AFRICAN ASSOCIATION FOR LEXICOGRAPHY

27th International Conference

26 - 29 September 2023

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Abstracts

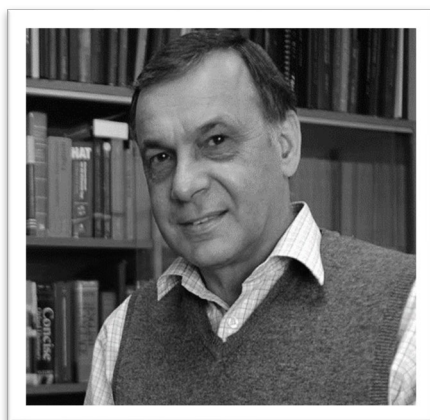|	
Hosted by:	Department of South African Sign Language and Deaf Studies, University of the Free State
Conference coordinator:	Dr Chrismi-Rinda Loth
Abstract reviewers:	Marietta Alberts, Blanche Assam, Herman Beyer, Hanelle Fourie Blair, Maret Blom-de Wet, Sonja Bosch, Dané Claassen, Jani de Lange, André du Plessis, Rufus Gouws, Marissa Griesel, Kerry Jones, Langa Khumalo, Bridgitte Le Du, Chrismi-Rinda Loth, Phillip Louw, Aninga Ludwine Mbindi, Guy Roger Mihindou, Lorna Morris, Steve Ndinga-Koumba-Binza, Eventhough Ndlovu, Dion Nkomo, Bruno Okoundwa, Annél Otto, Danie Prinsloo, Justus Roux, Elsabé Taljard, Michele van der Merwe, Andries van Niekerk, Tim van Niekerk.
Abstract booklet editors:	Prof. Sonja E. Bosch, Dr Lorna Morris and Mr André du Plessis

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MESSAGE FROM THE AFRILEX PRESIDENT

On behalf of the Board of the African Association for Lexicography (AFRILEX), it is my honour and privilege to officially welcome you to the 27th Annual International AFRILEX Conference. I want to especially welcome all the honorary members of AFRILEX that are present and our two keynote speakers, Professor Myriam Vermeerbergen from the Katholieke Universiteit (KU) Leuven, in Leuven, Belgium and Professor Thapelo Otlogetswe from the University of Botswana, in Gaborone, Botswana. This 27th Annual International AFRILEX Conference is organised in partnership with the Department of South African Sign Language and Deaf Studies at the University of the Free State (UFS) in Bloemfontein, South Africa and is co-located with the 7th International Symposium on Place Names (ISPN). I want to particularly thank our host Professor Annalene van Staden and the Coordinator of the Local Organizing Committee, Dr Chrismi Loth for a sterling job in organizing these co-located conferences.

The AFRILEX Board together with the Department of South African Sign Language and Deaf Studies at the University of the Free State, are very proud to celebrate the historic recognition of the South African Sign Language (SASL) as one of the twelve official languages of the country. This milestone is going to be befittingly celebrated, inter alia, through the launch of the Sign Language Dictionary. The pre-conference workshop on Creating a Sign Language video glossary by Dirkie Ebersohn, will be an important precursor. On this note, I want to extend a special welcome to Dirkie Ebersohn from the National Institute for the Deaf. We look forward to a very informative and contemporaneous workshop on Sign Language.

Our conference programme displays an array of presentations covering a broad spectrum of very interesting research topics. The programme also has two special sessions: one session that has a special focus on dictionary publishing (the Publishers Session), and the second that is dedicated to the National Lexicography Units (the NLU Session). I therefore would like to invite every delegate to attend and listen to all these engaging sessions.

I would like to take this opportunity to invite all the presenters to develop their presentations into article manuscripts and submit them for peer review and possible publication in the AFRILEX's International Gold Open Access journal Lexikos: http://lexikos.journals.ac.za/pub/index. I want to further express my gratitude to the abstract reviewers who were generous with their time and expertise, and "[…] who all gave thoughtful and constructive reviews. Almost without exception all reviews were returned promptly." (I am quoting from the Programme and Abstract Review Team).

Finally, I wish to thank the AFRILEX Board members for their tenacity and hard work in organizing and making this conference a success. Thank you to our Vice President, Prof Sonja Bosch, Dr Lorna Morris and Mr André du Plessis for the excellent work in compiling and editing the abstracts booklet. Thank you to Mr André du Plessis for tirelessly looking after the Afrilex website. This year our website had an additional (new) feature, which I hope all of us noted and appreciated. Thank you, André. We thank our Treasurer, Prof Elsabé Taljard, for the stringent financial oversight that ensures our sound financial position. Thank you to our secretary, Prof Dion Nkomo, for the timely correspondence, and to Dr Phillip Louw and Dr Hugues Steve Ndinga-Koumba-Binza, for their hard work and support in the various activities leading up to this conference.

I wish you all an engaging, stimulating, and successful 27th Annual International AFRILEX conference.

Langa Khumalo
President: AFRILEX

CONFERENCE PROGRAMME

27th International Conference of the African Association for Lexicography (AFRILEX)
26 – 29 September 2023, University of the Free State, Bloemfontein, South Africa

	TUESDAY 26 September	WEDNESDAY 27 September	THURSDAY 28 September	FRIDAY 29 September
08:00-09:00		REGISTRATIONS		
09:00-09:30		**Opening Session and Welcome Word** (**Chair**: Dr S NK Binza) Venue: Equitas Auditorium **Speakers:** - Prof. Annalene VAN STADEN – host of the event and Chair of the ISPN Organising Committee - Prof. Langa KHUMALO – President of Afrilex	**BOOK LAUNCH** **Venue**: Equitas Auditorium	Excursion
09:30-10:30		**Keynote Address 1** (Chair: Prof. L. Khumalo) **Venue:** Equitas Auditorium *Sign Language Lexicography: A Snapshot of Past, Present and Future Approaches, Activities and Techniques* Prof. Myriam VERMEERBERGEN	**Keynote Address 2** (**Chair**: Dr Matjaž Geršič) **Venue:** Equitas Auditorium *Making African Dictionaries African* Prof. Thapelo J. OTLOGETSWE	
10:30-11:00		**TEA IN THE EQUITAS FOYER**		

	TUESDAY 26 September	WEDNESDAY 27 September		THURSDAY 28 September	FRIDAY 29 September
11:00-11:30		AFRILEX Session 1 (**Venue**: Equitas Auditorium) **Chair**: Prof. E. Taljard	AFRILEX Session 2 (Equitas Board Room) **Chair**: Dr L. Morris	AFRILEX Session 5 (**Venue**: Equitas Auditorium) **Chair**: Dr P. Louw	Excursion
		Definition of Legal Terms in Selected Malawian Statutes: A Lexicographic Perspective (Evans LWARA and Gladys GONDWE)	*Neologisms for Sociolinguistic Terminology in SASL* (Naomi JANSE VAN VUUREN and Simphiwe MKHIZE)	*New Types of Frame Structures in Online Dictionaries* (Rufus GOUWS)	
11:30-12:00		*Analysis of Cotext and Context in a Contemporary Setting: Towards a User-Friendly Microstructure in Selected Northern Sotho -English Bilingual Dictionaries* (Makoetja RAMUSI and Gugulethu MAZIBUKO)	*Characteristics of Neologistic Compounds in SASL Linguistic Terminology* (Michiko KANEKO)	*Collocations and African Language Lexicography* (Elsabé TALJARD and Danie PRINSLOO)	
12:00-12:30		*A Critical Examination of the* **Greater Dictionary of IsiXhosa***'s Adequacy as a Source of Standard for the Language, Using the General Theory of Lexicography* (Buyiswa Mavis MINI)	*Dictionaries of African Personal Names in Gabon: Inception and Promises of a Sub-Discipline within Gabonese Lexicography* (Hugues Steve NK BINZA and Virginie OMPOUSSA)	*AS Hornby Dictionary Research Awards (videos and Q and A)*	
12:30-13:00		*The Feasibility of Developing and Using isiXhosa Cytology Terminology in Higher Education: A Case Study at the University of Fort Hare* (Wanga GAMBUSHE and Dion NKOMO)	*Nomenclature Considerations for a Microstructure of the Gisir-French Dictionary* (Fidélia D. NYAMA and Paul A. MAVOUNGOU)		

	TUESDAY 26 September	WEDNESDAY 27 September		THURSDAY 28 September	FRIDAY 29 September
13:00-14:00		**LUNCH IN THE CENTENARY HALL**			
14:00-14:30	**AFRILEX Workshop** (**Venue**: Equitas Board Room)	AFRILEX Session 3 (Venue: Equitas Auditorium) Chair: Prof. D. Nkomo		AFRILEX Session 6: **NLU Session** (**Venue**: Equitas Auditorium) Chair: Prof. L. Khumalo	
		Inclusivity with a Multilingual Glossary in a Teacher Education Environment (Michele F VAN DER MERWE)		NLUs	
14:30-15:00		*Semi-Automatic Glossary Extraction in LSP Corpora* (Langa KHUMALO)			
15:00-15:30		*PReLemma: Parameters for more Accessible Multilingual Lexical Resources* (Teresa FUENTES MORÁN and Jesús TORRES DEL REY)			
15:30-16:00		**TEA IN THE EQUITAS FOYER**			
16:00-16:30	ISPN Workshop (**Venue**: Equitas Board Room)	AFRILEX Session 4 (**Venue**: Equitas Auditorium) Chair: Dr M.F. van der Merwe		AFRILEX Session 7: **Publishers' Session** (**Venue**: Equitas Auditorium) Chair: Dr P. Louw	Excursion
		The WAT at a T-Junction: Redesigning and Updating the Online Woordeboek van die Afrikaanse Taal (André Henny DU PLESSIS)		Publishers	
16:30-17:00		*National Lexicography Units: A Critical Appraisal of Achievements and Challenges* (Dion NKOMO)			
17:00-17:30		*Cross-Referencing in School Dictionaries: Why and How?* (Lorna Hiles MORRIS)		CLOSING	

	TUESDAY 26 September	WEDNESDAY 27 September		THURSDAY 28 September	FRIDAY 29 September
17:30-18:00		*Developing a Dictionary in N\uu, Nama, Afrikaans and English from field notes* (Menno VAN ZAANEN, Bonny SANDS and Kerry JONES)		AGM	Excursion
18:00-18:30					
18:30-19:00	**OPENING /COCKTAIL** **Venue:** Centenary Foyer (Chair: Annalene van Staden **Speaker:** Prof. Mogomme MASOGA - Dean: Faculty of Humanities, UFS	**CONFERENCE DINNER**			

KEYNOTE PRESENTATION 1

Sign language lexicography: A snapshot of past, present and future approaches, activities and techniques

Myriam VERMEERBERGEN
Linguistics Research Unit, Katholieke Universiteit Leuven, Leuven, Belgium and Department of Afrikaans and Dutch, Stellenbosch University, Stellenbosch, South Africa

Spoken and signed languages have been shown to share fundamental properties at all levels of linguistic structure. However, sign languages also have modality-specific linguistic characteristics, such as the use of space and a (more) simultaneous organisation. These features can be observed even at the level of individual lexical signs. Today, sign languages are recognised as fully-fledged natural languages, on a par with spoken languages, but this recognition is of recent origin. The long period of misunderstandings regarding the nature of sign languages has undoubtedly had an impact on sign language lexicography.

In many countries, the compilation of a sign language dictionary was one of the first forms of documenting the national (or regional) sign language. It was often an important first step in supporting the teaching and learning of the sign language, and the training of sign language interpreters. The publication of sign language dictionaries frequently played a role in language recognition. In some cases, the compilation of a dictionary was accompanied by a form of lexical unification or standardisation, for example because the existence of lexical variation was perceived (often by educational authorities) as problematic for sign language teaching and learning. However, such (top-down) standardisation projects were/are controversial and often problematic. Less controversial sign language planning activities are lexical modernisation projects, e.g., projects to develop lexicons of specialised (technical) signs. In many countries deaf people are involved in a much wider range of contexts than in the past. This change has undoubtedly had an impact on sign languages, leading to a (sometimes exponential) growth of the lexicon. Lexicographers have the responsibility to keep up with this development.

All lexicographers face challenges, but sign language lexicographers are confronted with an additional set. The most commonly cited practical challenges are the absence of a standard writing system; the existence of the productive lexicon; lexicalisation and delexicalisation processes; and the short history of linguistic description. Until recently, there were no large corpora from which to extract a collection of signs for inclusion in dictionaries. There were limited sources for inferring the meaning(s) and grammatical properties of signs, and for calculating frequencies. Determining the citation form of signs can be difficult, and lemmatisation practices and principles are often (still) lacking.

Despite the many challenges, the field of sign language lexicography has expanded rapidly and has shown a very interesting development in a relatively short period of time.

In this talk, I will outline this evolution, starting with the first sign language dictionaries – essentially word lists with the signs represented by drawings or pictures – and ending with contemporary corpus-based lexicography. In doing so, I address several prominent issues in relation to signed lexicons. I also focus on the emergence of new signs and the multiple origins of these new signs, for example in the context of (urban) place-naming. Special emphasis is placed on the ways in which societal and technological developments have influenced and continue to influence sign language lexicography.

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KEYNOTE PRESENTATION 2

Making African dictionaries African
Thapelo J. OTLOGETSWE
Faculty of Humanities, University of Botswana, Gaborone, Botswana

What is unique about African dictionaries? What makes an African dictionary African? These are fascinating questions which must engage designers and compilers of African dictionaries. Many African dictionaries largely mirror English or French dictionaries in the handling of the lexicon. They lemmatise singular headwords with their bracketed plurals. In general, they lemmatise and define the uninflected versions of the verb. In this presentation, I argue that African lexicographers need to walk away from an all-size-fits-all approach to dictionary making, and instead investigate features of their languages which demand special treatment, to shape a more definite language-specific microstructure of their dictionaries. In this presentation I will use Setswana, a morphologically rich language spoken in Botswana, South African, Namibia and Zimbabwe, to demonstrate how an African dictionary can present the lexicon. The morphology of many African languages is complex. African dictionaries must respond to the morphological peculiarities of African languages in dictionaries. Dealing with complex morphology can help users make connections between words and meanings. It can help learners and dictionary users develop a more nuanced understanding of the language. For instance, there needs to be a better marking and handling of deverbatives in dictionaries. Deverbatives are nouns derived from verbs whose source may be opaque to the user. These include nouns such as *boipuso* "independence, self-rule" derived from *busa* "govern, rule"; *boitumelo* "happiness" derived from *dumela* "believe, trust" and *kagiso* "peace" from *aga* "build".

A link must also be created between multiple verbs which are derived from other base verbs such as *ipusolosetsa* "to revenge" which is derived *busa* "return"; *leseletsa* "carry a bucket head top without touching it" from *lesa* "leave"; *itshephisa* "make holy" from *tshepha* "trust"; *ikemisetsa* "purpose, intend" from *ema* "stand"; and *ikgolaganya* "connect yourself with" from *golaganya* "connect, link". African dictionaries must also provide historical and etymological information about words, tracing their origins, migrations, and influences. This enriches the understanding of language evolution and its interconnectedness. African dictionaries must also expand their vocabulary to cover a wide range of terms related to African culture, traditions, flora, fauna, geography, and history. Including local expressions, proverbs, idioms, and other cultural nuances enriches the content.

Many African languages have a poor literary tradition. If materials are written in the language, this is usually within rather restricted domains of creative works such as novels, short stories, and poems. The language is usually excluded from science domains and law. This means that many African languages dictionaries cannot be compiled exclusively from corpora. The compilers must therefore adopt a more hybrid strategy of data collection and engage linguists, scholars, native speakers, and community members in the dictionary-making process to ensure a broader coverage of the lexicon. Collaborative efforts foster accuracy, inclusivity, and cultural relevance. African lexicographers must therefore use multiple strategies of data collection that reflect the unique contextual challenges of their communities so that the dictionaries account for regional and local variations within languages. Different dialects, and regional peculiarities should be documented to reflect the linguistic diversity across different regions.

With the advancement of technology, African dictionaries must be availed on digital formats and mobile applications to facilitate wider access and usability, especially for those with limited access to physical dictionaries. On a digital platform, African dictionaries can leverage multimedia elements such as audio pronunciations, video clips, and images to enhance the learning experience and provide a deeper understanding of the languages. African lexicographers must also engage users, language enthusiasts, and native speakers in crowdsourcing initiatives or collecting feedback to ensure ongoing updates and improvements to the dictionary content, making it more relevant and accurate.

This presentation will also argue that the middle section of African dictionaries presents an excellent opportunity for lexicographers to capture, demonstrate, and preserve African cultures. The section must demonstrate that African communities have their own food (fruit, dishes, meats), attire, dances, unique

ways of measuring time, cattle colour terminology – especially for pastoral communities, kinship terminology etc.

By implementing approaches set out here and many others, African dictionaries can become more representative, inclusive, and reflective of the diverse African languages, cultures, and contexts.

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Special Sessions

The African Association for Lexicography (AFRILEX) was established as a platform for facilitating interaction between lexicographic theory and lexicographic practice especially for African lexicographers. The complementary relationship between the two components of lexicography as a discipline may never be overemphasised. Yet lexicographic theory can only be as good as the practice that inspires its insights as well as improved lexicographic processes and products that derive guidance from it. As with the 26th International AFRILEX Conference, this year's conference provides an opportunity for both practising lexicographers in commercial publishing and from the South African National Lexicography Units (NLU) to discuss not only the interaction between theory and practice, but also to reflect individually and collectively about all matters that affect their work. The two sessions, the NLU session and the Publishers' session, will further provide an opportunity for the editors and/or lexicographers to highlight some of their recently completed projects as well as to announce any future endeavours. The publishers' session features the South African National Lexicography Units (publisher for the NLUs), Pharos Dictionaries and Oxford University Press (Southern Africa) as major players in the field of lexicographic practice in South Africa. The NLU session features representatives from six of the 11 NLUs: the Woordeboek van die Afrikaanse Taal (Afrikaans NLU), the isiNdebele NLU, the Setswana NLU, the isiXhosa NLU, the Sesotho NLU and Siswati NLU.

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PRESENTATIONS

The WAT at a T-junction: Redesigning and updating the online Woordeboek van die Afrikaanse Taal

André H. DU PLESSIS (ahdp@sun.ac.za)
Bureau of the WAT, Stellenbosch, South Africa; Department of Afrikaans and Dutch, Stellenbosch University, Stellenbosch, South Africa

At the 23rd International Conference of the African Association for Lexicography, the then Executive Director and Editor-in-Chief of the Woordeboek van die Afrikaanse Taal (WAT), Dr Willem Botha, discussed the so-called "third reinvention" or "ten-year plan" of the WAT. This reinvention entails the completion of the WAT within ten years as well as a complete move away from the printed version in favour of a redesigned online version. Botha (2018) stipulated that it is not customary for comprehensive dictionaries to move from the printed to electronic medium before they are completed, but that the high printing costs and dwindling amount of book buyers and users forced the WAT to make the calculated decision to move exclusively to the online environment. With this catalytic decision and its implications in mind, this paper aims to report on the development, design and publication of the first iteration of the new online WAT.

Although the online WAT first appeared in 2006 (comprising volumes I ─ XII), it has been continuously updated with every subsequent completed volume (volume XVII to date). The problem is that the online version of the WAT is merely a digital or electronic copy of the printed volumes. There are some standard features and functions expected of an online dictionary, but as Du Plessis (2014:80) notes, this dictionary was not initially designed as an online lexicographic product. This means that the technological advantages that the medium offers have not yet been fully considered. In 2015, a new concept version of the online WAT was developed to modernise the dictionary by improving the search functionality, the presentation of data, and incorporating some features prevalent in other online dictionaries. This version, known as the *Loodsprojek*, was unveiled in 2016.

Due to the previously mentioned "reinvention" of the WAT, all work on the *Loodsprojek* and online WAT was temporarily halted from 2018 to place greater focus on completing the dictionary. Five years have passed in the ten-year plan. During this time the WAT has published three volumes (XV, XVI and XVII), and made significant strides in adapting the lexicographic process for making an electronic comprehensive dictionary. In the last year of Dr Botha's tenure as Editor-in-Chief (2022), interest was renewed in the redesign of the online WAT. Under the new Executive Director and Editor-in-Chief, Dr Phillip Louw, the WAT has been able to retain its focus on completing the dictionary whilst prioritising the redesign of the online WAT.

With the given time period and the accompanying pressures, the WAT lacks the luxury of developing an online dictionary from scratch. Therefore, the first phase of this process uses the *Loodsprojek* in conjunction with a new user interface design. As the WAT's data has taken many forms throughout the years, special attention has been paid to converting the data to be more usable in the dictionary writing software, TLex. This conversion also allows for better structuring of the data, making it more adaptable for and searchable in an online dictionary. This is still an ongoing process, but the necessary groundwork has been completed. On the technical front, this paper will therefore also briefly delve into the data conversions and adaptations in the lexicographic process that the WAT had to undertake. Finally, the first phase redesign of the online WAT will be presented and the next development phases along with their specifications will be laid out. Aspects of the user interface and the different design elements will also be highlighted. Since the online WAT cannot be completely overhauled and redeveloped, the decision was made to implement specific designs and improvements in phases. The end goal is to have a fully functional online dictionary that reflects the current and future expectations of online users, whilst also integrating the WAT's corporate and dictionary platforms.

References
Botha, W.F. 2018. *The long and the short of a comprehensive dictionary as a long term project*. Keynote presentation at the 23rd International Conference of the African Association for Lexicography. 29 June, University of the Western Cape, Cape Town, South Africa.
Du Plessis, A.H. 2014. A Functional Analysis of the e-WAT with Specific Focus on the Mobile Version:

Towards a Model for Improvement. *Lexikos* 24: 75-93.

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PReLemma: parameters for more accessible multilingual lexical resources

M.ª Teresa FUENTES MORÁN (tfuentes@usal.es)
Department of Translation and Interpreting, University of Salamanca, Salamanca, Spain
Jesús TORRES DEL REY (jtorres@usal.es)
Department of Translation and Interpreting, University of Salamanca, Salamanca, Spain

In this paper, we introduce the PReLemma research project, currently in its initial stage. We will present its aims, theoretical principles and some concrete examples.

The main goal of PReLemma is to present specific proposals to increase the accessibility of e-dictionaries and other multilingual digital lexical resources online.

Secondary objectives include the generation of essential knowledge for the design of all sorts of instruments for multilingual digital lexical support based on the tenets of universal accessibility; and setting the foundations for the design of new methods of qualitative assessment for the accessibility of digital products based on the identification of a specific program of informative needs (essentially lexical in our case) and of multimodal conversation affordances.

To that end, a comprehensive study of a set of e-dictionaries and other digital lexical resources will be conducted with two parallel yet converging approaches: on the one hand, with a lexicographic perspective, and on the other hand, through an assessment of their accessibility based on international standards, as well as several user research techniques (questionnaires, interviews, keyboard logging, screen recording, eye tracking, etc.).

The lexicographic approach will be based on the theory of the form of dictionaries (Wiegand 2008; Wiegand and Fuentes Morán 2009). It rests on three main concepts, on which the ability of lexical resources to convey their informational content is based: textual structures, addressing structures and lexicographic condensation. The concept textual structures makes it possible to thoroughly describe the forms of organization of the different components that make up the information core units. Addressing structures describe the relations between those units. Forms of lexicographic condensation (and expansion) describe the procedures, more or less separated from natural language, by means of which data are presented in dictionaries.

As for the accessibility approach, the Web Content Accessibility Guidelines (WCAG) 2.1 (Kirkpatrick et al., 2018) provide a recognised set of principles, guidelines, success criteria and techniques to guide the design and the assessment of the accessibility of digital content, including e-dictionaries.

However, this general accessibility framework cannot fully address the particular characteristics, needs and developments of all digital products, platforms or user needs. In fact, certain task forces and recommendations have been put forward to complement WCAG 2 guidelines, as these have been considered to fall short for specific disabilities, areas of communication or interaction (e.g., pronunciation or extended reality), devices (e.g., mobile), or approaches to accessibility (e.g., personalization). Our proposal can be considered an analogous effort concerning the peculiarities of multilingual dictionary design and use as regards their accessibility needs and potentials.

The methodology of these supplemental initiatives can serve us as an initial starting point. To operationalise the problem and search for complementary recommendations and specifications, those task forces have taken certain applicable accessibility research approaches:

- User research: the analysis of the peculiarities of less-analyzed users, or of the use of a particular type of less-analyzed digital content (e.g. e-dictionaries) by users.
- Compilation of issues: the analysis of known issues affecting a group of people or a certain area or type of digital content.
- Use cases, gap analysis and roadmaps: the analysis of use cases and the ensuing gap analysis and roadmap of needs and possible solutions.

Thus, in order to suggest a framework for the specific design of accessible online lexical solutions, we intend to look at the specific problem at hand (the accessibility of multilingual digital dictionaries)

by triangulating our research from various vantage points: lexicographic theory, accessibility guidelines, e-dictionary user research, and also prototype design.

Although all kinds of disabilities are the ultimate object of our research group, and the lifting of barriers to multilingual e-dictionaries for all is our ultimate objective, in this project we need to avoid excessive dispersion by prioritizing certain kinds of barriers and accessible pathways as well as methodologies for analyzing them. This has led us to focus, for this project at least, on visual and physical disabilities and screen reader use (which also helps people who have difficulties reading text), for which there are well established methodologies and an abundance of examples of analysis for web accessibility in general, and which have been the basis of the most important universal accessibility guidelines.

Through several lexicographic articles we will look at examples of some of the types of accessibility problems found in digital dictionaries and we will present our initial proposals to improve their accessibility.

References
Kirkpatrick, A., O Connor, J., Campbell, A. and Cooper, M. (eds.). 2018. *Web Content Accessibility Guidelines (WCAG) 2.1*. W3C/WAI. https://www.w3.org/TR/WCAG21/
Wiegand, H. E. 2008. Zugriffsstrukturen in Printwörterbüchern. Ein zusammenfassender Beitrag zu einem zentralen Ausschnitt einer Theorie der Wörterbuchform. *Lexicographica* 24: 209-315.
Wiegand, H. E. and Fuentes Morán, M. T. 2009. *Estructuras lexicográficas. Aspectos centrales de una teoría de la forma del diccionario*. Granada: Tragacanto.

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The feasibility of developing and using isiXhosa Cytology terminology in Higher Education: A case study at the University of Fort Hare

Wanga GAMBUSHE (wanga.gambushe@uct.ac.za)
School of Languages and Literature, University of Cape Town, Cape Town, South Africa.
Dion NKOMO (d.nkomo@ru.ac.za)
School of Languages and Literatures: African Language Studies, Rhodes University, Makhanda, South Africa.

The development of any language for use in what Sibayan (1999) calls controlling domains of language presents intralingual, extralingual and interlingual challenges. Mesthrie (2008) argued that although it is necessary for other (African) languages to be used in higher education in addition to English, the conditions do not currently exist for their use. Among the complexities of the development of African languages through translation, glossary and dictionary development that Mesthrie (2008) identifies is the lack of bi- or multilingual subject specialists in the different scientific disciplines. Bilingual subject specialists are important because they understand the scientific discipline and also speak the indigenous language being developed. Mesthrie (2008) also identifies the complexity of the process of the development of terms using the development of Christian terminology by Christian missionaries as an example for the difficulties in terminology development.

This presentation reports and discusses results of a single case study (cf. Thomas 2011) that asks the question around the feasibility of developing and using a bilingual glossary of terminology for the cytology course at the University of Fort Hare (UFH). Sager (1990) proposes three dimensions of terminology, the cognitive, linguistic and communicative dimension. The cognitive dimension refers to a view of terminology that examines the relation of linguistic forms to their conceptual content. The linguistic dimension to terminology views terms as isolated linguistic entities and how these are manifested in dictionaries and glossaries while also giving guidelines on terminology development strategies. The communicative dimension brings together both the cognitive and linguistic dimensions by examining the appropriateness of the terms for the subject field for which they were created and for the speech community in general.

For the current study, an isiXhosa-English glossary of terminology for cytology was developed by the first author before harnessing the inputs of a lexicographer, a translator and an isiXhosa speaking zoologist who could contribute to the initiative both from a linguistic and a subject specialist

perspective. The translator emphasised the need for the terminology to reflect the cognitive aspect of terminology, noting for instance that "ikhromosomu" is still too close to the English term "chromosome" to be helpful to a student who lacks a strong disciplinary foundation and English competence. The lexicographer believed that the researcher should not worry about using borrowed versions of the terms as students and isiXhosa speakers in the classroom setting already use those terms in the 'borrowed' manner (ikhromosomu), reiterating a need to strike a balance between prescriptive and descriptive lexicographic approaches. The zoologist, focusing on the definitions of the terms, believed that definitions needed to be short and simple to avoid information overload that will confuse the students. This presentation reports and illustrates these perspectives using both examples from the glossary and feedback from the participants. It demonstrates the feasibility of developing bilingual glossaries to support higher education teaching and learning mainly because of the availability of bilingual subject specialists in disciplines such as zoology. As such, in the case of cytology at UFH, the condition of bi- or multilingual subject specialist as identified by Mesthrie (2008), is sufficient for developing a learning and teaching tool such as a bilingual isiXhosa and English glossary of terminology at the UFH and other universities that have isiXhosa in their language policies. In terms of the terminology, having the three different perspectives ensured that the terms in the final glossary catered for the cognitive dimension for isiXhosa speaking students while the definitions were also simple enough to avoid confusion for students. That said, the disagreement about what approach to take with regards to terminology development must not be seen as a hinderance but a resource in the development of the language for use in higher education. This process demonstrates the vitality of the language. Engagements on the best approach for terminology development demonstrate that the language is dynamic, and its users are engaged in the process of its development. According to Johnsson (1944: 109) the process of the incorporation of Latin and Greek terms into languages like English was also a controversial process as there was disagreement about how to incorporate Latin and Greek terms into different European languages that were in the shadow of Latin and Greek for centuries. This demonstrates that what African languages are going through is not unique, all developed languages that are used in high function spaces have gone through similar processes.

References
Johnson, R, F. 1944. Latin versus English: The Sixteenth-Century Debate over Scientific Terminology. *Studies in Philology* 41(2): 109–135.
Mesthrie, R. 2008. Necessary Versus Sufficient Conditions for Using New Languages in South African Higher Education: A Linguistic Appraisal 1. *Journal of Multilingual and Multicultural Development* 29: 325–340.
Sager, J. C. 1990. *A Practical Course in Terminology Processing*. UK: John Benjamins.
Sibayan, B. 1999. *The Intellectualisation of Filipino*. Manila: The Linguistics Society of the Philippines.
Thomas, G. 2011. *How to Do Your Case Study: A Guide for Students and Researchers*. Thousand Oaks, CA: Sage Publications.

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New types of frame structures in online dictionaries

Rufus H. GOUWS (rhg@sun.ac.za)
Department of Afrikaans and Dutch, Stellenbosch University, Stellenbosch, South Africa.

In the transition from print to online dictionaries the lexicographic practice has often introduced innovative changes. Metalexicographers yet again have to play a catch-up game to account for these changes in their theoretical discussions. In order to reflect the actual state of the online lexicographic practice and to present a point of departure for further development of lexicographic tools it is important that metalexicographers should take cognizance of the changes in online lexicography and adapt their theoretical models accordingly.

Dictionary structures have been one of the targets of changes in online lexicography with some old structures being adapted and new structures emerging. These changes were introduced in the lexicographic practice and lexicographic theory now needs to provide the necessary recognition on metalexicographic level. The focus in this paper is on various aspects of one of the new structures in

online dictionaries, namely the screenshot structure. The aim of the paper is to present lexicographers with a clearly defined set of terms that reflect some of the changes in the lexicographic practice due to the introduction of the screenshot structure. This should enable future lexicographers to have an unambiguous understanding of some of the new search positions offered by the screenshot structure of online dictionaries. The identification and naming of these search positions should also enrich the metalexicographic terminology.

The screenshot structure is an ordering structure that accommodates a range of entries, including lexicographic data like individual dictionary articles, partial articles, restricted articles as well as partial article stretches. Besides the core article, the screenshot structure also allows extended articles that display a new type of frame structure, namely an article frame. An article frame can be the result of horizontal expansion to the left and/or right as well as upward and/or downward vertical expansion. It is shown that these article frames can contain both integrated and non-integrated texts. The integrated texts contribute to the retrieval of information from the data on offer in the dictionary articles, whilst the non-integrated texts often play a contextualising role with regard to the positioning of the core article in the relevant search region and search domain. Both integrated and non-integrated article outer texts play a lexicographically relevant role in their particular screenshot structure. Looking at existing online dictionaries it is shown that the core articles can be expanded to present a primary frame, but that the article structure could also display a secondary frame with texts that are lexicographically relevant but do not contribute to the treatment of the lexical item presented by the lemma sign of the core article. The use of these secondary frame texts constitutes a new search position in online dictionaries: the search frame.

A further type of frame structure is identified within the screenshot structure. Especially in commercial lexicography the inclusion of non-lexicographic data in dictionaries becomes increasingly important and the screenshot structure should be planned in such a way that these data can be accommodated without resulting in data-overload. The paper looks at various occurrences of data of a non-lexicographic nature in the screenshots of online dictionaries. It is shown that these data could best be accommodated in a separate frame, namely a screenshot frame. The distinction between an article frame and a screenshot frame promotes different search positions for lexicographic and non-lexicographic data in online dictionaries.

In print dictionaries the layout of the dictionary page and the dictionary article should be regarded as part of the assignment of the lexicographer and should not be left in the hands of the publisher. The layout of the screenshot in online dictionaries with regard to the presentation of both lexicographic and non-lexicographic data should also be regarded as part of the lexicographic process performed by the lexicographers. It is shown that insufficient attention to this important procedure can easily result in an unbalanced presentation in the screenshot structure.

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Neologisms for sociolinguistic terminology in SASL

Naomi JANSE VAN VUUREN (naomi.jansevanvuuren@wits.ac.za)
South African Sign Language Department, University of the Witwatersrand, Johannesburg, South Africa
Simphiwe MKHIZE (simphiwe.mkhize@wits.ac.za)
South African Sign Language Department, University of the Witwatersrand, Johannesburg, South Africa

This paper is the first output of an ongoing terminography project in the South African Sign Language (SASL) Department at the University of the Witwatersrand. Every year we accommodate a number of Deaf students in our third-year courses, including the sociolinguistics course. While terminology has been developed for linguistics and poetry because of the SASL school curriculum, this is not the case with sociolinguistics. We realised that the lack of terminology poses a great disadvantage for Deaf students because they struggle to understand fingerspelled concepts such as linguistic variable, glottochronology, lexicostatistics and so forth. We decided a) to develop terminology relevant to sociolinguistics and b) to offer the course in the medium of SASL. While the main aim of this endeavour is to provide accessible lecture content to Deaf students with immediate effect, the secondary aim is to

contribute to intellectualisation of (SASL) given that it is one of three compulsory languages in the Wits Language Policy. As observed by Khumalo and Nkomo (2023:135) "terminography … remains a vital undertaking for the intellectualization of African languages". SASL, although an official language now, has lagged behind other South African languages in this respect and currently, this is the only project addressing the dearth of sociolinguistic terminology in SASL. After we received feedback from our Deaf students in the current academic year, we plan an online workshop with our colleagues at other South African tertiary institutions which offer SASL courses before we finalise the glossary for submission to the Pan South African Language Board for approval. The current study investigates word formation strategies evident in SASL neologisms. Data consists of 30 signs created by a Deaf-hearing academic team at the University of the Witwatersrand for the purpose of teaching a sociolinguistics course to Deaf and hearing students in the medium of SASL. The data was developed in the following way: The hearing academic who has been teaching the course for several years signed the relevant sociolinguistic lecture topics to a newly appointed Deaf academic. The team then identified relevant terminology and coined appropriate signs for concepts.

McKee and Vale (2023) explored a data set of 917 New Zealand Sign Language (NZSL) signs that have been documented over the past five years in various semantic fields such as digital technology and women's health, amongst others. They identified three main categories of sign formation mechanisms: language-internal mechanisms, language-external mechanisms and phrasal expressions. Language-internal mechanisms include the following: Depicting constructions (which are signs that denote the salient characteristics of the referent, such as the 1-handshape indicating an animate upright being), compounds, such as the SASL sign for tomato which consists of the lexical items RED and BALL inflectional morphology such as the reciprocal inflection for the concept mutual intelligibility (UNDERSTAND-EACH-OTHER) that we propose and semantic extension, such as the NZSL example of using the sign DANCE for TikTok.

Language-external mechanisms includes loan signs from other sign languages, fingerspelling/initialization, such as the concept dialect in which one of the signs in our proposed compound sign has a D-handshape, calques (which are loan translations from English, such as our proposed sign for school lect which is a compound made up of SCHOOL and LEXICON), and phrasal explanations rather than lexical items.

For this paper, the SASL data was analysed according to the three main categories identified by McKee and Vale (2023). Findings indicate that compounding and phrasal explanations (including depicting elements) are favoured, with some examples of semantic extension and initialised signs. This is very different from the NSZL-study (McKee and Vale 2023) which found that compounding was not used often as a word-formation strategy. We may find different results once we have completed the process with our Deaf students and our colleagues as explained in the introductory part – we are hoping that the phrasal explanations will eventually lexify with input from our Deaf students. We also observed differences between neologisms that were recorded in earlier lectures, and the same neologisms that were recorded in later lectures, where we observed phonological reduction, which is likely the result of the need for ease of articulation.

References:
Khumalo, L. and Nkomo, D. 2022. The intellectualization of African languages through terminology and lexicography: methodological reflections with special reference to lexicographic products of the University of KwaZulu-Natal. *Lexikos* 32(2): 133-157.
McKee, R. and Vale, M. 2023. Recent lexical expansion in New Zealand Sign Language: context, scope and mechanisms. *Current Issues in Language Planning*: 1-22.

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Characteristics of neologistic compounds in SASL linguistic terminology

Michiko KANEKO (michiko.kaneko@wits.ac.za)
Department of South African Sign Language, University of the Witwatersrand, Johannesburg, South Africa

This paper focuses on the form and structure of neologistic compounds in South African Sign Language (SASL), using the dataset which emerged out of an attempt by Deaf postgraduate students to create new

signs for specific concepts in linguistics. It compares them with a set of established (lexicalised) compounds and aims to shed light on some of the unique features of newly-formed compounds developed for terminologies.

Since the pioneering work by Klima and Bellugi (1979), numerous studies have been conducted on compounding across sign languages: Al-Sayyid Bedouin Sign Language (Meir et al. 2010), American Sign Language (Liddell and Johnson 1986, Loos 2009, Vercellotti and Mortensen 2012), Australian Sign Language (Johnston and Schembri 2007), British Sign Language (Sutton-Spence and Woll 1999), Irish Sign Language (Leeson and Saeed 2012), Israeli Sign Language (Meir and Sandler 2007), and so on. However, there has been no in-depth study of compounds in SASL, nor a study that focuses on neologistic compounds (that have not been through the lexicalisation process) that are developed for specific terminologies.

The dataset consists of a total of 73 signs – 45 existing compounds 28 new compounds. Existing (lexicalised) compounds were identified from the list of vocabulary used for teaching SASL at Wits University. Five Deaf postgraduate students who took an introductory sign linguistics course at Wits University gathered over two half-day workshops to discuss new signs for specific concepts in linguistics, such as minimal pairs, derivation, inflection, and so on. These compounds were identified using four criteria: i) phonological reduction (Pfau 2016), ii) lexical independence of the constituents, iii) lexical and syntactic unity, and iv) non-compositional meaning (Klima and Bellugi 1979). Once identified, they are categorised according to different features listed below.

The results are as follows:
1. Morphophonological structure (sequential or simultaneous): The majority of established compounds (91%) are sequential; only four out of 45 instances (9%) are simultaneously composed. However, 46% of the neologistic compounds are simultaneous (54% are sequential), suggesting that simultaneous compounding is popular in neologism.
2. Syntactic structure (subordinate or coordinate): 71% of the established compounds is subordinate and 20% is coordinate. In contrast, 96% of the newly-formed compounds is subordinate, only one compound being coordinate.
3. Headedness (head-initial or head-final): 53% (established) and 56% (new) are head-initial, and 22% (established) and 7% (new) are head-final. The remaining percentage is explained by head being in a simultaneous compound (in which there is no initial/final position) or no clear head. The result supports Loos (2009)' finding that there is no mandatory head position in sign language compounds, which is also the case for neologistic compounds.
4. Semantic structure (exocentric or endocentric): While the majority of the established compounds are exocentric (55%) rather than endocentric (38%), newly-formed compounds are largely endocentric (61%) than exocentric (39%).
5. Lexical categories of compounds: In both established and neologistic compounds, the majority of compounds are nouns but this tendency is stronger in the latter (86%, as opposed to 64% in the established compounds), perhaps due to the nature of signs for linguistic terminology.
6. Movement direction: Almost half of established compounds (49%) move downward. This is in line with previous findings in other sign languages, namely, "there is a general tendency for downward movement in signed compounds" (Pfau 2016: 202) due to ease of articulation. This tendency seems to be less observed in neologistic compounds (27%).

As seen above, neologistic compounds, being 'young' and not yet lexicalised, also being developed for specific linguistic concepts, exhibit different characteristics from established compounds. These findings may shed light on the lexicalisation process of compounds in SASL.

References

Johnston, T. and Schembri, A. 2007. *Australian Sign Language (Auslan): An introduction to sign language linguistics*. Cambridge: Cambridge University Press.

Klima, E. and Bellugi, U. 1979. *The signs of language*. Cambridge: Harvard University Press.

Leeson, L. and Saeed, J. 2012. *Irish Sign Language: A cognitive linguistic approach*. Edinburgh: Edinburgh University Press.

Liddell, S. and Johnson, R, 1986. American Sign Language compound formation processes, lexicalization and phonological remnants. *Natural language and linguistic theory* 4(4): 445-513.

Loos, C. 2009. *Word formation in American Sign Language: investigating headedness in ASL*

compounds. Unpublished master's thesis. Leipzig: University of Leipzig.

Meir, I. and Sandler, W. 2007. *A Language in Space: the Story of Israeli Sign Language*. London: Psychology Press.

Meir, I., Aronoff, M., Sandler, W. and Padden, C. 2010. Sign languages and compounding. In S. Scalise, and I. Vogel (Eds.). *Compounding*. Amsterdam: John Benjamins. 301-322.

Pfau, R. 2016. Chapter 10: Morphology. Baker, A, van den Bogaerde, B, Pfau, R, Schermer, T (eds.) *The linguistics of sign languages: an introduction.* Amsterdam: John Benjamins. 197-228.

Vercellotti, M. and Mortensen, D. 2012. A classification of compounds in American Sign Language: an evaluation of the Bisetto and Scalise framework. *Morphology* 22: 545–579.

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Semi-automatic glossary extraction in LSP corpora

Langa KHUMALO (langa.khumalo@nwu.ac.za)

South African Centre for Digital Language Resources, North-West University, Potchefstroom, South Africa

Automated terminology extraction is a crucial task in natural language processing that automatically provides a ranked list of key words. The paper discusses semi-automatic extraction of glossary that is unique to the language policy subject domain. Language policy is a very contemporaneous and relevant subject in the South African higher education context since the publication of the current Language Policy Framework for Public Higher Education Institutions (henceforth LPF), which was gazetted in October 2020, and took effect from the 1st of January 2022. In the area of terminology, the primary concern is to find terms that are specific to a particular subject domain. These terms are deemed to be critical in organizing the knowledge related to that specialised subject domain. Information extraction focuses on identifying indexing terms, that are capable of distinguishing among documents (or meta data which describes documents) to improve document retrieval. Keywords are an overarching reference to terms that include technical and indexing terms (Nomoto 2022).
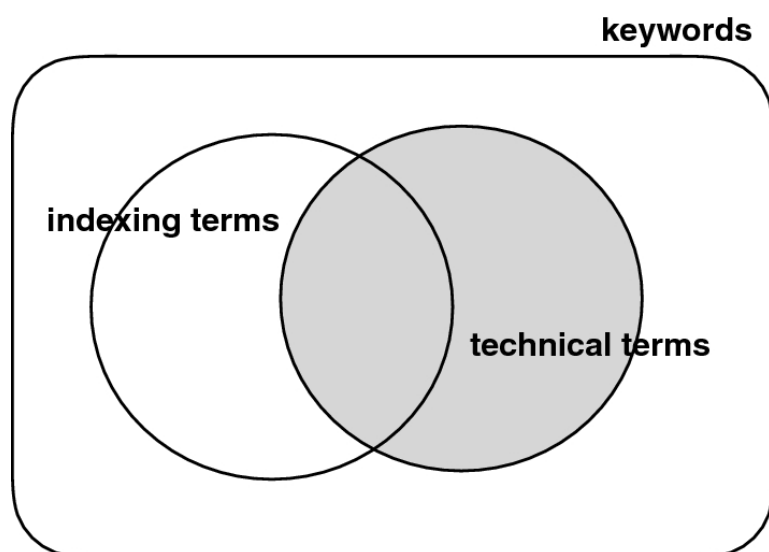
Figure 1. Keywords, technical terms, and indexing, Nomoto, (2022).

The paper focuses on specialised glossary in language policy using semi-automated extraction from Language for Specific Purposes (LSP) corpora. The LSP corpora comprise of Language Policies (LPs) of sampled Public South African Higher Education Institutions and the Language Policy Framework (LPF) for Public Higher Education Institutions. The goal of keyword extraction is to extract from the LSP corpora a language policy glossary using Keyness and present the outcome for analysis through the prism of the Corpus Linguistic approach. The outcome of the study is a glossary of key terminology that is used in the LPs for higher education context in South Africa that is instructive in the implementation of these policies.

Drawing from the Corpus Linguistics approach, the paper uses keyword analysis to extract key terms using the Keyness function of the AntConc Programme. Otlogetswe (2022:310) states that "keyword analysis is a much more precise method of identifying words particular to a genre through the calculation of keyness which isolates words which are 'key' to a corpus". According to Scott (2006: 92) Keyness is "calculated by comparing the frequency of each word in the word list of the text under investigation with the frequency of the same word in the reference word list". Khumalo (2015:506) argues that using such statistical approach is faster, reliable, and free from human error or bias. The semi-automated extraction allows for the analysis of a specialised language policy terminology within a unique Higher Education context in South Africa.

AntConc (available from https://www.laurenceanthony.net/software/antconc/) is a free program for analysing digital texts of various formats (i.e., plain text, pdf, word, etc.) in order to find and reveal patterns in language. It has nine tools which are the Key-Word-In-Context (KWIC), plot, file, cluster, n-gram, collocate, wordlist, keyword list and the wordcloud. Using Keyness we extract terminology using the keyword function of the AntConc program (see Figure 2. below). The LPF is used as the analysis corpus (text under investigation) while AntConc's inbuilt demo corpus of the book titled Alice in Wonderland is used as the reference corpus (reference word list). The Keyword types in Figure 2 present an interesting picture about the diction selected in the language policy context.

	KWIC	Plot	File View	Cluster	N-Gram	Collocate	Word	Keyword	Wordcloud

Keyword Types 136/1258 **Keyword Tokens** 3180/6661 **Page Size** 50 hits   1 to 50 of 136 hits

	Type	Rank	Freq_Tar	Freq_Ref	Range_Tar	Range_Ref	Keyness (Likelihood)	Keyness (Effect)
1	language	1	147	0	1	0	481.045	0.043
2	policy	2	84	0	1	0	274.236	0.025
3	su	3	65	0	1	0	212.056	0.019
4	afrikaans	4	53	0	1	0	172.830	0.016
5	learning	5	57	2	1	1	169.301	0.017
6	academic	6	50	0	1	0	163.029	0.015
7	languages	7	48	0	1	0	156.496	0.014
8	students	8	45	0	1	0	146.699	0.013
9	teaching	9	39	1	1	1	118.193	0.012
10	implementation	10	35	0	1	0	114.057	0.010
11	english	11	45	6	1	1	112.362	0.013
12	multilingualism	12	29	0	1	0	94.483	0.009
13	university	12	29	0	1	0	94.483	0.009
14	isixhosa	14	27	0	1	0	87.960	0.008
15	where	15	42	15	1	1	77.728	0.013

Figure 2. Keyness extraction from the LSP

The paper therefore establishes that there is a key glossary that is used in language policy for public Higher Education Institutions that demonstrates a unique focus on language, policy, learning, academia, student, implementation, multilingualism, university, etc. The paper also explores the word 'where' (cf. Figure 2, line 15), which has a high frequency. The KWIC analysis used together with the collocate tool demonstrates that the words that collocate with 'where' are also key in the interpretation of the key terminology in the LPF. The paper uses the provision of the Language Policy theory and the Policy Analysis theory. It is evinced from the analysis that sector domain terminology specific to higher education is high on the key word list. It also emerged that escape clauses are also typically high on the keyword list. The presence of escape clauses such as 'where' threaten the successful implementation of the language policy.

References
Khumalo, L. 2015. Semi-automatic Term Extraction for an isiZulu Linguistic Terms Dictionary. *Lexikos* 25(1): 495-506.
Nomoto, T. 2022. Keyword Extraction: A Modern Perspective. *SN Computer Science* 4 92 (2023).
Otlogetswe, T. 2012. Using Frequency and Keyword Analysis to Extract Candidates for Setswana Dictionary Labels. *International Journal of Lexicography* 25 (3): 297-318.

Scott, M. 2004–2006. *Oxford WordSmith Tools Version 4*. Oxford: Oxford University Press.

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Definition of legal terms in selected Malawian Statutes: A lexicographic perspective

Evans LWARA (lwara.e@mzuni.ac.mw)
Department of Language, Cultural and Creative Studies, Mzuzu University, Mzuzu, Malawi
Gladys GONDWE (gladysagondwe@gmail.com)
The High Court of Malawi, Mzuzu, Malawi

Language is an integral component of the legal profession. As argued by Tiersma (1999:1), the legal profession focusses intensely on the words that constitute law because "the law – virtually by definition – comes into being through language." The language of the law uses distinctive words, meanings, phrases, modes of expression and mannerisms that have formed a fixed association with the legal profession (Mellinkoff 1964). Linguists who have, in the past few decades, turned to this legal language as an object of study (e.g. Kishindo 1999; Alberts and Mollena 2013) recount how legal language, in its unique form, presents a conceptual menace to the non-legal consumers of legal information.

In any country, statutes play an important role in regulating the functioning of a society. As Alberts (2001) points out, scholars who are calling for an increased use of comprehensible language in such statutes, therefore, have all the right to do so. One strategy that is widely employed in legislative drafting to enhance comprehensibility is by defining all key terms. The use of legal terms, which are singled out as one of the main sources of comprehension difficulties in legal language, is however inevitable in the legal sphere. Such terms are tools that legal practitioners utilise to achieve precise and structured communication. Their explicit definition is thus a vital step towards making legal instruments unambiguous and consistently interpretable (Jopek-Bosiacka 2011).

To produce legal instruments that are inclusively functional and informative, it is important that draftsmen master the art of creating definitions because only carefully crafted definitions can bring clarity and reduce indeterminacy. That is why among other attributes, Bakshi (1992) recommends that draftsmen be sufficiently knowledgeable and familiar with both the law and the language in which those laws are crafted.

In Malawi, apart from producing a multilingual terminological resource for legal terms, no serious theoretical lexicographic analysis of the language of law has been explored. The situation is no better elsewhere with Bajčić (2017:145) admitting that there is "…a profound theoretical void in the making of legal dictionaries" as supported by "…a relatively small number of publications researching legal lexicography." For example, in one of the earliest studies, Kishindo (2001) questions the dominance of English as the official language of the law in Malawi, arguing that it barricades rather than facilitate access to the law. Kishindo, thus, suggests an ambitious linguistic reform in the legal system whereby Malawian languages, just like English, would be used for practising the law at all levels. While linguistic localisation of public-oriented legal instruments would undoubtedly facilitate the accessibility of the law to many Malawians, clarity of the English versions of the legal instruments should equally be advocated.

This study was conceived to ascertain the extent to which definitions of legal terms contribute to the comprehensibility of Malawian legal instruments that are drafted in English, with a focus on three key questions – (1) What types of definitions do legislative drafters use in the legal instruments? (2) What strategies are commonly used when defining legal concepts? (3) What communicative implications do the definitions have on the overall understandability of the legal instruments?

Borrowing from the ISO 704 terminological principles and methods, in the proposed study, the researchers shall analyse definitions in six Malawian acts. The acts shall be purposively selected based on three criteria – availability of 'grouped defined terms' in an instrument; availability of at least fifteen defined terms in an instrument; and level of direct relevance of an instrument to ordinary Malawians. With regard to the final criterion, the researchers will focus on those acts that seek to regulate the life of ordinary citizens in the country as such acts need to be highly understandable. The identified definitions shall be analysed qualitatively informed by a conceptual framework, which shall be drawn based on the 2009 ISO 704 and other terminological principles and methods.

References

Alberts, M. 2001. Plain language in a multilingual society. Viljoen, F. and A. Nienaber (eds.). 2001. *Plain Legal Language for a New Democracy*. Pretoria: Protea Book House.

Alberts, M., and Mollema, N. 2013. Developing legal terminology in African languages as an aid to the court interpreter: A South African perspective. *Lexikos* 23(1): 29-58.

Bajčić, M. 2017. *New insights into the semantics of legal concepts and the legal dictionary.* Amsterdam/Philadelphia: John Benjamins Publishing Company.

Bakshi, P.M. 1992. The discipline of legislative drafting. *Journal of the Indian Law Institute* 34(1): 1-8.

ISO 704, 2009. Terminology work - principles and methods. Geneva: International Organisation for Standardisation [ISO].

Jopek-Bosiacka, A. 2011. Defining law terms: A cross-cultural perspective. *Research in Language* 9(1): 9-21.

Kishindo, P. 2001. Language and the Law in Malawi: A case for the use of indigenous languages in the legal system. *Language Matters-Studies in the Languages of Africa* 32(1): 1-27.

Mellinkoff, D. 1963. *The language of the law*. Oregon: Resource Publications.

Tiersma, P.M. 1999. *Legal language*. Chicago: University of Chicago Press.

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A critical examination of the Greater Dictionary of IsiXhosa's adequacy as a source of standard for the language, using the General Theory of Lexicography

Buyiswa Mavis MINI (buyi.mini@gmail.com)
School of Languages and Literatures: African Languages. Rhodes University, Makhanda, South Africa.

This paper seeks to examine and expatiate on whether the three-volume, trilingual *Greater Dictionary of IsiXhosa* (GDX) fulfils the function commonly associated with dictionaries, that of being a guide to accuracy of meaning and other aspects of a language's words and expressions. The purpose of the paper is to describe and document the findings as contribution to the growing body of lexicography-related knowledge regarding IsiXhosa. The assumption is that users of the GDX have been oriented, as L2 learners of English throughout their schooling life and beyond, to the use of English dictionaries for confirmation of accuracy in all aspects of the English language's words. Such aspects include spelling, grammatical category, number (in nouns), tense and number (in verbs), as well as the correct meaning and usage. It is with such an assumed expectation of the function(s) of the GDX that this paper is approached.

For a conceptual framework, the paper has adapted Mahanta's (2019) discussion of dictionary functions and lexicography theory. According to him (ibid.), a dictionary is an important mine for language exploration, for confirmation or provision of pieces of information about a language's words. Such pieces are, among others, meanings, spellings, correct pronunciation, word classification into parts of speech, etc. For the GDX, the list also includes considerations of word stems/roots, capitalisation in general, and other orthographical features. The capitalisation, in this paper, of the first letter of the language's name, IsiXhosa, is already a problematisation of the current non-capitalisation (viz, "isiXhosa") of this prefix. Other considerations, specific to the GDX, include transliterations, translation and, to some extent, term creation.

This paper's inquiry is influenced also by the general assumption that a dictionary "is one of the most powerful tools providing the readers the best and most comprehensive information about words" (Mahanta, 2019:269).

In his explanation of the need for lexicographic theory, Mahanta (2019:270) mentions, among others, the "General theory of lexicography". Among the four constituents of the general theory of lexicography he mentions, is metalexicography. He specifies four aspects of metalexicography. Of interest to the current study, is what he again calls the "General theory of lexicography" (ibid.). Under the general aspect of the theory of lexicography, he cites three components. The one component relevant to the enquiry of the current study is "(i) purpose of dictionaries" (2019:270). Concluding this subsection, Mahanta makes another observation which is important for this paper. He points out that "Wiegand considers lexicography as a linguistic reconstruction of information" (2019:271).

In Mahanta's (2019) opinion, a lexicographer seeks to satisfy the needs of the target users of the dictionary in terms of various aspects of their mother-tongue or second language. The current study

seeks to examine the kind and quality of service, so to speak, the GDX delivers to the IsiXhosa speakers, and to reflect on the experience the speakers are likely to get upon reading it. To this end, the paper poses the following important questions:

Does the GDX adequately fulfil the ideal of being the most comprehensive and accuracy-assuring dictionary of IsiXhosa? Are the three GDX volumes good sources of information and models for features of the IsiXhosa language, regarding "orthography, pronunciation, derivation, history, etc." (Mahanta 2019:269), as generally expected of a dictionary?

As an important offshoot of the above question, this paper problematises the non-capitalisation of the initial letter of the full name of the language. It thus imposes the critical question: Why is the prefixal part of the accurate, complete name of the language, downplayed through non-capitalisation? Furthermore, does the GDX, directly or indirectly, focus on some targeted users (e.g., learners and students) specific needs like cultural, encyclopaedic, field-specific, and language-learning related information (cf. Mahanta 2019)?

Some of the preliminary findings are that the GDX significantly fulfills the function of a quality assurance reference regarding many aspects of the language. However, there are some concerning areas and gaps that need attention.

Clear and definite answers to this inquiry will inform revision processes and provide focused guidelines for further lexicographic activity in the language. Such guidelines will ensure high-quality lexicographic products and contribute to further development and intellectualisation of IsiXhosa. This, in turn will support best-practices in various language practice endeavours, and in literature writing, educational use as well as the internationalisation of the language.

It is thus important to pay attention also to the matter of the correct, full name of the language as well as its respect-laden presentation with a capital first letter, like all languages.

References:
Mahanta, M. 2019. A study of two theories of lexicography: Their contribution to lexical meaning. *Journal of Emerging Technologies and Innovative Research* 6(6): 269-274.

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Cross-referencing in school dictionaries: why and how?

Lorna HILES MORRIS (lorna@lemma.co.za)
Department of Afrikaans and Dutch, Stellenbosch University, Stellenbosch, South Africa

Cross-references are "a method to connect and interrelate different knowledge elements or items included in a dictionary" (Tarp 1999:116). They "help users acquire further information" from their dictionary (Nielsen 2008:183). Gouws and Prinsloo (1998:21) note that "one of the real problems experienced by the users of alphabetically ordered dictionaries is the decontextualisation of lexical items". Cross-references in dictionaries reintroduce the semantic and grammatical connections between lexical items that are lost by the presentation of lexicographical data in alphabetical order. The search-related costs of finding what one is looking for in a dictionary can be minimised by the careful and effective use of cross-references. "The mediostructure of a dictionary is a powerful mechanism to re-establish some of the lexical relations" (Gouws and Prinsloo 1998:22). As explained by Wiegand (2004:218):

> "Whoever compiles an alphabetical printed dictionary is forced to distribute the data to be presented along the provided text compound constituents. The close connection with regard to the contents can at the same time only be taken into account in a very restricted way. In order to uncover the connection, which is necessarily concealed by the data distribution along the different access positions, a mediostructural network of the lexicographically distributed data has to ensue."

This paper will explore cross-references and present options for the structure and presentation of cross-references in school dictionaries.

The paper will begin by looking at the theoretical background of cross-referencing, or the mediostructure, in dictionaries, and show how the mediostructure fits into the macrostructure and the

microstructure as an access structure of a dictionary. Some authors (cf. Nielsen 2008) consider the different types of cross references as: within articles; between articles; to or from outer texts; and to outside the dictionary. Cross-references can also be categorised as cross-references supporting comprehension; cross-references supporting text production; cross-references supporting translation; and cross-references supporting knowledge acquisition (Nielsen 2008:183). Gouws and Prinsloo (1998) categorise cross-references in terms of whether they are directing a user to synonyms; opposites; hyponymy; dialectal, stylistic, and other forms of variations (Gouws and Prinsloo 1998:22).

This paper will show why cross-references are important and useful in school dictionaries – especially school dictionaries aimed at learners of a language. It will take responses from interviews with teachers to show why and how cross-references and semantic links between words are important. I will then show what cross-references are currently used in children's and school dictionaries, both online and in printed dictionaries. I will discuss how different cross-references are presented. Some school dictionaries, such as the *Pharos English Dictionary for South African Schools* present cross-references by means of an arrow and the cross-reference address all in capital letters. They do not distinguish between different types of cross-references. Other school dictionaries, such as the *Oxford South African School Dictionary 4e* shows cross-references introduced by an arrow and any one of the terms "see", "opposite", or "synonym". A comparison between dictionaries and the number of cross-references they include will also be done.

In terms of online dictionaries, *The Word Explorer Children's Dictionary* makes use of hyperlinked cross-references to synonyms, antonyms, similar words, related words, as well as links to thematic sections in their word explorer.

This paper will show that the mediostructure is one of the dictionary structures that really benefits from the capabilities of electronic dictionaries: both in that there is more presentation space in entries to show different cross-references, and that hyperlinking makes following cross-references so much easier, and minimises the search-related costs of following such cross-references.

The paper will conclude with suggestions for innovative presentations of related lexical items, such as thematic word banks, word explorers, and word families.

References
Gouws, R.H. and Prinsloo, D.J. 1998. Cross-referencing as a Lexicographic Device. *Lexikos* 8: 17-36.
Nielsen, S. 2008. The effect of lexicographical information costs on dictionary making and use. *Lexikos* 18: 170-189.
Tarp, S. 1999. Theoretical foundations of the so-called cross-reference structures. *Lexicographica* 15: 114-137.
Wiegand, H. 2004. Reflections on the mediostructure in special-field dictionaries. Also according to the example of the dictionary for lexicography and dictionary research. *Lexikos* 14: 195-221.

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Dictionaries of African Personal Names in Gabon: Inception and Promises of a Sub-discipline within Gabonese Lexicography

Hugues Steve NDINGA-KOUMBA-BINZA (nkbinza@uwc.ac.za)
Centre for Advanced Studies of African Society (CASAS), University of the Western Cape, Bellville, South Africa
Virginie OMPOUSSA (vompoussa@yahoo.com)
Département des Sciences de l'Information et de la Communication, Département des Sciences du Langage, Groupe de Recherche en Langues et Cultures Orales (GRELACO), Université Omar Bongo, Libreville, Gabon

From an embryonic state at the beginning of the 21st century, Gabonese lexicography has entered a process of diversification over the past 10 years. At first, Gabonese lexicography seemed to be following a twofold objective, which was to revise and update dictionaries compiled by missionaries during the colonial epoch and, second, to produce bilingual dictionaries involving the French language and Gabonese native languages (Emejulu 2000; Nyangone Assam and Mavoungou 2000). This is no longer the goal for a maturing research and academic discipline in Gabon. The past decade has experienced diverse dictionary and lexicography projects. Projects of monolingual Gabonese French dictionaries

have been initiated and specific dictionaries have been published. Projects of learners' dictionaries in Gabonese native languages are also being produced. The dictionary literature of Gabon has also been enriched with the release of specialised lexicons, dictionaries of collocations and dictionaries of proverbs.

Among these emblematic projects of dictionary and lexicographic productions, the dictionaries of African personal names of Gabon should be noted. This paper focuses on this last series which currently has no less than five dictionaries published in less than 10 years, that is a record for a particular research area in Gabonese lexicography. It can be said without a doubt that the domain of anthroponyms – i.e. the names of people, especially surnames – is currently the most prolific area of dictionary production in modern Gabonese lexicography. The motivational underpinnings of these dictionaries can be grasped from this statement on the back cover of Mickala Manfoumbi (2012)'s dictionary: "*Every individual name is a story. Every individual name has a story*".

Many questions underlie the scope of this paper, but three of these are the most salient. First, what are the metalexicographic characteristics of these dictionaries of anthroponyms? Second, can these dictionaries be considered as forming a subset or a specific research niche within Gabonese lexicography in the same way as Gabonese French lexicography is? Third, how do these dictionaries differ from regular language dictionaries in terms of societal impact in Gabon where dictionaries of native languages are more trophies on bookshelves rather than tools of language production?

For the conduct of this study, a systematic review was used as the main methodological approach to build up the dictionary review contained in this paper. Five dictionaries of personal names in Gabonese native languages were analysed within the framework of dictionary criticism using the four basic approaches to reviewing outlined by Nielsen (2018), i.e.

i. the lexicographical approach to "address general issues that are relevant to all identified features" (Nielsen 2018: 82) of these dictionaries,

ii. the factual approach to observe the factuality of data contained in these dictionaries,

iii. the linguistic approach, and

iv. the qualitative requirement, which involves the fairness and the relevance of this study.

An additional methodological line of investigation in this study is textual analysis, which makes this paper to view each analysed dictionary as a text on its own. As Belsey (2005: 160) puts it, "textual analysis is indispensable to research in cultural criticism". It is our understanding that cultural criticism encompasses dictionary criticism when it comes to a dictionary of anthroponyms, which are known to "provide prominent sites for the interaction between language, culture and society" (Mensah and Rowan 2019: 150). Equally, as "data-gathering process" (McKee 2003: 1), textual analysis involves understanding language, symbols, and/or pictures present in texts (Hawkins 2018). The assessment results of thee observed five dictionaries reveal two types of findings. First, these dictionaries are the case of an inception of a research sub-domain within Gabonese lexicography, with its own aims, audience and expertise practitioners. Second, these dictionaries hold significant promises for declining Gabonese culture, namely the retention of female African names and/or surnames, the promotion of African forenames and a societal relevance of lexicography beyond language dictionaries.

Three sections constitute the core structure of the current paper. Section 1 will make a general presentation of the studied dictionaries, their background, authorship, target users and structures. Section 2 will deal with a metalexicographic analysis of the features of the studied dictionaries. Section 3 will detail the research and societal implications of anthroponymic lexicography within language studies in general and within Gabonese lexicography in particular. This study contributes to defining a multidisciplinary and transdisciplinary approach towards reviving endangered culture and languages of Gabon.

References
Belsey, C. 2005. Textual analysis as research method. Griffin, G. (ed.). *Research Methods of English Studies*. Edinburgh: Edinburgh University Press. 160-178.
Emejulu, J.D. 2000. Lexicography, an economic asset in multilingual Gabon. *Revue Gabonaise des*

Sciences du Langage 1: 51-69.

Hawkins, J.M. 2018. Textual analysis. Allen, M. (ed.). *The SAGE Encyclopedia of Communication Research Methods*. Thousand Oaks, CA: SAGE Publications, Inc. 1754-1756.

McKee, A. 2003. *Textual Analysis: A Beginner's Guide*. Thousand Oaks, CA: SAGE Publications, Inc.

Mensah, E. and K. Rowan. 2019. African anthroponyms: Sociolinguistic currents and anthropological reflections. *Sociolinguistics Studies* 13(2-4): 157-170.

Mickala Manfoumbi, R. 2012. *Dictionnaires des Noms Personnels Pove*. Paris: Editions Alpha-Omega.

Nielsen, S. 2018. Dictionary criticism. Fuertes-Olivera, P.A. (ed.). *The Routledge Handbook of Lexicography*. Abingdon, UK/New York, NY: Routledge.

Nyangone Assam, B. and P.A. Mavoungou. 2000. Lexicography in Gabon: a survey. *Lexikos* 10: 252-274.

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National Lexicography Units: A Critical Appraisal of Achievements and Challenges

Dion NKOMO (d.nkomo@ru.ac.za)
School of Languages and Literatures: African Language Studies, Rhodes University, Makhanda, South Africa.

National Lexicography Units (NLUs) occupy an important space in South Africa's post-apartheid lexicographic landscape. Alberts (2011; 2022) demonstrates how the NLUs were established in line with the country's multilingual language policy that is enshrined in the democratic Constitution that was adopted in 1996. The language policy recognised eleven official languages, to which South African Sign Language has recently been added as the twelfth official language. While two of the official languages, English and Afrikaans, had already enjoyed government recognition, development and official use, the rest of the official languages, which are indigenously African, were historically marginalised. The level of lexicographic development among the different official languages is inextricably linked to the statuses of the languages from a language policy and planning perspective (Gouws 2007; Nkomo 2018). Alberts (2022) points out that English and Afrikaans lexicography thrived during the apartheid period because of government support while a few dictionary projects in some African languages depended on funding from universities that initiated them. Other languages received very little lexicographic attention. The NLUs were established to contribute towards the development and use of all official languages by compiling dictionaries that would document and preserve the languages, while providing tools and resources that facilitate the use and learning of the official languages.

From the outset of the inception of the NLUs, lexicographic needs of the different official languages were identified. Generally, African languages lacked strong lexicographic traditions as highlighted by the paucity of dictionaries. While English was generally catered for in the form of British and American English dictionaries, progress had already been made with the Dictionary of South African English. Similarly, the *Woordeboek van die Afrikaanse Taal* (WAT), which commenced in 1926 had become a landmark feature in the remarkable growth of Afrikaans. Accordingly, comprehensive general-purpose monolingual dictionaries, also loosely called national dictionaries, were set as the ultimate targets for the NLUs, although these were not necessarily prescribed as the exclusive focus. Related to the needs for lexicographic products in the official languages, the development of a dictionary culture was also identified as another priority for South Africa. The NLUs needed to contribute towards a dictionary culture by producing relevant and user-friendly dictionaries. To achieve their targets and through their practice, the NLUs needed to draw from and contribute to the development of metalexicographic discussions nationally and globally. Almost three decades later, it is high time is for a critical reflection. Alberts (2022) offers a comprehensive account of the establishment (already alluded to above), achievements and challenges of NLUs at a time when they should have come of age. The achievements primarily include the successful compilation of various dictionaries in the different official languages, including in some languages where dictionaries did not previously exist. As referenced by Alberts (2022), the South African National Lexicography Units website provides a list of dictionaries in the respective languages. The NLUs have been heavily involved in activities that seek to promote the promotion of a dictionary culture, such as dictionary skills training workshops and the celebration of the International Dictionary Day. However, the promise offered by the NLUs started to wane even before strong lexicographic traditions were firmly established in some languages. As the future of NLUs

increasingly continues to be uncertain, this presentation seeks to contribute to the ongoing conversations about the NLUs by undertaking a critical appraisal of their achievements and challenges. Against the lexicographic needs that were identified for the different official languages in the late 1990s, this paper adds a quantitative and qualitative analysis of the lexicographic products of the NLUs. The factors that impact on lexicographic processes, such as the relationship of the NLUs with the Pan-South African Language Board (PanSALB), publishers, the Association for African Lexicography (AFRILEX) and educational institutions are considered. Relevant data is obtained through document analysis and interviews with the different stakeholders around practical lexicography at the NLUs and their products. While this paper acknowledges the achievements made by the NLUs, it notes their work is now driven more by a battle for survival than a long-term strategic plan associated with their establishment. It also observes that lexicographic developments that have required the discipline to reinvent itself compound the challenges faced by the NLUs and African lexicography in general.

References

Alberts, M. 2011. National Lexicography Units — Past, Present, Future. *Lexikos* 21: 23-52

Alberts, M. 2022. The South African National Lexicography Units-Two Decades Later. *Lexikos* 32(2): 1-24.

Gouws, R.H. On the development of bilingual dictionaries in South Africa: Aspects of dictionary culture and government policy. *International Journal of Lexicography* 20(3): 313-327.

Nkomo, D. 2018. Dictionaries and Language Policy. Fuertes-Olivera, P.A. (Ed.). 2018. *The Routledge Handbook of Lexicography*. New York: Routledge. 152-165.

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Nomenclature Considerations for a Microstructure of the Gisir-French Dictionary

Fidélia D. NYAMA-BOUYANGA (nyamafidelia08@gmail.com)
Institut de Recherche en Sciences Humaines (IRSH), Libreville, Gabon
Paul A. MAVOUNGOU (moudika2@yahoo.fr)
Centre de Recherches en Etudes Germaniques et Interculturelles, Université Omar Bongo, Libreville, Gabon

Gisir is an unwritten Bantu language (Guthrie's B40 group) spoken in Gabon. It is one the few Gabonese languages that never had the privilege of having a reference book published by missionaries and colonial administrators during the colonial era. There were however limited attempts for wordlists compilation by Coignard and Raponda-Walker (unpublished), and then by Raponda-Walker (unpublished) late in the 1960's. Although manuscripts of these works are currently housed at the Raponda-Walker Foundation (which notably owns an eponym publishing house in Libreville since 1995), both remain unpublished to date.

It is with the aim of filling the void for a language that has numerous linguistic descriptions that Nyama-Bouyanga (2013; 2018) embarked in a comprehensive bilingual and monodirectional dictionary with Gisir as a source-language and French as a target language. The current paper comes within the framework of a metalexicographic research initiated by Nyama-Bouyanga (2013; 2018). This paper is concerned with the microstructure and diverges from Nyama-Bouyanga (2013; 2018) in various aspects. In fact, Nyama-Bouyanga (2018) proposes a microstructure which raises some questions and requires circumspect analysis. The aim of this paper is to provide a revised microstructure for a Gisir dictionary whose production phase will soon be completed. Thus, this paper also aims to alert the readership about the divergence between the metalexicographical decision contained in Nyama-Bouyanga (2013; 2018) and the final product soon to be released.

The methodological underpinnings of this study are drawn from common methods used in modern lexicography and dictionary research (Schierholz 2015), notably in bilingual lexicography for unwritten languages such as Bantu languages in Central Africa (Mavoungou 2013). As such, speech data were collected using the Greenberg-Tervuren-Welmers questionnaire (Doneux 1968) for linguistic data collection during a series of fieldwork trips. The data collected through the Greenberg-Tervuren-Welmers questionnaire forms the primary source of the lexicographical corpus used in this study. The questionnaire provides not only words in isolation that served for the lemmata but also phrases and sentences utilisable as illustrations and examples in dictionary articles, hence in the microstructure.

The paper focuses on specific matters related to the microstructure design of the planned dictionary. Thus, the following three topics will be covered:

i. nature of the microstructure,
ii. the distinction between form and meaning and their presentation in the dictionary, and
iii. lexicographic markers

As far the nature of the microstructure is concerned, Haussmann and Wiegand (1989: 346) have mentioned that information about the nature of the microstructure is necessary for the lexicographer in the process of dictionary compilation. In fact, as Mavoungou (2010: 201) puts it, the lexicographer should be informed about the existence of the three types of microstructures, i.e. the compulsory microstructure, the absolutely compulsory microstructure and the complete compulsory microstructure. The current paper will have to determine the nature of the planned dictionary in consideration of the particular characteristics of the projected dictionary.

It is known that every dictionary article contains two essential microstructural aspects (Beyer and Augart 2017: 22; Ekwa Ebanega 2007), i.e. form and meaning. The microstructural information on the form implies indications such as the lemma spelling (and spelling variants), pronunciation as well as information on the language grammar (morphology, syntax, etc.). This study is bound to make such decisions for the microstructure of the Gisir-French dictionary knowing that the source language is an unwritten language.

The third issue this paper is interested with concerns the lexicographic markers. According to Lehmann and Martin-Berthet (2013: 268), lexicographical markers are microstructural elements that precede the definition from which they distinguish themselves by an appropriate typeface. Their role is to give conditions and contexts of use of words, meanings and phrases. Knowing that Gisir is still an unstandardised language, decisions of this kind would be crucial for the upcoming dictionary.

Finally, the current paper and the dictionary project contribute to the Merye lexicography which is often labelled as one of the less productive within the emerging Gabonese lexicography (Nyangone Assam and Mavoungou 2000; Ndinga-Koumba-Binza 2005).

References

Beyer, H. and J. Augart. 2017. From user questions to a basic microstructure: Developing a generative communication theory for a Namibian German dictionary. *Journal for Studies in Humanities and Social Sciences* 6(2): 1-31.

Coignard, J. and A. Raponda-Walker. *Lexique gisira-français/français-gisira*. Unpublished Manuscript.

Doneux JL. 1968. *Questionnaires d'enquête linguistique destinés auxlangues négro-africaines: Greenberg-Tervuren-Welmers*. Dakar: Université de Dakar.

Ekwa Ebanega, G.M. 2007. *A Microstructural Programme for Dictionaries in Fang*. PhD dissertation. Stellenbosch: Stellenbosch University.

Haussmann, F. J. and H.E. Wiegand. 1989. Component Parts and Structures of General Monolingual Dictionaries: A Survey. Hausmann, F.J. et al. (eds.). *Worterbucher. Ein Internationales Handbuch zur Lexikographie/ Dictionaries. An International Encyclopedia of Lexikography/Dictionnaires. Encyclopédie Internationale de Lexicographie*. Berlin: Walter de Gruyter. 328-360.

Lehmann, A. and F. Martin-Berthet. 2013. *Lexicologie, Sémantique, Morphologie, Lexicographie*. Paris: Armand Colin. 4th Edition.

Lemoine, M. G., 1994, *Petit Dictionnaire Français-Gisira Ngosi: Mandji Ndolu et Eléments de verbes*. Mission Sainte Croix de Mandji- Ndolou.

Mavoungou, P.A. 2010. *Lexicographie et Confection des Dictionnaires au Gabon*. Stellenbosch : SUN Press.

Mavoungou, P.A. 2013. Lexicography of the languages of Central Africa. Dictionaries. Gouws, R.H., U. Heid, W. Schweickard and H.E. Wiegand (eds.). *An International Encyclopedia of Lexicography. Supplementary Volume: Recent Developments with Focus on Electronic and Computational Lexicography*. Berlin/New York: Walter de Gruyter. 953-962.

Ndinga-Koumba-Binza, H.S. 2005. Considering a lexicographic plan for Gabon within the Gabonese Language Landscape. *Lexikos* 15: 132-150.

Nyama-Bouyanga, F.D. 2013. *Aspects macro- et microstructurels d'un dictionnaire gisir-français*. MA thesis. Libreville: Omar Bongo University.

Nyama-Bouyanga, F.D. 2018. *Critères métalexicographiques pour la compilation d'un dictionnaire gisir-français*. PhD dissertation. Libreville: Omar Bongo University.

Nyangone Assam, B. and P.A. Mavoungou. 2000. Lexicography in Gabon: A Survey. *Lexikos* 10: 252-

274.

Raponda-Walker, A. *Lexique français-gisira.* Unpublished Manuscript.
Schierholz, S.J. 2015. Methods in lexicography and dictionary research. *Lexikos* 25: 323-352.

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Analysis of Cotext and Context in a contemporary setting: Towards a user-friendly microstructure in selected Northern Sotho -English bilingual dictionaries

Makoetja RAMUSI (49549669@nwu.ac.za)
Language Practice Department, North-West University, Mahikeng Campus, Mmabatho, South Africa
Gugulethu MAZIBUKO (mazibukog@ukzn.ac.za)
African Languages, Linguistics and Development, University of KwaZulu-Natal, Howard College Campus, Durban, South Africa

Dictionaries act as indicators or reflectors of a country's social, cultural, scientific, and technical advancement. It is critical to assess the function of translation in their composition. Inadequate translation skills result in bad translation, whereas competent translation results in efficient communication (Nthambeleni 2016:19). Therefore, the microstructure of a bilingual dictionary is one of the dictionary elements that provides the target user with a well-detailed and accurate translation, context of usage and illustrations.

According to Gouws and Prinsloo (2006), the function of a dictionary is influenced not only by the users but also by the usage scenario, and the circumstances in which a dictionary is used should have a definite impact on the data distribution programme and the function of that dictionary. That is the reason why the microstructure of a bilingual dictionary focuses on the way it presents its elements with special reference to contemporary settings. By doing that, the bilingual dictionary promotes and assures the target user of its user-friendliness. The study is qualitative and has made use of three Northern Sotho – English bilingual dictionaries, namely: Kriel (1994), Pharos (2004) and Oxford (2007). A common cause for the problem identified in these bilingual dictionaries is that there is no intended age and educational group of the target users presented in either of the bilingual dictionaries. That portrays a lack of research and understanding of the headwords and their contextual meaning in modern society. This study analyses the presentation of the microstructure in the three selected Northern Sotho – English bilingual dictionaries with observation to cotext and context in the contemporary setting. The study has used content analysis and to provide an accurate and detailed analysis, the study has adopted the referential theory of meaning and the principle of user-friendliness. The analysis of the microstructure in the selected bilingual dictionaries was based on analysing the two expected (by the target users) relationships that the headword in the macrostructure is expected to have with the microstructure: the linguistic and the environmental (contextual) relationship. Nkomo (2010:375) argues that it cannot be denied that dictionaries may be lacking in terms of specific user demands, but the suggestion that dictionaries have no ability to solve these needs is incorrect. Therefore, the study has identified that the presentation of the microstructural features, such as translation equivalents, structural markers and contextual guidance are not presented in looking at addressing issues of context and cotext. The presentation of these elements lacks accuracy as some of them have been mistranslated or decontextualised. The study has recommended that future Northern Sotho-English bilingual dictionary projects, must conduct thorough research and consult the target users on the context of these elements and language specialists on the cotext issues related to the microstructural elements.

References

Gouws, R.H. and Prinsloo, D.J. 2006. Lexicographic Presentation of Grammatical Divergence in Sesotho sa Leboa. *South African Journal of African Languages* 26(4): 184-197.
Nkomo, D. 2010. Affirming a Role for Specialised Dictionaries in Indigenous African Languages. *Lexikos* 20: 371-389
Nthambeleni, M. 2016. *A Critical Analysis of the Role of Translation in Lexicography with Special Reference to Selected Tshivenḓa-English Bilingual Dictionaries*. PhD dissertation. Polokwane: University of Limpopo.

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Collocations and African language lexicography

Elsabé TALJARD (elsabe.taljard@up.ac.za)
Department of African Languages, University of Pretoria, Pretoria, South Africa
Danie PRINSLOO (danie.prinsloo@up.ac.za)
Department of African Languages, University of Pretoria, Pretoria, South Africa

Being familiar with the use and meaning of collocations is of crucial importance for any language learner, especially when that language is a first additional or second additional language. Collocations contribute to fluency and idiomatic language use that characterises the language use of first language speakers, but is often challenging for language learners. It is therefore important that learners' dictionaries give users access to frequent collocations, especially when production in the target language is involved. Collocations are linguistic phenomena and we start with a theoretical overview of the nature of collocations and the different views held by linguists regarding this phenomenon. We argue that it is important for lexicographers to take note of these views, but that lexicographers can allow themselves a much more robust approach to the identification and consequent treatment of collocations in a dictionary. A lexicographic approach to collocation must correspond to the actual nature of lexicography, which is related to the function of a dictionary, the user situation in which the dictionary is consulted and the lexicographic needs and skills of the target user. The real purpose of a dictionary is to enable the target user to find information effectively in order to satisfy the lexicographic need that initiated the dictionary search, compare Gouws (2021: 50). Within the South African lexicographic context, specifically where it affects the African languages, these aspects are of crucial importance for the lexicographer in compiling a dictionary - rather than the rigid application of a theoretical approach to collocation as a linguistic phenomenon. A proper dictionary entry should contain the most frequent collocations of the lemma, as well as examples in which the combination of collocates with the lemma are illustrated. In this paper, we examine the extent to which, in particular, bilingual learners' dictionaries with an African language as one of the language pairs meet this need of South African target users.

We argue that the lexicographer should identify, lemmatise and treat typical collocations of high frequency lemmas, e.g. for the lemma *ipona* 'see oneself', collocations such as *ipona molato* 'see oneself (as) guilty', *ipona phošo* 'see oneself at fault', *ipona molahlego* 'see oneself as lost', should be treated. Treatment of collocations in Sepedi dictionaries typically vary from no treatment at all or presentation as a usage example only, instead of being presented as multi-word lemmas with appropriate treatment, cross referenced from the articles of both members of the collocation.

We further investigate different possibilities regarding the (semi-)automatic extraction of collocation information from electronic corpora with particular reference to possible challenges that resource-poor African languages have to face. It is often argued that corpus query software developed for the extraction of collocational information has been developed for languages such as English that have comprehensive electronic resources, for example mega corpora and automatic part-of-speech annotators, and that this software offers limited possibilities for the African languages. We demonstrate that available corpus-query software is relatively language agnostic, and although working with small corpora which are not annotated for part-of-speech limits the usability of these software, they are nevertheless valuable lexicographic tools.

For the identification of collocations for lexicographic purposes we therefore suggest that (a) raw frequency is considered as a first indicator of a possible collocational relation, (b) the strength of the collocational relation is calculated using MI3 and a minimum cut-off value for inclusion in a dictionary is determined, and (c) the lexicographer makes the final decision

regarding the inclusion or exclusion of collocations in the dictionary. An initial survey of 5 dictionaries in which Sepedi is one of the language pairs reveals that collocations are, generally speaking, inadequately treated. This is despite clear and lexicographically well-motivated guidelines provided by Gouws (2015) for the treatment of collocations. We present a number of options for the treatment of collocations in both paper and electronic dictionaries. With regard to the latter, we specifically investigate the possibilities offered by the mouse functions of hovering and clicking, cf. Prinsloo and Van Graan (2021). We conclude that (a) lexicographers should have an adequate working knowledge of collocations as linguistic phenomenon, (b) maximal use of existing corpus-query software can assist the lexicographer in accurately identifying frequent collocations, and (c) despite restricted resources for the African languages, there is no reason why collocations cannot be adequately treated in both paper and electronic dictionaries.

References
Gouws, R.H., 2015. The presentation and treatment of collocations as secondary guiding elements in dictionaries. *Lexikos* 25: 170-190.
Gouws, R. H., 2021. 'n Verbeterde leksikografiese dataverspreiding- en inligtingsonttrekkingstruktuur. *Stellenbosch Papers in Linguistics Plus* 61: 49-64.
Prinsloo, D.J. and N.D. van Graan. 2021. Principles and Practice of cross-referencing in paper and electronic dictionaries with specific reference to African languages. *Lexicography, Journal of Asialex* 8(1): 32-58.

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Inclusivity with a multilingual glossary in a teacher education environment

Michele F. VAN DER MERWE (michelevdm@sun.ac.za)
Department of Curriculum Studies, Stellenbosch University, Stellenbosch, South Africa

As the notion of inclusivity is well-known and pursued in the teaching environment, my purpose would be to extend it with regards to the use of a multilingual glossary in a higher education environment. According to *The Language Policy for Higher Education* (2020: 10) indigenous languages should be developed and strengthened as languages of scholarship, teaching and learning and communication at higher institutions. Indigenous languages could be valued as sources of knowledge, capable of informing learning of different disciplines in higher education (*Language Policy for Higher Education*, 2020: 15). *The Language Policy* also recognises the *de facto* status of English as the language of learning and teaching across South African higher education institutions and calls upon universities to adopt a flexible approach in the implementation of English as the language of learning and teaching. However, the majority of students at South African universities are exposed to an education system where the language of learning and teaching is not the L1 (Taljard 2015: 388).

The Language Policy for Higher Education (2020: 13) seeks to address the role of higher education in preparing sufficient language teachers, interpreters, translators and other language practitioners, to serve the needs of a diverse South African multilingual society. This has consequences for teacher education programmes in South Africa, as faculties of education also needs to adhere to language requirements of undergraduate teaching programmes. According to *The Minimum Requirements for Teacher Education Qualifications* (MRTEQ 2015:24) all teachers who successfully complete an initial professional qualification should be proficient in the use of at least one official South African language as a language of learning and teaching (LoLT), and partially proficient (i.e. sufficient for purposes of basic conversation) in at least one other official African language, or in South African Sign Language, as language of conversational competence (LoCC). If the LoLT is English or Afrikaans, then the LoCC must be an African Language or South African Sign Language.

The Language Policy for Higher Education (2020: 16) recognises the promotion of indigenous African languages for use in scholarship would require the development of dictionaries and other teaching and learning materials. A glossary in three South African languages could benefit such students and ensure a more inclusive learning environment for them.

Promoting successful communication, a multilingual teaching and learning environment in the higher education sector entails more than providing a digital glossary to users. Such a digital glossary, in this case a mobile glossary, is freely available to students, but does not necessarily provide satisfactory solutions for challenges in the multilingual and digital environment. According to Campoy-Cubillo (2015) the incorporation of dictionary use in a curriculum grants it a greater value as a learning tool. A multilingual glossary could only be beneficial if it forms part of the academic repertoire, of students and lecturers. A programme was thus designed to integrate the language resource in the teaching and learning framework of a faculty of education in South Africa.

Researchers like Lew (2015: 234) and Kosem, et al. (2019: 94) studied university students or language professionals as their typical dictionary users. University students at a faculty of education would be the focus of the presentation. The methodology for research presented would include a description of qualitative and quantitative data informed by a usability study. Qualitative data would include responses of participants involved in the study and quantitative data would refer to results of content area vocabulary tests.

Research questions to be answered in the paper are: How can a mobile glossary be integrated in teaching and learning in a faculty of education? What change occurred with the integrated teaching of the glossary? The process of integration is described regarding the methodology used in the process, the number of participants in the process, as well as the results of the process. Preliminary results show a significant increase in participants' content area vocabulary. The inclusive integration of mobile glossaries could open new possibilities in language teaching and learning and promote inclusivity with regard to language use.

References

Campoy-Cubillo, M.C. 2015. Assessing dictionary skills. *Lexicography: Journal of Asialex* 2: 119-141.

Department of Higher Education and Training. 2020. *The Language Policy Framework for Higher Education Institutions.*

Kosem, I., R. Lew, C. Műller-Spitzer, M. Ribeiro Silveira and S.Wolfer. 2019. The Image of the Monolingual Dictionary across Europe. Results of the European Survey of Dictionary Use and culture. *International Journal of Lexicography* 32(1): 92-114.

Lew, R. 2015. Research into the use of online dictionaries. *International Journal of Lexicography* 28(2): 232-253.

Taljard, E. 2015. Collocations and Grammatical Patterns in a Multilingual Online Term Bank. *Lexikos* 25: 387-402.

Department of Higher Education and Training. 2011. *The Minimum Requirements for Teacher Education Qualifications.*

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Developing a dictionary in Nǀuu, Nama, Afrikaans and English from field notes

Menno VAN ZAANEN (menno.vanzaanen@nwu.ac.za)
South African Centre for Digital Language Resources, North-West University, Potchefstroom, South Africa
Bonny SANDS (Bonny.Sands@nau.edu)
Department of English, Northern Arizona University, Flagstaff, Arizona, USA
Kerry JONES (jonesleekerry@gmail.com)
African Tongue, Cape Town, South Africa; Department of General Linguistics, Stellenbosch University, Stellenbosch, South Africa

Over the years, field linguists collected huge amounts of linguistic information in the form of field notes from many (even extinct) languages. They come in different forms, e.g., written on paper, recorded on tape, or digitally. Here, we share experiences of converting digital field notes into a dictionary (Sands and Jones[i] 2022). We describe the conversion process and focus on practical aspects.

The field notes were collected over a period of over twenty years. The information was provided in a spreadsheet with columns separating different types of information: the source language (Nǀuu), three corresponding translations (Nama, Afrikaans, and English), pronunciation information (as IPA for Nǀuu), part-of-speech of the Nǀuu word, parentheticals containing extra information of the Nǀuu word (in three translations), a semantic code, audio recording filenames, and additional comments. Some

cells were coloured indicating requiring additional quality checking. Although languages were separated in different columns, cells often contained multiple words, for instance, related to different dialects. For Nǀuu, some words were marked as Eastern or Western dialect (and others unmarked). Additionally, there were Afrikaans and Nama translations from two dialects each. Some English words were specifically South African English. Dialect information was labelled behind words, e.g., "ǁ'ûi ke ǁ'ng (Western); ǁ'ôe ce nǁ'ng (Eastern)" [sunrise]. This project not only documented an endangered language, but unique lexical entries were also recorded in "Onse Afrikaans" (Our Afrikaans) and South African Nama for the first time.

To develop a physical dictionary, an online portal (https://dictionary.sadilar.org), and a mobile app (Saasi Epsi, https://play.google.com/store/apps/details?id=org.sadilar.mdaf), conversions of the spreadsheet data in other formats were required. A conversion program was developed, which created a document written in LaTeX (a typesetting language) (Lamport 1994) and a format similar to XML (which we call "XML" although it does not adhere to the XML requirements) forming the basis for the dictionary portal and app.

The conversion program is specific for this spreadsheet, but several components are reusable. First, the information from the spreadsheet is imported and converted into an internal data structure. This data structure contains the full dictionary information in separate variables. From the data structure, the LaTeX and XML outputs can relatively easily be generated.

Before converting the language data into LaTeX and XML outputs, the spreadsheet was cleaned up. As the spreadsheet is designed for field linguists to store linguistic information, it contains information that humans can easily parse, but which introduces problems for automatic analysis. For instance, some dialect labels were used inconsistently or contained additional information readable to humans. Additionally, some cells were coloured, which is more difficult to handle computationally.

During the import phase, the different languages and their dialects are separated into different fields. Although each row describes one concept, each cell may lead to multiple head words, for instance when different dialects have quite different words for a concept. However, when these words are written so similarly that they end up close together in the dictionary, there is no need to create different lemmas for them. To indicate which words are headwords (or not), special markers (i.e., commas and semicolons) are used in the spreadsheet.

During the output phase, non-ASCII characters require special treatment. The XML format allows for Unicode characters, but for the LaTeX format, we converted all non-ASCII characters (e.g., IPA and click symbols) into LaTeX commands. (Note, some LaTeX programs handle Unicode characters, but these have other limitations. pdfLaTeX was used which requires markup commands for non-ASCII characters.)

The portal and app provide pronunciation guidance as audio. To limit data usage and to keep the app small, different audio formats were considered. In the end, the OPUS encoding led to a small audio file size while retaining high audio quality.

References
Lamport, L. 1994. *LaTeX: A Document Preparation System*. Reading, MA, USA: Addison-Wesley Publishing Company.
Sands, B., and Jones K. (eds.). 2022. *Nǀuuki Namagowab Afrikaans English ǂXoakiǂxanisi/Mîdi di ǂKhanis/Woordeboek/Dictionary*. Stellenbosch: African Sun Media for African Tongue.

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[i] In collaboration with Kassie, A., Seekoei, G., Koerant, H., Olyn, A., Koper, H., Brou, K., Vyt, ǀAbaka Koper, V. Rooi, ǀU, Sauls, S. Vaalbooi, E., Esau, K., Snyman, C., van Wyk, D., Sussie Bok, M., Kruiper, I., (Sakkas) Kruiper, L., Gewersk, L, (Oulet) Kruiper Pietersen, L., Jagers, F., James, M., van der Westhuizen, H., Collins, C., Witzlack-Makarevich, A., Job, S., (Betta) Steyn, F., van der Berg, D., Mantzel, D., Damarah, W., van Zaanen, M., Miller, A., Namaseb, L., Brugman, J., and Exter, M.