# Understanding the Linguistic Complexity of World Bank Annual Reports

Thea Madsen
t.madsen@exchange.hertie-school.org

Xiaoyan Hu
x.hu@mpp.hertie-school.org

Dang Ngoc Huy
h.dang@mpp.hertie-school.org

## Abstract

*The World Bank Annual Report is a yearly publication that explores the challenges encountered by developing nations and how the institution is aiding efforts to combat them, with the overarching goal of poverty reduction. From its inception in 1944 until present day, its mission statement has shifted from the rebuilding of Europe towards fostering international development. In a way, these Annual Reports are mirrors that reflect the reality of their time and shine a light on the advancement and progress of developing countries. Yet, it is questionable if these reports could offer any substantive insights at all. Actors within and outside the institution have criticized the World Bank for the unnecessarily complicated and, sometimes, impenetrable language of their reports, making them inaccessible to the very audience they are intended to serve. This paper seeks to uncover the sophistication of the World Bank Annual Reports by exploring the linguistic complexity of these publications from 1947 until 2018. Employing a combination of different readability metrics, our research discovers that, from 1947 until 1956, there existed a trend of increasing comprehensibility and decreasing language complexity; however, from 1956 onward, this trend was reversed and the Annual Reports indeed became progressively convoluted with a gradual but distinct decline in readability.*

## 1. Introduction [1]

Understanding the language change in Annual Reports has a normative implication on the outlook and direction for international development. As Jonathan Lancaster (New Yorker, 2014) eloquently expounded, "The language of money is a powerful tool, and it is also a tool of power. Incomprehension is a form of consent. If we allow ourselves not to understand this language, we are signing off on the way the world works today." These reports are innately important but it is even more important that these reports can be read, understood and processed by those they could bring the most value. This paper, therefore, seeks to comprehend the linguistic sophistication of the World Bank Annual Reports, building upon the works by Moretti and Pestre (2015) who have established that an overtly sophisticated and codified language permeates these publication. The main task of our research will be to analyze the corpus of the World Bank Annual Reports from 1947 to 2018 to evaluate their linguistic complexity and examine if this is a trend that is consistent over the years.

Whereas Franco and Pestre (2015) [1] focused on how clusters or words, specific terminologies, and how the Bank's vocabulary developed over the years, our research will enlist a more quantitative approach by investigating the textual and readability complexity of the reports at the aggregate level. We will explore to understand the lexical diversity and sophistication of these texts by endeavoring to answer these main research questions:

1. Does a trend of increasing linguistic complexity exist in the World Bank Annual Reports from 1947 to present day?

2. If such a trend of increasing complexity is indeed present, is it a unique feature of the World Bank Annual Reports or an institutionalized phenomenon found in other publications of the World Bank and across those of other international development organizations?

All World Bank Annual Reports from 1947 to present day are collected from the organization's data portal. For comparison, we have also gathered the World Development Report (another flagship publication from the World Bank since 1978 which focuses on a specific aspect of economic development and policy recommendations for developing nations), the African Development Bank's Annual Reports 2004-2018 and the Asian Development Bank's Annual Reports 1967-2018. These documents have been converted

[1] Project GitHub page: https://github.com/huydang90/World-Bank-Corpus-Analysis

into plain text formats, forming the primary corpus for analysis.

## 2. Related Work

This research project was inspired by **Bankspeak: The Language of World Bank Reports, 1946–2012, by by Moretti Franco, and Dominique Pestre *New Left Review, vol. 92, 2015, pp. 75–99* (2015)** which investigated the linguistic development of the notoriously incomprehensible World Bank Annual Reports from 1946 until 2012. Examining the semantic transformations of the first 20 years of the Annual Reports, Moretti and Pestre discovered the semantic components that constitute the majority of the texts: adjectives were rare and only used descriptively (Moretti and Pestre 2015: 2); verbs concretized action e.g. to encourage, support or improve; nouns were grouped into the two clusters of economic activities - loans and investments to sponsor infrastructural development projects - and the much smaller cluster describing the operation - demands, analysis, and evaluation of programs. New semantic clusters characterize the last twenty years. The first cluster of finance indicated the move from agriculture and industry to financial activities e.g. growth, interest, and debt. The second cluster of management indicated the change toward monitoring, controlling, rating, goals, agendas, opportunities, challenges, and strategies rather than previously suggesting and assisting solutions and publishing descriptive reports.

Investigating the grammatical patterns of the reports uncovered a bureaucratization of the Bank's discourse generating an opaque syntax confusing for others to understand e.g. due to obscure words like key, global, innovative and enlightened (ibid.: 13). In comparison to comparable academic prose, two to three times higher frequency of nominalizations - words typically ending in -tion, -sion and -ment (e.g. implementation, extension, development) - were used transforming actions and processes into abstract objects e.g. "South-South cooperation" rather than plainly writing that the Bank is supporting developing countries cooperating with each other (ibid.: 14).

This pattern of speech led Moretti and Pestre to conclude that the World Bank language semantically and grammatically developed into essentially another language (ibid.: 2). In the first decades after 1946, the language was simple, descriptive and straightforward; in the last decades before 2012, the language developed into the so-called *Bankspeak*, which is a self-referential, complex and codified organizational syntax removed from everyday language making it difficult for people outside the World Bank to understand. From their examination, Moretti and Pestre criticized the World Bank for writing the reports in a Bankspeak manner too ambiguous for its readers to understand how the bank is handling its money and the people responsible for the consequences of its politics, effectively reducing its accountability. Diverse actors within and outside the institution have also acknowledged and disapproved of this style of writing, which has shown to alienate those not working for the organization [4].

Although subject-specific language can be efficient when communicating with peers, complexifying the language challenges the understanding of the Annual Reports of general readers, which is problematic since these are the people that the World Bank is intended to serve. According to the World Bank, in 2019, it is a global partnership institution encompassing 189 member countries with staff from more than 170 countries and offices in over 130 locations [8]. The goal of the World Bank is to aide in implementing sustainable solutions to reduce poverty and build shared prosperity in developing countries. The Annual Reports are intended to provide insight into how the World Bank cooperates with its partnering countries to support global sustainable development and end extreme poverty by 2030. Failing to communicate in a clear language is a transparency issue and a failure to hold itself accountable to stakeholders, and ensure successful policy recommendations. A lack of understanding can lead to distrust, issues of representation and ultimately inefficient policies that are unable to fulfil their objectives. If the World Bank does not alter its course, fulfilling its goals will be fundamentally challenging as its language is avoidably difficult, which can impair thoroughly learning from past evaluations to make the necessary future modification to its strategy and continuously improve the workings of the institution.

Although Moretti and Pestre underline the nominalization and singularization of Bankspeak, they do not conclude on the complexity of the text as a whole. Therefore, we also consulted other publications on the methodology of complexity measurement e.g. in research on political messaging and language sophistication. Some political scientists adopt measures from education and communication studies such as the research by Bischof and Senninger in their effort to re-establish the link between language applied during election campaigns and citizens' ability to position parties in the ideological space (2018) [3]. Bischof and Senninger sourced election manifestos from all major political parties in Austria and Germany from 1945 until 2013, applying the LIX formula to generate a score on the readability of each manifesto in the first half of their research. Then, they compared the scores with other types of text ranging from Cinderella to Habermas to locate the complexity level in the human conception. They also proposed a new text sophistication measurement focusing on political communication combining human judgment as the "golden standards", Bradley-Terry model and random forest algorithm to predict the easiness parameter for a given new text. Benoit et al. [3] sought to increase the precision of political text

analysis with human coders and a prediction model incorporating a broader range of textual complexity indicators. However, such method is particularly challenging in the aspects of replication and scalability due to the vast resources required for human encoders and the potential human judgment bias in the model.

## 3. Proposed Method

For our analysis, we will investigate the publication's linguistic complexity in the extended time period from the beginning of the Annual Reports until now, also covering the final years from 2012 to the last report published in 2018.

To identify the best approach on how to answer our research questions, our research first explored different metrics utilized in this line of research to capture readability and linguistic complexity in text data. Different political science research presents multiple diverging methods with which to measure complexity. One of the established approaches is to make use of the metrics employed in education research.

After surveying the available methods and approaches, our research decided to explore the complexity of the World Bank Annual Reports by employing 6 conventional readability formula from the field of education studies [7]:

1. Flesch Reading Ease Readability Formula (FRE)

$$206.835–(1.015*\frac{words}{sentences})–(84.6*\frac{syllables}{words}) \quad (1)$$

A classic readability formula distinct from others by adopting a score range of decreasing difficulty from 0 (hard to understand) to 100 (easy to understand). The score will operate as the evaluation of how easy a text - in this case - an Annual Report, is to understand.

2. Flesch-Kincaid Readability Score

$$0.39 * \frac{words}{sentences} + 11.8 * \frac{syllables}{words} - 15.59 \quad (2)$$

This metric was developed for the U.S. Navy but is now considered a highly suitable formula in education studies measuring how difficult a reading passage is to understand and outputs the grade level someone must be at to easily grasp that passage of text.

3. Automated Readability Index (ARI):

$$4.71(\frac{characters}{words}) + 0.5(\frac{words}{sentences}) - 21.43 \quad (3)$$

ARI derives from two ratios: words difficulties and sentence difficulties. The final score indicates the age needed to understand the text according to American grade levels.

4. Coleman-Liau Index (CLI):

$$5.89 * \frac{characters}{words} - 30 * \frac{sentences}{words} - 15.8 \quad (4)$$

This metric does not account for the syllables forming the word but for the length in characters. The final output is years of education necessary to grasp the text in question.

5. Gunning's Fog Intex (FOG)

$$0.4(\frac{words}{sentence} + \frac{complexwords}{words}) \quad (5)$$

This metric takes into account sentence length and words complexity. The obtained estimation represent the number of years of education that a person requires to easily understand the text on the first reading. 5 is considered easy to understand, 10 is hard, 15 is more difficult and 20 is highly complex.

6. Simple Measure of Gobbledygook (SMOG)

$$1.0430\sqrt{polysyllables\frac{30}{sentences}} + 3.1291 \quad (6)$$

This formula is designed to capture the understandability of a text. The result obtained from the formulas will be the number of years in education that a person in the U.S would need to fully comprehend the text in question.

With these indexes, we were able to measure the linguistic complexity of the financial language of the Annual Reports and understand if they might cause readability problems. The textual sophistication measurement model illustrated in Benoit et al. (2019) [2], though being a fascinating approach to understanding complexity, is difficult to replicate in this context, as it adds an extra layer of human coders and potentially biased judgment. In addition, the conclusion that Benoit et al. (2019) reached was that complexity analysis using FRE score is relatively similar to the best performing model of predicted probability illustrated in the paper, especially in detecting the trend and general direction. Therefore, we conclude that readability metrics such as FRE are still good measures with which to gauge an understanding of sophistication in the Annual Reports.

## 4. Experiments

**Data:** All the Annual Reports from 1946 to 2018 are preserved in the organization's data portal. In total, there are 72 documents spanning 72 years, each ranging from 60-200 pages in PDF format with accompanying graphs, tables, and photographs. Rough OCR versions reports in plain-text format are also available, which will be the main data source

forming our analytical corpus. After examining selected Annual Reports that are individually cleaned and finding no substantive improvement in the results of in comparison to uncleaned reports, we decided to process the data as is without further transformations. For comparison, the World Development Reports, another yearly publication from the World Bank, as well as annual reports from the African Development Bank and the Asian Development Bank are also collected and processed as corpora for analysis.

Our main challenge with the available data was the flawed report files provided by the World Bank data portal in which some reports were not available in plain-text format but only in scanned pdf version (i.e., Annual Report 2010 in English); others were defective text files with significantly reduced text that skewed the analysis of the language complexity (i.e., Annual Report 2007 which contains only 24 sentences compared to other documents that have roughly 500-5000 sentences depending on the years).

To resolve this issue, we set up our own OCR conversion by utilizing the Tesseract library. The scanned reports were first converted into images, which were subsequently iterated through by the text recognition function from Tesseract. With this method, the desired plaintext format for these report files are obtained, which are surprising of higher quality than the version available on the official World Bank data portal in terms of the identified text.

**Evaluation method:** As aforementioned in the Methodology, our main metrics will be: FRE, Automated Readability Index, Coleman Liau, Flesch Kincaid, Gunning Fog Index, and SMOG. FRE score will measure the ease of readability (the higher the score, the easier it is to peruse and vice versa). The rest of the metrics capture the readers' obtained grade level necessary to understand the text in question (the higher the grade, the more difficult it is to peruse).

**Experimental details:** In our initial experiments, due to the flawed data from specific years, the analysis produced unreliable results with multiple outliers in document length, sentences, and tokens. However, after obtaining the fixed data from our OCR conversion, the analysis was able to produce much more consistent results with regards to these factors.

Preliminary exploratory analysis on batches of selected World Bank Annual Reports revealed tendencies in language complexity that satisfy our initial hypothesis that the discourse in these reports became more complicated over time. FRE score pinpoints that the 1947-96 report scores fall between the values of 30 and high 50s meaning that the reports would be understandable to most people over the age of about 15 years but below university level; after 1996, FRE scores decrease as the reports became much more difficult to understand for people below

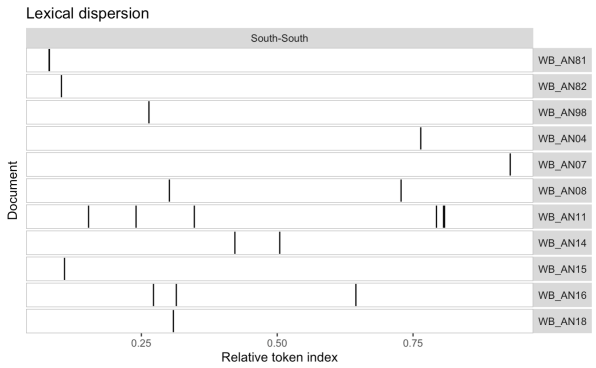


Figure 1. South-South occurrence over time

university education. This finding is in line with our hypothesis that the language of the reports over time becomes more challenging to understand by the general public. Exploratory analysis with Flesch-Kincaid and Gunning Fog measure also revealed similar results with initial scores indicating academic-level papers gradually transforming into much more complex texts.

Graphing the lexical dispersion allowed us to track the development of technocratic or complex words, such as South-South cooperation, that might pose difficulty for wide audiences to comprehend (Figure 1). The analysis revealed that words began appearing sporadically in the reports from the early 1980s and then every year since 2014 except for 2017 testifying to the increased complexity in the report discourse. This line of analysis could present an interesting avenue for further research exploration on the complexity at the sentence and bigrams levels.

Collocation analysis also allows for the identification of multi-word expressions frequently used in the corpus, which are likely to further complicate the reports. This shows that the most frequently used collocations are, unsurprisingly: *World Bank* and *United States* but, then, interestingly, *Executive Directors, East Asia, Financial Statements* and *South Asia*, which shows a top-down approach of the reports to development aid from the donor countries headed by the World Bank and USA but also a surprising focus on the Asian region.

For our final analysis, by applying the readability indexes from the *textstat_readability* package in R, our project was able to capture the majority of the metrics intended for analysis. The main challenge was the runtime as the corpus is quite large and thus exerts a heavy toll on computing power.

Furthermore, as each metrics has a different method in calculating the readability of the language, there is bound to be variations that might interfere with the interpretation of their scores. To account for this issue, the different metrics for analyzing grade level needed to understand the text data were combined together and their averages over time were recorded with the goal to untangle the main signal in

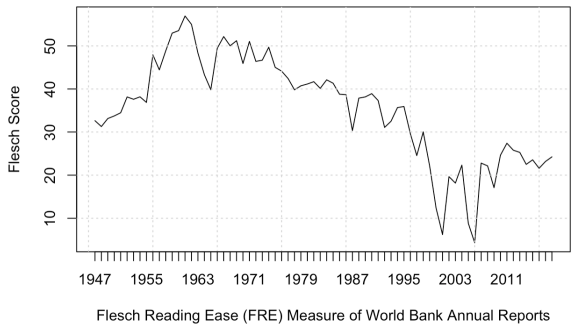


Figure 2. FRE score of World Bank Annual Reports 1947-2018

understanding the complexity, while reducing the noise.

## 5. Analysis

From both the individual metrics calculations and the combined scores (Figure 1  2), our research was able to identify two general trends in the readability of the Annual Reports: From 1947 until 1954, the language complexity level was stable but slightly decreasing over time; from 1955, there was a sudden and significant drop of complexity, which subsequently began to rise continuously with two additional sudden forward leaps in levels in 1964 and 1995. The complexity seems to have stabilized since 1995 with the average readability grade level of 18. This finding upholds our hypothesis that there is a trend of increasing complexity in the Annual Reports over time.

Studying the Bank's chronology and historical development, our research was able to match some potential explanations with these jumps in language complexity level. A possible reason for the first sudden discontinuity - a pronounced drop in complexity in 1955 - could be that the year 1956 saw the establishment of the International Finance Corporation - World Bank's member that focuses on investment lending for private companies and financial institutions in developing countries. Essentially, this was the demarcation year when the World Bank began to shift its mission from the reconstruction of Europe towards international development. We conjecture that this restructuring of the Bank and the change in its clientele and stakeholders base towards developing nations were the primary motivation for the shift in language complexity towards simplicity and readability in the Annual Reports. If this was the case, it seems that the Bank was aware of the importance and impact of having the language of its reports be approachable to its audience. However, as we witness in the chart, this would not always be the case as the reports' readability would deteriorate over the years and skewered towards the indecipherable.

For the second period of a sharp rise in complexity from

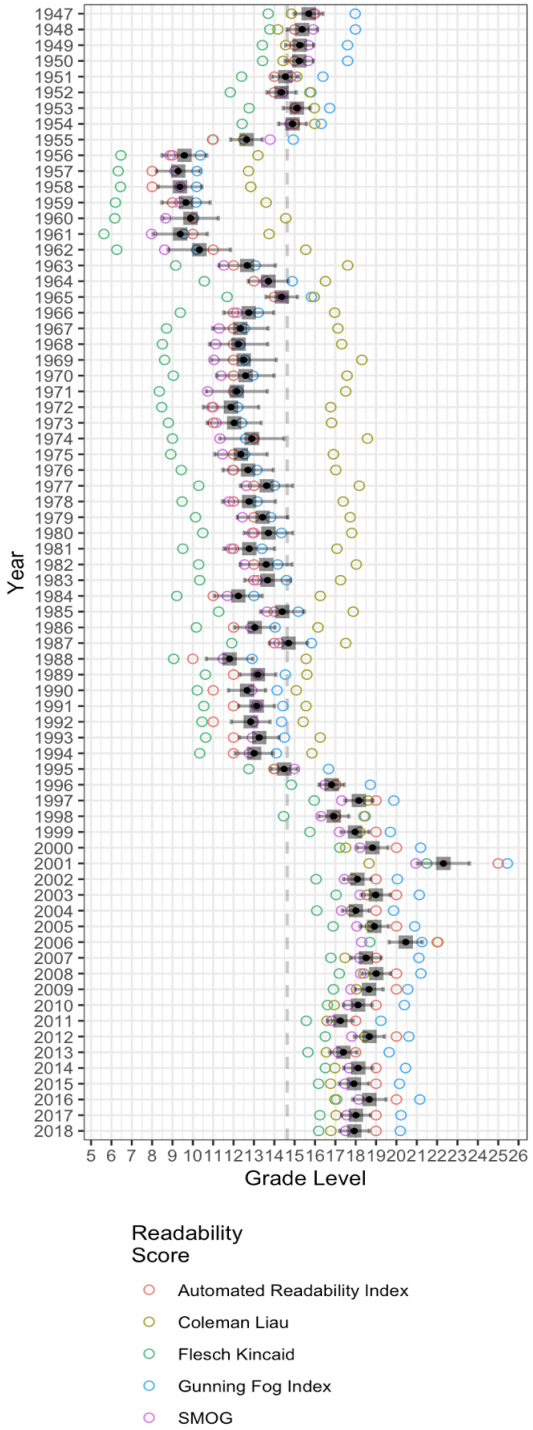


Figure 3. Readability of World Bank Annual Reports 1947-2018

1963-1965, we were unable to pinpoint any specific event that might reflect this change. However, delving deeper into the individual document level, it seems that this period was considered as one of the most active in the history of the Bank and its affiliate institutions, with the vast amounts of

loans, credits, and other commitments delivered around the world. This expansion in activities and operations might partially explain the spike of linguistic complexity in the reports.

As for the third discontinuity, the year 1995 witnessed the ascension of James Wolfensohn to the president of the World Bank. A tough, unconventional, and no-nonsense leader, Wolfensohn ushered in an era of swift reform against the Bank's stagnant bureaucracy and revitalized a sense of purpose and direction for its mission [6]. He demanded the best of his people and expected ideas and work of the highest calibre. This drastic change in leadership style and expectation of results might have contributed to the further codification and standardization of World Bank's complex technical language, as a representation of the institution's renewed drive towards excellence.

**Comparison with World Development Reports** To investigate whether this trend of increasing linguistic complexity is an institutionalized phenomenon across different publications and affiliate members of the World Bank, or an isolated trademark of the Annual Reports, we further compare the readability of the Reports with another publication from the Bank - the World Development Report (WDR), which focuses on the institution's yearly and in-depth analysis of the economic, social, and environmental state around the globe. This publication has been an ongoing compendium since 1978 to help guide the collective and individual efforts of nations to make progress and combat against the significant challenges of our time.

Analyzing the readability of WDR over the years, we can see that there is a stable complexity in language use over the years with the average grade level at around 13. Although there are variations from year to year, the overall trend of readability is one of stability and balance with a few pronounced discontinuities for the drop of complexity. This shows that the WDR are more straightforward, easier to understand and engage with than the World Bank Annual Report. However, whereas the World Bank Annual Reports demonstrates a homogeneous measure of different readability indexes, the WDR displays a much wider gap between the metrics, particularly between the Gunning Fox Index and the Coleman-Liau Index. This might suggest that within the individual WDR, the sentence length and word complexity might be lower, but the length of characters is much higher, meaning words in WDR are long but sentence length are short with few complex words.

**Comparison with African Development Bank's Annual Reports** The African Development Bank (AFDB) reports were downloaded from the various internet pages but were much more difficult to find and access than the World Bank reports. Although much time was spent trying to find all

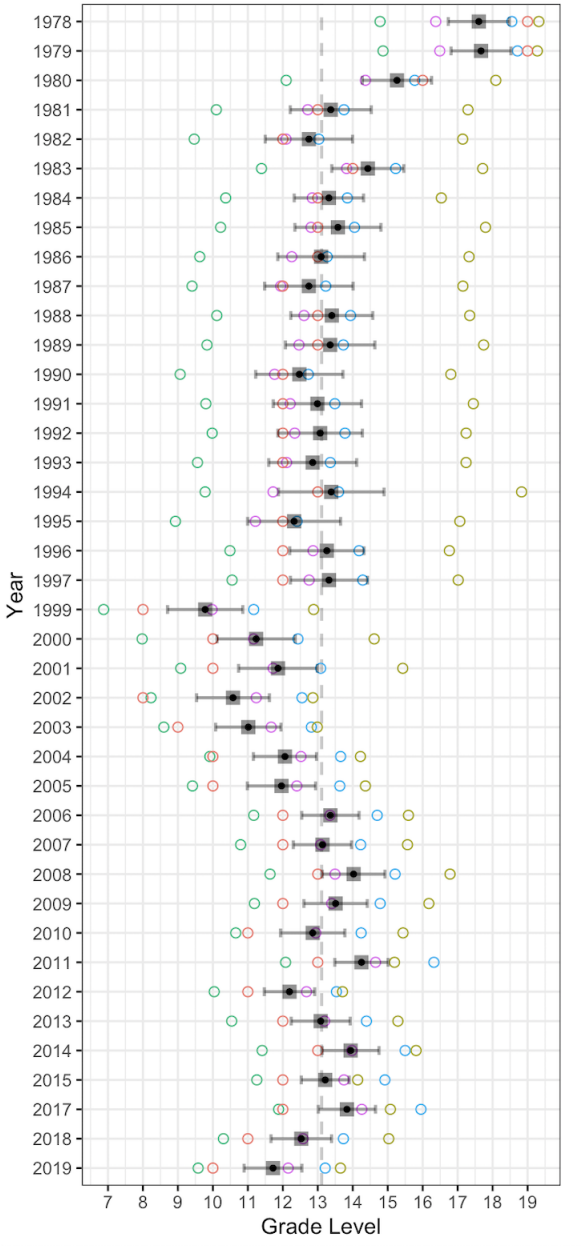


Figure 4. Readability of World Development Reports 1978-2018

the AFDB reports, only the reports from 2004 until 2018 were available for download online. Indeed, a longer time period would have been preferable for a more direct comparison. However, incorporating the AFDB reports in the analysis can still strengthen the comparison analysis and findings of the paper as the shorter time period allowed for a direct comparison between the World Bank and AFDB reports from 2004 to 2018.

The AFDB reports showed that the average of the five readability scores is around 19.5 - which is slightly above the average of the 2004-18 World Bank reports averaging


Figure 5. Readability of African Development Bank Annual Reports 2004-2018

around 18.5 - indicating very complex reports that are difficult to understand. The Automated Readability Index and the Gunning Fog Index consistently ranged about 3 points above the average while the SMOG and Coleman Liau scores ranged very close to the average and the Flesch Kincaid ranged about 2 points below the average. The same tendency appears for the World Bank reports in this period. However, the different scores are more dispersed for the World Bank reports than for the AFDB reports.

The summary of the 15 reports from the World Bank and the AFDB shows that the AFDB reports were shortened after 2015 e.g. demonstrated in the reduced number of sentences, types and tokens becoming four times less than in the previous years; the sentences in the World Bank reports varies greatly without a singular detectable tendency. The AFDB Flesch-Kincaid scores peak in 2010 and again in 2018 between which the scores fluctuate around 17-18. The World Bank Flesch-Kincaid scores peak over 22 in 2005 and again at 20 in 2009 but decrease afterwards to a level between 17 and 18. It is unclear which report is most difficult to comprehend for the Gunning Fog score. The AFDB reports have a Gunning Fog score peaking at over 24 in 2009 and around 23.5 in 2018. The World Bank has a Gunning Fog score peaking at over 26 in 2004 and 2009 at 23.5. Both reports lay just above the typical grade level between 0 and 20 denoting that the reports are complex texts.

Both banks utilize strikingly many of the same words most frequently. The AFDB focuses, unsurprisingly, more on Africa and the World Bank more on the world at large. Both banks use highly technical financial development language. It is interesting that the AFDB reports use the term ”development” much more frequently than the World Bank reports. Some of this effect from the earlier reports might, however, be because the AFDB reports are longer than the World Bank reports. Although the banks share many of the same collocations like Bank Group and Annual Reports, the African Development Bank concentrates more on different boards while the World Bank focuses more on East Asia.

**Comparison with Asian Development Bank's Annual Reports** Established in 1967, the Asian Development Bank (ADB) is a worthy comparison to the World Bank in terms of its operational history.

In general, there is no observable steady or linear trend in the language complexity of the ADB annual reports. The aggregated readability score, though fluctuated, roughly resembles a cosine wave. From its establishment in 1967 until 1985, the ADB annual reports became more readable, which implies a decrease in text complexity. Around the year 1987, the aggregated readability score suddenly experienced a severe vibration touching both the highest and the lowest points in our period of inspection. Analysis of the original text could not detect any pronounced dependent variable to explain this change. After the year 2000, there was first a decrease of complexity, but soon after, the score picks up, notably after the year 2010 and 2014.

Comparing to our previous analysis of the annual reports from the World Bank, counterparts on the ADB firstly does not generate a similar pattern of a rather steady language complexity increase. Secondly, by comparing the averages of the two aggregated readability scores, we discovered that, in general, the language of the ADB (17.5) is more complicated than that of the World Bank (14.5) in all the years combined. However, if we are to take in only the years from 1995 until 2018, both Banks are equivalent in the linguistic complexity of their report at 18.5 grade level. This finding, surprisingly, is similar to that of the comparison the African Development Bank, suggesting that possibly, this problem of complex language is not unique to the World Bank, but a pervasive issue in international agency in the field of devel-

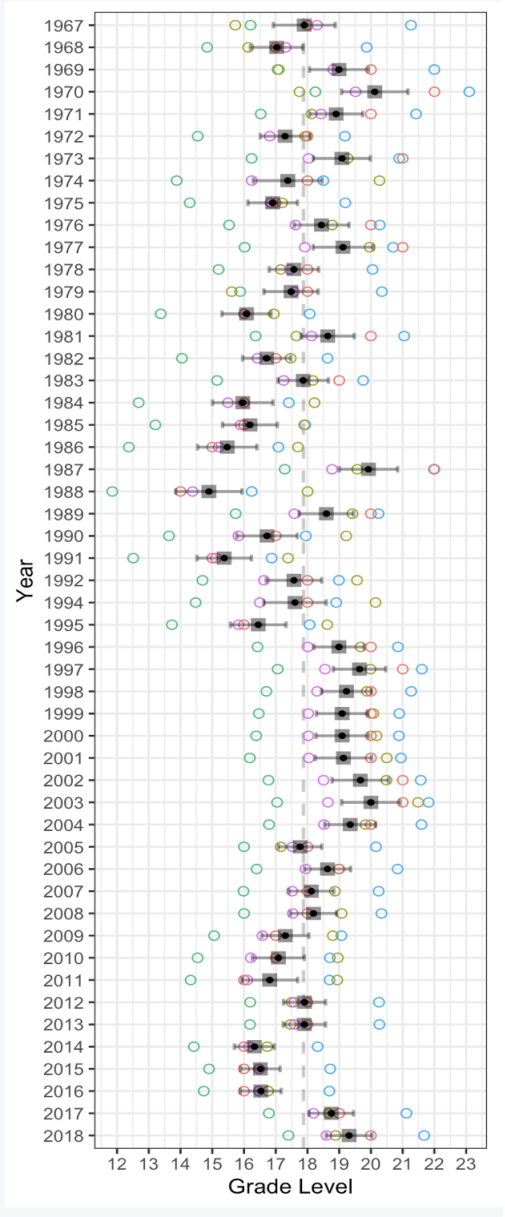


Figure 6. Readability of Asian Development Bank Annual Reports 1967-2018

opment.

## 6. Conclusions

By utilizing and combining different readability indexes and metrics, our research was able to quantify and ascertain an understanding on the textual sophistication World Bank Annual Reports corpus. Despite a downward tendency in the early 1950s, the trend of language complexity soon reversed from the 1960s and continued steadily with its upward climb until today, stabilizing around 1995 at a high level of sophistication. We provide some potential qualitative explanation of these different changes and discontinuities of complexity, due to the shifts the institution's mission, leadership as well as operational activities. However, detailed causality analysis have to be left to future studies.

From the within-institution and across-institutions analysis, our research was able to discover some interesting insights. The issue of language complexity does not appear to be an institutionalized phenomenon as the World Development Annual Reports are in general a more straightforward publication with less sophisticated language than the World Bank Annual Reports. However, if we compare across different international development aid agencies such as the African Development Bank and the Asian Development Bank, they all share relatively the same - and sometimes even higher - level of linguistic complexity in their reports in the recent decades. This suggests that, at least in terms of the readability indexes, this problem of difficult language is pervasive and should be addressed at large in the world of development. Targeting the World Bank alone for its complex language, without looking further at other institutions, might be an unfair assessment.

As there exists no other quantitative research on the linguistic complexity of the World Bank Annual Reports, except for Moretti et al. (2015), it is difficult to anchor down a specific or previously discovered state-of-the-art performance measure. However, we hope that this paper will provide a basis for continual research into the readability of these organizations' reports and research.

## 7. Contributions

This paper is the product of weekly meetings discussing ideas and setting deadlines for specific tasks to be implemented individually on different targets in terms of research, writing and coding which culminate in the completion of this paper. The analysis of the World Bank corpus was divided equally amongst the members, as with the assessment of the corpora from other development institutions. Xiaoyan Hu was in charge of writing on the methodology and readability formulas as well as performing the comparative analysis of the Asian Development Bank. Thea Madsen was responsible for the main text of the related work in the literature review and performed the preprocessing of the World Bank corpus as well as the analytical comparison with African Development Bank. Dang Ngoc Huy has contributed notably to the code design of the readability score and OCR conversion, in addition to the comparison analysis with the World Development Reports.

## References

[1] Franco Moretti and Dominique Pestre. *Bankspeaks: the Language of the World Bank Report*. New Left Review, vol. 92, 2015, pp. 75–99, 2015

[2] Kenneth Benoit, Kevin Munger, and Arthur Spirling. *Measuring and Explaining Political Sophistication Through Textual Complexity*. American Journal of Political Science, 2019.

[3] Daniel Bischof and Roman Senninger, *Simple Politics for the People? Complexity in Campaign Messages and Political Knowledge*. European Journal of Political Research 57 (2): 473–495, 2018.

[4] Corinne Purtill, *The World Bank's Misguided Effort to Improve Its Writing Signal an Economics Communication Crises*. Quartz, 11 June 2017.

[5] World Bank Group Archives, *World Bank Group Historical Chronology*.

[6] Sebastian Mallaby, *The World's Banker: A Story of Failed States, Financial Crises, and the Wealth and Poverty of Nations*. Council on Foreign Relations Books (Penguin Press), 2006

[7] Thomas Jakobsen and Thomas Skardal, *Readability Index*. Agder University, Faculty of Engineering and Science, 2007.

[8] World Bank Official Website - Mission Statement, *https://www.worldbank.org/en/who-we-are*.

## 8. Appendix

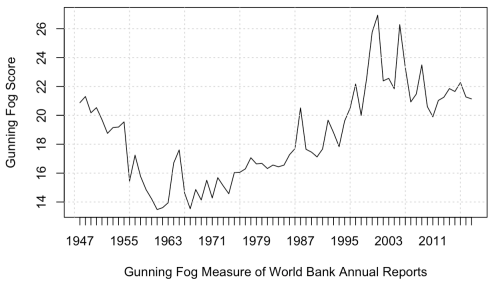


Figure 7. Gunning Fog score of World Bank Annual Reports 1947-2018

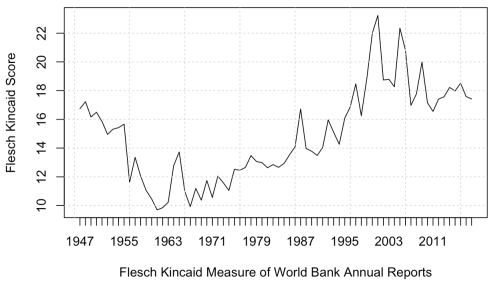


Figure 8. Flesch Kincaid score of World Bank Annual Reports 1947-2018

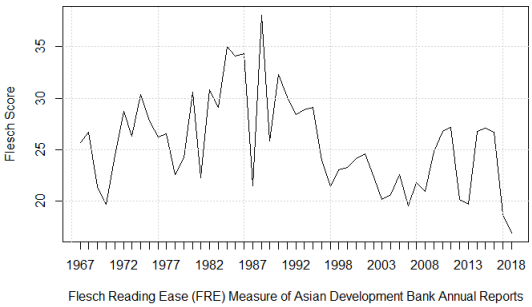


Figure 9. FRE score of Asian Development Bank 1967-2018

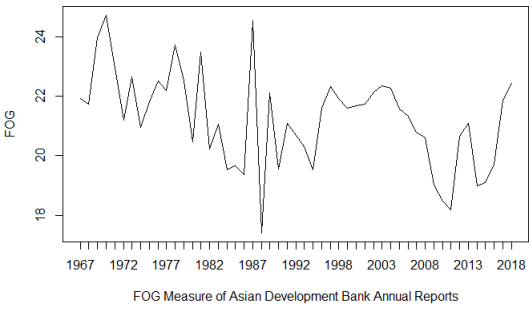


Figure 10. Gunning Fog score of Asian Development Bank 1967-2018

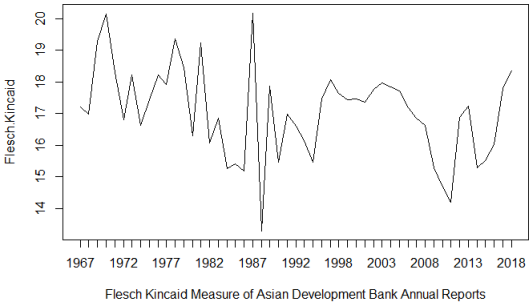


Figure 11. Flesch Kincaid score of Asian Development Bank 1967-2018