gebruiker van 'n kogleêre inplanting die beste instaat stel om die telefoon vir kommunikasie doeleindes aan te wend. Deelnemers in hierdie projek sal 'n waardevolle bydrae lewer tot die begrip en verbetering van telekommunikasie vir persone met kogleêre inplantings.

Die projek sal aktiewe deelname vereis, deurdat die proefpersone na sinne met verskillende telefone tydens verskillende omstandighede, oor 'n tydperk van twee ure moet luister op dieselfde dag. Besonderhede t.o.v. plek, dag, datum en tyd sal weldra aan diegene wat hul bereidwillig verklaar het om deel te neem, gekommunikeer word.

Dit is belangrik om daarop te let dat alhoewel resultate van die studie gepubliseer mag word in vakkundige joernale, of aangebied mag word tydens professionele konferensies, die identiteit van deelnemers deurentyd streng vertroulik gehou sal word. Deelnemers het verder ook die reg om te eniger tyd, van die studie te onttrek.

Moontlike deelnemers moet aan beide die volgende kriteria voldoen:

Persoon gebruik steeds die kogleêre inplanting aktief EN

Persoon kan effektief oor 'n land- en/of sellulêre telefoonlyn kommunikeer.

As u aan beide van die bogenoemde kriteria voldoen sal ek dit hoog op prys stel indien u dit sal oorweeg om my van hulp te wees met my navorsing, deur uself bereid te verklaar om deel te neem aan die studie.

Voltooi asseblief die aangehegte vorm op die volgende bladsy en stuur dit aan my terug by [louisehonckslp@yahoo.com](mailto:louisehonckslp@yahoo.com) voor 30 Junie 2003 asseblief.

Indien u enige vrae het of van die resultate verwittig wil word na afloop van die studie, is u welkom om die navorser te kontak, Louise Hönck by +27 84 529 7464.

Byvoorbaat dank

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Louise Hönck

M. Kommunikasiepatologie

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Mev. N Venter

Studieleier

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Prof.: B. Louw

Hoof van die Departement Kommunikasiepatologie

Universiteit van Pretoria

ANTWOORD OP DEELNAME AAN NAVORSINGSPROJEK

Ek \_\_\_\_\_ is bereid/nie bereid nie om deel te neem in genoemde Kogleêre Inplanting navorsingsprojek. Ek verstaan die doel, prosedure, my regte en rol in die studie.

Ek kan gekontak word by die volgende telefoon nommer (s)

(w) \_\_\_\_\_

(h) \_\_\_\_\_ (S) \_\_\_\_\_

\_\_\_\_\_  
HANDTEKENING

\_\_\_\_\_  
DATUM

N.S. Maak asseblief gebruik van die epos adres: [louisehonckslp@yahoo.com](mailto:louisehonckslp@yahoo.com).

## **APPENDIX B: REQUEST TO PARTICIPATE IN RESEARCH STUDY**

10 June 2003

Dear Sir or Madam:

I am currently a Master's student in Communication Pathology at the University of Pretoria. A pre-requisite for the degree is to conduct a research project. I have chosen to do research regarding the use of various telephones by individuals fitted with a cochlear implants.

The main aim of the study is to determine which landline and /or mobile/cellular telephones best enable the user of cochlear implants to make optimum use for communication. Participants in this research project will be making a valuable contribution to the understanding and improvement of telecommunication for persons with cochlear implants.

The project will require active participation, through the means of listening to open-set sentences with various telephones under different circumstances over a two-hour period on the same day. Precise venue, dates and times will be communicated to respondents willing to take part in the project in due course.

It is important to note that although results of this study may be published in professional journals or presented at professional conferences, the identity of participants will be kept strictly confidential. They will have a right to withdraw from further participation in this study at any time, and no questions will be asked.

Prospective participants will be those who satisfy the following two criteria:

individuals still actively using their cochlear implants, AND  
individuals who can effectively communicate via a landline an/or mobile/cellular telephone.

If you happen to fall into the above two categories, I would be extremely grateful if you would consider assisting me in my research by volunteering to participate in the project.

Please complete the reply form on the next page and email it back to me before the 30 June 2003. My email address: [louisehonckslp@yahoo.com](mailto:louisehonckslp@yahoo.com)

If you have any questions or concerns or would like to be informed about the outcome of the study you are welcome to contact the researcher Louise Hönck at +27 84 529 7464.

Thank you in anticipation of your valued participation.

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Louise Hönck  
M. Communication Pathology

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Mrs. N Venter  
Supervisor

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Prof. B. Louw  
Head of the Department of Communication Pathology  
University of Pretoria



REPLY TO PARTICIPATE IN RESEARCH STUDY

I \_\_\_\_\_ am willing/not willing to participate in your Cochlear Implant research project. I understand the purpose, procedure, my rights and my role in this study.

I can be contacted at the following telephone number (s):

(w) \_\_\_\_\_

(h) \_\_\_\_\_ (c) \_\_\_\_\_

\_\_\_\_\_  
SIGNITUARE/NAME

\_\_\_\_\_  
DATE

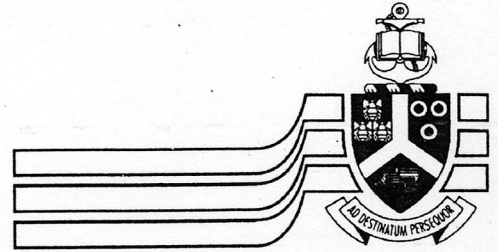
P.S. Please email this back to me before 30 June 2003 at  
louisehonckslp@yahoo.com

**APPENDIX C : APPROVAL OF APPROPRIATE ETHICAL  
PROCEDURES**

Our Ref: Ms P Woest / 9900875  
Tel: 012 420 2736  
Fax: 012 420 2698  
E-mail: petru.woest@up.ac.za

28 June 2004

Ms L Honck  
23 Homestead Park  
Bailey Street  
Farrarmere  
**BENONI**  
1501



University of Pretoria

Pretoria 0002 Republic of South Africa Tel 012-420-4111  
Fax 012-420-2698 <http://www.up.ac.za>

Faculty of Humanities

Dear Ms Honck

**TITLE REGISTRATION: FIELD OF STUDY – M COMMUNICATION PATHOLOGY**

I have pleasure in informing you that the following has been approved:

**Title of dissertation/essay: The use of various telephones by individuals fitted with a cochlear implant**

**Director of studies: Ms N Venter**

**Co-director of studies: Dr ME Soer**

I would like to draw your attention to the following:

**1. ENROLMENT PERIOD**

- (i) You must be enrolled as a student for at least one academic year before submission of your dissertation/essay.
- (ii) Your enrolment as a student must be renewed annually before 31 March, until you have complied with all the requirements for the degree. You will only be able to have supervision if you provide a proof of registration to your supervisor.

**2. APPROVAL FOR SUBMISSION**

On completion of your dissertation/essay enough copies for each examiner as well as the prescribed examination enrolment form which includes a statement by your director of studies that he/she approves of the submission of your dissertation/essay, as well as a statement, signed by you in the presence of a Commissioner of Oaths, must be submitted to the Faculty Administration.

**3. INSTRUCTIONS REGARDING THE PREPARATION OF THE DISSERTATION/ESSAY AND THE SUMMARY APPEARS ON THE REVERSE SIDE OF THIS LETTER.**

Yours sincerely

for **DEAN: FACULTY OF HUMANITIES**

**APPENDIX D: LIST OF SENTENCES FOR EACH TELEPHONE AND VOICE-TYPE**

**Speech discrimination with the cochlear implant only**

**Voice type 1: Familiar voice**

1. Do you have change for a five-rand note? (6)
2. Don't let the dog out of the house! (5)
3. How come I should always be the one to go first? (7)

(18)

**Voice type 2: Unfamiliar male voice**

1. Don't forget to pay your bill before the first of the month. (7)
2. Put that biscuit back in the box! (5)
3. Wait for me at the corner in front of the chemist. (6)

(18)

**Voice type 3: Unfamiliar female voice**

1. Why don't they paint their walls some other colour? (7)
2. They're not listed in the new phone book, (6)
3. This suit needs to go to the cleaners (5)

(18)

## Speech discrimination with the use of different telephones

### Telephone 1

#### Telephone 1 Voice-type 1: Familiar voice

1 Walking's my favourite exercise. (4)

2 Did you forget to turn off the water? (5)

3 How do you feel about changing the time when we begin work? (9)

(18)

#### Telephone 1 Voice-type 2: Unfamiliar male's voice

1 Everybody should brush his teeth after meals. (4)

2 Fathers spend more time with their children than they used to. (7)

3 Phone her mother and tell her the news. (7)

(18)

#### Telephone 1 Voice-type 3: Unfamiliar female voice

1 Do you want to wash up? (4)

2 Let's get out of here before it's too late. (7)

3 It sure takes a sharp knife to cut this meat. (7)

(18)

**Telephone 2**

**Telephone 2 Voice-type 1: Familiar voice**

1. If your tooth hurts that much you ought to see a dentist. (9)
2. The water's too cold for swimming. (4)
3. Do you have change for a five-rand note? (5)

(18)

**Telephone 2 Voice-type 2: Unfamiliar male voice**

1. People ought to see a doctor once a year. (6)
2. Fishing in a mountain stream is my idea of a good time. (6)
3. We live a few miles from the main road. (6)

(18)

**Telephone 2 Voice-type 3: Unfamiliar female voice**

1. Pass the bread and butter please! (4)
2. I haven't read a newspaper since we bought a television set. (7)
3. I'd like some ice cream with my pudding. (7)

(18)

**Telephone 3**

**Telephone 3 Voice-type 1: Familiar voice**

1. Don't try to get out of it this time! (8)
2. This suit needs to go to the cleaners. (5)
3. I'll see you right after lunch. (5)

(18)

**Telephone 3 Voice-type 2: Unfamiliar Male voice**

1. My brother's here for a short while on business (5)
2. Stand there and don't move until I tell you! (7)
3. Wait for me at the corner in front of the chemist. (6)

(18)

**Telephone 3 Voice-type 3: Unfamiliar female voice**

1. There's a big piece of cake left over from dinner. (7)
2. They're not listed in the new phone book. (6)
3. I'll catch up with you later. (5)

(18)

**Telephone 4**

**Telephone 4 Voice-type 1: Familiar Voice**

1. Put that biscuit back in the box! (5)
2. Where can I find a place to park? (6)
3. It's a really dark night so watch your driving. (7)

(18)

**Telephone 4 Voice-type 2: Unfamiliar male voice**

1. It would be much easier if everyone would help (5)
2. There isn't enough paint to finish the room. (6)
3. Why don't they paint their walls some other colour? (7)

(18)

**Telephone 4 Voice-type 3: Unfamiliar female voice**

1. How come I should always be the one to go first? (7)
2. Be careful not to break your glasses! (5)
3. Our cleaner sweeps the floors every night. (6)



(18)

**Telephone 5**

**Telephone 5 Voice-type 1: Familiar voice**

1. Come here when I call you! (5)
2. Why should I get up so early in the morning? (7)
3. There's not enough room in the kitchen for a new table. (6)

(18)

**Telephone 5 Voice-type 2: Unfamiliar male voice**

1. If we don't get rain soon, we'll have no grass. (6)
2. I don't want to go to the movies tonight.. (6)
3. I like those big red apples we always get in the autumn. (6)

(18)

**Telephone 5 Voice-type 3: Unfamiliar female voice**

1. I don't know what's wrong with the car, but it won't start. (6)
2. Do you have change for a five-rand note? (6)
3. You can catch the bus across the street. (6)

## APPENDIX D: LYS VAN SINNE VIR ELKE TELEFOON EN STEM TIPE

### Spraak diskriminasie met kogleêre inplanting alleen

#### Stem tipe 1: Bekende stem

1. Ek neem suiker en melk in my koffie (6)
  2. Die water is te koud om in te swem (5)
  3. Daardie vensters is so vuil dat ek niks buite kan sien nie (7)
- (18)

#### Stem tipe 2: Onbekende mansstem

1. Staan daar en moenie beweeg voordat ek so sê nie (7)
  2. Waar was jy die hele tyd?
  3. Ek sal hou van room by my appeltert (6)
- (18)

#### Stem tipe 3: Onbekende vroue stem

1. As jy nie hierdie tydskrifte wil hê nie, moet jy hulle weggooi (7)
  2. Ons moet hier uitkom voordat dit te laat is (6)
  3. Ek gaan stap graag vir oefening (5)
- (18)

## Spraakdiskriminasie met gebruik van verskillende telefone

### Telefoon 1

#### Telefoon 1 Stemtipe 1: Bekende stem

1 Die skoonmaker vee elke dag die vloere (4)

2 Waar was jy die hele tyd? (5)

3 Ek hou van die groot rooi appels wat ons altyd in die herfs kry. (9)

(18)

#### Telefoon 1 Stemtipe 2: Onbekende manstem

1 Bel my 'n bietjie later. (4)

2 Dink jy sy moet so laat buite speel? (7)

3 Daardie vensters is so vuil dat ek niks buite kan sien nie. (7)

(18)

#### Telefoon 1 Stemtipe 3: Onbekende vroue stem

1 Wil jy 'n eier hê vir ontbyt. (4)

2 Wag vir my op die hoek voor die apteek. (7)

3 Moenie al die papier gebruik wanneer jy jou brief skryf nie. (7)

(18)

## **Telefoon 2**

### **Telefoon 2 Stemtipe 1: Bekende stem**

1. Dink jy ons behoort die tyd wat ons begin werk te verander? (9)
2. Gee asseblief die brood en botter aan! (4)
3. Ek sal die pakkie vir jou dra. (5)

(18)

### **Telefoon 2 Stemtipe 2: Onbekende manstem**

1. Daar's nie genoeg plek in die kombuis vir 'n nuwe tafel nie. (6)
2. Wit skoene is baie moeilik om skoon te hou. (6)
3. Ek neem suiker en melk in my koffie. (6)

(18)

### **Telefoon 2 Stemtipe 3: Onbekende vroue stem**

1. Gee asseblief die brood en botter aan! (4)
2. Moenie vergeet om jou rekening voor die eerste van die maand te betaal nie. (7)
3. Staan daar en moenie beweeg voordat ek so sê nie. (7)

(18)

**Telefoon 3**

**Telefoon 3 Stemtipe 1: Bekende stem**

1. My broer is 'n tyd lank hier in die stad vir sake. (8)
2. Ek gaan stap graag vir oefening. (5)
3. Ek sien jou net na middagete. (5)

(18)

**Telefoon 3 Stemtipe 2: Onbekende manstem**

1. Hulle nommer is nie in die telefoongids nie. (5)
2. As  jy nie hierdie tydskrifte wil hê nie, moet jy hulle weggooi. (7)
3. Ek hou nie daarvan om in die nag te bestuur nie. (6)

(18)

**Telefoon 3 Stemtipe 3: Onbekende vroue stem**

1. Ek lees nooit meer koerant vandat ons 'n televisiestel gekoop het nie.(7)
2. Moenie weer probeer om daarmee weg te kom nie! (6)
3. Die water is te koud om in te swem. (5)

(18)

**Telefoon 4**

**Telefoon 4 Stemtipe 1: Bekende stem**

1. Dis regtig donker vanaand, ry dus versigtig. (5)
2. Ons bly 'n paar kilometer van die hoofpad af. (6)
3. 'n Mens behoort een maal per jaar 'n dokter te besoek. (7)

(18)

**Telefoon 4 Stemtipe 2: Onbekende manstem**

1. Kom ons drink 'n koppie koffie. (5)
2. Sy sal net 'n paar minute weg wees. (6)
3. Moenie vergeet om jou rekening voor die eerste van die maand te betaal nie. (7)

(18)

**Telefoon 4 Stemtipe 3: Onbekende vroue stem**

1. Ek weet nie wat verkeerd is met die motor nie, maar hy wil nie vat nie. (7)
2. Daar's nie genoeg verf om die kamer klaar te maak nie. (5)
3. Waarom verf hulle nie hulle mure 'n ander kleur nie? (6)

(18)

**Telefoon 5**

**Telefoon 5 Stemtipe 1: Bekende stem**

1. Musiek laat my altyd beter voel. (5)
2. Daar's 'n groot stuk koek oor na die ete. (7)
3. Ek sal hou van room by my appeltert. (6)

(18)

**Telefoon 5 Stemtipe 2: Onbekende manstem**

1. Jy het 'n skerp mes nodig om hierdie vleis te sny. (6)
2. Ons moet hier uitkom voordat dit te laat is. (6)
3. Maak jou venster oop voor jy gaan slaap. (6)

(18)

**Telefoon 5 Stemtipe 3: Onbekende vroue stem**

1. Waarom moet ek tog altyd eerste gaan? (6)
2. Wees versigtig om nie jou bril te breek nie. (6)
3. Visvang in 'n bergstroom is my idee van plesier. (6)

**APPENDIX E : PHONETICALLY BALANCED SPONDEE WORD  
LIST USED BY THE UNIVERSITY OF PRETORIA**



S P O N D A I C                      W O R D S

- |     |            |            |            |            |
|-----|------------|------------|------------|------------|
| 1.  | airplane   | birthday   | workshop   | iceberg    |
| 2.  | armchair   | drawbridge | whitewash  | hothouse   |
| 3.  | baseball   | grandson   | sunset     | inkwell    |
| 4.  | birthday   | horseshoe  | sidewalk   | hotdog     |
| 5.  | cowboy     | inkwell    | railroad   | mousetrap  |
| 6.  | daybreak   | oatmeal    | pancake    | horseshoe  |
| 7.  | doormat    | railroad   | oatmeal    | mushroom   |
| 8.  | drawbridge | sunset     | mushroom   | headlight  |
| 9.  | duckpond   | workshop   | inkwell    | northwest  |
| 10. | eardrum    | airplane   | hothouse   | armchair   |
| 11. | farewell   | baseball   | horseshoe  | oatmeal    |
| 12. | grandson   | doormat    | hardware   | greyhound  |
| 13. | greyhound  | farewell   | grandson   | padlock    |
| 14. | hardware   | headlight  | eardrum    | grandson   |
| 15. | headlight  | iceberg    | drawbridge | pancake    |
| 16. | horseshoe  | northwest  | daybreak   | farewell   |
| 17. | hotdog     | playground | birthday   | playground |
| 18. | hothouse   | stairway   | armchair   | eardrum    |
| 19. | iceberg    | woodwork   | toothbrush | railroad   |
| 20. | inkwell    | armchair   | woodwork   | duckpond   |
| 21. | mousetrap  | daybreak   | stairway   | schoolboy  |
| 22. | mushroom   | eardrum    | schoolboy  | drawbridge |
| 23. | northwest  | hardware   | playground | sidewalk   |
| 24. | oatmeal    | hothouse   | padlock    | doormat    |
| 25. | padlock    | mushroom   | northwest  | stairway   |
| 26. | pancake    | mousetrap  | daybreak   | sunset     |
| 27. | playground | sidewalk   | iceberg    | pancake    |
| 28. | railroad   | whitewash  | hotdog     | cowboy     |
| 29. | schoolboy  | cowboy     | headlight  | toothbrush |
| 30. | sidewalk   | duckpond   | greyhound  | birthday   |
| 31. | stairway   | greyhound  | farewell   | whitewash  |
| 32. | sunset     | hotdog     | duckpond   | baseball   |
| 33. | toothbrush | mousetrap  | doormat    | woodwork   |
| 34. | whitewash  | oatmeal    | cowboy     | armchair   |
| 35. | woodwork   | schoolboy  | baseball   | workshop   |
| 36. | workshop   | toothbrush | airplan    | iceberg    |

EAR	PURE TONE T.	SPEECH RECEPT T.
Right		
Left		



## AFRIKAANSE SPONDEE WOORDELYS

handsak	beesvleis
yskas	voetbal
slaaibak	bloedrooi
huisvrou	handskoen
spierwit	goudgeel
laaikas	roomys
reënboog	roosboom
sitplek	seilskip
grasgroen	laaikas
voordeur	reënboog
kleingeld	sitplek
leesboek	grasgroen
speelgoed	beesvleis
sonskyn	vliegtuig
roomys	koekblik
roosboom	sonskyn
seilskip	speelgoed
yskoud	leesboek
rusbank	kleingeld
boomstam	voordeur

	S T D	S O D
L		
R		

**APPENDIX F: EXAMPLE OF LETTER OF REQUEST TO LOAN DEVICE**

The Managing Director  
Acoustimed Hearing Services  
Acoustimed (PTY) Ltd.  
P.O. Box 909  
Auckland Park  
2006  
23 March 2003

Dear Sir

**RE: REQUEST FOR PERMISSION TO LOAN A TELEPHONE DEVICE**

I am a Master's student in the Department of Communication Pathology at the University of Pretoria. I am currently conducting a research project on the use of telephones by individuals fitted with a cochlear implant.

Telephone usage is one of the most vital imperatives of contemporary modern day life. Individuals with a hearing loss experience varying degrees of difficulty to use a telephone for verbal communication. My research will be

aimed at determining which type of telephone best enables an individual fitted with a cochlear implant to communicate effectively via a landline or mobile/cellular telephone.

The research methodology comprises of various sentences, which will be verbally communicated via the telephone to a volunteer group of individuals fitted with a cochlear implant, using the different telephones in order to determine which provides the individual with the best speech perception score.

In order to conduct my research project, I shall need the use of a Teknimed Auriald, TE 2002, Enzer CWP 60 telephone. I respectfully request the loan of one such telephone from your company for a maximum period of six months. Kindly inform me of your decision at your earliest convenience.

I would be happy to share the results of my research with you at the conclusion of the project.

Should you require more information, please feel free to contact me at +27 84 429 7464.

Yours sincerely

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Louise Hönck

M. Communication Pathology

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Mrs. N Venter

Supervisor

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Prof. B. Louw

Head of the Department of Communication Pathology

University of Pretoria