

**Providing a web-based information resource  
for Afrikaans First Language teachers**

**A dissertation by**

**Danielle Heyns**

**Submitted in fulfilment of the requirements  
for the degree**

**Magister Artium**

**in**

**Information Science**

**Faculty of Humanities  
University of Pretoria**

**Supervisor: Prof ME Snyman  
Co-supervisor: Prof TDJ Bothma**

**November 2002**

## **Samevatting**

### ***Die voorsiening van 'n webruimte as 'n inligtingshulpbron vir Afrikaans Eerste Taal onderwysers***

'n verhandeling deur

**Danielle Heyns**

**Studieleiers**

**Professore ME Snyman en TDJ Bothma**

**Departement**

**Inligtingkunde**

**Graad**

**MA (Inligtingkunde)**

Hierdie verhandeling doen verslag oor 'n aksienavorsingsprojek wat die skep van 'n webruimte, die *Goudmyn* ([www.onnet.up.ac.za](http://www.onnet.up.ac.za)), vir Afrikaansonderwysers, gerig het. Die inligtingsbehoeftes en gebruikmaking van hulpbronne van 78 Afrikaans eerste taal onderwysers is vasgestel deur middel van 'n vraelys en fokusgroepbesprekigs. Die gehalte van die *Goudmyn* as inligtingshulpbron en Afrikaansonderwysers se gebruikmaking daarvan, is formeel geassesseer. Uit die data blyk dit dat Afrikaansonderwysers nog traag is om die Internet as medium te gebruik, maar besoekerstatistiek op die webruimte dui aan dat dié hulpbron al meer gebruik word.

Redes vir lae vlakke van Internetgebruik deur die respondenten sluit in: gebrek aan Internettoegang, tyd, opleiding, relevante inligting, bewussyn van beskikbare inligting en integrering van inligtingstegnologievaardighede in die kurrikulum. Die studie het bevind dat 'n webruimte soos die *Goudmyn* die potensiaal het om 'n sentrale rol in die ondersteuning van Afrikaansonderwysers te speel, mits die onderwysers opgelei word in en bewusgemaak word van die gebruik en toepassing van die Internet vir onderrigdoeleindes.

---

#### **Sleutelwoorde:**

Internet | inligting | inligtingsbehoeftes | inligtingshulpbron | inligtingstegnologie | webruimte | webbladontwerp | aksienavorsing | Afrikaansonderwyser

## **Summary**

### ***Providing a web site as an information resource for Afrikaans First Language teachers***

A dissertation by  
**Danielle Heyns**

<b>Supervisors</b>	<b>Professors ME Snyman and TDJ Bothma</b>
<b>Department</b>	<b>Information Science</b>
<b>Degree</b>	<b>MA (Information Science)</b>

This dissertation reports on an action research project that guided the development of the *Goudmyn* ([www.onnet.up.ac.za](http://www.onnet.up.ac.za)), a web-based information resource for Afrikaans language teachers. The information needs and utilisation of information resources by 78 Afrikaans First Language teachers were determined by means of a questionnaire and focus group discussions. The quality of the *Goudmyn* as information resource for Afrikaans teachers' utilisation thereof were formally assessed. From the data it is evident that Afrikaans language teachers do not utilise the Internet as an information resource to a high degree. Nevertheless, statistics of visits to the *Goudmyn* indicate that the resource is being utilised increasingly.

Reasons for low levels of Internet utilisation by the respondents include the following: a lack of Internet access, time, training, relevant information, awareness of resources and integration of ICT skills into the curriculum. The study found that a web site such as the *Goudmyn* has the potential to play a central role in supporting Afrikaans language teachers, if the teachers are trained and made aware of the use and applications of the Internet for teaching purposes.

---

#### **Key words:**

Internet | information | information needs | information resource | information communication technology | web site | web page design | action research | Afrikaans language teacher

## Table of Contents

	<b>Page</b>
<b>Samevatting</b>	ii
<b>Summary</b>	iii
<b>List of Tables</b>	ix
<b>List of Figures</b>	x
<b>List of Addenda</b>	xi
<b>Acknowledgements</b>	xii

## **Chapter 1: Background and introduction**

1.1	Introduction	1
1.2	Research problem	4
1.3	The purpose of this research	5
1.4	Terminology	5
1.5	Methodology	7
1.6	Significance of research	9
1.7	Outline of chapters	11
1.8	Research outcomes	11
1.9	Conclusion	11

<b>Chapter 2: Literature review</b>	12
2.1 Information resources	12
2.1.1 Functions of an information resource	12
2.1.2 The importance of information resources	14
2.1.3 A framework for the implementation of an Information resource	15
2.2 Web-based information resources	17
2.2.1 Characteristics of web-based information resources	18
2.2.2 The benefits of web-based information resources	19
2.3 The Internet as information resource for teachers	25
2.3.1 Teachers and information	25
2.3.2 The potential of web-based information resources for teachers	27
2.3.3 The need for web-based information resources	28
2.3.4 The utilization of web-based information resources by teachers	31
2.3.4.1 Frequency of use	31
2.3.4.2 Prerequisites for effective utilization of web-based information resources	34
2.3.4.3 Teachers' attitudes towards the Internet as information resource	35
2.3.4.4 Reasons why teachers do not utilize the Internet as information resource	36
2.4 A framework for implementing a web-based information resource for teachers	38
2.4.1 Stages in the development process	38
2.4.2 Design principles	39
2.4.3 Ensuring participation and utilization of the information resource by the intended target population	42
2.5 Conclusions	44

<b>Chapter 3: Research design</b>	46
3.1 Action research	46
3.2 Detailed research design and data collection methodologies	51
3.2.1 Cycle One: Audit of information resources	51
3.2.1.1 Data collection instruments in Cycle One	52
3.2.1.2 Selection of participants	53
3.2.1.3 Data analysis in Cycle One	54
3.2.2 Cycle Two: Information needs analysis	54
3.2.2.1 Data collection instruments in Cycle Two	55
3.2.2.2 Selection of participants	55
3.2.2.3 Data analysis in Cycle Two	56
3.2.3 Evaluation of the web-based information resource	56
3.2.3.1 Data collection instruments in Cycle Three	57
3.2.3.2 Data analysis in Cycle Three	58
3.3 Limitations, validity and reliability of the study	58

<b>Chapter 4: Research Findings</b>	<b>61</b>
4.1 Cycle One: Audit of information resources for Afrikaans L1 teachers	61
4.1.1 Information resources for Afrikaans L1 teachers	61
4.1.2 Afrikaans L1 teachers' utilisation of information resources	64
4.1.2.1 Profile of the participants	64
4.1.2.2 Utilisation of information resources by the respondents	66
4.1.3 Afrikaans L1 teachers' utilisation of the <i>Internet</i> as an information resource	68
4.1.3.1 Reasons for low levels of Internet utilisation by Afrikaans L1 teachers	69
4.2 Cycle Two: The information needs of Afrikaans L1 teachers	74
4.2.1 Information needs of Afrikaans L1 teachers	74
4.2.2 The importance of information for Afrikaans L1 teachers	75
4.2.3 Differences between the information needs of primary and high school teachers	77
4.3 Cycle Three: Evaluation of the web-based information resource for Afrikaans L1 teachers	79
4.3.1 Evaluation of the <i>Gold Mine</i>	79
4.3.1.1 Online evaluation form	79
4.3.1.2 Feedback via e-mail	81
4.3.1.3 Peer review	83
4.3.2 Utilisation of the information resource	86
4.4 Conclusions	88
<b>Chapter 5: Conclusions and recommendations</b>	<b>90</b>
<b>References</b>	<b>95</b>

## List of Tables

	<b>Page</b>
Table 1.1 Data collection methodologies of the research	8
Table 1.2 Outline of chapters	11
Table 2.1 Advantages of web-based information resources	20
Table 2.2 Criteria for quality web-based information resources	40
Table 3.1 Sources of data for the study	59
Table 4.1 Index of web based information resources for teachers in South Africa	62
Table 4.2 Utilisation of information resources	67
Table 4.3 Information the respondents feel the Internet can provide	70
Table 4.4 Sources of training in ICT skills	72
Table 4.5 Support available	73
Table 4.6 Information needs of Afrikaans L1 teachers	75
Table 4.7 Importance of information	76
Table 4.8 Differences between the information needs of primary and high school teachers	78
Table 4.9 Evaluation via the online evaluation form	80
Table 4.10 Feedback to the <i>Goudmyn</i>	82
Table 4.11 Peer review report	83

## List of Figures

	<b>Page</b>
Figure 3.1 Zuber-Skerritt's four-moment action research model	47
Figure 3.2 The four-moment action research cycles of this study	49
Figure 3.3 A graphical representation of the research process	51
Figure 4.1 Type of school	65
Figure 4.2 Geographical location of schools	65
Figure 4.3 Distribution of schools	66
Figure 4.4 Differences between primary and high school teachers in the utilisation of some information resources	68
Figure 4.5 Respondents' descriptions of the Internet	71
Figure 4.6 Differences between the information needs of high school and primary school teachers	78
Figure 4.7 Visits to the <i>Goudmyn</i> in Year One: Aug 2000 – Jul 2001	86
Figure 4.8 Visits to the <i>Goudmyn</i> in Year Two: Aug 2001 - March 2002	86
Figure 4.9 Visits to the <i>Goudmyn</i> in Year Three: June - October 2002	87

## **Addenda**

**Addendum A – Questionnaire (Afrikaans version)**

**Addendum B – Questionnaire (English translation)**

**Addendum C – Online evaluation form**

**Addendum D – Detailed description of web-based educational resources**

## **Acknowledgements**

My sincerest gratitude to:

- My supervisor, Professor Maritha Snyman, Department of Information Science, University of Pretoria, for her guidance and encouragement
- My former colleague, Vreda Pieterse who introduced me to the wonders of the Internet, HTML, FTP, etc
- My parents, family, and my two children, Paul and Riëtte, who believe in me
- My friends and colleagues, for their support, especially Trudi, for all the coffee, advice, help and inspiration
- Sylvia van Straaten for language editing

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily to be attributed to the National Research Foundation.