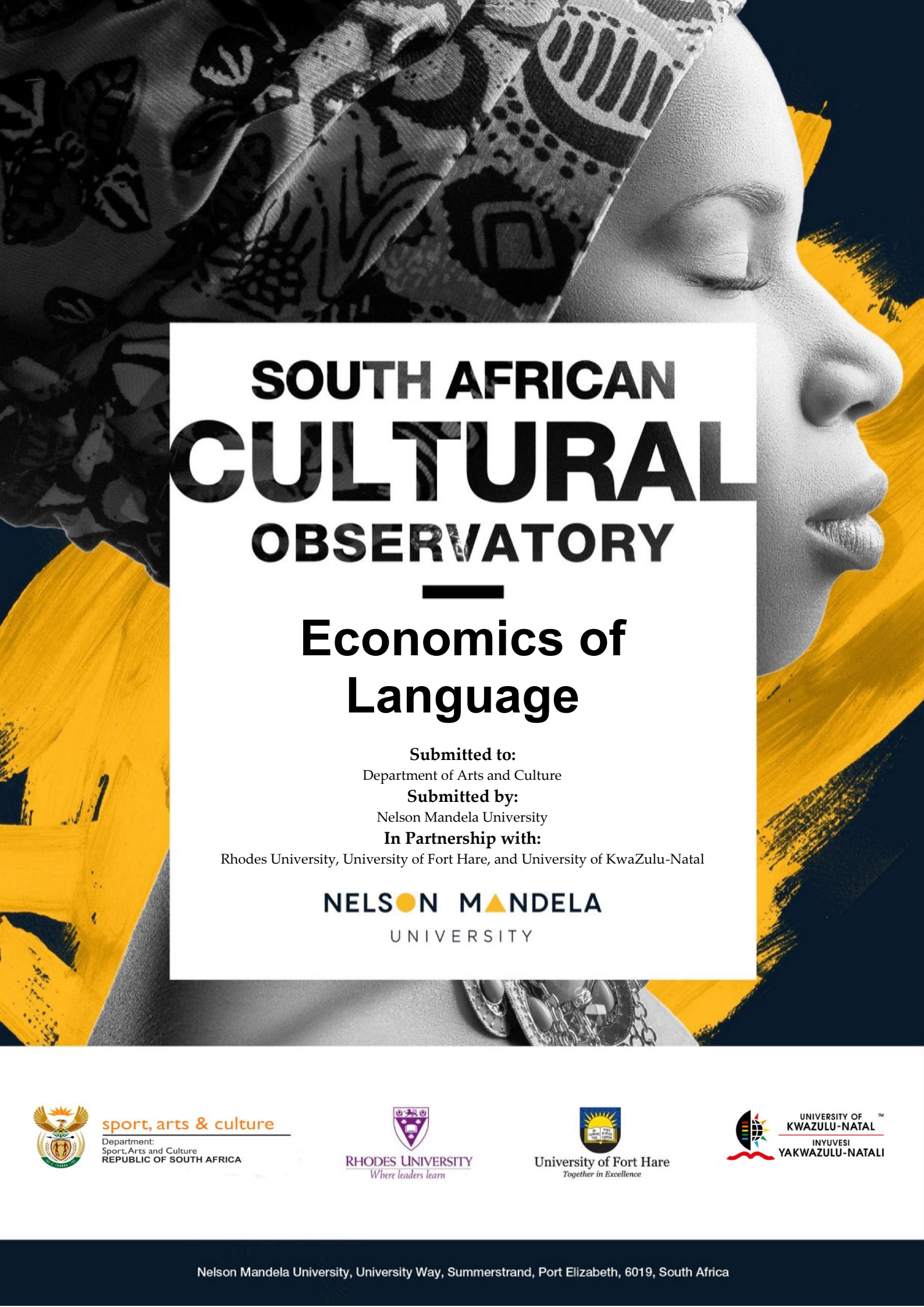




SOUTH AFRICAN CULTURAL OBSERVATORY

Economics of Language

Submitted to:

Department of Arts and Culture

Submitted by:

Nelson Mandela University

In Partnership with:

Rhodes University, University of Fort Hare, and University of KwaZulu-Natal

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South African Cultural Observatory Report

Economics of Language

December 2022

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Abbreviations

AI	Artificial Intelligence
ASEAN	Association of Southeast Asian Nations
CCI	Cultural and Creative Industry
CSA	Cultural Satellite Account
DAC	Department of Arts and Culture
DACST	Department of Arts, Culture, Science and Technology
DSAC	Department of Sport, Arts and Culture
EC	Eastern Cape
EC DEDEAT	Eastern Cape Department of Economic Development, Environmental Affairs and Tourism
ECSC	European Coal and Steel Community
EEC	European Economic Community
EOL	Economics of Language
EU	European Union
FS	Free State
GDP	Gross Domestic Product
GVA	Gross Value Added
IDIL	International Decade of Indigenous Languages
ILO	International Labour Organization
IO	Input-Output
IPI	International Press International
ISCO	International Classification of Occupations
IVs	Instrumental Variables
KZN	Kwa-Zulu Natal
LANGTAG	Language Plan Task Group
LMDSA	Labour Market Dynamics in South Africa
LP	Linguistic Proximity
LPP	Language Policy and Planning
MDG	Millennium Development Goal
MLM	Minority Language Media
MP	Mpumalanga
NIDS	National Income Dynamics Study
NLPF	National Language Policy Framework
OECD	Organisation for Economic Co-operation and Development
PanSALB	The Pan South African Language Board
PPP	Public Private Partnerships
PR	Public Relations
QLFS	Quarterly Labour Force Survey
RDP	Reconstruction and Development Programme
SACO	South African Cultural Observatory
SALPC	South African Language Practitioners' Council
SALPCA	South African Language Practitioners' Council Act
SAM	Social Accounting Matrix
SDG	Sustainable Development Goal
SIC	Standard Industrial Classification

SNA	System of National Accounts
Stats SA	Statistics South Africa
UCT	University of Cape Town
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UNSC	United Nations Statistical Commission
UOLA	Use of Official Languages Act
USA	United States of America
VAR	Vector Auto-Regressive
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

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Executive Summary

This report has a three-fold objective essentially. Firstly, to provide an introduction to the field of Economics of Language (EOL) and its relevance to Language Policy and Planning (LPP). Secondly, it considers the context for the more systemic use of economic analysis for LPP at national and sub-national levels. Thirdly, it provides an important empirical study of the value-add of differing official languages regarding South Africa's Gross Value Added (GVA) and, more specifically, the economic effects of creating and empowering language practitioners in South Africa, particularly in the promotion of the indigenous languages.

A central thread in the report is the question of value regarding languages, both in an intrinsic and instrumental sense. However, the distinction is often blurred in practice, with language being a means of conceptualising and communicating in respect of human activities, including commerce, a point on which economists across the centuries, such as Adam Smith and Jacob Marschak, concur.

While some of the classical economists considered the economic implications of language, the sub-field of the EOL has often been associated with a seminal and eponymous 1965 essay on the 'Economics of Language' by Jacob Marschak, an economist whose career commenced in one of the republics of post-revolutionary Russia and continued via Germany, England, and through to the United States of America (USA). Marschak focused on language and communication as a form of economic thinking and practice. The major stimulus to the emergence of the field in the 1960s and 1970s was the work of several Canadian economists interested in the relationship between English and minority French-speaking citizens in Canada and those territories and states with a French legacy, most particularly Quebec. Early work dealt with the relationship between language, ethnicity, and nationalism, as well as the question of wage differentials between English and French-speaking citizens. It was not long before not too dissimilar kinds of studies were conducted in the USA looking at issues such as differing returns to white English, Afro-American and Hispanic citizens and recent immigrants. Over time, these kinds of studies were refined and extended.

Developments in related spheres of work by economists, most notably the dynamics of discrimination in labour markets and the emergence of the economics of education, provided theoretical and methodological touchstones for the field of the EOL. The economics of education grew more quickly into a substantive and recognised area of economics speciality, but there remained significant intersections. This was particularly so with the refinement and popularisation of the idea of human capital through the work of Gary Becker.

Theories on discrimination in labour markets and human capital theory provided a springboard for a range of new work in North America on the EOL. The growing self-confidence in the EOL field saw its influence spread, most specifically to Europe and the United Kingdom (UK). The development of the European Union (EU) in political and economic terms especially saw a range of new languages being used officially as well, and, over time, a rejuvenation of certain regional and endangered languages, including a growth in identity politics in certain regions. The diffusion of EOL approaches to developing economies was a more uneven and fragmented process, but pockets of studies have expanded in recent decades, most notably in high-performing developing economies in the Far East.

By the turn of the century, the EOL field had been surveyed on occasion and was enjoying incremental growth. There were also new developments, most notably the application of game theory to the field, that

added to the diversity of the field and also revived interest, *inter alia*, in the work of Marschak. The emphasis broadened from the relationship between language and economics and economic activity to the role of language in the discipline of economics.

Future Areas of Research

Several areas of research can be identified in contemporary EOL studies. A long-term and substantive field of enquiry is the relationship between language, status and income. In recent years there has been an increased recourse to applied and advanced econometric models in certain writings. Language proficiency and fluency in a dominant language are usually major determinants of wages. This is particularly the case for immigrants in their employment dynamics. Furthermore, there is significant evidence that returns on foreign languages in certain regions, such as the EU, result in higher wage rates. It makes good sense for countries to develop foreign language skills, especially concerning those languages used commonly in international trade. Language and earnings relationships are also variously conditioned by statistical and taste-based preferences from employers. Furthermore, at a broader level, the play of ethnicity can affect the language and earnings relationship.

A further area of focus is that of language dynamics which considers the economic dimensions of the development and future of languages. As Grin (2002) emphasises, the use of language tends to appreciate rather than depreciate the value of language. The survival prospects of minority and/or endangered languages are a further key issue in the field of language dynamics. There are also some signs of more direct efforts to leverage economic development aspects of language diversity promotion.

An additional area of focus is the broader relationship between language and economic processes. A key example is that of sub-national and regional economic development. International business, cross-cultural management, and language interventions are further relevant areas.

Apart from these fields of interest, there are new emerging directions. These include the increased use of interdisciplinary work with a synthesis between quantitative and qualitative analyses. In addition, there is also a shift from mathematical to computational models where simulation and algorithms are deployed. An interesting further line of inquiry is using and valuing large-scale narratives, especially with social media. Such work provides some possibility of leveraging latent value in certain indigenous and vulnerable languages. Finally, there is something of a return to classic writings to search for potential and neglected insights into economics' relationship to language.

A modest but nevertheless important body of South African EOL-related studies is also considered. These have, to date, primarily focused on the returns to language proficiency in English and other official languages in South Africa. Despite continued unease in some language policy and activist circles, English is recognised internationally, including in many developing economies, in facilitating international trade and commerce. Some South African studies see, if anything, increased proficiency in the language, along with enhanced multilingualism, as the economically sensible option for the country.

The report also presents a series of good practice cases and examples. These include (i) a discussion of the United Nations (UN) International Decade of Indigenous Languages (IDIL); (ii) a consideration of the policy advice by Cambridge University and RAND Europe regarding inculcating foreign language proficiency as a means of increasing Gross Domestic Product (GDP) in the country; and (iii) the use of Artificial Intelligence (AI) to overcome language barriers in a cost-efficient way in higher education.

Chapter Two provides a compact discussion of the methodology and research methods employed in this report. The research is of a mixed methods nature. It has a substantive international, comparative review of the literature and theory on the field of the EOL. It includes a modest but not inconsequential body of literature on the South African dimension of EOL. In addition, it has an international and South African policy context predicated primarily on a desktop analysis. This is followed by quantitative modelling and estimation of the economic contribution of language to the South African economy. The study as a whole is informed by the importance of locating and enhancing the value (intrinsic and extrinsic) inscribed in and associated with languages in the South African contexts and the identification of the means for more systemic application of an EOL approach as a whole in LPP in public and even private sectors.

The empirical study estimates the contribution of language to South Africa's GDP and builds on a profile and mapping of employees in language occupations. This is carried out using the Statistics South Africa (Stats SA) series on Labour Market Dynamic in South Africa (LMDSA), which commenced in 2008. The information on language occupations per Standard Industrial Classification (SIC) is used to determine the weighting employed in a Social Accounting Matrix (SAM) or Input-Output (IO) approach to extract the language-value-added component per SIC.

Regarding the relationship between language and international trade, the gravity model is used to determine the contribution of language to the value of total trade goods and services between the countries concerned.

Chapter Three examines select international trends in policy and practice in respect of (i) language diversity, (ii) the protection of indigenous and endangered languages, and (iii) their intersection with discourses on culture and development, cultural diversity, and sustainability and biodiversity. There is a particular focus on the UN and several of its agencies, including the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Conference on Trade and Development (UNCTAD) and the International Labour Organization (ILO). This orientation allows a more coherent charting of the discourses in play.

A series of shifts to a more self-conscious promotion and protection of languages is noted. In addition, there are indications of the convergence of discourses on culture and development, and even the creative economy, with an increased concern with at-risk and/or indigenous languages. In these discourses, the growing emphasis on the question of the multi-dimensional value of such languages is noted. Intrinsic and more market-applicable notions of language are in play. The question of the beneficiation of indigenous languages is not unproblematic, and more evidence-rich analyses may be required in the future.

Chapter Four provides an overview of strategic contextual issues regarding LPP in post-apartheid South Africa. A brief pictorial and tabular status quo snapshot of the diversity and spatial distribution of the designated main languages in South Africa is presented. This is followed by a short overview of the early post-apartheid phase of LPP, including the establishment of the Language Plan Task Group (LANGTAG) and its subsequent report. This phase saw relatively extensive widespread involvement and resulted in a well-received report from the group in 1996. This popular phase was attenuated over the years and saw LPP processes become more state-centred and top-down in succeeding decades.

The chapter then proceeds to the strategic policy productions and discourses of the early 2000s and after, most notably the National Language Policy Framework (NLPF) and the associated Implementation Plan of 2003. The Department of Arts, Culture, Science and Technology (DACST) (until 1998) and later the

Department of Arts and Culture (DAC) was, in effect, the lead agent of LPP, but the national Department of Education also played a crucial part, and the study focuses on their policy and implementation work in the early decades of the 21st century and certain institutional and policy shortcomings during this period.

Select challenges facing government during the time are outlined, and institutional shortcomings are discussed via a short discussion of the experiences and tribulations of the Pan South African Language Board (PanSALB), one of the leading agencies for language policy rights, as indicative of broader institutional issues. Some key debates about LPP in South Africa are indicated, including the critique of the persistence of a state-centred approach and new scholarly voices questioning the separation of community economic development and empowerment from the processes of conventional LPP. Challenges in regard to the protection of the endangered indigenous languages in South Africa, and the need to find cost-effective and broader-based interventions, including inter-sectoral and public and private partnering, are considered. The question of South Africa's growing immigrant population and new language challenges is considered. In addition, the importance of foreign language proficiency in trade and the implications thereof is examined briefly, and the importance of foreign language acquisition for enhanced trade and interaction with the rest of Africa. This would include languages such as Swahili (as a regional lingua in France), French, Portuguese and Arabic.

Chapter Five presents the prime empirical evidence of the report, namely a structured measurement of the contribution of language to the South African economy. The modelling is predicated on identifying and enumerating a diverse grouping of language practitioners using a SAM and invoking a range of official data. It is estimated that the contribution made to South Africa's GVA in 2019 was R10.3bn, representing 0.17% of the country's GVA. However, as language is a sine qua non for economic activity, this is, in effect, a conservative estimate. It is estimated that the language sector pays approximately R713m in taxes and receives R25m in subsidies. In addition, the sector is distinctly labour-intensive, which has positive implications for additional job creation in the relevant sectors.

Thereafter, a gravity model approach is developed for measuring the importance/effects of language on trade in South Africa. Having a common language improves trade between nations. Trade is enhanced further when speaking a common language. In most instances, a common language is a learnt language.

This South African empirical section would seem to confirm the thrust of the preceding discussion of international literature and their findings. It also suggests the value economic input can make in language policy deliberations and interventions.

Chapter Six deals with policy-relevant recommendations and future research areas outlined in the following section.

Recommendations

The first recommendation is predicated on the demonstrated importance of an EOL approach to and facility for economic analysis and inter-disciplinary collaboration in regard to LPP. The core recommendation is that the relevant agencies establish a cost-effective unit to focus on relevant EOL studies to complement existing agencies and their research teams in regard to strategic LPP matters and provide an essential economic and quantitative dimension. The establishment of such a structure on a formal public-private partnerships (PPP) basis to provide for a more balanced and comprehensive set of inputs as well as to help cut costs is advised. Links and partnerships with relevant international agencies and bodies would provide a fruitful exchange of views and collaboration.

The second recommendation is that the question of value is worth emphasising in all aspects of LPP activities. It entails the consideration of how (potentially) scarce resources are utilised in such activities and whether they are being used in a near-optimal fashion. The use of an economic perspective should assist more directly in the evaluation and monitoring of various interventions and comparing the outcomes.

The third recommendation emphasises the importance of increased proficiency in identified foreign languages to facilitate international trade, including the African continent. A programme introduced on an incremental basis, international languages compatible with international trade activities of South Africa should be taught in a targeted manner in South Africa, including the likes of Arabic, Mandarin, French, Spanish, Portuguese, Russian, and Swahili, and enhancing proficiency in English. This kind of intervention should boost South Africa's GDP over time.

The fourth recommendation is that communities be involved more directly in LPP ventures. At various levels, from the national to the local, LPP should be appropriately integrated with socio-economic development efforts. There is a range of policy efforts at the sub-national level which could benefit from a more specific language emphasis. These include cultural and heritage tourism, business promotion and reindustrialisation initiatives, Cultural and Creative Industry (CCI) development ventures, including clustering and incubation efforts, and human capital and resource planning. Furthermore, and as mentioned above, the creative economy needs to mesh with language development and beneficiation more explicitly.

The fifth recommendation concerns the question of infrastructure, which can be underestimated in regard to language development and the related field of cultural policy. Public libraries are crucial and oft-neglected sites in this regard. International good practice suggests the possibilities of using select libraries and their staff and helpers to build specialised and accessible special collections around themes of language preservation and promotion and enhancing multilingualism and multiculturalism.

The final recommendation is the possibility of looking at volunteer capital to supplement resources utilised in language promotion in South Africa. Volunteer capital is a central aspect of the social and economic development strategising of certain countries and their sub-national governments. Australia is one the leaders in this regard, with its various state governments running formal volunteer divisions, which contribute several billion Australian dollars per annum in terms of contribution to GDP. Interestingly, the most recent report of the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (EC DEDEAT) raises the possibility of the Eastern Cape (EC) province looking at deploying such resources.

In addition to the above recommendations, a number of suggestions regarding future research are put forward. A stimulus to an integrated and policy-relevant research agenda and a means of crowding in resources and utilising existing networks would be an EOL unit. The international literature review has provided some guidelines for possible future research.

Introduction

In recent years, the question of language and its actual and potential contribution to economic development has received more focused attention internationally. This can be attributed in part to the increased policy attention devoted by government and business to the question of charting and benefiting more coherently and extensively the creative economy and the constituent CCIs. On a related note, increased scholarly attention is afforded to the relationship between language proficiency and economic trade and activity.

Furthermore, on a different but not unrelated tack has been a growing concern with the question of how to preserve and, where possible, develop and enhance indigenous languages. These and other key concerns come together compellingly in the South African context and provide significant scope for expanded and new thinking regarding the economic effects of language.

As Lamberton (2002) stressed some twenty years ago, language remains an underappreciated material and symbolic resource and helps define us as a species. It governs a range of human activity and conditions peoples' ability to search for and secure employment. It is indispensable to communication in commerce and international trade. It is also crucial in diplomacy, negotiations and conflict resolution and the conduct of politics. The value of languages should concern scholars across the disciplinary spectrum. Prof Jan Fidrmuc (2022) of Lille University underlines the economic and policy implications of language today:

"In today's globalized world, people are increasingly mobile and often need to communicate across different languages. Learning a new language is similar to an investment in human capital. Migrants must learn the language of their destination country, but even non-migrants must often learn other languages if their work involves communication with foreigners. Economic studies have shown that fluency in dominant languages is important to economic success and economic efficiency. However, maintaining linguistic diversity also has value since language is also an expression of a people's culture".

Some high developing economies, such as China, have seen it essential to condense language diversity and look for streamlined solutions to internal and external languages for trade and state consolidation. High-performing multi-lingual economies, such as Switzerland, have benefited from language diversity. Developing economies face more challenges than such countries and have to find ways to work more closely with budgetary constraints in such calculations. However, such calculations cannot be left to the market alone. Increasingly, indigenous and at-risk languages are also seen as part of a comprehensive set of defences against unconstrained accumulation, resource depletion, global warming and climate change.

This study of the South African case is thus of great importance, as it seeks to determine the policy constraints and considerations, the contradictions, and the way forward for the South African state in the sustainable development and promotion of all South African languages. A key aspect of this is how to link African languages more directly to the market (including the creative economy) while confronting a range of institutional and fiscal constraints, mass unemployment and high levels of inequality, both personal and structural.

The goals of this report are as follows:

- To provide a substantive review of the international context in regard to language protection, enhancement and promotion of multilingualism and language diversity.
- To identify good and best international practice cases relevant to the South African case.
- To discuss debates/scholarly contributions of relevant methodological approaches and models for the estimation of the impact of national languages on GDP.
- To provide an overview of the language dynamics and development in South Africa with a compact historical and contemporary policy profiling.
- To consider the policy evolution within the current Department of Sport, Arts and Culture (DSAC) in regard to languages in the post-1994 period.
- To consider differing socio-economic development scenarios vis-à-vis the promotion and/or active beneficiation of such languages, taking cognizance of DSAC's commitment to national job creation efforts.
- To estimate or model the contributions of South African national languages to the national economy in terms of:
 - Employment;
 - GVA contribution; and
 - Quantify the impact of language on international trade from a South African perspective using the Gravity Model.
- To assess other African/international languages in South Africa and their significance in external trade in Africa and beyond.
- To develop scenarios with and without the formal link of languages with creative economy structures and funding.
- To provide policy recommendations.

In order to achieve these goals, the following research methodology was used:

- A review of South African and international literature (journal articles, policy papers and documents, and industry reports), including the South African Cultural Observatory (SACO) Mapping Study and relevant SACO reports, to give background and context.
- A quantitative review of the employment data using the various Stats SA publications.
- Estimating the GVA using a SAM.
- Developing a Gravity Model to determine the impact that language has on trade.

Conclusion

The report is not intended to be exhaustive or in any way definitive. It suggests that economic analysis can add value to current policy design and implementation processes. In addition, the notion of value in its varying facets is important to this study and allows us to link the question of linguistic diversity and the pursuit of multilingualism with new kinds of emphases and considerations in the traditional realm of LPP and find unexpected synergies across the sectors. With an increased concern nationally on the fiscal pressures on the South African state and the need to find both value-for-money and respond to developmental imperatives, this exploration of the question of the EOL in South Africa will hopefully open up new avenues of partnership and cost-effective means of promoting key components of our culture and heritage.

Chapter 1: Literature and Theory Review

Introduction

Chapter One considers the emergence and consolidation of the broad field of economics and language. It begins with an overview of the emergence of the sub-field of the EOL in the 1960s. Thereafter, a relatively detailed account of international theories and perspectives as this sub-field developed and matured from the 1970s onwards.

Consideration is also given to the still modest body of work on EOL-aligned research by South African economists, linguists, and other scholars. The chapter concludes with a brief discussion on selected international good practices.

International Perspectives c1960s-1990s

The term 'Economics of Language' and its emergence as a distinct disciplinary field is often attributed to a seminal study by Jacob Marschak (1965). He served as Secretary of Labour of the multilingual Terek Soviet Republic in the northern Caucasus in 1918-19 before emigrating to Germany and thereafter,

Micro-Case Study: Plain English in Civil Aviation

In 1990, Avianca Flight 52 from Columbia to New York City was placed in three holding patterns while en route to JFK. This caused a fuel shortage, which the Spanish-speaking pilots reported to air traffic controllers as "running out of fuel". Because the flight crew did not use the words "Mayday" or "emergency", air traffic controllers did not realise that a priority landing was needed. Seven minutes later, the engines ran out of fuel, and the plane crashed, killing 73 of the 158 people on board.

Since the 1970s, miscommunication has played a role in a number of major airline disasters, resulting in more than 1,500 deaths and dozens of 'close calls'.

In an effort to reduce the number of mistakes caused by language barriers, the International Civil Aviation Organisation (ICAO) now requires pilots and air traffic controllers to speak aviation English fluently. But there is also a critical need for pilots and controllers to be proficient in plain English. In this way, when instructions are given to descend, the pilot will not *ascend* – as the pilot of Saudi Arabia Airlines did in India in 1996, colliding with a Kazakhstan National Airways cargo plane.

Currently, this means that around 20,000 pilots attend American aeronautical schools to improve their English language skills.

Policy implications: *South African training institutions should be encouraged to develop programmes that will allow those involved in civil aviation to meet the language requirements of ICAO.*

England and then America. Fluent in a number of languages, he applied economic terms and concepts such as costs and benefits to linguistic analysis (Arrow 1977 etc.).

Marschak's 1965 work was predicated on his theorising on the design of a communication system for a small fighter plane. The hypothetical brief was to ensure that the weight of the communication was kept as light as possible to help optimise the plane's speed, rate of climb and manoeuvrability and/or the load of fuel and ammunition it would be able to load. Every unit of weight saved on communication hardware would improve the plane's performance. The messages that would be exchanged by the pilot with his gunner, other planes, or ground control that took heed of the necessary actions of navigation and fighting were relatively limited. Verbal messages would not be necessary, nor would a telephone. A

compact set of dials and off-on signals would suffice (Marschak 1965; Rubinstein 2000).

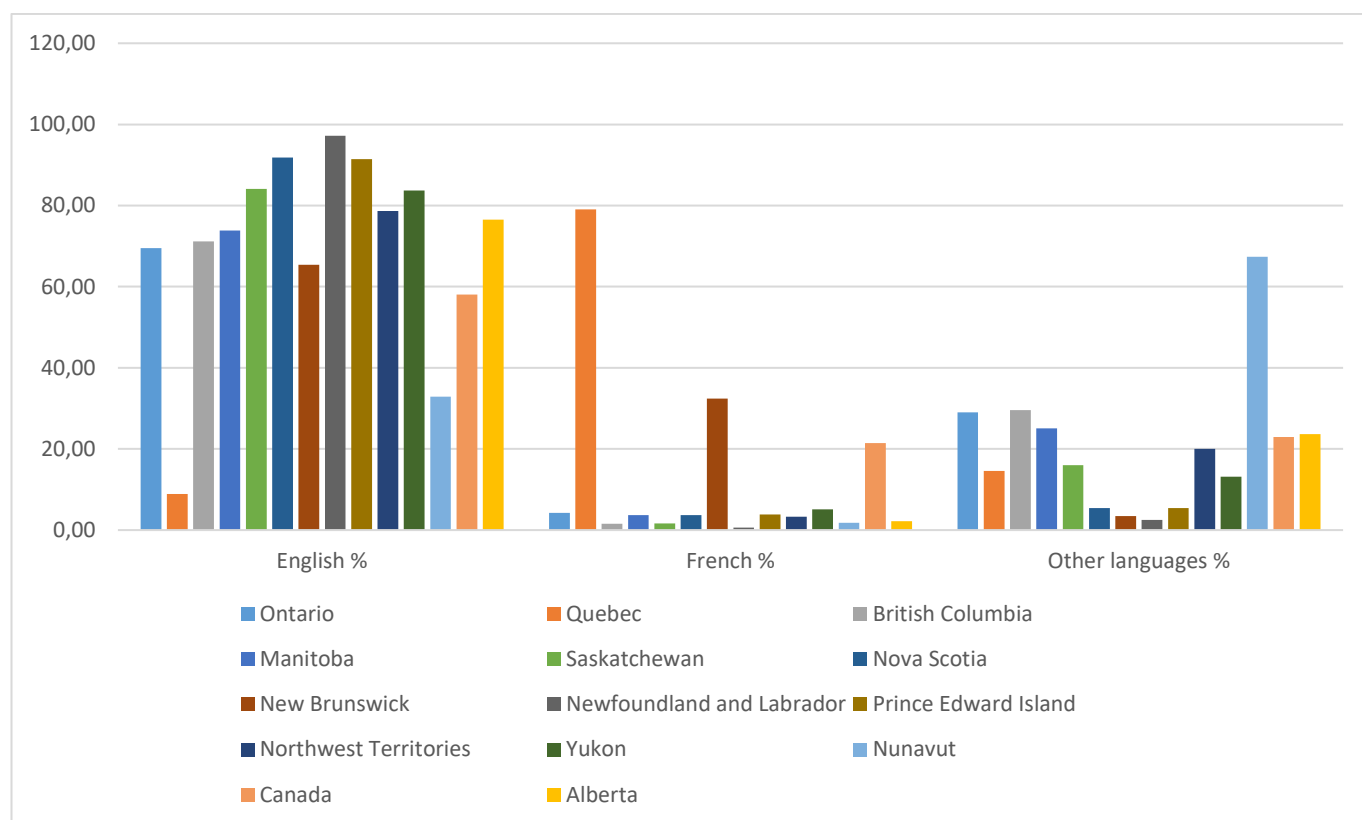
This engineering problem raised key questions about the nature and use of language, Marschak argued. Key questions included which communication systems are most suitable for a particular goal. The work on language was part of his broader work on the subjects of rational decision-making under uncertainty, inter-

individual communication of information, and the related area of the optimal organisation for collective decision-making (Marschak 1974). This led to works on the economics of communicating, inquiring and decision-making; a theory of teams, conceptualising the nature and scope of an efficient several-person firm and a theory of teams (Marschak & Radner 1974; Arrow 1977).

Although Marschak (1965) appears to have been the first formally to conceptualise and name the field, his particular line of approach took some time to gain traction among scholars. Rather than focus on the question of economic thinking within the structures of language, scholars in the closing decades of the 20th century tended to focus on the relationships between language and the economy in differing local, national, and supra-national contexts (Grin 1983; Rubinstein 2000).

As Figure 1 below illustrates, there are two dominant languages in Canada, and the dynamics and conflict around the two languages have had a distinct impact on the politics of the country. Indeed, the question of the possible independence of Quebec was a touchstone for a range of scholars working in or moving into the field.

Figure 1: Mother Tongue Distribution in Canada¹



The work of Canadian economists predominated in the years immediately after 1965, with the question of language being ascribed to ethnicity, especially in regard to the relationships between French and English speakers in the country, particularly the Quebec territory. The identified function of language as deployed in sociolinguistics was something of a touchstone for economic analysis (Breton 1964, 1978; Zhang & Grenier 2012). One of the chief areas of research emphasis was the differing returns in terms of wages in regard to English and French speakers (Grin 2002; Zhang & Grenier 2012; Bloom 1991).

¹ Statistic Canada, 2016 Census

A related conditioning factor was the economic, socio-political, and institutional transitions which resulted in the formation of the EU and associated EU citizenship when the Maastricht Treaty signed in 1992 was enacted in 1993. The establishment of the European Coal and Steel Community (ECSC) and the European Economic Community (EEC), by the 1951 Treaty of Paris and 1957 Treaty of Rome, respectively, anticipated this extensive and comprehensive regional association/venture. Switzerland maintained its long-term neutrality but looked to foster close relations in the field of politics, trade, and science with the EU (EU 2021).

The earlier work on the EOL was informed by emerging scholarship by economists in the 1960s on the growth of nationalism and its components (e.g. Breton 1964). Among the concerns was the nature and effects of discriminatory government policies within large countries with federal structures (Breton 1967).

The work of Albert Breton on nationalism provided a range of theoretical and methodological insights that were of value to the contiguous field of language and language policy. Breton saw this as an interdisciplinary project, as evidenced in *Nationalism and Rationality* (Breton et al. 1995), which sought to provide a variety of analyses of the emergence and pervasiveness of nationalism from leading social scientists utilising a rational-choice analysis.

As Breton pointed out in his 1964 paper, economists had 'allocated considerable energies and efforts to the study of the different forms in which resources can be and have been invested by households, by firms and by governments'. However, there was one form that had evaded attention, what Breton described as 'investment in nationality or ethnicity'. He distinguished between cultural nationalism and political nationalism, with the former mostly limited, as he saw it, 'to the development of a frame of mind capable of appreciating things that are national because they are national'. He acknowledges, though, that cultural and political nationalism mutually reinforce one another. Political nationalism, by contrast, fuels activities which include the assertion of claims and demands on a particular national or ethnic group. Breton, via his focus on nationalism, was central to the early efforts of applying economic analysis to the workings and effects of language (Breton 1963, 1978; Zhang & Grenier 2012).

The other emerging body of work came in the post-1965 period and was centred on the USA, where the initial focus was on wage differentials among the Hispanics in the country compared to first-language English speakers. The significance of language in regard to immigrants and job seeking in the USA. also informed the overall development of a body of work on EOL in the country (e.g. Leal & Trejo 2011).

Until the later 1980s, the EOL appears to have been primarily the preserve of North American economists. However, though working with mainstream approaches, there was an expansion of the scope and the nature of the research, as well as initial rounds/self-conscious efforts to map and integrate the field (Grin 1996, 2002; Zhang & Grenier 2012).

The creation of the new field of EOL was not a seamless process and saw changing emphases and

Micro-Case Study: The Code Talkers

During the 2nd World War, the Allies had a problem – the Germans were able to quickly de-code their secret communications because the codes of the Allied forces were based on other European languages or mathematical concepts.

To counteract this, the US Army recruited and trained soldiers from Native American nations, including the Navajo. A code was developed by giving a Navajo word for key phrases and military terms. For example, the Navajo words “iron fish” were used to signify a submarine, while their word for “hummingbird” was used to refer to fighter planes. At first the code consisted of 211 terms, and by the end of the war had expanded to 411 terms.



<https://commons.wikimedia.org/wiki/File:ChoctawCodgers.jpg>

The Navajo soldiers became known as the Code Talkers and were assigned in pairs to a military unit – one soldier would operate the radio while the other would code or de-code messages. Their work contributed greatly to the victory of the Allied forces in World War 2, and in 2001 the Navajo soldiers were awarded USA congressional gold medals in recognition of that contribution.

The fact that the USA military leaders acknowledged that the Code Talkers played a crucial role in them winning World War 2, is ironic. Because for many years, Navajo children were forced to attend schools that would punish them for speaking their native language.

Policy implications: *Indigenous languages have value and should be protected and preserved.*

discursive shifts over time. The initial series or ‘generation’ of studies (Grin 1996; Zhang & Grenier 2012; Ginsburgh & Weber 2018; Weber & Ginsburgh 2018) tended to depict and ascribe language as a kind of ethnic characteristic or attribute. This ascription would or could affect the socio-economic status of a person, particularly in regard to the level of earnings. This, in turn, is often seen as part of the process of discrimination (e.g. Becker 1957). This perspective has been invoked to examine the differences in earnings between white, Hispano and African-American citizens. It has also underpinned inquiry into earnings differentials between French- and English-speaking residents in Canada (Zhang & Grenier 2012; Grin 2002).

Such emphases in the early Canadian and USA studies in the EOL field were expanded and reworked by new and contiguous theoretical developments in economics more generally. Two entwined developments were the institutionalisation of the economics of the education field and the emerging discourse on human capital theory. These trends helped usher in the second phase of EOL studies (Zhang & Grenier 2012; Grin 2002).

The second phase drew on a range of theories, including the newly established field of the economics of education and discourse on human capital (Grin 1994; Siow 2015).

Gary Becker’s seminal text *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, was originally published in 1964 and revised and republished several times.

Becker’s joint appointment as professor of economics and sociology at the University of Chicago was a tribute to his work on a range of sociological and other social science topics. He felt that a wide variety of human behaviour could be explained through an assumption of rational and utility-maximising human agents. The idea of human capital found ready application in the terrain of education economics and mainstream economics more generally (Siow 2015).

Human capital theory endorsed investment in education and skills more generally. A number of scholars in the EOL field moved to explore the idea that language acquisition and especially learning constitutes a distinct investment in human capital (Breton 1978; Vailcourt 1980; Zhang & Grenier 2012; Grin 2003).

There were echoes of Marschack's earlier musings on the utility and value of language and, indeed, the costs and benefits (Rubinstein 2000; Zhang & Grenier 2012).

The institutionalisation of the economics of education occurred during the mid-1960s – a similar period to that of the EOL. However, the process was more substantive than experienced by those working in the field of EOL. Writing at the time, Margaret Woodall (1967:387) observed that '[d]uring the last three years research on the economic aspects and implications of education has developed very rapidly in America and elsewhere'. Following an influential meeting of the International Economics Association in the USA, the economics of education in 1963 was followed by a 1965 conference of the American Economic Association on a similar theme. In 1964, the Organisation for Economic Co-operation and Development (OECD) formed a study group on the economics of education, and related research initiatives were undertaken by certain other international agencies (Woodall 1967).

The overlap with the economics of education provided the EOL research with additional epistemological and methodological coherence and contributed to divergence from a more inter-disciplinary path, most particular in regard to the sub-discipline of the sociology of language, which was established in the later 1960s with Fishman being very much the moving spirit in the process. According to Fishman, the sociology of language deals with the broad relationship between language and society, dealing with the broad spectrum of topics in regard to the social organisation of language behaviour (Fishman 1968, 1971, 2018). This included 'not only language usage per se but also language attitudes, overt behaviours toward language and toward language users' (2018:217).

A third phase in the growth of the earlier EOL, which was evident by the start of the 1980s, looked to synthesise materials from the first and second phases (Grin 2002; Pendakur & Pendakur 2002). Languages could comprise attributes of identity and/or ethnicity and thus constitute skills of value. Additionally, language could also be seen as allocating linguistic attributes to individual actors who would condition their particular socio-economic status (Grin 2002; Vaillancourt 1980; Pendakur & Pendakur 2002).

Apart from these currents in the coalescing of the economics of literature, there were some tangential explorations by economists in regard to the question of language itself constituting a medium of trade. However, some of the thinking was at odds with the core assumptions of economics, which is a significantly tighter-knit discipline than other social science disciplines. For instance, the notion that language itself could be traded, as in the concept of a linguistic market, was seen as problematic (Abrams 1993; Helliwell 1999; Grin 2002).

A number of mostly empirical studies emerged in the 1980s in North America (Canada in particular), predicated on the idea or contention that language skills influenced the socio-economic status of people. The majority of these studies were concerned with language policy and language planning (Grenier and Vaillancourt 1983; Bloom & Grenier 1991); and the linkages between language in earnings in Canada and the USA (Rivera-Batiz 1992; Bloom & Grenier 1991).

These studies influenced a number of scholars in the UK (Leslie & Lindley 2001; Dustman & Fabri 2003) and European countries such as Switzerland, Spain, Portugal, and France.

From the late 1980s into the 1990s, there was something of a growth of interest both in Europe and North America in regard to demonstrating the usefulness of economics in evaluating the impact of language

policies (Grin 2002). This new emphasis included an emphasis on the costs and benefits of the policies in question. The approach then was less about the play of traditional economic variables and more an emphasis on the assessment of the advantages and disadvantages of differing language policy scenarios and models (ibid.).

The 1990s saw a widening of the field of research but primarily in regard to new empirical and case studies and the refinement of existing techniques (Grin 2002; Zhang & Grenier 2012; Ginsburgh & Weber 2018; Cervico & Grin 2020). There were no paradigmatic shifts, but there were some developments in other social science fields which appear cumulatively added somewhat to interest in the field of EOL. These discursive developments, which included inputs from sociolinguistics, political science, and the interdisciplinary policy studies field, will be considered later in the discussion.

In addition to scholarly writings, there were new initiatives, primarily at a macro-regional and international level, that would inform the future trajectory and content of EOL studies. Firstly, the formalisation and planned expansion of the EU required more, broader-based approaches to LPP within and between participating nation-states and would-be entrants to the Union. Secondly, the question of language rights and language promotion was receiving more focused attention from the UN and certain of its constituent agencies, such as UNESCO and the ILO. Thirdly, the increased awareness of the reality of economic globalisation in policy circles and popular intellectual writings brought the question of language to the fore. The financial liberalisation of markets and the growth in international trade brought greater emphasis to the identification of those languages that facilitated and even helped promote trade.

By the turn of the century, signs of a qualitative expansion in the field of the EOL became evident. A distinctively different path of inquiry was initiated by economists through the application of game theory, pragmatics, and semantics (Ginsburgh & Weber 2018; Zhang & Grenier 2012). Symbolically, this was ushered in by Ariel Rubinstein in his eponymous work 'Economics of Language' (2000), which comprised five essays presented in the Churchill Lecture series at Cambridge University. Rubinstein's presentations, among other contributions, revitalised the half-forgotten but original line of inquiry initiated by Jacob Marschak in the mid-1960s (Rubinstein 2000).

The invocation of game theoretic approaches and tools in the EOL has largely concentrated on the study of semantics and pragmatics. These are, respectively, the study of meaning and the study of meaning in particular contexts. The question of issues of language status, while covered by sociolinguistics, has been under-explored by game theorists from an economic background (Uriarte 2015; Uriarte & Sperlich 2019, 2021).

Contemporary Streams of Research in the Economics of Development

In recent decades the EOL has seen a consolidation of existing traditions and discourses, as well as something of an expansion of the field. While still informed primarily by economics methodology and methods, there was a continued willingness to explore inter-disciplinary collaboration. It has somewhat increased its involvement in regard to LPP. However, the field of EOL has not thoroughly established its status vis-à-vis mainstream economic inquiry (Grin 2002; Zhang & Grenier 2012). There is no complete consensus of opinion among its leading practitioners on whether EOL should be defined as an economics sub-field or more of a trans- or inter-disciplinary line of inquiry. However, there is an acknowledgement of the centrality of economic approaches and methods to its nature and workings.

Although more refined typologies exist and are being redeveloped, the main lines and directions of research within contemporary EOL can be broadly categorised as follows. There is an understanding of some fluidity within and cross-play across the lines.

Language, Status and Labour Income

The impact of linguistic attributes on income and status remains a core area of research within the EOL field. As we have discussed, the dynamics of the relationship between language and earnings were strongly influenced by work on the Canadian official language groups (namely French and English). The research considered the wage differentials between English and French-speaking Canadians. Their socio-economic status was also explored. This work was paralleled by research in the USA on differing returns on 'white' English-speaking and Afro-American, and Hispanic groups and immigrant groups (Grin 2002; Zhang & Grenier 2012; Ginsburgh et al. 2015).

Research on these matters spread to select studies of certain developed economies in the EU and UK and to countries such as Australia. English is also the main or dominant language of large immigrant-receiving countries, such as the USA and Canada in North America, the UK, and Australia, and to a lesser extent New Zealand (e.g. Grenier & Zhang 2021; Chiswick 2008; Dustman & Fabri 2003; Ginsburgh et al. 2015; McManus et al. 1993). Furthermore, several studies have been undertaken on the question of language acquisition by immigrants in the country of their destination. This enables immigrants to better integrate with the new society and economy and to improve the returns on their labour and 'investment' (e.g. Grenier & Zhang 2012; Ginsburgh et al. 2015; McManus et al. 1993). As Barry Chiswick points out:

"Encouraging immigrants to become proficient in the destination language does not imply a denigration of their origin culture or language. It does imply a welcoming of them to the full 24 range of opportunities in the educational, economic, social and civic (political) life of their new home" (Chiswick 2008:27-28).

Also, although the process was uneven, studies on language and income and/or economic status have been carried out in several developing economies such as India and China.

There has also been an upturn in recent decades in the use of applied and advanced econometric models and tools in certain of the writings (Ginsburgh et al. 2015; Coloma 2010; Zhang & Grenier 2012; Chiswick 2008). Such tools include the Vector Auto-Regressive (VAR) approach; and the deployment of instrumental variables (IVs) to grasp the relationship between endogeneity between language and earnings (Chiswick & Miller 1995; Zhang & Grenier 2012). There have also been several econometrically informed studies exploring the complementarity of human capital and other capital, including language capital (e.g. Chiswick & Miller 2003; Luo & Daly 2019).

The growing body of work on the relationship between language and earnings is predicated on two related discourses – the theory of discrimination and the theory of human capital (Zhang & Grenier, 2012; Grin 2002). Knowledge of language is, in effect, an investment in the form of human capital, which constitutes a distinct skill or skill set. Human capital theory helps explain the complex linkages between language proficiency and employment. (Leslie & Lindley 2001; Zhang & Grenier 2012; Ginsburgh et al. 2015).

Prof. Tshilidzi Marwala grew up in Duthuni, a small village in the Tshivhasa region of Limpopo. His mother tongue is Venda, but at school, he learnt English and became bilingual.

In 2000, Prof Marwala obtained his PhD from the University of Cambridge (UK). The focus of his studies was Artificial Intelligence and Engineering. Since then, Prof Marwala has been a visiting professor at many universities, including Harvard University, Nanjing Tech University in China, and the Stellenbosch Institute for Advanced Study.

In 2003 he was appointed Associate Professor at the University of Witwatersrand and was thereafter promoted to Full Professor.

In 2018, he was appointed Vice-Chancellor and Principal of the University of Johannesburg. During his tenure, Prof Marwala emphasised the need to build the engineering proficiency of the university so that it could contribute to the 4th Industrial Revolution and, in so doing, help Africa achieve the Sustainable Development Goals set by the UN.

His achievements have been such that he has been appointed the seventh rector of the United Nations University (effective March 2023). As part of this appointment, he will be given the rank of Under-Secretary-General of the UN.



UNITED NATIONS
UNIVERSITY

https://commons.wikimedia.org/wiki/File:United_Nations_University_logo.svg

Prof. Tshilidzi Marwala has been quoted as saying that when he was a child, he would dream big. However, he never thought that he would one day “work for the world”.

Policy implications: *Bilingualism is something that should be taught and encouraged because it opens up career opportunities.*

A range of studies has shown that both in North American and internationally, language proficiency and fluency in a dominant language are key determinants of wages. This is particularly true for immigrants, but it will depend on differing countries. Also, specific language skills (such as listening, reading, and writing) are seen to affect income positively (e.g. Carnevale et al. 2001). Overall, the imperatives for learning a language are conditioned by discernible economic incentives (Zhang & Grenier 2012; Grenier 2021; Hardach 2018). Indeed, as Grenier (2015) points out, language can extend value throughout an economy depending on the nature and scope of the language/s in play.

Countries that tend to use a number of languages amenable to commerce tend to be more export-focused, with better economic potential (Bhana 2022).

A significant 2011 study by Ginsburgh and Prieto-Rodriguez (2011) of returns on foreign languages in the EU shows higher wage rates paid for these languages.

There is a substantive heterogeneity and the respective wage distribution across the countries. Knowledge of foreign languages is rewarded far more in highly skilled jobs. English, the dominant lingua franca in the region and globally, shows rewards in all countries. However, in Southern European countries, there is competition with Romance languages which assume a lingua franca, e.g. the use of French in Spain (cited in Isphording 2014).

For Holobrow (2018:520), there is something of a codicil to invoking human capital theory. Using the example of Ireland with declining public support for education, she questions the identification of languages and language skills as marketable assets or human capital. She contends that the possession of language does not necessarily lead to improved employment prospects as depicted by ‘neo-liberal policymakers in the EU’. There are structural and spatial inequalities in play. She contends that human capital theory ‘functions ideologically as a strategy of displacement to shift responsibility for employment outcomes from the social to the individual’ (ibid.).

Immigrants and members of minority groups may suffer negative effects in labour markets, with language and language discrimination playing a part (Dustman & Fabri 2003; Fossati et al. 2017; Grenier 2015). The main theories explain such discrimination in labour markets in terms of taste or statistical discrimination. Statistical discrimination models predicated on differential observations of productivity

across race categories (information available to employers) to help explain the size and patterns of wage differentials. Such models are of little use in regard to accounting for employment and unemployment (Lang et al. 2011; Isphording 2014). Taste discrimination theory, by contrast, argues that employers might dislike particular candidates or be concerned with customers' and/or employees' reactions, thus avoiding hiring them, even when there is no widespread prejudice (Lang et al. 2011; Isphording 2014).

The statistical and taste-based models struggle to account for structural and long-term racial disparities in unemployment and wages. A recent study of the USA found that despite the Afro-American group closing the gap in comparative education levels (human capital), wage returns and unemployment remained unacceptable (Wilson & Darity 2022). Some emerging research is looking to extend the frameworks of the original formulations of taste-based and statistical discrimination theories and, if possible, to incorporate supplemental insights from other social science perspectives (Thijssen 2020).

The language and earnings relationship is also informed by the play of ethnicity in recent decades (Lindley 2001; Lang et al. 2011; Pendakur & Pendakur 2002). Language is central to the creation and maintenance of ethnic identity. The making of race and ethnicity varies across communities and countries, as well as in regard to individuals. Thus, the complexities and contradictions of the relationship between language and ethnicity also constitute long-term challenges for EOL researchers.

Language Dynamics

The shifting fortunes of language, including their maintenance and decline, have been primarily the preserve of the discipline of sociolinguistics. However, both Adam Smith and Jacob Marschak reflected on the origins and development of language and its shaping role in culture. It is not surprising that there has been a growing attraction to the application of economics to such issues. Some sociolinguists would argue that the discipline has not produced a general theory of language dynamics. This has probably contributed to the interest of other social and economic scientists in the notion.

While appreciating the inclination of sociolinguistics to conserve and promote languages, the approach to the question of language dynamics is to consider the economic dimensions of the development and future of languages. This would include matters such as language convergence and the attenuation and/or extinction of languages. In addition, there would be an interest in the question of establishing the value of languages and the possibilities for economic beneficiation.

Language convergence is predicated on the notion that language is a medium for communication in a hypothetical situation where every person in a society speaks a different language but wishes to communicate with each other. There are two opposite scenarios. In the first case, everyone learns all the languages in the group. In the second, all people select to learn a second language. This being a more effective arrangement, and under economic imperatives, the situation of a diversity of languages shifts in the direction of the second option, which is a common language or lingua franca.

In economic logic, which presumes a pursuit of effective communication, a common language is cost-efficient. In differing settings, groups of individual agents (often bilingual) can select the standard means for communication which allows different lingua franca to co-exist at differing places. However, as the social and technological forces of production develop, social change generally sees the reduction of the lingua franca in play (Zhang & Grenier 2012; Breton 1998b).

In recent decades a number of both static and dynamic models have been generated by EOL practitioners (Breton 1998b; Zhang & Grenier 2012; Grin 2002). There has also been an adaptation of the language convergence approach to the question of culture by Blouin and Dyer (2021). They look at the relationship between trade and linguistic exchange in influencing culture. They find that improved trade-partner quality can lead to cultural convergence and that the direction of cultural convergence is determined by economic leverage. In addition, they find some evidence that language adoption has a cultural dimension that appears to be influenced by selections that and is not wholly functional (ibid.)

Grinn (2002) emphasises that language is different from the majority of commodities in that its use increases its value, as opposed to depreciating it. This 'network' effects of language constitute a major part of language dynamics and, in turn, enhances the appeal of learning languages (ibid.). The network 'externalities' of language continues to present something of a challenge to mainstream economics, which will need to address technically such epistemological anomalies (Grin 2002; Wickström 2017).

The survival prospects of minority and/or endangered languages are a further issue in the sphere of language dynamics. Language convergence is an important touchstone here, given that certain of these potentially vulnerable languages may be under threat from a lingua franca. There is a growing body of relevant work that can provide useful policy touchstones to relevant national and regional authorities (Grin 2002). Insights and contributions are varied but include matters such as the measurement of time devoted to a particular language, the economic rationale for selecting the deployment of a language, and even the 'survival threshold' of declining languages (e.g. Grin 1993). Such foci would be of value in a South African context. Models used include game-theoretic ones.

A recent study by Sperlich and Uriarte (2019) considers three modern multilingual countries and territories (the Basque region, Ireland, and Wales). They explore the language choices of bilinguals. All three countries have two linguistically distant official languages, 'A' spoken by all individuals and 'B' spoken by a bilingual minority. In all three instances, there is something of a decay in the use of B, which represents a diversity loss (ibid.). Using an evolutionary game theoretic model, they show that the language population dynamics have reached a stable evolutionary equilibrium where some bilinguals have moved to speak A. In turn, this equilibrium indicates the decline in the use of B. They identify the need to minimise the imperfect information in regard to bilingual discourse and the use of B and suggest means to achieve this.

Micro-Case Study:

You'll never know when you'll need English

In June 2018, twelve soccer players and their coach were trapped in a cave in northern Thailand. After 13 days, two British divers were able to reach the group, who were stranded on a rock about 2.5km from the mouth of the cave.

When the divers asked questions in English, only one of the boys, Abdul Sam-on, was able to answer and speak for the group. He thanked the divers, confirmed that all 13 of the group were alive, and told them, "We are hungry".



[https://commons.wikimedia.org/wiki/File:Rescue_equipment_in_Tham_Luang_entrance_chamber_\(cropped\).jpg](https://commons.wikimedia.org/wiki/File:Rescue_equipment_in_Tham_Luang_entrance_chamber_(cropped).jpg)

Using this as an example, a teacher at the boys' school, Francois Lamontagne, created a poster, "You'll never know when you'll need English", encouraging children to learn English. He says, "All the children have to learn English at some point if they want to improve their future".

Policy implications: *There is value in teaching English to children at school as it is currently the lingua franca of the world.*

The question of imperfect information in regard to language diversity is an area requiring more exploration in language economics (ibid.; Ginsburgh & Weber, 2018) and is but one area where such work is required in the South African setting.

There is growing evidence of late of a changing policy mindset regarding minority languages with an increased emphasis on the relevant agents and agencies to leverage more directly the economic development aspects of language diversity promotion (Coppieters 2017).

Language and Economic Processes

There is now a body of varied work on the economic processes, most especially production, consumption and exchange activities.

One area is the impact of language on sub-national and regional economic development. There are several promising studies, but the evidence and findings vary. A report commissioned by the Welsh Government (Thomas et al. 2020:86) noted an apparent 'lack of evidence examining the wider, cumulative economic outcomes resulting from activities relating to the Welsh language'. By contrast, the report found that in regard to Scotland and the Basque (and their particular minority language), 'economic assessments have focused on outcomes related to language-related activity at a macro level'.

On a different but related note, Magura (2021) argues for the promotion of the transborder languages used at the Chirundu border post-sub-region in the trans-frontier area of Zambia and Zimbabwe. They would economically benefit if there were formal teaching and enhancement of the languages in question at sites near the post to facilitate increased transborder trade and related activities.

Using the new economic growth theory, which suggests that deep-seated cultural forces significantly impact economic growth, Wang et al. (2021) explore the conjecture that dialect diversity in China has adverse effects on the economic income level of multi-ethnic areas. Selecting three counties in the Sichuan Province, the study finds that, to a certain but noticeable extent, a diversity of dialects has a restraining effect on the development of the regional economy. Given that dialect is 'an important carrier of Chinese national culture', it is necessary for the government to pay due attention to the economic value of language. More specifically, the government should ensure bilingual education and language planning in such ethnic areas while ensuring the protection of local dialects and ensuring their linkage with national and personal notions of heritage (ibid.).

An area where there is an increasing overlap with EOL interests is in regard to the field of international business and its changing relationship with cross-cultural management and language studies. A traditional line of inquiry in international business has been considering the language effects barriers in international business between English and certain languages (Pudelko et al. 2015). These could be expanded to deal with a wider range of languages of trade. Some scholars in the international business field have looked to move away from the qualitative and empirical research orientation of the cross-cultural management and language studies fields and to open up new methodological avenues to grasp the effects of the play of language within international business, its organisations and personnel. There has also been an effort in the discipline of International Business to take a more independent line in analysing the workings of language in various business settings. More quantitative but reflexive approaches are required, which could see more recourse to EOL perspectives (see Tenzer et al. 2017).

The expansion of the spheres of public relations (PR) and corporate communications is an area where there is a distinct interface between language (in differing ways) and economic processes. Timothy Taylor, the editor of the *Journal of Economic Perspectives*, remarked:

“Economics is a language. Even though PR professionals and corporate communicators aren’t going to speak that language themselves, they need to understand it” (cited in Du Pont 2014).

New Directions in Economics of Language Research

The EOL field has grown and diversified in recent decades. While it is still a modest sub-field of economics, there are signs that it is gaining traction in policy circles. In addition, new developments in related fields, and the changes within the nature and workings of language, should see new exploratory studies and approaches and the refinement of existing tools and models.

Civico and Grin (2020, p. 86) contend that economic modelling (computational and analytical) needs to mesh with qualitative findings in other disciplines. Likewise, traditional language disciplines, such as sociolinguistics, would likely benefit from the bounded methodological rigour found in economics and the flexibility provided by computational modelling (Givico & Grin 2020; Ginsburgh & Weber 2018).

The impact of complexity theory on various social and economic disciplines and theories in recent decades seems to hold promise for the EOL field. As an increasing number of scholars in different fields have acknowledged, the complexity of language matters. For instance, multinational corporations whose activities span many countries have to find a balance between prioritising a single language or adjusting to the linguistic dynamics of a particular country (Civico & Grin 2020).

New models and a reworking of existing ones are required. This has seen something of a shift from purely analytical (mathematical) approaches to computational ones in which simulation and algorithms are used (Svetlova 2022; Civico & Grin 2020).

Another relevant area is narrative economics, popularised by noble prize winner Robert Shiller (Shiller 2017; Shiller 2019). Shiller explores how large-scale narratives impact the economy, including the effects of stories going viral on social media. He argues that ‘attention-getting narratives’ inform mass popular decision-making, which in turn helps drive aggregate economic activities. Furthermore, the power of narratives and the beliefs and perceptions underpinning them are not sufficiently considered by contemporary economics (Schiller 2019; Pourtes 2020). A related matter would be the question of value residing in stories such as those inscribed in particular languages. This issue has implications regarding the beneficiation of indigenous languages in the country.

In addition to these initiatives and innovations, there is also scope for re-evaluating the work of those who have worked in the tradition of EOL, as well as the relevant writings of classic economic theorists. There is still value in revisiting Marschak’s (1965) efforts to conceptualise the dynamics of internal language change as a search for increased efficiency in communication (Grin 2002:20).

More attention has been paid of late to Adam Smith's more obscure writings, such as his essay on 'Considerations Concerning the First Formation of Languages' attached to the 3rd edition of *The Theory of Moral Sentiments* (1766) poses the question as to the relationship between language and Smith's project of locating the moral bases of commerce (McAleer 2019). For Smith, there was a structured language of commerce (ibid.). Benoît Walraevens (2010) puts forward a potential reinterpretation of Smith's economic system via an assessment of the lectures on Rhetoric and Belles Lettres through an application of game theory.

Figure 2: Adam Smith
Muir Portrait, in the Scottish National
Gallery, within the public domain



Economics of Language and South Africa

Micro-Case Study: Indigenous African Arts Eisteddfod

Since 2016, the National Eisteddfod of South Africa, with the support of the National Lotteries Commission, has included a separate section entitled "Indigenous African Arts" in its programme.

The purpose of this section is to stimulate and encourage participation in indigenous theatre, story-telling and music.

On its website, the Eisteddfod team notes that through the promotion of Indigenous African Arts, it hopes to:

"...contribute towards greater awareness of and pride in our multi-cultural diversity by keeping tradition alive for generations to come by supporting communities – both urban and rural – to rediscover, preserve and promote pride in their cultural heritage".

Since the inception of "Indigenous African Arts", artists and learners have been able to express themselves in their mother tongue and engage in indigenous performing arts activities. This has resulted in young performers not only discovering their potential but also to them being proud to contribute to the preservation of their indigenous languages and practices.

Policy implications: Options should be explored to systematically encourage the promotion and preservation of indigenous languages and practices in each of our nine provinces.



<https://nesa.org.za/>

Given the nature and significance of language policy, ethnicity, and politics in South Africa, it is somewhat surprising that there is still a relatively modest body of work in this regard. Theo van der Merwe commented on this state of affairs in 2014, suggesting that a relative indifference to the EOL field was due mainly to the socio-economic and institutional challenges of a developing economy such as South Africa. However, the seeming lack of interest in EOL vis-à-vis South Africa is countered by an extensive body of writing on the country's socio-linguistic, sociological, and political aspects of language.

From the above discussion, it is apparent that there is a need for research to be undertaken in the EOL field in South Africa. Furthermore, how existing LPP can benefit from an insertion of a more explicit economic contribution to the policy research aspects, as well as the construction of more nuanced policy productions and policy choice and implementation.

Levinsohn (2007) considers the relationship between the forces of globalisation and the dynamics of English in South Africa in the early post-apartheid years. Using Labour Force Survey Income and Expenditure Survey data, he finds some evidence of a link between globalisation and an upturn in the use of English. The most robust finding is that the return to speaking English increased for the period during which South Africa was reintegrating with the world economy. There is also increased use of English when the Indian population group is included, but not as substantive. For Black South Africans, there is a modest rise in the speaking of English. This, Levinsohn suggests, can be explained partly by the advent of affirmative action, which saw the premium for English decrease as more Black South Africans were promoted to higher-paying jobs. It was no longer the case of just a few English-speaking Blacks earning relatively higher wages. Concerning White South Africans, the penalty for speaking Afrikaans rose, with

the language significantly less useful than English in international commerce. Whites whose first language was English benefited conditional on the levels of education and experience and gender (ibid.). One anomaly for Levinsohn was regarding Coloured South Africans; the return to speaking English fell.

At the time, the author considered the research as possibly 'a novel way to revisit the wages and globalisation issue' and that the approach was 'especially well-suited to developing countries, many of which have a rich variety of languages spoken, as they integrate with the global economy' (Levinsohn (2007, p.643). He also felt that by isolating language, the differential impacts of globalisation on different sections of a population could be demonstrated, as seemed to be the case in South Africa (ibid.).

John Casale and Dorrit Posel (2011) take a not-dissimilar tack to Levinsohn. Using data from the National Income Dynamics Study (NIDS) panel survey of 2008, they investigated the relationship between English proficiency in South Africa. They point out that the bulk of the relevant EOL literature at the time of writing dealt with the effects of acquiring the host country's language by minority groups of immigrants in developing countries. By contrast, their study explored the returns to language skills in a developing country environment – in this case, where the primary language for business, government and education is that of the former colony.

They found that while a small fraction of the African majority population group spoke English as a home language, their findings indicated that those Africans who read and wrote English well, especially if they possessed a tertiary level qualification, demonstrated large returns – in the regions of an additional 97% in earnings (ibid.). This finding differs from that of Levinsohn (2007) and illustrates the importance of fostering debates on EOL matters among interested economists in regard to the South African case.

Kahn et al. (2019) provide a substantive study of the question of English language proficiency in the South African labour market. Using iterations of NIDS survey data, they put forward convincing evidence of the positive impact of English language proficiency on employment options and wages 'over and above socio-economic circumstances' (2019:26). The research constitutes the first estimate for the impact of English proficiency on employment in South Africa and has sought to align the findings with comparative studies in the international literature. The authors find that irrespective of the level of education of the recipient, training in English language skills will advantage adults participating in the labour market (ibid.). In addition, they highlight the importance of the inculcation of good and competitive English language skills in schools to provide learners with the linguistic means for future advancement into the labour market (McKenzie & Muller 2017).

Cornwell and Inder (2008) examine the role of language in regard to employment outcomes and labour earnings in South Africa in the early post-apartheid period, namely 1996-98. Working with a cross-pooled section of 160,000 working-age adults, the study found that a mother tongue background in English is a key determinant of employment and labour earnings. By allowing for language effects, there is a significantly reduced role for race/population group as the driver of labour market success and associated earnings. Moreover, the authors found only modest variations in employment outcomes or earnings in regard to the different African languages (ibid.).

A study of job hiring preferences (Abel 2017) in the Western Cape region based on a data set of 5,500 job seekers generated from classified advertisements in the domestic work, nanny and general work sectors; data is collected from South Africa's largest classified ad website, which recruits primarily from the informal sector. While not a study of the play of language in economic decision-making, some useful insights exist.

He finds that employers tend to discriminate more against foreign job seekers, who are mostly Zimbabweans and Malawians, despite evidence suggesting that employers are aware that their English language skills are higher, that they are more educated and younger than the comparable South African job seekers, and that they are perceived to be more employable. Overall, Abel finds that this positive statistical discrimination is negated by the impact of taste-based discrimination in this particular job market.

Zien, Muller and Vermaak (2019) examine the effect of language on labour market success for both black African immigrants and citizens in South Africa. Using 2011 South African Census data, they find that immigrants are more successful than locals – an advantage attributed in part to their speaking English as a second language. By contrast, speaking English as a second language for locals is less valued in the labour market. Individuals who speak English are more active, have a greater chance of obtaining employment and earn higher wages than non-English speakers. In addition, the study suggests that while female immigrants benefit more from the ability to speak English, male immigrants are generally more successful in the country's labour market. This study differs from the Western Cape one by Abel (2018), although the latter is focused more on domestic work in a regional setting.

Theo van der Merwe (2014) sets out to examine the relationship between economics and multilingualism in South Africa and explicitly aligns his study with the EOL field. He argues almost programmatically that multilingualism and the associated development of a viable and cost-effective language policy is an integral part of any process of establishing a prosperous and secure country. He finds the current language policy of 11 official languages is both costly and unviable, with English being the major beneficiary of what has become, in effect, a monolingual regime. He argues that the cost implications of multilingualism are inflated, and its benefits are underappreciated. Multilingualism can be seen as a positive externality requiring focused state intervention.

Given the fiscal pressures on the government, an affordable form of multilingualism was required, which would be based on a more practical and affordable language policy. The number of first-language speakers, as identified in the 2011 Census, would be used to select those languages which could be used at the national level. Following a line of thinking derived from Neville Alexander (1989), it mooted that the Nguni and Sotho languages be grouped together. Along with Afrikaans, and they would be used at the national level. A similar process would be followed at the provincial level. However, this would entail the use of four official languages to make provision for English as the lingua franca.

Although not a formal economic piece, Laurence Wright's (2002) study 'Language as a 'Resource' in South Africa: The Economic Life of Language in a Globalising Society' is worth considering. His observations still have relevance some twenty years later. He noted:

"...how little the South African discussion has been informed by reference to ordinary economic viewpoints...The assumption seems to be that language and culture somehow belong to a different order of things – that while there may be direct and indirect economic benefits from language viewed as an industry, language itself is fundamentally a matter of social identity, political redress and cultural reconstruction, issues to be pursued without reference to what might be called the economic life of language" (p3).

For Wright (2002), the 'long-term question' is whether one should look to reduce the dominance and influence of English in the national economy as it constitutes a national resource of international economic value for all South Africans. It provides them with a competitive advantage vis-à-vis other countries which

do not possess the same kinds of opportunities for learning and deploying English (ibid. 14). He argues further that we have to take the concept of value (and its different interpretations and applications) more seriously especial in regard to the fact of South African multilingualism. African languages have strong regional underpinnings, which requires businesses operating at local and regional levels to ensure linguistic competence in the relevant languages to compete effectively. Businesses that expand to interact with the central economy will also have to add English competency to maintain linguistic diversity and expertise (Ibid. 16).

Mohohlwane (2020) provides a socio-economic assessment of the policy dilemma of opting for mother-tongue instruction or 'straight-for-English' education. She notes a number of studies dealing with the question of the benefits of mother-tongue education in primary schooling in South Africa and stresses the pedagogical value of such an approach. However, current efforts to provide and extend mother-tongue instruction are undermined, she contends, by implementation and capacity issues (ibid.). She acknowledges scholarship that indicates that being literate in English would seem to be more important for most South Africans than a mastery of a home language and studies that show a relationship between English proficiency and a return on earnings. Given that '[t]he economic value is indisputable' the challenge facing South Africa today is 'how to make multilingualism "profitable", such that the value is not only based on ideology and identity but that there is material value' (ibid. 45). She discusses certain with her recommended one as follows:

"The implementation scenario could be providing mother tongue education for the first six years within the existing language in education policies, serving as a way to recognise the success of the proven language policy while extending it. Secondly, implementing the full version of the Incremental Introduction of African Languages policy, by making English compulsory as a First Additional Language while also specifically introducing an African First Additional Language. This would be a recognition of the role and significance of English while also affirming the increasing multilingualism of African learners and ensuring that all learners in South Africa learn an African language at the First Additional Language level" (ibid. 48-9).

Good Practices

International Decade of Indigenous Languages

On 18 December 2019, the UN General Assembly adopted the resolution: "Rights of Indigenous People". Included in this resolution was the proclamation of 2022-2032 as the IDIL. It is stated that the purpose of the IDIL is:

"...to draw attention to the critical loss of indigenous languages and the urgent need to preserve, revitalize and promote indigenous languages".

The proclamation states that in addition, while UNESCO will serve as the lead agency for this programme, there will be collaboration from the Department of Economic and Social Affairs of the Secretariat and other relevant agencies.

Following this agreement, UNESCO has established an IDIL 2022-2032 Secretariat to facilitate the organisation of this project. Actions that the IDIL Secretariat has taken thus far include²:

² UNESCO, International Decade of Indigenous Languages 2022-2032, Governance, <https://idil2022-2032.org/about-2022-2032#governance>

- elaboration and contribution to the **implementation of the [Global Action Plan](#)** of the IDIL2022-2032 through evidence-based, inclusive, participatory and open consultations with representatives of the interested Member States, Indigenous peoples, UN entities, researchers, civil society organisations and other public and private actors;
- establishment and maintenance of the **international governance mechanism**, entitled ‘Global Task Force for Making a Decade of Action for Indigenous Languages’, to provide strategic direction and oversight in the planning, implementation and monitoring of progress made towards attainment of the objectives established by the Global Action Plan;
- development and contribution to the implementation of a **Resource Mobilisation Strategy** to provide a comprehensive framework and ensure adequate, sustainable, flexible and sufficient resources for the implementation and attainment of the major objectives of the Global Action Plan and the realisation of programmes and projects to preserve, revitalise and promote Indigenous languages;
- preparation of and contribution to the implementation of a **Global Communication Strategy for the IDIL2022-2032** to raise greater awareness on the importance of Indigenous languages for societal development, connection, and stimulation of dialogue among different stakeholders, and to impact new knowledge and mobilisation of resources as well as to communicate results and share information. The dedicated website of the International Decade, monitored, updated and administered by the IDIL2022-2032 Secretariat, will play a critical role in the implementation of the Global Communication Strategy and the achievement of the other objectives of the Decade.

As part of the Resource Mobilisation Plan, the IDIL Secretariat has created an [online platform](#)³ in which people and organisations across the globe can collaborate to create events and upload information, resources and stories that contribute to the promotion and protection of indigenous languages. Through this platform, people will be able to learn about events happening internationally and have access to valuable resources that could aid their knowledge and understanding of indigenous languages.

Policy implications: *South African academic institutions, organisations and agencies should be encouraged to register on the IDIL platform, not only to contribute to the success of this worthy cause but also to share their resources and to become part of a worldwide network.*

[Economic Returns of Language](#)

In 2018, the UN published a pamphlet stating that “96% of the world’s approximately 6,700 languages are spoken by only 3% of the world’s population. Although indigenous peoples make up less than 6% of the global population, they speak more than 4,000 of the world’s languages”.⁴

³ Website link: <https://idil2022-2032.org/events-activities/>

⁴ UN Permanent Forum on Indigenous Issues. [Indigenous Languages Backgrounder](#).

Figure 3⁵ shows the most spoken language internationally is English. The other side of this coin is that while approximately one in five people can speak English, the other four cannot.

In June 2022, RAND, a research and development agency, published a report indicating that if 10% of UK students become proficient in Mandarin, Arabic, French, and Spanish, the economic returns for the UK would be in the billions of pounds⁶. In this article, it was argued that the UK could not rely on English

as a global language to continue its role in international trade. Young adults entering the job market need to be fluent in a second language.

The RAND team investigating the economic returns of languages developed a mathematical model of international trade flows. A major finding from this research was that “not speaking a common language acted as a kind of tax. It made doing business much more difficult and expensive”.⁷

In concluding this article, the RAND team points out that people speaking a second language will help business communication by removing a communication barrier. If someone wants to set up a business in China, they need to be able to speak Mandarin.

Policy implications: *Encouraging students to become proficient in Kiswahili, Portuguese, Mandarin, Arabic, Spanish and French can help to boost the international competitiveness of our South African economy.*

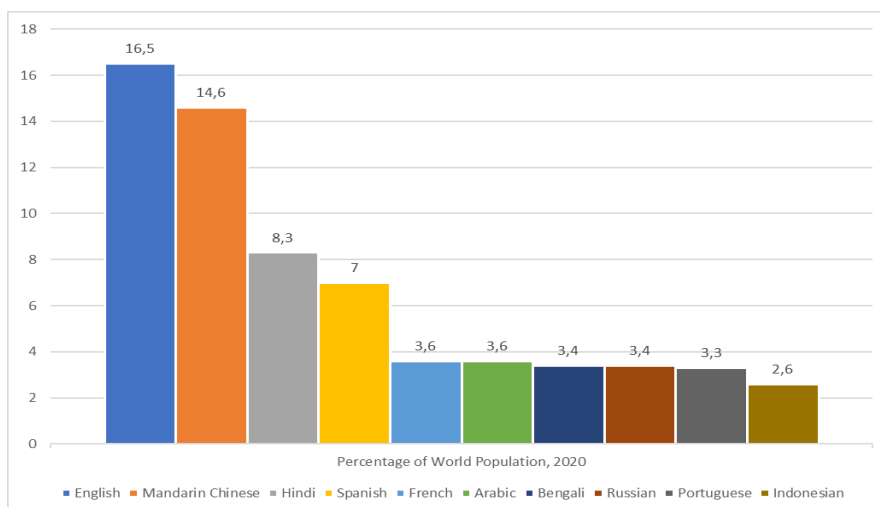
Use of Artificial Intelligence to Overcome Language Barriers in Higher Education

Language proficiency plays a role in the success or failure of accountancy⁸ and economics students in South Africa. Both subjects have many specific terms that students need to learn and be able to use in a variety of contexts from the first year onwards. However, at university, many students, particularly those who do not have English as a home language, struggle to integrate the new phrases into their studies.

The Department of Economics at the University of Cape Town (UCT) developed the Eco App⁹ in an attempt to help students bridge the language divide in this subject.

The students can download the app, and when they are stuck with a word or a phrase, they can type in the word and get a translation or definition of the word in a language of their choice.

Figure 3: Languages by Total Number of Speakers



⁵ CIA The World Factbook <https://www.cia.gov/the-world-factbook/countries/world/#people-and-society>

⁶ RAND Review, 7 July 2022. The Economic Returns of Foreign Language Learning. <https://www.rand.org/blog/rand-review/2022/07/the-economic-returns-of-foreign-language-learning.html>

⁷ Ibid.

⁸ Barnes, H, Dzansi, D, Wilkinson A, and Viljoen M. 2009. Researching the First Year Accounting Problem: Factors Influencing Success or Failure at a South African Higher Education Institution. Journal for New Generation Sciences: Volume 7 Number 2

⁹ Using the power of language to open a window on economics <https://www.news.uct.ac.za/article/-2021-12-21-using-the-power-of-language-to-open-a-window-on-economics>

The starting point for the Eco App was the work done by Professor Mbulungeni Madiba, the former Director of UCT's Multilingual Education Programme, on drafting an Economics Dictionary. Leigh Neethling, a lecturer in the Department of Economics, received permission to use this dictionary to develop an Android app.

First-year students have given positive feedback on their interaction with the app, and another version is now being prepared for iPhones and Mac computers.

Policy implications: *AI has the potential to enable greater proficiency in those learning and speaking additional languages, both in training and in the workplace. Incentives should be put in place to encourage further innovation in the use of such technology.*

Conclusion

In this chapter, a detailed desktop literature review is provided. It is noted that the introduction of EOL as a sub-field of economics began with Jacob Marschak's 1965 essay on the 'Economics of Language'. In this essay, Marschak focused on language and communication as a form of economic thinking and practice.

The theories of EOL were reviewed and extended by Canadian economists concerned about the relationship between English and minority French-speaking citizens in Canada. Then in the latter half of the 20th century, a number of American academics conducted studies which considered the differing returns to white English, Afro-American and Hispanic citizens and recent immigrants.

Spurred by the work of Gary Becker (1994) on human capital, additional theoretical and methodological touchstones were developed. A number of these were linked to the theories of the economics of education and political events internationally, including the establishment of the EU.

This chapter provided a review of EOL-related studies conducted within South Africa. Most of these studies focus on the returns to language proficiency in English and other official languages in South Africa. A few additional studies consider whether increased proficiency in the language, along with enhanced multilingualism, is an economically sensible option for the country.

Chapter One closes with the presentation of three good practice cases. These consist of the following:

- A discussion of the UN IDIL;
- A consideration of the policy advice by Cambridge University and RAND Europe in regard to inculcating foreign language proficiency as a means of increasing GDP in the country; and
- The use of AI to overcome language barriers in a cost-efficient way in higher education.

Chapter 2: Methodology and Research Methods

Introduction

Chapter Two provides a compact discussion of this report's methodology and research methods.

The research is of a mixed methods nature. It has a substantive desktop literature review. The review comprises a historical and international dimension and includes a modest but not inconsequential body of literature on the South African dimension of EOL. In addition, it provides an international and South African policy context.

Quantitative modelling and estimation of the economic contribution of language to the South African economy follow the review.

The study as a whole has been informed by the importance of locating and enhancing the value (intrinsic and extrinsic) inscribed in and associated with languages in the South African contexts. Furthermore, the study focuses on identifying the means for a more systemic application of an EOL approach as a whole in LPP in the public and even private sectors.

The purpose of this report is not only to estimate the economic contribution of language to the South African economy but also to provide interpretation and analysis of the data as it pertains to policy development and relevant DAC policy initiatives. Policy development and implementation can only be subjected to macroeconomic impact assessment if suitable macroeconomic impact assessment models are available.

Previous Work Undertaken

Until recently, there was no Cultural Satellite Account (CSA) for South Africa that Stats SA had compiled. The initial CSA was prepared by a firm of economists appointed by the SACO. Thereafter, in 2021, Rhodes University assembled a team to develop an in-house CSA. Developing a CSA for South Africa and incorporating this into a SAM or IO macroeconomic impact assessment model is an internationally well-established concept. Unfortunately, although data for the six UNESCO domains were estimated, language was not disaggregated or researched.

Economic Fields to be Researched

Language is important to economics (as a science) but also, more importantly, to all economic activities. Indeed, language can be considered a sine qua non-condition, not only for economic activity but also for broader socio-economic development. The goal of this section is to isolate the specific contribution language would make if it were considered a separate industrial sector. To achieve this, three economic questions are asked:

- How many people are employed in the “language sector”?
- What is the contribution of the “language sector” to South Africa’s GDP?
- How does language contribute to international trade?

Employment

The aim of this section is to analyse the number of people in South Africa who are employed in the cultural economy. As stated above, language is pervasive and included in all economic activities. It is, therefore,

a challenge to define the “language” occupations. The “language” employment is simply calculated by aggregating the data as discussed below.

As with the SACO mapping studies, the first phase of this research was to examine international definitions for language occupations and determine to what extent South African national data collection methods used by Stats SA could match this definition. The International Labour Organisation’s (ILO) International Classification of Occupations (ISCO) facilitates international communication regarding occupations. Statisticians use this framework to make comparable occupational data available across nations. ISCO defines a job (ISCO-08) as “a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment”. They refer to an occupation as the kind of work performed in a job. In other words, it is a “set of jobs whose main tasks and duties are characterised by a high degree of similarity” (2012).

Language practitioners generally provide specialised language and communication services. These services cover several fields, including interpreting, translating, language training, copywriting, creative writing, language research, publicity, development of literary and language programmes, developing computer-assisted language packages and providing organisations with language-related advice. This is a rather narrow definition. Another critically important “language” occupation is teaching. ISCO also identifies teaching. This is rather broad (all teaching includes some aspect of language) or a narrower definition that includes language teachers. They also include language therapists, speech therapists and pathologists. A more detailed description of the occupations is included in Appendix 1.

The quantity of employees in “languages” is done using the LMDSA series that started in 2008. The quantity of language employees is extracted from the LMDSA per occupation and then weighted in occupations that do not contribute 100% to language. These are then added and reported.

The Contribution of Language to South Africa’s Gross Domestic Product

Determining the contribution of language is more complex than determining the number of employees but does build on the methodology discussed above. The information on language occupations per SIC is used to determine the weighting used in a SAM or IO model to extract the language-value-added component per SIC.

Language and International Trade

The gravity model is used to determine the contribution of language to the value of the total trade of goods and services between various countries.

Conclusion

This chapter provided a discussion of the research methods employed in the report. The research essentially comprises a mixed methods approach. The report has a substantive literature review which includes a comprehensive review of the international and comparative literature on the field of the Economics of Language. It also considers the relatively modest and not overly integrated body of South African literature on the subject and applications thereof. Furthermore, the report provides an international and South African policy context based primarily on a desktop analysis.

This chapter then provided an overview of the quantitative modelling and estimation of the economic contribution of language to the South African economy. The study as a whole is informed by the importance of locating and enhancing the value (intrinsic and extrinsic) inscribed in and associated with languages in

the South African contexts and the identification of the means for more systemic application of an EOL approach as a whole in LPP.

The empirical quantitative aspects were also outlined. Firstly, the approach to the empirical study of the contribution of language to South Africa's GDP was discussed. This exercise builds on a profile and mapping of employees in language occupations. This work is based on the Labour Market data series of Stats SA, which commenced in 2008. The information on language occupations per SIC was used to determine the weighting employed in a SAM or IO approach to extract the language-value-added component per SIC.

The employment of the gravity model was discussed concerning the dynamics of the relationship between language and international trade. This model is used to determine the contribution of language to the value of total goods and services between the countries concerned.

Chapter 3: International Context and Policy

Introduction

This section considers selected global trends in policy and practice concerning language diversity, the protection of indigenous languages, and their intersection with discourses on culture, development and the creative economy.

The UN and some of its institutions are used as a touchstone for this compact overview. Details are provided of changing practices and the expansion of the notion of value applicable to languages, especially the more vulnerable ones.

It is suggested that digital technology will play an increasingly important factor in the field of languages and EOL research.

United Nations – The Emergence of Language and Development

The advent of new states in the post-war decade saw something of an ambivalence in attitudes to the question of languages globally. For several leaders of newly independent African countries, the imperatives of modernity and nation-building did not necessarily entail prioritising indigenous languages.

Humphrey Tonkin (2008:11) contends:

“For many years it was assumed that language diversity was a hindrance to economic development, or at least that it was an element largely irrelevant to language as a factor in development”.

The UN and its constituent agencies have been a key touchstone for mainstream development discourses over the years; it provides a useful institutional touchstone for helping to contextualise our study. Moreover, the international promotion of such languages on an international scale was seen as one of the preserves of the UN and some of its agencies, most notably UNESCO, UNICEF and the ILO.

This promotion was, as a number of scholars have underlined, an uneven process (Fettes 2015; Burri 2013; Flores 2008; Tonkin 2008). Moreover, Fettes (2015) suggests a tension between rhetoric and instrumentality.

Some of the interventions by UN and international agencies were more in line with providing some defence support for the individual, group and language rights rather than development efforts. For many indigenous languages, the question of their ‘irreversible extinction’ (Flores 2008) has been a pressing concern.

Not unsurprisingly, perhaps some of the substantive early impetus concerning protecting language rights emanated from the ILO. In the normative sphere, the ILO adopted two conventions (No. 107 and 169) that specifically addressed the Indigenous and Tribal Peoples. There are also fewer specific ILO conventions relevant to such groupings and languages. In addition, there have been a number of technical programmes over the years aimed at promoting the socio-economic circumstances of certain groups in question.

International Labour Organization – Language Rights

The ILO Convention No. 107 of 1959 was the first focused measure at an international level to protect indigenous languages. However, this convention drew criticisms over time, especially in regard to its 'assimilationist' nature, which ran counter to an increasing trend globally toward sub-national identity politics.

A meeting of experts was called in 1986 to address this situation, and this resulted in 1989 in the ILO Convention 169, which replaced Convention 107. However, the earlier convention (No. 107) is still in force in certain countries.

Latin America, with Convention 169 recognised in most of the countries in Latin America, the region has been shown to be the lead in regard to recognising, protecting and conserving indigenous languages. Mexico and Bolivia have been particularly active in promoting indigenous languages in their territories (Flores 2008).

In Europe, Denmark (via their administration of Greenland) and Norway have been among the cases where ILO Convention 169 has been invoked. Greenland has been seen by representatives of indigenous groups for its successes in resecuring, developing and protecting the rights of indigenous peoples. Greenlandic Inuit, initially prohibited by the Danish administration, is now spoken by 80% of the population. Furthermore, the economic and technological significance is the inclusion by Microsoft 2006 of the Greenlandic language for its spelling and hyphenation tools in 2006 (Flores 2008:9).

United Nations – Language, Culture and Diversity

Since the 1990s, language has become of increased importance to the programmes and operations of the UN agencies, with UNESCO taking something of a lead role in this regard (Tonkin 2008). Within the UN as a whole, a UN Permanent Forum on Indigenous Issues, as an advisory body to the Economic and Social Council, was founded in 2000. Its brief included an ongoing oversight of the status of indigenous languages.

Furthermore, in 2007 the UN Declaration on the Rights of Indigenous Peoples included specific provisions for such groups and populations to preserve their languages and to enable their children to be educated in the languages of their choice (UN 2013). As the original Universal Declaration of Human Rights of 1948 paid modest direct attention to the question of language, this aspect has been supplemented by other measures such as the Declaration of the Rights of the Child (1959) and the Declaration of the Rights of Persons belonging to National or Ethnic Religious and Linguistic Minorities of 1992 (Tonkin 2008; UN 2013)

What was interesting was the convergence of culture and development in UN discourses, most notably UNESCO, in the later 1990s and 2000s, with language being seen as one of the components of culture.

These shifts, in turn, were a response to and informed by disquiet about and opposition to the reduction of barriers to international trade and the growing pull of financial liberalisation in the North and South (Feigenbaum 2010). The impact of what came to be increasingly seen as neo-liberalism was reflected in the establishment of the World Trade Organization (WTO) in 1995 and, subsequently, the World Intellectual Protection Organization (WIPO) (see Standing 2021).

Such institutional interventions were seen as promoting unfettered globalisation and seeking to restructure the cultural and creative sectors, both in monetary and non-monetary terms (UNESCO 2021; Standing 2021). This saw the growth of a protectionist spirit in a number of developed and developing countries in regard to the possibility of cultural homogenisation (UNESCO 2021). There was an increased emphasis on strengthening cultural values and diversity. These concerns were incorporated in a kind of global statement, namely the UNESCO Universal Declaration on Cultural Diversity of 2001. This Declaration was built on key aspects of the 1996 World Commission on Culture and Development.

United Nations Educational, Scientific and Cultural Organization – Convergence of Culture, Language, and the Creative Economy

This was followed by the 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expression. The Convention was something of a rhetorical triumph but had ‘no working interface between the trade and cultural regimes’ (Burri 2013:370). It thus has not been able to present a coherent challenge to the WTO and World Intellectual Property Organisation (WIPO). Indeed, the continued reduction in trade barriers and the embedding of neo-liberal policies globally were conjoined by new technological developments, which saw place-based cultural diversity further compromised (Feigenbaum 2010). There were passing commitments to language, such as the linking of freedom of expression with, *inter alia*, the notion of multilingualism. However, discrete cultural rights, including educational access and the right to choose one’s language, ‘did not make it into the text’ (Burri 2013:359).

In the years after the 2005 Convention, the UN and UNESCO seem to have looked at differing ways of dealing with the potential effects of inequalities in trade in cultural goods and services. There was a significant upturn in policy emphasis on the creative economy and the CCIs. By growing and consolidating the creative economy and the CCIs in developing and emerging economies in particular, there would hopefully be some levelling of the international playing field in terms of international trade dynamics on cultural products. Also, building capacity at sub-national and local levels would also potentially assist in countering spatial economic inequalities and reinvigorating cultural dynamics and the cause of cultural diversity (UNESCO 2021; Haines 2016).

In these endeavours, the work of UNESCO was complemented by the UNCTAD’s efforts at promoting CCI development in differing international contexts and researching global trade trends in regard to cultural and creative trade. The two agencies had differing emphases and priorities, but the overall result raised the collective awareness of the creative economy and the CCIs.

Public policy and cultural policy, in particular in various nation-states, have continued to show a mismatch between professed enthusiasm for the CCIs and a (lack of) corresponding investment in the public funding of cultural and creative activities and institutions. This included the question of language and its complex relationship with culture. Language was still largely implicit in the post-2005 discourse about the creative economy, although there were concerns about matters such as the intellectual property aspects of online invocation of (certain) indigenous languages and their inherent creative content (UNESCO 2021).

Millennium Development Goals – The Question of Language

The Millennium Declaration by the 189 member states of the UN saw a commitment by various leaders to achieve eight Millennium Development Goals (MDGs) by 2015. For Tonkin (2008), these eight macro programmes offered significant opportunities for language planners and multilingual expansion.

However, according to Suzanne Romaine (2013:1), there was a significant lack of progress in regard to the harnessing of language in the development process, with language minorities being those who were most often left behind. In addition, education aid (important in minority language development) was also seemingly side-lined in pursuit of MDG initiatives (ibid. 14).

The MDGs were followed by the SDGs (Sustainable Development Goals). As Fettes argues (2015), the planning documents for introducing this new cycle of meta-development goals saw little or no place for language issues. When the question of language was raised on a few occasions, it was in conjunction with other factors; “Nowhere are the unique characteristics and challenges of language management identified or discussed” (Fettes 2015:300). There was, however, some promise in new potential paradigms and approaches to the discourses regarding sustainable development which could be leveraged by LPP practitioners in the future. These included signs of a new emphasis on the local, including the future role of cities in more independent socio-economic development. These made sense as future loci of language planning as they collectively contained more than half of the world’s population and were generally more cosmopolitan and multilingual (ibid. 303). In addition, the question of sustainability offered new connections with languages, especially indigenous ones.

Sustainability and Linguistic Diversity in the 21st Century

In recent times, the linkages between biodiversity and linguistic diversity have been made (Bannerjee 2020). Environmental knowledge is often embedded in indigenous knowledge. In turn, as Claudia Gafner-Rojas notes:

“The traditional knowledge and practices of indigenous and local communities, indispensable for the sustainable management and conservation of biodiversity, are usually transmitted through indigenous languages” (cited in Bannerjee 2020).

As Genee and Snoek (2020:1) suggest, ‘the endangerment of many of the world’s Indigenous and other minority languages has begun to percolate into the public consciousness, becoming part of the wider debate about cultural, environmental, and economic sustainability’.

The UN designated 2019 as the International Year of Indigenous Languages to raise awareness of the centrality of languages in peoples’ lives. This was also seen as a means of drawing international attention ‘to the critical status of many indigenous languages across the world and encourage action for their preservation, revitalisation and promotion’ (UNESCO 2022). Subsequently, the UN designated the period 2022 to 2032 as the IDIL. The main reason for this is that an estimated 3,000 languages are in danger of becoming extinct before the end of the century.

The raised interest in indigenous and endangered languages and the linkage with the notion of sustainability seems tangential to the discourse on the CCIs and creative economy.

There are signs of a more explicit deployment of language in the mainstream creative economy discourse. Firstly, the question of the changing nature and business of translation is being raised within creative economy productions. For instance, a 2016 University of Westminster international conference was held on the topic of ‘Translation and the Creative Economy’.

Secondly, with the continued expansion of social media and media convergence with the increased digital accessibility in developing countries, minority and indigenous languages are being drawn into content-

creating and social media niche areas. Such areas include the terrain of Minority Language Media (MLM), with its emphasis on how media can be used to promote and preserve such languages.

A recent IPI (International Press International) needs assessment of the needs of MLM in Europe, and the EU foresees a major shift from supplying a 'one-way source of news **to** their communities in an information-constrained environment into multi-dimensional voices **of** and **for** their communities in a time of information abundance and in a way that will shore up their sustainability' (Park 2022, author's emphasis).

A third example is UNESCO's late 2021 eight-week online training on the Creative Economy for 24 young policymakers from the Association of Southeast Asian Nations (ASEAN), which was run online in several different regional languages. It was, enthused UNESCO, "an ideal time to sensitise and mobilise policymakers on the creative economy, in line with the UNESCO 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions" (UNESCO 2022b).

Conclusion

This section has considered select developments and perspectives regarding languages, especially minority and indigenous ones, via the changing discourses and practices of the UN and some of its agencies.

We noted a series of shifts to seemingly more self-conscious protection and promotion of such languages. There are also indications of a continued convergence with the mainstream discourse of the creative economy, in which UNESCO and UNCTAD have been major international protagonists. Part of the processes in play include the expansion of the notion of value applicable to languages, especially the more vulnerable ones.

This will include intrinsic and more market-applicable notions of languages. The beneficiation of the diversity of languages will form a contested terrain, and the relationship with creative economy constructs in developing and developed economies will be complex and contradictory.

Digital transformation will be an important factor going forward, with increased compression of space and communication.

Chapter 4: South African Context and Policy

Introduction

This chapter provides an overview of the different languages spoken in South Africa. Thereafter, a summary is given of language policy developments and challenges in post-apartheid South Africa, including the NLPF and the roles of the Department of Education and the DACST (until 1998), later the DAC.

In this chapter, attention is also given to the increasingly important need for foreign language proficiency by those involved in trade internationally and within our African continent. The implications of this are that more South Africans should become proficient in Swahili (as a regional lingua France), French, Portuguese and Arabic.

Status Quo of the Economics of Language in South Africa

Figure 4: Languages Spoken in South Africa

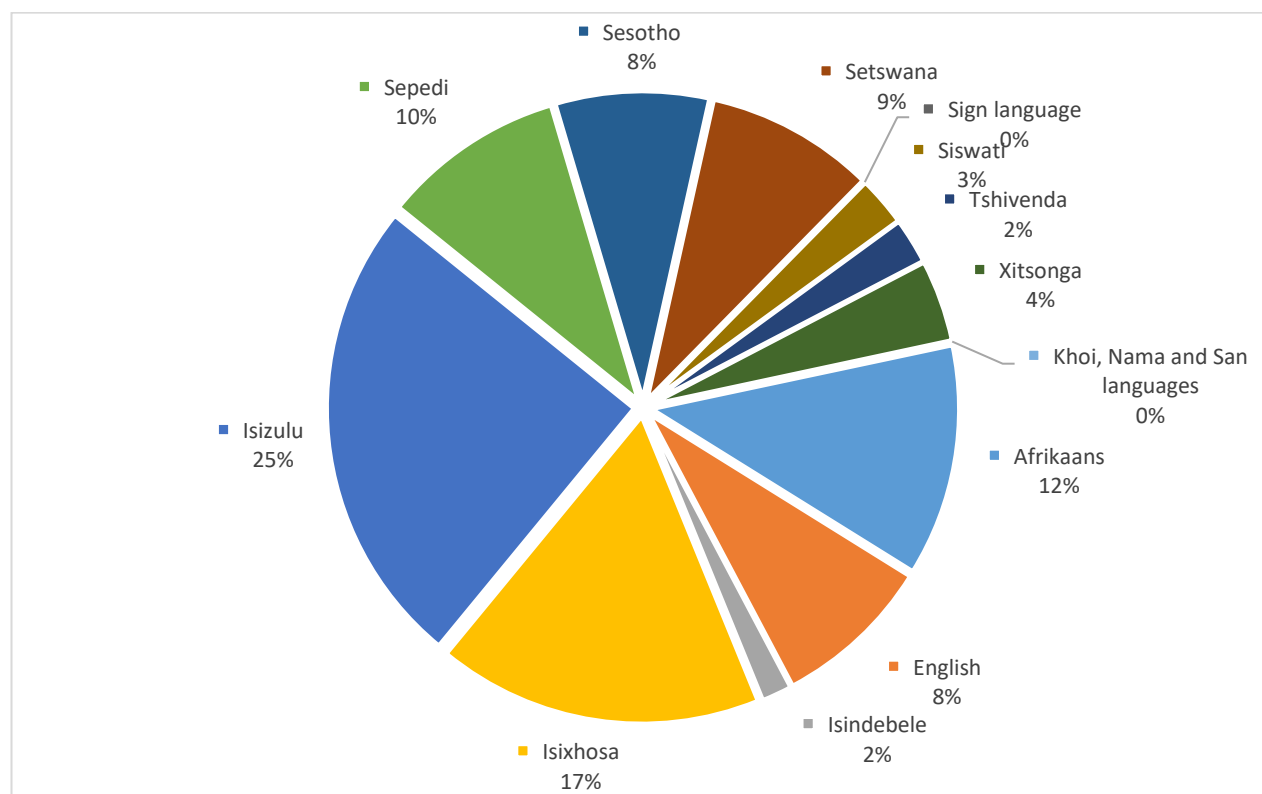


Table 1: Language most spoken in household per province in 2016

	Western Cape	Eastern Cape	Northern Cape	FS	KZN	North West	Gauteng	MP	LP
Afrikaans	46.6	7.9	50.9	7.6	0.8	4.6	7.5	2.5	1.5
English	14.3	2.5	2	0.9	9.3	0.9	7.2	1	0.5
IsiNdebele	0.1	0.1	0	0.1	0	0.4	2.3	10.9	1.4
IsiXhosa	34.7	84.9	4.8	5.7	3	4.8	7.1	1	0.3
IsiZulu	0.3	0.3	0.2	4	84.3	1.5	24.7	26.1	0.6
Sepedi	0	0	0.1	0.3	0	1.8	12.2	9.4	55

	Western Cape	Eastern Cape	Northern Cape	FS	KZN	North West	Gauteng	MP	LP
Sesotho	0.9	2.3	1	73.8	0.5	5.8	14.5	3.2	1.1
Setswana	0.1	0	38.1	5.4	0	73.6	11.4	1.8	1.8
Sign Language	0	0	0	0	0	0.1	0	0	0
Siswati	0	0	0	0	0.1	0.3	1	30.6	0.4
Tshivenda	0	0	0	0	0	0.3	2.1	0.2	17.4
Xitsonga	0.1	0	0.1	0.2	0	2.7	6.6	10.8	16.5
Khoi, Nama and San Languages	0	0	0.2	0	0	0	0	0	0
Other	1.1	0.2	0.4	0.3	0.2	1.2	1.6	0.5	1

Language Policy in Post-Apartheid South Africa

Africa and the Question of the Dominant Colonial Language

What is noticeable about post-independent Africa is that it was relatively commonplace for the new ruling elites to adopt the dominant colonial languages of the particular country and/or region in question. Thus French, English and Portuguese, in particular, were selected as languages for official government business and education at various levels. While there was not insignificant resistance to such moves, there was seemingly less emphasis at the time on the potential social and psychological implications of such choices. Moreover, for a number of scholars, this colonial legacy has contributed to linguistic inequality in the continent Pütz, M (1995):

“The most obvious fact is that all African countries use European languages which are those of their former colonial masters, in nearly all their official business, and almost to the exclusion and to the detriment of their national African languages... In this way, African countries obligatorily use foreign colonial languages in almost all the important fields where the national languages should have full vent, or even the exclusive right of use. Thus we are forced to admit that all African countries are today linguistically dependent on Western Europe from which they declare themselves to be politically independent” (Mateene c1985:41, cited in Pütz 1995:1).

Several of the iconic leaders of independence movements in Africa, such as Leopold Senghor of Senegal, saw the former colonial language, in this case, French, as a resource to be exploited.

In the decades before the advent of democracy in South Africa, debates about the national language question had their own particularities, given the racial ascription to indigenous languages by the apartheid state. Neville Alexander, one of the doyens of the language policy in South Africa in the later 20th and early 21st century, drew attention to the position of the prominent cultural and political leader AC Jordan in key debates in the 1950s on the language question. While Alexander was an advocate of the use of indigenous languages and critical of the continued hegemony of English, they declared that on the major issues involved, Jordan “arrived at what [he considers] to be unassailable conclusions”, namely:

“In order to achieve their purpose, the rulers must exploit the universally accepted educational principle that the best way to impart knowledge is to use the pupil’s own mother-tongue. As educationists, we cannot reject this principle. But as democrats we reject the idea of a ‘Bantu community’ or ‘Coloured community’, and if the given mother-tongue is in such a state that it cannot take the child beyond the confines of the supposed ‘own community’, then we must insist that while

the child continues to receive training in the use of his own mother-tongue, he should as early as possible receive instruction through a language that will ensure him a place in a world community” (AC Jordan, cited in Alexander 1989:35-36).

For Jordan and his peers in the liberation movement, this world language was English. However, it was not an unqualified position, with Jordan arguing:

“...we shall put English in its present unchallenged position but accept the eight other written languages and allow them to develop, if they can” (AC Jordan, cited in Alexander 1989:36).

However, Jordan argued that if English were to be superseded by another language as the medium of universal culture, the new language would be given its due place, and full cultural benefit would be drawn from it. It was not thus any specific language that Jordan was promoting but rather language as a bearer of culture (Alexander 198:36).

The Early Decades of Language Policy and Planning c1992-2009

In the run-up to the 1994 democratic dispensation, the need to recognise the nine African languages while preserving the positions of English and Afrikaans was acknowledged by the various players in the negotiation process (Webb 2002; de Kadt 2006). Julia de Kadt (2006) points out that the development of Afrikaans during the inter-year wars by the government was, in general, successful as the process commanded political will and significant resources. In contrast, the post-1994 effort by the government to develop nine indigenous languages seems to have been far more circumscribed. A key difference was the political relevance of a linguistically informed ethnic identity. Language development is less likely to be successful if the survival of a government is not contingent on such a process. The invocation by the apartheid government of African ethnic identities as a means to create a politically and racially-segregated society has delegitimised in part the use of such identities as a political resource in contemporary South Africa (ibid). In turn, this strategy has ensured that race and socio-economic status are more central to political calculations. There has been an insufficient political incentive to develop the nine new official languages. This can lead to laboured policymaking and implementation. Without a strong and coherent government position on language development, the notion that African languages have no broader economic value may spread, reducing the demand for education in such languages. She concludes that if language development efforts are to be successful in contemporary South Africa, ‘new strategies which take into account the political realities of the country will be essential’ (ibid).

While there is relatively broad consensus on the importance of establishing and maintaining multilingualism in South Africa and promoting the official indigenous languages, significant issues reflect overlapping cultural, political, economic and emotive imperatives. While formal structures and mechanisms are in place, these may well be insufficient to deal with past, present and future concerns. Such issues are the subject of detailed future research; some snapshots and observations are worth raising here.

Although the question of language and language diversity was central to the negotiations that ended apartheid and ushered in the internationally acclaimed democratic settlement, there was a certain ambivalence among the political and economic elites to the question of language and LPP. Centrally, language planning had been associated with ‘the racist social engineering of the apartheid era’, which included the socially debilitating effects of Bantu education and structures such as the Bantu language boards (Alexander 2004:1). However, opposition to such structures had contributed to grass-roots language planning initiatives (Alexander 2004; de Kadt 2005).

The question of language was not incorporated into the RDP (Reconstruction and Development Programme), which some have seen as a partial marginalisation of language in the macro development strategising of the time. However, one needs to bear in mind that linking culture (including) language and development was still an emerging discourse in the early and mid-1990s. There were more decisive moves regarding language planning, with a LANGTAG established in 1995. In the same year, PanSALB was established by Parliament by Act 59 to promote multilingualism to develop the eleven official languages and protect language rights in South Africa. In its early years, PanSALB established national and provincial language committees, as well as lexicographical units. It also commissioned a language survey and funded research (Webb 2002).

The LANGTAG initiative, which had been set up in the period of optimism after the first national election, was predicated on an inclusive process of production and a substantive 'bottom-up' process of production and consultation. The final published report of the LANGTAG's exercise, known as the Final LANGTAG Report, was released in 1996 (DCST 1996). Even though the government had not accorded it official status, it was well-received, and expectations had been raised (Heugh 2002). The LANGTAG initiative helped lay the foundation for the NLPF, which was announced in 2003.

In addition, DACST, the national department heading up language policy development, appointed a special language planning Advisory Body/PanSALB to develop a national language policy. DAC presented their proposals to the Minister in March 2000, which were formulated as a South African Languages Bill, this was originally envisaged to serve before Parliament in 2002 (Webb 2002), but this measure appears to have been placed on the back burner and re-emerged in 2011 (RSA 2011).

Cabinet finally approved the NLPF in 2003. The NLPF was a particularly strategic document committing all government agencies to move towards workable multilingualism (Heugh 2002; Kaschula 2004; Kamwangamalu 2007). The NLPF was effectively a collection of measures and projects comprising a policy statement, an implementation plan, the South African Languages Act and the South African Language Practitioners' Council Act (DAC 2003a:5; Beukes 2008).

The emphasis was placed on the operationalisation of a New Implementation Plan which Cabinet approved in 2003. The establishment of language units in government departments and agencies, a National Language Forum, and a South African Language Practitioners' Council was authorised. Implementation was seen as largely content on cooperation with national and provincial structures, as well as PanSALB, which in turn would be the strategic partner of the DAC and its National Language Service division (Kaschula 2004:15).

The NLPF Implementation Plan envisaged that the implementation of the Policy 'will be phased in progressively over a reasonable period' (2003:8), using a variety of mechanisms and structures. All language units required by the Policy were to be established by the end of 2005 (ibid. 15).

The Implementation Plan also dealt with the costs of achieving functional and ideally sustainable multilingualism. It was estimated in 2003 that the use of six languages at the national level in line with the NLPF would not exceed an addition of 2% to the envisaged budgets. It was estimated that for a three-year implementation period, the overall cost for all involved national departments would be R379 349 737 in 2003 terms (Kaschula 2004:20). This amount would include a range of goods and services from infrastructure for a language department in each department and province to training staff and outsourcing translating services.

The Plan was well-received, with academic language practitioners particularly enthusiastic as the 1990s and early 2000s had seen drastic declines in enrolments in indigenous language departments in all South African universities (Wright 2002). The prospects of employment creation were considerable, including a turnaround in language students at the tertiary level and the assumed need for staff for the various envisaged language units at national and sub-national levels (Kaschula 2004).

Concerning the institutional structures, PanSALB came in for quite considerable criticism in its formative years; Neville Alexander was amongst its critics. He noted that, among other things, the Board was created 'to ensure ethnic nationalism be de-linked from the language question'. However, Alexander (2004) found that ironically at the time that the Board was 'currently moving in exactly the opposite direction' (2004:124). Instead of promoting a 'cross-cultural' and 'horizontally articulated monolingualism, the Board was sitting as the representative of eleven, sometimes fourteen, separate pillars' (ibid.). He also noted no insubstantial duplication of functions between the Board and the National Language Service, although internal conflicts between the two structures were mostly addressed (Alexander 2004:124).

Tim Parry's study of PanSALB emphasises the disjunction between the original intent, as stated in the Constitution (Section 3 (10)a) that an Act of Parliament provides for 'an independent Pan South Africa Language Board', and its subsumption post-1998 into the administration component of government, most particularly the DAC, thus 'eliminating its independence' (ibid. 182). He also contended that the mediation function of PanSALB was bureaucratically cumbersome and not useful; "It is, simply, there, consuming resources" (ibid. 178).

Writing in 2008, Annette Beukes noted that twelve years have elapsed since the publication of the Final LANGTAG Report and five years since the approval of the 'long-awaited' NLPF (Beukes 2008). This was not a wholly new sentiment. By the early 2000s, there was a discernible sense of disenchantment with overall progress on language policy (Wright 2000; Alexander 2004; Kamwangamulu 2007; Beukes 2008). The disjunction between policy and implementation regarding language was more than the particularities of policy-making that characterised most developing economies; the logistics of the LLP processes in a country such as South Africa constituted a complex, fiscally challenging and demanding undertaking at the best of times.

The delays and other shortcomings in terms of implementation were not confined to the language policy process. Other government departments were also found wanting when converting policy to practice. DACST, which had been tasked with overseeing the bulk of LPP interventions, was not immune from such experiences. In terms of national cultural policy, more generally, the department had a variety of pressing commitments in the late 1990s and after.

Some of the disenchantment was about a perceived shift within central government away from broader-based approaches to planning and a corresponding decrease in enthusiasm for the possibility of partnerships between the public, private and third sectors (Van Graan 2019; Haines 2014). Overall, there was an increased recourse to 'top-down', technocratic and state-centric approaches to policy. The sphere of arts and culture was not immune to these tendencies (Roodt 2006; Van Graan 2019).

There were several other important policy measures during the later 1990s and early 2000s. Probably the most significant was the Language in Education Policy issued by the Ministry of Education in 1996. This document emphasises two languages for performance assessment promotion (Kaschula 2008). The policy

was presented after a long process of consultation, emphasising the need to promote equal treatment and the use of the 11 official languages and redress for learners who had experienced discrimination. A non-diminution of the rights of those language communities that had been favoured historically (Kaschula 2008); however, the implementation of this policy proved problematic (Kamwangamalu 2007).

In addition to this measure, Norms and Standards on language policy were introduced in terms of Section 6 (1) of the South African Schools Act of 1996, which regulates language policy in schools. Moreover, in 2002 the Language Policy for Higher Education (2002), which provided regulations and guidelines for language policy in universities, was instituted.

There was a slowdown in the implementation of strategic projects within DAC regarding LLP in the later 2000s and the early years of the new decade; however, in the education field, there was somewhat more activity. In 2011, a National Curriculum Statement was gazetted and ushered in new curriculum processes, including changes to the timing of transitions away from mother-tongue instruction. A 2017 DBE evaluation found the curriculum of a high level, but that communication on the curriculum and its implementation remained ineffectual (Mohohlwane 2019:32).

Language Policy and Planning c2010-2021

The Use of Official Languages Act 12 of 2012

Sixteen years after the Constitution of the Republic of South Africa came into being, Parliament adopted the Use of Official Languages Act 12 of 2012 (UOLA). This fulfilled a constitutional requirement to monitor and regulate the use of official languages.

Pretorius (2013) argues that the UOLA is meant to control “the use of official languages in terms of arguably one of the most inclusive official language arrangements of any constitution currently in force.” Justice Sachs has remarked that the principle of inclusivity “shines through the language provisions” of the South African Constitution. This is because our Constitution recognises 11 official languages, some of which are spoken by as little as 1.58% of the total population. Moreover the Constitution also obligated Parliament to “promote and ensure respect” for other non-official languages. (Pretorius, 2013)

UOLA (2012) aims to:

- provide for the regulation and monitoring of the use of official languages by national government for government purposes;
- require the adoption of a language policy by a national department, national public entity and national public enterprise;
- provide for the establishment and functions of a National Language Unit;
- provide for the establishment and functions of language units by a national department, national public entity and national public enterprise;
- provide for monitoring of and reporting on use of official languages by national government;
- facilitate intergovernmental coordination of language units; and provide for matters connected therewith.

Commentators, however, have raised concerns about the extent to which UOLA can be practically implemented to promote inclusive linguistic diversity. Pretorius (2013) suggests that there is a need to “revisit the Constitutions message regarding multilingualism in order to decide if and how a law intended to regulate and monitor official language use could give effect to linguistic diversity” and in so doing, “counter the continuing trend towards English monolingualism.”

South African Language Practitioners' Council Act, 2014

The South African Language Practitioners' Council Act, 2014 (SALPCA) established regulations for the training, regulation, accreditation and control of language practitioners, including translators and interpreters. It also established the South African Language Practitioners' Council (SALPC).

According to this Act (2014), the SALPC is required to advance the promotion and protection of language practice in the country by doing the following:

- a) promote and protect the language practice in the Republic;
- b) scrutinise particulars of people intending to register;
- c) register people who are registrable by the Council;
- d) accredit people who are accreditable by the Council;
- e) develop, implement, revise and amend a code of conduct relating to the conduct of registered language practitioners;
- f) protect language practitioners' professional interests;
- g) protect the members of the public who make use of services provided by language practitioners;
- h) regulate the provision of language service to members of the public;
- i) provide and encourage the provision of opportunities for persons, especially from indigenous communities, to enter and participate in the language practice in the Republic;
- j) contribute to an enabling environment for job creation in the language practice in the Republic; and
- k) advise the Minister on matters affecting the language profession.

There are concerns about the extent to which the SALPC has been able to begin implementation of its objects. In this regard, questions arise about whether sufficient funds have been made available to the SALPC.

Language Policy and Planning in Education

From 2013, there was a further phase of language in education policy developments. These comprised the draft Basic Education Laws Act (BELA) bill, the draft National Policy for the Provision and Management of Learning and Teaching Support Material (LTSM), the Incremental Introduction of African Languages (IIAL), and the Revised Language Policy for Higher Education.

The Bill sought to amend and update existing basic education measures. The Bill was approved by Cabinet and exposed to public comment. Among the provisions of the Bill was to enable a more active engagement by and compliance with efforts to ensure that the language policy of the school in question was referred to regularly and with due process by the provincial HOD.

The LTSM measure looked to improve procurement processes to allow a wider selection of texts regarding language teaching. Formalisation of this would be contingent on the passing of the BELA Bill.

The 2013 release of the incremental introduction to the African Language draft policy has greater implications. The chief proposed change is offering a second First Additional Language across all grades rather than the existing option of one grade.

The Revised Language Policy for Higher Education of 2018 looks to enforce the use of all official languages in Higher Education institutions in functional spheres of activity. This measure effectively places universities as custodians of scholarship and teaching of African languages as universities are looking to quicken their current institutional responses (which mostly commenced around 2019-20) to the implementation of the Language Policy Framework for Public Higher Education Institutions' requirements,

which came into effect in 2022. The process is impeded somewhat by government delays and the lack of an Implementation Plan (Daily Maverick 4 April 2022).

The BELA Bill has been in circulation for around five years, with a draft serving before Parliament in 2017. The Bill is aimed at reconciling SASA and EEA with improvements in the educational terrain and upgrading the quality of basic education (Pitt 2022). Unlike higher education which has had two review processes, the review is the first time since the 1997 Language in Education policy. In line with HE shifts, the relevant clauses of the Bill opt for a multilingual approach, with state schools having more than one language of instruction. The final say on these matters will reside with Provincial HODs.

Civil organisations and school governing bodies have not rejected the bill outright but have particularly questioned the costs and viability of the relevant proposals. The CEO of the Governing Body Foundation argues that finding additional qualified teachers will be difficult. Dr Xolisa Guzula, the convener of the New Generation of Academic Professionals in Multilingual and Multiliteracies Education, opposed this line of thinking. They maintained that not using African languages in schools contributed to a 'huge erasure of African languages by of African languages by parents who have been ill-advised so their children can assimilate to the schools' English and Afrikaans language policies' (Pitt 2022).

Educator and author Jonathan Jansen, discussing the intent behind recent educational policy pronouncements, including one that announced that school subjects would be taught in the African languages from grade 4 upwards, had this to say:

"[This] was a wonderful idea. But it's not going to happen because there are too few teachers produced with the expertise to even begin to teach the range of subjects competently through senior primary and high school; we are not graduating them as teachers in any significant numbers.

Behind this silly proposal is the assumption that children's academic performance will improve if they are taught in the mother tongue. This too has been refuted by research in the SA context. The reason our youth fare so poorly in gateway subjects such as science and maths is that they are poorly taught in any language. In other words, the problem is not mother-tongue instruction; it is that teachers lack the content (what to teach) and the pedagogical (how to teach) knowledge in their respective subjects" (Herald, 18 August 2022).

Among other recent developments was the revival in 2021 of the National Language Stakeholder Engagement Forum that had been mooted in the LANGTAG report and the 2003 NLPF. There were also intensified efforts by DSAC to ensure the implementation of the South African Language Practitioners Council – a project which also dates back to the early 2000s (PMG 2022).

Financial Dimensions

The NPLF Implementation Plan of 2003 presented estimates of achieving functional and sustainable multilingualism. However, these were derived in more heady economic days. It would be worth revisiting and revising the approach undertaken in the early 2000s. There are several codicils. Firstly, the South African economy was less fiscally beleaguered than it is today. The increased toll of state capture, rent-seeking, and consequent outflow of funds, as recently underlined in the Zondo Commission reports, would appear to have an impact on the room for manoeuvre of the government. In other words, there is a need to find more innovative means, possibly including a public-private element, to achieve the levels of multilingualism envisaged.

In addition, the growing costs of state employees over time, especially at higher official levels, is a further factor to be considered. Moreover, the likelihood of cost overruns, almost a given in the variety of state-funded projects, is a factor to be taken into account.

At the November 2021 Universities' Colloquium on the New Language Policy for higher education, it was estimated that South African universities would have to spend between 1-5 % of their budgets to implement the government's new language policy, with the costs likely to be at the high end of the spectrum (Anstey 2021).

According to Prof Deresh Ramjugernath, DVC for Learning and Teaching at Stellenbosch University, if universities are to deliver fully on the "laudable aims and objectives of the language policy framework", funding would be needed. Such monies could not be reprioritised funding but rather a 'significant fresh injection'. He added that it would not be possible for funding to be adjusted from other sources as the policy's objectives would compete with other priorities. The latter priorities might well be judged to be more significant contributors to the academic standing and financial sustainability of public universities in South Africa (cited in Anstey 2021).

So, if institutions are to fully deliver on the laudable aims and objectives of the language policy framework, they need funding. Furthermore, this money must not be reprioritised funding but a 'significant fresh injection', said Professor Deresh Ramjugernath, Deputy Vice-Chancellor for Learning and Teaching at Stellenbosch University. Funding could not be adjusted from another source because the policy's objectives will have to compete with other priorities, which universities might view as greater contributors to their academic standing and financial sustainability (cited in Anstey 2021).

Cele (2021) examines the question of language policy in South African universities within the broader context of national language policy. Cele (2021) argues that the latter, throughout the decades, "has remained an instrument for the reinforcement of the supremacy of English as opposed to enhancing the development of African languages". He further asserts that the implementation of the South African NLFP has been essentially unmonitored and under-resourced (ibid.). Moreover, debates about implementing the policies in question need to be informed more directly by new paradigms of knowledge on the role of African and indigenous languages in pedagogical theory and practice and by knowledge generation (ibid.).

In addition to criticisms of the conception and implementation of language policy support, there were internal institutional issues over the years. One particular problem was a revolving door scenario with respect to senior leadership. In 2011, following a disciplinary hearing, the then-CEO of the Board was dismissed on the grounds of financial mismanagement. They had been on suspension since 2009. Problems continued over the years; internal problems continued after the appointment of caretaker/temporary CEO Mxololele Zwane. He was, in turn, succeeded by Zixoliswe Feni, who sought to trim the staff complement, arguing that staffing was consuming in the order of 72% of PanSALP's overall budget. A host of dismissals by Feni maintained the tension, with one of the Board members of PanSALB asking the Minister of Arts and Culture to remove the acting CEO from the post (Mail & Guardian 10 April 2015). In July 2015, Dr Rakwena Monareng was appointed as the new Chief Executive Officer of PanSALB. PanSALB operated without a board of directors for over three years, with the CEO looking to improve organisational performance. A major reported challenge was underfunding from National Treasury (PanSALB 2019:28). Monareng resigned in 2018 following a forensic and audit firm report that he be

disciplined (City Press, 20 February 2020). Other CEOs were appointed prior to the confirmation of the appointment of the incumbent, Mr Lance Schultz.

New Challenges

In addition to current interventions to build multilingualism in South Africa, there are various institutional and socio-economic challenges facing policymakers and the various public, private and third sectors going forward. Issues range from finding more effective but cost-friendly interventions regarding indigenous and vulnerable languages to reinforcing the linguistic competitiveness of South Africa in international markets. In these and other areas, the need for a more defined and explicit economic analysis of language policy with formal advocacy would seem to be essential and non-negotiable.

The seeming reluctance of the Treasury to spend more on language promotion, as evidenced, for example, in the 2018-19 PanSALB report (PMG 2019), is worth engaging with on a systematic basis. As outlined in the preceding discussions, there is hidden value in the quest for multilingualism, but the costs and benefits need to be teased out with more rigour and reflexivity. In addition, there are opportunities for doing more with less, especially concerning partnerships and leveraging social capital at sub-national, national and international levels, with more recourse to pilot programmes rather than larger-scale interventions. This allows for more flexibility, the identification of options, and cost savings. Moreover, it should provide a more informed means of assessing community perspective and fostering participation.

In the question of infrastructure provision and maintenance, the government has of late actively sought private-sector participation and, where possible, third-sector involvement. This approach may well be worth considering concerning the field of language development and promotion.

The Question of Indigenous Languages

The 11 designated official languages seem to have sufficient short to medium-term support and robustness to underpin multilingualism in South Africa. Because of some of the pejorative connotations from the apartheid period and the attenuation of Afrikaans-oriented educational structures, there is an argument from some quarters, popular and academic, that the language itself is under duress (see example in Giliomee 2004). Here, a range of quantitative and EOL-influenced studies would be useful to demystify the current situation. Its underestimated value in providing a linguistic crutch in dealings in some EU countries, most notably Holland, Brussels and Germany, could be more directly explored in research centred on trading languages for the South African economy.

In terms of the threatened indigenous languages linked with South Africa's 'first nations', namely, the San and Khoikhoi, distinctive projects have been aimed at conserving and finding the basis for revising these languages, including the associated dialects. However, currently, it would appear that there could be more coordination of differing interventions from the government, academics and various interested practitioners and commentators, both local and international. Within the San and Khoikhoi languages especially, is enough being done to map and record and continue to utilise the relevant aspects of these threatened language forms? How are the relevant communities and the public more generally involved in these exercises? This line of questioning is important as, at this early stage, there does not appear to be any significant inputs from Africa (including South Africa) on the International Decade of International Languages' website.

Campaigns to save endangered languages should explore all means of ensuring that fine contributions are articulated and networked nationally and internationally. In this way, relevant social capital is built up. Furthermore, opportunities for using international networks and resources must be systematically explored, given declining public funding for arts, culture and heritage in many countries globally.

In this regard, DSAC has already looked to leverage UNESCO's Decade for Indigenous Language initiative. This initiative would seem to offer significant opportunities for partnering and locating additional sources of funding. The Global Action Plan for the international intervention:

"... calls for a coherent approach and for joint collaborative action by all stakeholders to achieve maximal positive impact and social change with respect to indigenous languages and those who speak and sign them" (UNESCO 2021:9).

Moreover, the Plan suggests opportunities for:

"Continued support through allocated financial, human, and institutional resources, and infrastructures from governments, Indigenous Peoples' institutions and organizations, academia, and other relevant public and private institutions, as well as the UN-system entities which requires resource mobilization programmes, partnership schemes and cooperation mechanisms to create a suitable enabling environment" (UNESCO 2021:9).

Community, Language and Development

While there are a number of writings on the disjunction between policy and practice in LPP in post-apartheid South Africa, there has been a tendency to assume that the views of the policymakers and/or practitioners were somehow representative of the groups and communities invoked. As Yu and Dumisa (2015) argue, in reality, the "policy-practice gap is potentially actuated by a 'glaring lack' of cultivated community support". In addition, they stress that language policy is usually designed and implemented via 'a largely top-down approach' (ibid. 60). Analyses and expositions on language policy are not predicated sufficiently on the kinds of evidence-led policy research as envisaged in the LANGTAG Report (Yu & Dumisa 2015: 70).

There is an extension and/or radicalisation of this notion in some recent scholarship which argues that language policy advocacy should, in fact, go hand in hand with community economic development and revitalization. One implication is that language planning should be a more inter-agency process and production and cross public and private divides, as is, for instance, the case in Catalonia.

Growth of New Diversity of South Africa's Population

Language policy has focussed primarily on existing defined official languages (and dialectical variants thereof). It would seem a more incorporative approach may be required, and responding to the new dynamics of the multicultural demography of the country and its languages need to be taken more actively into consideration. A crucial aspect in South Africa is immigration, most notably from SADC countries and certain East and West African countries. According to certain official estimates, which are still based on the 2011 census (Moyo 2021), there are around 2.9 million immigrants in South Africa – just under 5% of the population of 60 million. The bulk of the migrants are African, with SADC countries dominating. The greatest number of migrants originate from Zimbabwe. Moreover, according to 2020 data, South Africa continues to attract a number of EU immigrants (ibid.).

While shrinking economic opportunities have led to increased xenophobia and attacks on immigrants in South Africa, similarities in the indigenous languages between South African residents and immigrants offer future potential synergies for language promotion.

One area lies with Swahili, which currently has over 200 million speakers and is one of the world's ten most widely spoken languages. Swahili derives about 40% of its vocabulary from Arabic, was initially spread by Arab traders along Africa's East coast and then subsequently formalised under British and German colonial rule (Sippy 2022). It has been touted as an alternative lingua franca to English, French or Portuguese. There is now a renewed push for its acceptance throughout Africa (ibid.) In 2019 it became the only African language to be recognised by SADC (the South African Development Community). Furthermore, it is the official language of the East African Community (EAC). Among other growing endorsements is that a 2022 meeting of the heads of state of the African Union (AU), Swahili, was endorsed as an official working language. In addition, UNESCO recently declared the 7th of July as World Kiswahili Language Day.

Languages Facilitating Trade with Africa and Internationally

The policy input by Cambridge University-RAND Corporation Europe to the British Government regarding improved language across the board, which we discussed earlier in the report, has some lessons for South Africa, too. South Africa has a long-term trade surplus with the rest of Africa; however, there is rising competition from high-performing developing economies in the global economy, and there is a need for increased investment regarding this regional trade. As Singwe (2019) emphasises, a further point is that when African economies trade between themselves, "they exchange more manufactured and processed goods, have more knowledge transfer, and create more value" (ibid.). While the share of intra-African exports to total African exports grew from about 10% in 1995 to 17% in 2017, this is a modest percentage compared with other trading regions. Therefore, an intervention that specifically emphasises improving the key languages of trade would add value. Such languages of trade would include a raised proficiency in English, French, Portuguese, Arabic, and Swahili, especially. Research is needed, however, to determine which languages of trade South Africa should prioritise.

The Cambridge-RAND Europe study (see micro case study) found that increasing and intensifying Arabic, Mandarin, French or Spanish language education in UK schools could see a benefit-to-cost ratio of a least 2:1. In South Africa, such languages could be expanded to include Portuguese, Japanese, Russian, and Swahili to help expand trade opportunities and globally. Such expansion should lead to an increased contribution to South Africa's GDP levels over time.

Conclusion

This section has considered selected strategic aspects of LPP issues in post-1994 South Africa. The preceding literature and theory review informed the discussion.

The work of the LANGTAG group, which helped shape the important 2003 NLPF, is considered. These and related measures were run through the DAC at the time, which became the lead government department in effect in the implementation of language policy.

The Ministry of Education was also central to the endeavour, and a number of interventions from the late 1990s through to the early decades of the 21st century are considered. Certain institutional matters that

help illuminate the impediments and workings of policy implementation are raised, especially concerning PanSALB, one of the central units for language inquiry and mediation. The question of costs and cost-efficiency of interventions are noted where appropriate to link with the EOL perspective evaluated and applied in this report. In addition, the importance of securing value is also stressed, and options and challenges for relevant Government departments are discussed.

The changing demography of South Africa and the increased potential alignment of languages of trade within Africa at large and internationally offer expanded and dynamic ways of looking at productive means of investing in language promotion in South Africa. The importance of more horizontal and inter-sectoral initiatives in regard to LPP is mooted.

Chapter 5: Empirical Evidence – Measuring the Contribution of Language to the Economy

Introduction

Tang (2018) asks very relevant questions: “What is the boundary of [the] language industry?” and “To what extent has [the] language industry contributed to [the] economy?”. The second question is perhaps a little easier to discern but by no means conclusive. This question is examined and debated elsewhere in this report. For the purpose of this section, “language” is limited to the language practitioners listed below. These are scattered throughout the various economic sectors but are mainly found in printing, recorded media [SIC 324-326], advertising [SIC 883], business activities NEC [SIC 889], education [SIC 92] and recreation, cultural and sports activities [SIC 96]. Tang (2018) also points out that “some industries, such as the tourism industry and trade industry, are also characterised by foreign language service”.

In this chapter, three areas will be estimated:

- Employment
- Contribution to the GDP
- Importance of language in trade

Employment

This section uses a simple method of calculating the number of jobs related to language in the South African economy based on data from Stats SA and estimated weightings (where applicable).

Language Practitioners

Language practitioners generally provide specialised language services across several interrelated fields. The South African Language Practitioners’ Council Act (2014) defines the term ‘language practitioner’ as a paid occupation which includes, but is not limited to, translators, interpreters, language planners, terminologists, lexicographers and text editors. From an economic perspective, this is too narrow, and a more inclusive view would include the following:

- Writing (copywriting, creative writing, technical writing, script writing, songwriting, and even writing for pleasure)
- Editing
- Proofreading
- Text review
- Translating
- Interpreting
- Terminology
- Lexicography
- Publicity
- Language training
- Language research
- Development of literary and language programmes
- Developing computer-assisted language packages
- Providing organisations with language-related advice

According to the 2015 regulations promulgated for the South African Language Practitioners’ Council Act:

“[A] person who is registered and accredited at any of the levels referred to in regulation 14(3)(e) may describe himself or herself as and use the following titles —

- (a) If accredited at level one — paraprofessional language practitioner;*
- (b) If accredited at level two — professional language practitioner; and*

(c) *If accredited at level three — expert language practitioner*”.

As in many creative fields, some amateurs play a significant role in the development of the field. Unfortunately, it is difficult to quantify the economic impact of amateurs and, as much as possible, paraprofessionals will be included together with the informal sector in the section estimating the contribution of language to the GDP.

A conceptual framework for the categorisation of languages is presented below:

Table 2: Conceptual framework for language practitioners

	Expert	Professional	Paraprofessional	Amateur/informal
Full-time	1	3	5	7
Part-time	2	4	6	8

Number of Language Practitioners

The data presented below is from official national data collected by Stats SA using the LMDSA to estimate the number of language practitioners in South Africa. The LMDSA is an annual dataset that has been pooled from the Quarterly Labour Force Survey (QLFS). This is a household survey conducted every three months. The QLFS covers the entire national population but is based on a master sample that has been designed to be as representative of the population as possible. This sample is divided equally into four subgroups, or rotation groups, which are surveyed annually (Stats SA 2008).

Survey weights assigned by Stats SA (2014) are in place to ensure that all persons in a household have the same adjusted base final weight. These weights have been used to derive the number of language practitioners reported in the table below. It is important to note that these weights are estimated to show the number of language practitioners in groups where the occupation is not exclusive to language. The 2020 LMDSA is used and is reported below.

Table 3: Number of language practitioners in South Africa

Occupation	Number	Weighted estimate	Weighting used
Authors, journalists, editors, reporters, poets, playwrights, commentators, proof-readers, and other writers	11 130	11130	100%
Coding, proof-reading, and related clerks	70 438	28175	40%
Librarians and related information professionals	8 910	4455	50%
Library and filing clerks	35 544	17772	50%
Other professionals not elsewhere classified	757	0	0%
Other teaching associate professionals	3 962	10	1%
Philologists, translators, and interpreters	518	518	100%
Pre-primary education teaching associate professionals	22 283	446	2%
Primary education teaching associate professionals	244 853	4897	2%
Primary education teaching professionals	40 450	809	2%
Secondary education teaching professionals	120 692	1207	1%

Occupation	Number	Weighted estimate	Weighting used
Technikon, teacher training, technical and other colleges, universities and other higher education institutions, teaching professionals and other post-secondary education teaching professionals	49 745	497	1%
	609 280	69 916	

The weighting used in this analysis was arrived at after interviews with the various stakeholders. The DSAC also discussed the weightings with the Department of Basic Education. Legal professionals are not represented in this table, but courts must have interpreters given the number of official languages.

There are, therefore, just under 70 000 jobs related to language in South Africa. This figure is roughly 0.44% of South Africa's employees.

It must be emphasised that there are other job categories that could have been included, such as tourism, law (especially in the courts), film (e.g. dubbing and foreign language movies), and government. The Department of Justice needs translators and interpreters as the official languages are mainly used in legal court cases, while the Department of International Relations trains foreign representatives in other languages. Besides these, every department needs, but regularly does not have, language services (to ensure that the quality of publications is up to standard) and translators.

Estimating the Contribution of Language to the GDP

Language is a critical component of the economy. It can indeed be said to be a *sine qua non* – as, without language, communication would be very difficult, and without communication, there would be no commerce. However, this section deals with measuring the size of the language component of the economy. In other words, the contribution that language makes to the nation's GDP.

This has to be done within conventional statistical frameworks. The System of National Accounts (SNA) is the standard framework used to measure and report a country's GDP. The SNA 2008 is the latest version of the international statistical standard for national accounts, adopted by the United Nations Statistical Commission (UNSC). Along with most other countries, it is used by Stats SA. Mohr (2005:16) points out that the "National account constitutes as the most important source of information about the state and the performance of the economy, in the same way as operating and financial accounts of an individual firm convey information about the condition and performance of its firm".

Unfortunately, the SNA does not make provision for language or CCIs in the same way they have for other sectors; therefore, Stats SA does not report on language or CCI domains as separate industries or sectors. The task of preparing a set of national accounts is "anything but simple or straightforward", as the compilers of national accounts must contend with various conceptual problems. As well as this, the acquisition of accurate data also presents a problem.

Language components are isolated and extracted from other traditional economic activities and sectors. For example, writers are a critical part of the publishing sector. Usually, publishers pay between eight and ten percent royalty to writers based on retail sales figures. The royalty (the language component) is then extracted from the publishing turnover and other relevant economic variables. Language components are

found in printing, recorded media [SIC 324-326], advertising [SIC 883], business activities NEC [SIC 889], education [SIC 92], and recreational, cultural and sports activities [SIC 96].

Once the language components have been extracted from the respective traditional economic sectors, they are reaggregated to form a new 'language' sector. This is done within a SAM framework, which is a matrix which represents the System of National Accounts and shows how industries and agents interact with one another and their production (in other words, the flow of goods and services). The SAM (or IO) analysis is the standard method for measuring the effects of changes in the final demand for a product of a certain industry or sector (Surugiu 2009).

The technique used ensures that the SAM remains balanced. Therefore, the following economic information can be derived:

- Compensation for:
 - High-skilled labour
 - Skilled labour
 - Low-skilled labour
 - Informal labour
- Production factors: Capital
- Taxes and subsidies on production
- Taxes and subsidies on products

Table 4: Contribution of the language sector to South Africa's GVA (R millions)

	Contribution to GVA
Production factors: High-skilled labour	R 6 073
Production factors: Skilled labour	R 1 236
Production factors: Low-skilled labour	R 298
Production factors: Informal labour	R 428
Production factors: Capital	R 2 298

When using the modelling undertaken and discussed in greater detail in the section above, it is estimated that the contribution made to South Africa's GVA in 2019 was R10,3 billion. This represents 0.17% of the country's GVA. However, it must be noted again that language is a sine qua non for any economic activity. The language sector is estimated to pay approximately R713 million in taxes while receiving R25 million in subsidies. One-hundred and sixteen million is spent on production while a further R481 million on VAT and R116 million on other taxes on products.

Table 5: Contribution of each domain to South Africa's GVA

	A: Cultural and natural heritage	B: Performance and celebration	C: Visual art and crafts	D: Books and Press	Language	E: Audio-visual and interactive media	F: Design and creative services
Contribution to South Africa's GVA	0.09%	0.17%	0.39%	0.32%	0.17%	0.81%	0.85%

As would be expected, the language sector is labour-intensive. The contribution of capital to the sector's GVA is only 22%. The table below shows the contribution of the capital of the CCI domains (after language has been accounted for) to the domain's contribution to GVA.

Table 6: Proportion of capital in each domain

	A: Cultural and natural heritage	B: Performance and celebration	C: Visual art and crafts	D: Books and Press	Language	E: Audio-visual and interactive media	F: Design and creative services
	67%	61%	58%	41%	22%	46%	39%

It is also possible to estimate the number of workers in the sector. Because the various surveys undertaken by Stats SA differ in the methodology (i.e. sample period as well as the actual sample surveyed), figures can differ. Using a modelling approach standardises the estimations to a degree. The figures given below are therefore obtained from the SAM.

Table 7: Number of language workers

	Number of workers
High-skilled labour	37 028
Skilled labour	12 853
Low-skilled labour	4 107
Informal labour	12 184
	66 173

Using the SAM modelling techniques, it is estimated that there are approximately 66 000 people employed in the language sector. This is slightly lower than the estimation from the analysis of occupations extracted from the LMDSA. The figures are not too far apart, and there may be some undercounting in the SAM modelling based on the weightings used for each sector of the economy.

Tang (2018), while recognising that the statistics are not flawless, estimated that the total output value of China's language industry in 2010 would reach ¥ 192 billion, accounting for 0.47% of the total GDP, which was ¥ 40151.28 billion. The EU (2009) estimated the language industry to be in the realm of €8.4 billion in 2008, a mere 0.06% of the EU's GDP. This included mainly translation and teaching but did include some language-related activities performed in corporate environments. It was expected that there would be a 10% annual compounded growth and that value would reach € 16.5 billion by 2015, which equated to approximately 0.1% of the EU's GDP. This estimation of the contribution of language to the South African GDP seems to be in a similar range. This is especially true given the different definitions being used.

Measuring the Importance of Language in Trade

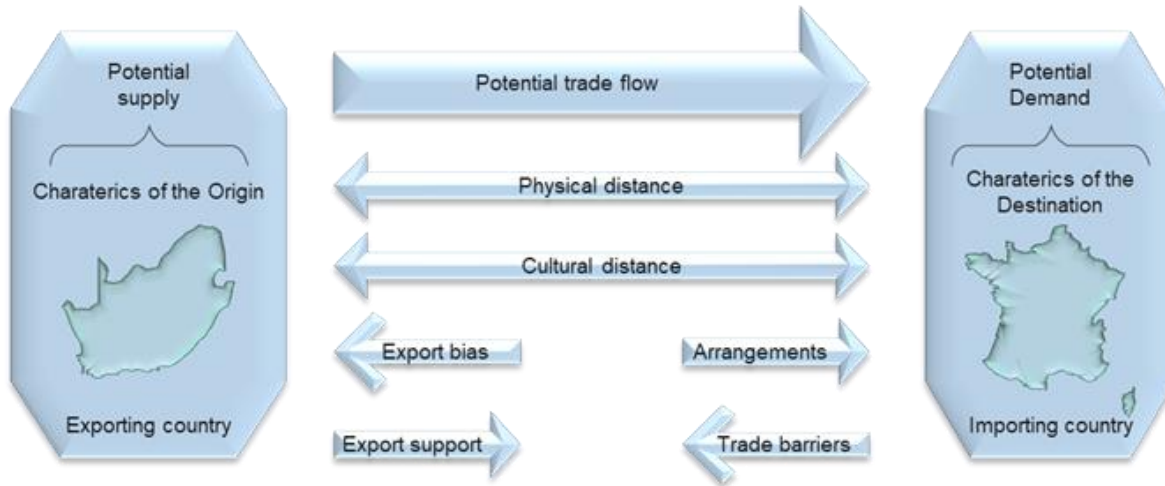
Intuitively, it can be assumed that countries that speak the same language would, all things being equal, do more business with each other, including trade. This proposition needs to be tested empirically to validate it. The workhorse of international trade, the Gravity Model, is proposed as the most appropriate method and is discussed below.

The Gravity Model

The gravity model of trade (or international business transactions broadly) uses Newton's Law of Universal Gravitation as a metaphor. It holds that international trade (gravitational force) between two countries

(objects) is directly proportional to the product of their sizes (masses) and inversely proportional to the trade frictions (the square of distance) between them. Therefore, as it has evolved in economics, the Gravity Model is still loosely based on the Newtonian concept of gravity, where the force of attraction between bodies is proportional to their mass and inversely related to their distance. It is considered the most common spatial interaction model (Wheeler, 2005).

Figure 5: Factors Influencing Trade



To study the impact of country size and location on migration patterns, e.g. Ravenstein, a cartographer working in the late 19th century, initially made the gravity model popular in 1889 (Rees & Lomax 2019). Isard and Peck (1952) expanded the gravity model to examine the impact of country size and location on international trade. In the early 1960s, Tinbergen built on this work to develop an empirical basis for the gravity model (De Groot, Linders & Rietveld 2003). However, despite “the model's consistently high statistical explanatory power, its use for predictive purposes has been inhibited owing to an absence of strong theoretical foundations” (Bergstrand 1985). Despite this, there have been several theoretical microeconomic models that provide rigorous justification for the model, including Anderson (1979, 2010), Bergstrand (1985), Helpman and Krugman (1985), Helpman (2006), Wang and Winters (1991) and Baldwin (2009).

Essentially, the basic gravity model uses two variables to predict or estimate the spatial economic interaction between or among economic agents in places (cities, counties, or regions) and include:

- Size:
 - Population totals of the places,
 - Economic activity, and
- Distance:
 - Physical distance separating the places (or the time and cost of overcoming distance), and
 - Cultural distances.

The basic gravity model is written as follows:

$$l_{od} = k \frac{P_o P_d}{D_{od}^b}$$

Where:

- l_{od} is the estimate of the volume of spatial interaction between place of origin o and place of destination d ,
- k is a constant,
- D_{od} is the distance between o and d ,

- b is the exponent of distance, and
- P_o and P_d represent the population sizes of the places of origin and destination.

Tinbergen's main equation focused on income or GDP:

$$T_{od} = \frac{GDP_o GDP_d}{D_{od}^\theta}$$

Where:

- T_{od} is the estimation of trade between place of origin o and place of destination d ,
- D_{od} is the distance between o and d ,
- θ is the exponent of distance, and
- GDP_o and GDP_d represent the GDPs of the places of origin and destination.

Krugman, Obstfeld, and Melitz (2015) simplified the gravity model to appear as follows:

$$T_{od} = A \times Y_o \times Y_d / D_{od}$$

Where:

- A is a constant term,
- T_{od} is the value of trade between origin and destination,
- Y_o is the country of origin's GDP,
- Y_d is the destination's GDP, and
- D_{od} is the distance between the two countries.

Although this is a relatively simplified representation of Tinbergen's model, it yields virtually identical results.

The gravity model of trade is used to measure the impact of language for several reasons. Firstly, it has considerable predictive power. The empirical gravity equations of trade flows are consistent and robust. Furthermore, it is a structural model with solid theoretical foundations, making it particularly appropriate for counterfactual analysis, including quantifying the effects of trade policy. It also represents a realistic general equilibrium environment that simultaneously accommodates multiple countries. It can also be disaggregated to represent sectors, firms, or other economic agents. The model's flexible structure and specifications ensure that it can be integrated into a broader set of general equilibrium models designed to study economic relations between trade and labour markets, investment, and the environment. The cultural and language components of the gravity model are discussed below.

Gravity and Culture

As research into the determinants of trade continued, it soon became clear that the friction or distance between two countries that hampers economic relationships could be divided into:

1. Physical or geographic distance, and
2. Sociocultural distance.

The sociocultural distance measures the extent to which different cultures are similar or different. The closer the sociocultural distance, the easier it will be for the people from those countries to interact and for businesses to work together closely. The closer this distance, the more trade and investment will be anticipated. Therefore, the concept of cultural distance is widely used in international business and has been applied to trade, foreign investment expansion, entry mode choice, and even the performance of foreign subsidiaries or branches.

Sociocultural distance is broadly conceptual and has been critiqued as often being based on “unsupported hidden assumptions to questionable methodological properties” (Shenkar 2012). Therefore, to be included in any econometric model, it must contain measurable data. Perhaps the best-known components of culture are found in Hofstede’s (1980, 2001) dimensional measures of culture:

- Power Distance Index,
- Collectivism vs Individualism,
- Uncertainty Avoidance Index,
- Femininity vs Masculinity,
- Short-Term vs Long-Term Orientation, and
- Restraint vs Indulgence.

Econometric modellers have focused on language, religion, legal systems, and the colonising relationship between the countries. If the partners from the two countries speak the same language, it is less likely that there will be miscommunication and building trust is easier. Where there is a colonising relationship, trade is also more straightforward because of similar conventions (e.g. measurement, assays and legal systems). As well as this, people from the same religion will have similar approaches to life in general, and business in particular, that will facilitate trade.

Gravity has been used to analyse the determinants of bilateral trade flows, such as common:

- Borders or contiguity,
- Languages,
- Legal systems,
- Currencies,
- Colonial legacies (Mayer, Head & Ries 2008),
- History of war or serious disputes, and
- Membership of Regional Trade and Agreement as well as the World Trade Organization (WTO) (Head & Mayer 2013).

Gravity and Language

Early work on the impact of languages on trade between countries simply measures a binary dummy¹⁰ (Melitz 2008). Melitz and Toubal (2014a) point out that common language measures can reflect the diverse sources of linguistic influence on trade. It includes factors such as ethnic ties and trust and the ability to communicate directly.

Melitz (2008) found robust evidence that language barriers reduce trade. The model and specifications are included in Appendix 1.

Melitz and Toubal (2014a) noted that not all international transactions are affected by language. The more complicated the negotiations, the more important a common language becomes. Unsurprisingly, the sale of commodities is relatively easy and industrial standards and conventions minimise the importance of language. Using the Rauch (1999) classification (homogeneous, listed and heterogeneous goods), the role of cultural proximity (including language) is mainly confined to differentiated goods.

¹⁰ In statistics and econometrics, particularly in regression analysis, a dummy variable takes a value of either 0 or 1. This indicates the either absence or presence of a categorical effect that may be expected to shift the outcome. In most Gravity Models, one is used if there is a common official language.

Melitz and Toubal (2014a) found that the concept of simply incorporating a common official language underestimates the impact of language. They expand the language component of the model by constructing separate measures of:

- common native language,
- common spoken language,
- common official language, and
- the linguistic proximity (LP) between different native languages.

Melitz and Toubal (2014a) specify the following model:

$$T_{od} = \left(\frac{t_{od} P_d}{P_o} \right)^{1-\beta} \frac{Y_o Y_d}{Y_w}$$

Where:

- T_{od} is the trade flow from country o to country d,
- Y_o and Y_d are the respective incomes of the importing and exporting countries, and
- Y_w is world output.
- β is the elasticity of substitution between different goods and greater than 1,
- P_i is the Dixit-Stiglitz price level (based on utility maximisation) of the importing country, and
- p_j is the price of country j exports.
- t_{ij} is $1+x_{ij}$ where as a fundamental point, x_{ij} is either positive and stands for the percentage of the costs of foreign trade attributable to trade frictions relative to the export price p_j .

This adaptation is useful in that it places the differences in prices on delivery from different countries as stemming from trade frictions. This is done using the Armington (1969) preferences for trade with different countries. This adaptation makes it possible to incorporate the influence of common language rather than simply trade frictions. This basic equation is based on Constant Elasticity of Substitution (CES) preferences universally.

The model is condensed and reframed to include languages as:

$$T_{od} = D^{\gamma_1} \times \exp \left(\sum_{k=2}^n \gamma_k v_{od,k} \right)$$

Where:

- D is bilateral distance
- v terms are bilateral frictions or aids to trade
- Accordingly, γ_1 is an elasticity and $[\gamma_k]_{k=2, \dots, n}$ is a vector of semi-elasticities.
- The common native language, common spoken language, common official language, and the linguistic proximity (LP) separate v terms.

The common official language variable implies that, in bilateral trade between countries that have a common official language, all messages in the language are received by everyone with no marginal cost, irrespective of what language they speak. The model only allows for a maximum of two official languages.

A common language is associated with more FDI. Operating at a distance is costly for investors, and these costs are compounded when communication must or should occur in the local language.

The econometric form of Melitz and Toubal's equation is given as:

$$\begin{aligned} \log T_{od} = & \alpha_0 + \delta_c Z_c + \alpha_1 COL_{od} + \alpha_2 CSL_{od} + \alpha_3 CNL_{od} + \alpha_4 LP_{od} + \alpha_5 \log D_{od} + \alpha_6 Adjacency_{od} \\ & + \alpha_7 Excol_{od} + \alpha_8 Comcol_{od} + \alpha_9 Comleg_{od} + \alpha_{10} Comrel_{od} + \alpha_{11} Histwars_{od} + \varepsilon_{od} \end{aligned}$$

Where:

- α_0 is a constant that encompasses YW
- $\delta_c Z_{c1}$ is a set of country fixed effects which will reflect all country-specific unobserved characteristics in addition to Yo, Yd, Pi and pj
- $\alpha_1 COL_{od}$ is common official language
- $\alpha_2 CSL_{od}$ is common spoken language
- $\alpha_3 CNL_{od}$ is the common native language
- $\alpha_4 LP_{od}$ the linguistic proximity (LP) between different native languages
- $\alpha_5 LogD_{od}$ The log of the physical distances between the two countries
- $\alpha_6 Adjacency_{od}$ a dummy variable to indicate if the countries are neighbours
- $\alpha_7 Excol_{od}$ a dummy to indicate if the country was colonised by the partner
- $\alpha_8 Comcol_{od}$ a dummy to indicate if partners had a common coloniser
- $\alpha_9 Comleg_{od}$ a dummy to indicate if partners have a common legal system
- $\alpha_{10} Comrel_{od}$ a dummy to indicate if partners have a common religion
- $\alpha_{11} Histwars_{od}$ indicates if there have been wars
- ε_{od} an error term

Table 8: Common language Regressand: log of bilateral trade (Total)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Common official language	0.514 (13.518)				0.316 (6.864)	0.360 (7.716)	0.351 (7.561)	0.431 (9.740)
Common spoken language		0.775 (14.651)			0.503 (6.578)	0.399 (5.104)	0.396 (4.910)	
Common native language			0.856 (11.227)		0.062 (0.573)	0.294 (2.588)	0.284 (2.344)	0.639 (6.755)
Linguistic proximity (tree)						0.073 (6.170)		
Linguistic proximity (ASJP)							0.078 (4.253)	0.105 (6.048)
Distance (log)	-1.394 (90.272)	-1.379 (87.949)	-1.385 (88.075)	-1.386 (87.982)	-1.375 (87.679)	-1.364 (86.392)	-1.365 (86.420)	-1.366 (86.458)
Common border	0.722 (8.413)	0.671 (7.766)	0.719 (8.345)	0.718 (8.337)	0.679 (7.885)	0.662 (7.723)	0.670 (7.817)	0.690 (8.077)
Ex-coloniser/colony	1.484 (14.347)	1.579 (15.297)	1.653 (15.757)	1.666 (15.934)	1.472 (14.329)	1.500 (14.588)	1.484 (14.426)	1.501 (14.506)
Common coloniser	0.754 (16.687)	0.851 (19.461)	0.909 (20.636)	0.908 (20.613)	0.780 (17.085)	0.775 (16.957)	0.779 (17.045)	0.785 (17.102)
Common religion	0.429 (8.664)	0.329 (6.475)	0.416 (8.293)	0.406 (8.081)	0.325 (6.383)	0.264 (5.087)	0.289 (5.589)	0.319 (6.210)
Common legal system	0.244 (6.817)	0.311 (9.029)	0.274 (7.695)	0.278 (7.825)	0.240 (6.544)	0.209 (5.666)	0.217 (5.866)	0.189 (5.202)
Years at war	-0.398 (-2.388)	-0.417 (-2.501)	-0.385 (-2.357)	-0.389 (-2.391)	-0.397 (-2.382)	-0.382 (-2.272)	-0.382 (-2.283)	-0.365 (-2.188)
Observations	209276	209276	209276	209276	209276	209276	209276	209276
Adjusted R ²	0.756	0.756	0.756	0.756	0.757	0.757	0.757	0.757
Number of clusters	28950	28950	28950	28950	28950	28950	28950	28950

All regressions contain exporter/year and importer/year fixed effects. Student t tests are in parentheses. These are based on robust standard errors that have been adjusted for clustering by country pair.

Source: Melitz and Toubal (2014b)

The first three columns show the impact of a common official language, a commonly spoken language, or a common native language by itself. Each of the three performs extremely well. However, the coefficient of a common official language is lower than the other two. In the model, listed in columns 1, 2, and 3, the lower coefficient of a commonly spoken language than a common native language either indicates a simultaneity bias or possibly the reciprocal positive effect of bilateral trade on language learning.

Column 5 includes a common official language, a commonly spoken language and a common native language variable together. When standing alone, each variable partly reflects the other variable. Nevertheless, it is clear that a common official language or a commonly spoken language remains extremely important in this model while the common native language becomes totally insignificant.

The impact on bilateral trade is estimated for two linguistic proximity (LP) variables in columns 6 and 7. Although statistically significant, the coefficients are relatively small. Melitz and Toubal (2014b) suggest that the importance of native language only emerges once the gradations in linguistic proximity (LP) between different native languages are recognised. The importance of spoken language clearly dominates that of native language, as does the importance of the official status of the language.

Empirical Testing

Two gravity models were initially created to estimate the impact of languages on trade. The database used was developed by Conte et al. (2021, 2022). Initially, a common official language variable was used; however, a variable based on a common language spoken by at least 9% of the population gave a better statistical result.

Two models are estimated: one where all countries are included in the regression and a second regression where South African trade with the rest of the world is measured. The results are shown below.

Table 9: Results of two models estimated

In_trade	World-to-World	SA-to-World
contig	2.763672.	2.17956
dist	-.0002054	-.0003889
comlang_ethno	.312668	.3467137.
comcol	.2247563	0(omitted)
comrelig	.2121602	-.4655332.
comleg_posttrans	.1131223	-.0632846.
sibling_ever	.2330236	-.1096987.
ln_pop	.2127621	.7588976.
ln_gdp	1.304017	2.303065.
wto	1.363508.	2.165582.
entry_cost_o	-.008363	-.1932069.
entry_cost_d	-.0042964.	
_cons	-16.70911.	-39.51775

As would be expected, in both models, trade with neighbours (given by the “contig” variable) is twice as high as it would be if all other factors remain constant. However, the coefficient for the South Africa-to-World model is smaller than the World-to-World model. South Africa should therefore find ways of increasing trade with its neighbours. Distance does hamper trade in both models, but the coefficient is relatively small. It must be pointed out that distance does have a greater impact on trade volumes for South Africa than it does for other countries.

Income, represented by $\ln \text{gdp}$ (in the World-to-World model), considerably increases trade. It can be shown using the log-log modelling that for every percent increase in the joint GDP of the trade countries, trade increases by 1.4%. South Africa's trade is more sensitive to an increase in GDP, and an increase of one percent in GDP results in a 2.3% increase in trade.

Other trade frictions, captured by the entry cost variables, are negative, as would be expected. Membership in the WTO is also conducive to promoting trade.

Using the data from Melitz and Toubal (2014a), common native language and linguistic proximity (LP) variables were also tested. To create the common native language variable (cIn) they summed up the products of the percentages of native speakers of common languages by country pair. To determine the linguistic proximity variable (prox), they calculated the linguistic proximities based on the *Ethnologue* classification of language trees between trees, branches and sub-branches. They also analysed lexical similarity between 200 words on lists compiled by Swadesh (1952) and developed the proximity index.

Four models were then estimated using geographic indicators (distance and contingency), income (GDP), cultural indicators (common religion, common coloniser, common legal systems), trade facilitation indicators (entry costs and members of GATT or the WTO), and an indicator for a common language. These include:

- Common official language
- Common ethno language
- Common native language
- Proximity of languages

The results (the coefficients of the variables) of these models are given in the table that follows:

Table 10: Results (the coefficients of the variables) of the models

	1	2	3	4
$\ln_dist$	-1.59029	-1.58749	-1.50381	-1.51747
$\ln_pop$	0.363681	0.365951	0.422937	0.420649
$\ln_gdp$	1.295717	1.291587	1.23657	1.241955
comlang_off	0.164263			
comlang_ethno		0.367229		
cIn			3.41826	
prox2				2.443113
contig	2.638793	2.567607	2.649824	2.883617
comrelig	0.281651	0.255177	-0.0871	0.132658
comleg_posttrans	0.099476	0.100717	-0.01215	0.015409
sibling_ever	0.408452	0.30754	0.478776	0.767951
gatt_o	1.055891	1.041171	1.093739	1.073119
wto_o	0.78064	0.78407	0.835377	0.873385
$\ln_entry_cost$	-0.52573	-0.52724	-0.58018	-0.43243
$_cons$	-6.18952	-6.15939	-6.20754	-6.33752

Having a common language does improve the volume of trade between nations. This is particularly important when complying with the various procedures that are necessary when trading. However, speaking a common language has the most profound impact. The common language is often a learnt language.

Conclusion

Clearly, language makes an essential contribution as a sector of the South African economy. While recognising that language is a sine qua non for all economic activities, this section estimated the specific contribution of language to the South African economy on employment, the contribution of the 'language sector' to the GDP, and the importance of language in trade. Language is shown to be important to the economy. There are just under 70 000 jobs related to language in South Africa or roughly 0.44% of South Africa's employees. Further, the language sector contributed R10,3 billion to South Africa's GVA in 2019. These figures represent 0.17% of the GVA. The modelling also estimated that the language sector pays over R1 billion in taxes while receiving R25 million in subsidies. A common language between trading partners also plays a statistically significant role in determining trade volume and value.

Chapter 6: Policy Recommendations and Future Research

Introduction

This study has ranged fairly widely in order to contextualise the need to establish an EOL approach in regard to LPP in South Africa. This move should assist the relevant national departments, particularly DSAC and its agencies, and the national departments responsible for education. It should also be of use to National Treasury for its domestic and international calculations in finding more dynamic, productive, and cost-effective development of viable multilingualism. It will also supplement the current provision of evidence-led and policy-rich studies in regard to LPP. A further factor is that, increasingly today, as international practice suggests, decisions in regard to language policy are made in new ways in which inter-sectoral and inter-agency cooperation are sensible and fiscally sound but also help in securing creative and competitive scenarios. Suggestions and recommendations to help achieve such aims and objectives are discussed below.

LPP cannot be a purely top-down and state-centric process if it is to be functional. Furthermore, this holds too for re-evaluating existing institutional and organisational structures and arrangements and creating new agencies and interventions. It must have a development dimension and look to create more equitable linguistic and economic exchanges.

Recommendation 1: The Establishment of a Cost-Effective Economics of Language Policy Structure/Unit

The core recommendation is that the relevant agencies establish a cost-effective unit to focus on relevant EOL studies to complement existing agencies and their research teams regarding strategic LPP matters and provide an essential economic and quantitative dimension. It would be a sound move to establish such a structure on a formal PPP basis to provide a more balanced and comprehensive set of inputs and help cut costs.

The likely participants would include the National Treasury, DSAC, the education departments, and possibly the Department of Science and Innovation, in liaison with provincial counterparts, academia and business. The experience of the SACO in working with multiple university bodies would be crucial in this regard. Links and partnerships with relevant international agencies and bodies would provide a fruitful exchange of views and collaboration.

Recommendation 2: The Question of Value

The question of value is worth emphasising in all aspects of LPP activities. For one, it entails the consideration of how (potentially) scarce resources are utilised in such activities and whether they are being used in a near-optimal fashion.

The use of an economic perspective will assist more directly in the monitoring and evaluation of various interventions and comparing the outcomes. In addition, through a search for value in language policy and management, more productive and creative options are likely to suggest themselves. We have noted in an earlier discussion the likely convergence of discourses on the creative economy and the CCIs and language promotion and presentation.

Recommendation 3: Increased Proficiency in Foreign Languages Facilitating International Trade

The policy input from the RAND Europe division and Cambridge University to the UK Government has a not dissimilar application to South Africa. Introducing such a programme on an incremental basis, international languages compatible with South African international trade activities, including the likes of Arabic, Mandarin, French, Spanish, Portuguese, Russian and Swahili, and enhancing proficiency in English, would help expand trade opportunities globally.

This should lead to discernible increases in South Africa's GDP levels over time. While the resources in most schools will not be sufficient to sustain such specialist curricula additions, the insertion of more directly in current undergraduate and postgraduate studies at tertiary levels, especially commerce and arts curricula, would be a progressive step. In addition, more specialist foreign language courses could be introduced at post-school and tertiary educational institutions.

Recommendation 4: The Community Dimension

This recommendation is linked to the preceding one. Efforts should be made to look to associate communities more directly in the LPP ventures and take cognizance of scholarship in this regard. At various levels, from the national to the local, LPP should be properly integrated with socio-economic development efforts.

There is a range of policy efforts at the sub-national level which could benefit from a more specific language emphasis. These include cultural and heritage tourism, business promotion and reindustrialisation initiatives, CCI development ventures, including clustering and incubation efforts, and human capital and resource planning. Furthermore, as mentioned above, the creative economy needs to be more explicitly meshed with language development and beneficiation.

Recommendation 5: The Question of Infrastructure and the Case of Public Libraries

The question of infrastructure is often underestimated internationally and in South Africa regarding language development and the contingent field/s of cultural policy. Public libraries are crucial and oft-neglected sites in this regard. One of the micro case studies discussed earlier in the report points to the possibilities of using select libraries and their staff and helpers to build specialised and accessible special collections around themes of language preservation and promotion and illuminating the possibilities of multilingualism and multiculturalism. Such initiatives allow the use of volunteer capital and workers, a point we will discuss below.

The seemingly declining enthusiasm for the development and maintenance of libraries by provincial and local authorities, and the efforts at short-term cost savings thereof, are areas where the national government and national departments (such as DSAC) may have to intervene formally. Possibly this could be undertaken via a specific inter-governmental process or addressed explicitly in the IDP and DMM processes. A pilot intervention in one of the provincial government's economic development strategy planning processes may be an incremental way of proceeding on this matter.

There would appear to be further synergies in the deployment of cultural centres, coupled with the regenerated use of libraries for cost-effective multilingual endeavours, language promotion, and strengthening ties between language, culture, and creative economy initiatives. This would also help build

social capital and specific networks and enable increased community input into relevant ventures. Here again, the use of a pilot project approach as a reflexive and learning intervention makes economic and logistical sense.

Recommendation 6: Volunteer Capital

Given the challenges facing the South African fiscus currently, there is merit in looking to volunteer capital to supplement resources utilised in language promotion in South Africa. Volunteer capital is a central aspect of the social and economic development strategising of certain countries and their sub-national governments. Australia is one the leaders in this regard, with its various state governments running formal volunteer divisions, which contribute several billion Australian dollars per annum in terms of contribution to GDP (EC DEDEAT 2021).

Interestingly, the most recent report of the EC DEDEAT raises the possibility of the EC province looking at deploying such resources (*ibid.* 120-121; Anderson 2015). The use of volunteer resources also helps build social capital and facilitates the development of partnerships in LLP work.

Suggestions for Future Research

Given the relatively modest body of research on the EOL in South Africa, there is considerable scope for such work going forward. Institutionally as recommended above, such research will be enhanced by establishing an EOL body or network in South Africa. In such a venture, economists would predominate. However, provision should be made for inter- and trans-disciplinary collaboration, including with socio-linguistic and applied linguistic scholars and other social science perspectives.

Efforts should also be made to include heterodox economists and economic sociologists, as this may result in productive synergies. A public-private dimension could be cost-effective and constitute something of a corrective to state-centric approaches to LPP activities. Links with relevant research units and networks internationally will be advisable as they should allow a fruitful exchange of ideas on an ongoing basis, ensure topicality, and provide methodological expertise and experience where needed. Furthermore, overseas scholars will also bring fresh perspectives to South African realities.

It is expected that the established areas of research in EOL internationally will have an application to South Africa. These include Language Status and Earnings, (ii) Language Dynamics, and (iii) Language and Economic Processes. Applications of game theory to South African language dilemmas would also be among the areas explored. New mathematical and computational approaches could be deployed to add value to large surveys and big data sets. New and contiguous lines of research, such as that on narratives and stories in economics, might have possibilities for use on indigenous and threatened languages and the stories bound up in them. There is also scope for economic studies of the relationship between certain languages, ethnic politics, and conflict.

Language surveys and related quantitative research mooted in the NLPF document and the LANTAG report could be undertaken to provide more regular information for planners and their critics.

Conclusion

This chapter has put forward recommendations regarding an economic-oriented approach both in itself and complementing other disciplinary perspectives. It is not only about a formal academic mode of inquiry

but also a mindset in which value and cost-effectiveness are consistently sought and applied. It takes due cognizance of the fiscal constraint that the contemporary South African state is facing and looks to options and solutions in terms of partnerships (including PPPs), the creation of networks and social capital, and the deployment of volunteer capital. These, for instance, are the kinds of associational factors and social capital that have seen the revival of the Catalan language in the autonomous region of Catalonia in Spain (e.g. Woodvine 2015).

In addition to a set of recommendations, this chapter discusses potential future research in the area of EOL in South Africa. Established areas of international research on EOL, such as the question of Language Status and Earnings, Language Dynamics and Language and Economic Processes, provide certain guidelines. There are opportunities, too, regarding the application of game theory to language selection and design in the country, as well as in the adoption of new mathematical and computational models. There is also scope to consider the value of narratives and stories and in considering links with the creative economy and its industries.

Chapter 7: Conclusion

This EOL report had three objectives. These were:

1. To introduce the field of EOL and its relevance to LPP;
2. To provide a context for the systemic use of economic analysis for LPP at national and sub-national levels; and
3. To present the results of an empirical study of the value-add of differing official languages regarding South Africa's GVA and the economic implications of creating and empowering language practitioners in South Africa, including in promoting the indigenous languages.

It is clear that language has both intrinsic and instrumental value, although this distinction is often blurred in practice.

Chapter One provided a detailed literature review. In this chapter, it is noted that while some classical economists considered the economic implications of language, the introduction of the sub-field of EOL is most closely associated with Jacob Marschak's 1965 essay on the 'Economics of Language'. In this essay, Marschak focused on language and communication as a form of economic thinking and practice.

Led by Canadian economists concerned about the relationship between English and minority French-speaking citizens in Canada and those territories and states with a French legacy, work continued in this sub-field during the 1960s, 1970s and 1980s. Studies during this period included those conducted by American academics considering the differing returns to white English, Afro-American and Hispanic citizens and recent immigrants.

Additional theoretical and methodological touchstones were provided to EOL through studies on the economics of education and the popularisation of the idea of human capital through the work of Gary Becker. A further impetus to the sub-field of EOL was the establishment and development of the EU, which saw a range of new languages being used officially. By the start of the new millennium, EOL was enjoying incremental growth. This chapter identifies and discusses several areas of international research.

Included in this chapter is a review of South African EOL-related studies. Most of these studies focus on the returns to language proficiency in English and other official languages in South Africa. A few additional studies consider whether increased proficiency in the language, along with enhanced multilingualism, is an economically sensible option for the country.

Chapter One closed with the presentation of three good practice cases. These consist of the following:

- A discussion of the UN IDIL;
- A consideration of the policy advice by Cambridge University and RAND Europe concerning inculcating foreign language proficiency as a means of increasing GDP in the country; and
- The use of AI to overcome language barriers in a cost-efficient way in higher education.

Chapter Two provided a short discussion of the methodology and research methods employed in this report. This overview includes a description of the qualitative methods used as well as the quantitative approaches adopted. The empirical study estimates the contribution of language to South Africa's GDP and builds on a profile and mapping of employees in language occupations. This is carried out using the LMDSA, which commenced in 2008. The information on language occupations per SIC is used to

determine the weighting employed in a SAM or IO approach to extract the language-value-added component per SIC. The chapter also accounts for the use of the gravity model to determine the contribution of language to the value of total trade goods and services between the countries concerned.

Chapter Three examined select international trends in policy and practice in respect of:

- language diversity;
- the protection of indigenous and endangered languages; and
- their intersection with discourses on culture and development, cultural diversity, and sustainability and biodiversity.

There is a particular focus on the UN and several of its agencies, including UNESCO, UNCTAD, and the ILO. This orientation allows a more coherent charting of the discourses in play.

Chapter Four focused on post-apartheid South Africa and provided a summary of contextual issues regarding LPP. This chapter includes an overview of the NLPF and the associated Implementation Plan of 2003 and related discourses, linked to both the Department of Education and the DACST (until 1998) and then the DAC.

Select challenges facing the government during the time are outlined, including the question of South Africa's growing immigrant population and new languages. This chapter also considered the importance of foreign language proficiency in trade internationally and in terms of trade within the African continent. The implications of this are that more South Africans should become proficient in Swahili (as a regional lingua franca), French, Portuguese and Arabic.

Chapter Five provided empirical evidence of the contribution of language to the South African economy. Using a SAM model, it is estimated that the contribution made to South Africa's GVA in 2019 was R10.3bn, representing 0.17% of the country's GVA. It is argued, however, that this is a conservative estimate as language is a sine qua non for all economic activity. Another estimation provided here suggests that approximately R25m in subsidies is received by the language sector, while the sector pays approximately R713m in taxes. Moreover, it is contended that this sector positively impacts the economy through the job creation opportunities it provides.

Furthermore, Chapter Five includes a gravity model approach developed for measuring the importance/effects of language on trade in South Africa. The results of the gravity model and the SAM model appear to confirm the arguments made in the previous sections dealing with international literature and their findings. The empirical evidence indicates that economic value should be considered in language policy deliberations and interventions.

Chapter Six provided six policy-relevant recommendations and areas of future research. These recommendations are briefly stated below.

1. The first recommendation is that the relevant agencies establish a cost-effective unit to focus on relevant EOL studies to provide data and guidance for use in strategic LPP matters.
2. The second recommendation is that the question of value is worth emphasising in all aspects of LPP activities.
3. The third recommendation emphasises the importance of increased proficiency in identified foreign languages to facilitate international trade, including the African continent.
4. The fourth recommendation is that communities be involved more directly in LPP ventures.

5. The fifth recommendation concerns the question of infrastructure, which can be underestimated in regard to language development and the related field of cultural policy.
6. The sixth and final recommendation is the possibility of volunteer capital being examined to supplement resources utilised in language promotion in South Africa.

In addition to the above recommendations, several suggestions regarding future research were put forward. An EOL unit would be a stimulus to an integrated and policy-relevant research agenda and a means of crowding in resources and utilising existing networks. The international literature review has provided some guidelines for possible future research.

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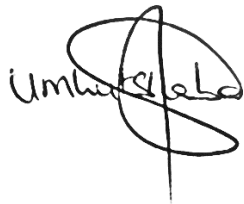
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APPROVALS FOR THE SOUTH AFRICAN CULTURAL OBSERVATORY – Economics of Language - December 2022

	NAME	TITLE	SIGNATURE	DATE
Prepared and recommended by:	<i>Unathi Lutshaba</i>	<i>SACO Executive Director</i>		08 December 2022
Approved by:	<i>Lisa Combrinck</i>	<i>DSAC SACO Project Manager</i>		
Approved by:	<i>Dr Stella (CN) Khumalo</i>	<i>DSAC Acting DDG: Arts and Culture Promotion and Development</i>		

Appendix 1: A Simple Input-Output Framework¹¹

An **IO** table focuses on the interrelationship between industries in an economy with respect to the production and uses of their products and the products imported. Generally, the **IO** framework is represented in a table. In this form, the economy is viewed as each industry listed across the top is a consuming sector and down the side is a supplying sector.

Figure 6: Basic Input-Output Transactions Table

		Producers as Consumers								Final Demand			
										Personal Consumption Expenditure	Gross Private Domestic Investment	Govt. Purchases of Goods and Services	Net Export of Goods and Services
		Agric.	Mining	Const.	Manuf	Trade	Transp	Services	Other				
Producers	Agriculture												
	Mining												
	Construction												
	Manufacturing												
	Trade												
	Transport												
Value Added	Services												
	Other Industry												
Value Added	Employees	Employee Compensation								Gross Domestic Product			
	Business Owners	Profit-type income and capital consumption allowance											
	Government	Indirect business taxes											

Source: Miller and Blair (2009:3)

Although most industries will provide goods and services for final consumption, they will also provide inputs into the production process of other industries. Besides buying inputs from other industries, producers need labour and capital to produce the goods and services. In addition, firms may receive subsidies or be required to pay taxes. Companies would also import part of their input for production in an open economy. The 'recipe' for the manufacture of an industry's products or services can be seen in each column.

Similarly, firms will produce products that will be used as inputs for production in other industries. They will supply goods and services (final demand) for consumers, investors and the government. They will also provide goods and services to foreign markets.

As discussed above, the **IO** table shows how the GDP for a country is calculated using the production method, the expenditure method and the income method. The table shown above includes only a few industries. Many **IO** tables have considerably more industries listed. However, the greater number of industries, the more complex and complicated it becomes to 'balance' the table, bearing in mind that the three methods used to calculate the GDP must arrive at the same value.

Figure 7: A Highly Simplified Input-Output Accounting Framework

	Industries	Net final demand	Total output
Industries	F	Y	X
Value added (Primary inputs)	V		
Total input	X		

Source: United Nations (1999:4)

¹¹ This Appendix is taken and adapted from Gouws (2016) and Gouws (2017)

Although the table makes it easier to grasp the economic concepts behind the analysis, an **IO** model primarily consists of a system of linear equations. Each equation describes the distribution of an industry's product throughout the economy.

Leontief introduced the assumption of fixed-coefficient linear production functions relating to input used by industry. These matrices, including the F-matrix, are shown above.

These relationships for a basic three-sector model can be written as follows:

$$\begin{aligned} a_{11}X_1 + a_{12}X_2 + a_{13}X_3 + Y_1 &= X_1 \\ a_{21}X_1 + a_{22}X_2 + a_{23}X_3 + Y_2 &= X_2 \\ a_{31}X_1 + a_{32}X_2 + a_{33}X_3 + Y_3 &= X_3 \end{aligned} \quad \text{Equation 1}$$

In matrix form, these equations can be written as:

$$[a_{11} \ a_{12} \ a_{13} \ a_{21} \ a_{22} \ a_{23} \ a_{31} \ a_{32} \ a_{33}] [X_1 \ X_2 \ X_3] + [Y_1 \ Y_2 \ Y_3] = [X_1 \ X_2 \ X_3] \quad \text{Equation 2}$$

However, in any economy, there are considerably more than three industries, and the more general way of denoting these is as follows:

$$\begin{aligned} a_{11}X_1 + a_{12}X_2 + \dots a_{1n}X_n + Y_1 &= X_1 \\ a_{21}X_1 + a_{22}X_2 + \dots a_{2n}X_n + Y_2 &= X_2 \\ \cdot + \cdot + \dots \cdot + \cdot &= \cdot \\ a_{n1}X_1 + a_{n2}X_2 + \dots a_{nn}X_n + Y_n &= X_n \end{aligned} \quad \text{Equation 3}$$

In matrix form, this is denoted as:

$$[a_{11} \ \dots \ a_{1n} \ \vdots \ a_{n1} \ \dots \ a_{nn}] X_1 \vdots X_n + Y_1 \vdots Y_n = X_1 \vdots X_n \quad \text{Equation 4}$$

Table 11: Technical coefficients of an IO table (Matrix A)

		Buying sector				
		1	...	j	...	n
Selling sector	1	a_{11}	...	a_{1j}	...	a_{1n}
		$\vdots$		$\vdots$		$\vdots$
	i	a_{i1}	...	a_{ij}	...	a_{in}
		$\vdots$		$\vdots$		$\vdots$
	n	a_{n1}	...	a_{nj}	...	a_{nn}

Using matrix notation, it is usually written as:

$$AX + Y = X$$

Equation 5

This relationship is the basic **IO** system of equations, where:

- Matrix A is the **IO** coefficient matrix;
- Matrix X is the output vector; and
- Matrix Y is the net final demand vector.

The solution of an **IO** model is described below.

Final demand (Y) consists of the household, government and rest of the world sectors. Value added (V) to the producing sector consists of the returns to factors of production (capital and labour) that receive interest and wages.

IO tables and associated models are generally constructed from observed data for a particular area. This area often refers to a nation: it could also refer to sub-national areas. The data are also collected for a given period of time, usually a year. Although theoretically, the **IO** table applies to units of production, this is impractical, and it is generally presented in monetary terms.

The discussion above referred to a closed economy and therefore did not include international trade (imports and exports). This is necessary because very few industries produce goods or services without using some imported components.

Social Accounting Matrix

A SAM, much like an IO, is a conceptual framework that represents all economic transactions flows taking place within an economy in a single year thus giving a comprehensive static picture of the economy. Unlike the IO, it is extended to include non-national accounting flows. These include the flows between households, firms and government.

Table 12: A simple Social Accounting Matrix

	Firm	Household	Government	Rest of Economy	Net Investment	Total (Received)
Firm		C	G _F	(X-M) _K	I	C+G _F +(X-M) _K +I
Household	W		G _H	(X-M) _C		W+G _H +(X-M) _C
Government	T _F	T _H				T _F +T _H
Rest of Economy	(X-M) _K	(X-M) _C				(X-M) _K +(X-M) _C
Net Investment		S _H	S _G			S _H +S _G
Total (Expended)	W+T _F +(X-M) _K	C+T _H +(X-M) _C +S _H	G _F +G _H +S _G	(X-M) _C +(X-M) _K	I	

Source: https://en.wikipedia.org/wiki/Social_accounting_matrix

SAMs are square (having the same number of columns as rows) because all institutional agents (Firms, Households, Government and 'Rest of Economy' sector) are both buyers and sellers. Each cell shows payment from its column account to its row account.

Much like the IOs columns denote expenditures (buyers), and rows correspond to receipts (sellers). A SAM does not include the rationale that determines the technical relationships that generated its values. No general behavioural relationships are included.

Splitting the Sectors

In this study, sectors and subsectors were assigned to domains using information from the guidelines provided by the UNESCO Framework for Cultural Statistics (2009), sector-specific research and information, and previous SACO mapping studies. Where specific sectors contained CCI components, but not entirely, use was made of other documents, including Stats SA's AFS, surveys and other research to determine ratios that were used to split these sectors into the specific CCI domains and non-CCI sectors. A conservative approach was used to ensure that the CCI was not overestimated. The original totals were compared to the new total to ensure that there was no double counting or inadvertent exclusions.

In principle, the F-matrix should be split according to the turnover of CCI sub-industries. The value-added matrix, or V-matrix, should be divided according to the returns of the factors of production (compensation or GVA). The Y-matrix, representing final demand, can be divided using either the total turnover or output or the proportion of CCI products and services purchased by households, government or exports.

Splitting the V-matrix (Input Requirements by Each Industry)

Before estimating each of the CCI technical coefficients, it is necessary to divide each cell in the matrix, F_{ij} , so that it represents the CCI components of those industries. Each cell is split, where applicable, into CCI and non-CCI components.

$$F_{iujv} = F_{ij} \times u \times v \quad \text{Equation 1}$$

where:

- F_{ij} = represents the requirements of industry i of industry j's products prior to separating the CCI products from the non-CCI products;
- F_{iujv} = represents the new requirements of industry i of industry j's products after separating the CCI products from the non-CCI products;
- u = The proportion of CCI output in the buying industry; and
- v = The proportion of CCI output in the selling industry.

Calculating the technical coefficients is done the same way as discussed above, i.e.:

$$x_{iujv} = \frac{F_{iujv}}{x_{iu}} \quad \text{Equation 2}$$

To keep it simple, the technical coefficients will be simply referred to as x_{ij} .

Splitting the Net Final Demand Matrix

A similar procedure to the one described above was followed to derive a new net final demand matrix, or Y-matrix. To keep the figures consistent, turnover figures from the AFS were used where possible, and estimates were made for the other sectors where this was not possible.

$$F_{iujv} = F_{ij} \times u \times v$$

Equation 3

where:

- F_{ij} = represents the requirements of industry i of industry j 's products prior to separating the CCI products from the non-CCI products;
- F_{iujv} = represents the new requirements of industry i of industry j 's products after separating the CCI products from the non-CCI products;
- u = The proportion of CCI output in the buying industry; and
- v = The proportion of CCI output in the selling industry.

Splitting the Value-Added Matrix

The value-added matrix, V-matrix, was split according to the net profit before providing for company tax and dividends (for the gross operating surplus row) and employee costs (for the compensation row).

$$F_{iujv} = F_{ij} \times u \times v$$

Equation 4

where:

- F_{ij} = represents the requirements of industry i of industry j 's products prior to separating the CCI products from the non-CCI products;
- F_{iujv} = represents the new requirements of industry i of industry j 's products after separating the CCI products from the non-CCI products;
- u = The proportion of CCI output in the buying industry; and
- v = The proportion of CCI output in the selling industry.

The New South African IO Table

A new South African **IO** table was derived using the methods described above, giving an **IO** table comprising 74 industries. With additional data, it would probably be possible to disaggregate further. One disadvantage of the new **IO** table is the fact that it does not make provision for the informal sector. Since many CCIs are in the informal sector, this could be a problem if they were substantially different from the CCIs in the formal sector. It would be possible for the current 74 x 74 South African CCI **IO** to be further split into small, medium, and large enterprises¹² with data from the AFS. Unfortunately, the sectors are not disaggregated enough to do this meaningfully.

¹² According to the National Small Business Amendment Act, 2004.