



Scientific English



<http://scientific-english.e-monsite.com/>

English as *lingua franca*

- 🧪 Evolution of the scientific language
- 🧪 Comparison between English and other languages
- 🧪 Scientific English vs literature

Introduction

- 🧪 Introduce yourself
- 🧪 Requirements (English level)
- 🧪 Exercises
- 🧪 Context
- 🧪 Reminder
- 🧪 Definition

Scientific English

Terminology

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- 🧪 Grammar
- 🧪 French to English: False friends?

Oral expressions

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- 🧪 Conferences, seminar, colloque....

Bibliographical research

- 🧪 Internet
- 🧪 Software (Endnote)

Writing expressions

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- 🧪 Conferences, seminar, colloque....

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Writing Scientific Articles in English: Algerian Science Students' Needs, Problems and Solutions

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Abstract:

Scientific articles are of a great importance in the academic life of science students. Therefore, writing such articles in English is a must-have skill for these students to acquire. However, it is not an easy task and serious problems appear when writing. This article tries to dig in the sources of these problems in an attempt to remedy them. To do so, a questionnaire addressed to students was employed to have an overview on these difficulties followed by an analysis of their articles to get an in-depth insight on them. Results of the questionnaire and the analysis revealed that the students' needs were mostly to master both the reading and the writing skills; their writing problems were mainly around sentence structure, tenses and vocabulary. A training course on the most required aspects and the basics needed for them can be a convenient solution to overcome these problems.

Keywords: the scientific article, scientific writing, grammar, lexis.

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* the Sending author

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Faux articles scientifiques : l'ampleur du phénomène révélée

L'étude à découvrir. L'intelligence artificielle aide les éditeurs à repérer les publications produites par les "fermes à articles". Ces articles inventés de toutes pièces représenteraient 2 % de la littérature scientifique.

Par [Antoine Beau](#) | Publié le 08/11/2023 à 14:46

Offrir l'article ?



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According to a study conducted by Clear Skies revealed by Nature, around 70 000 publications may be false content intended for disinformation or career promotion were published in scientific journals in 2022, representing approximately 2% of the total scientific output that year. Getty Images/iStockphoto

Essay

Why Most Published Research Findings Are False

John P.A. Ioannidis

Summary

There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding is less likely to be true when the studies conducted in a field are smaller; when effect sizes are smaller; when there is a greater number and lesser preselection of tested relationships; where there is greater flexibility in designs, definitions, outcomes, and analytical modes; when there is greater financial and other interest and prejudice; and when more teams are involved in a scientific field in chase of statistical significance. Simulations show that for most study designs and settings, it is more likely for a research claim to be false than true. Moreover, for many current scientific fields, claimed research findings may often be simply accurate measures of the prevailing bias. In this essay, I discuss the implications of these problems for the conduct and interpretation of research.

Published research findings are sometimes refuted by subsequent evidence, with ensuing confusion and disappointment. Refutation and controversy is seen across the range of research designs, from clinical trials and traditional epidemiological studies [1–3] to the most modern molecular research [4,5]. There is increasing concern that in modern research, false findings may be the majority or even the vast majority of published research claims [6–8]. However, this should not be surprising. It can be proven that most claimed research findings are false. Here I will examine the key

The Essay section contains opinion pieces on topics of broad interest to a general medical audience.

factors that influence this problem and some corollaries thereof.

Modeling the Framework for False Positive Findings

Several methodologists have pointed out [9–11] that the high rate of nonreplication (lack of confirmation) of research discoveries is a consequence of the convenient, yet ill-founded strategy of claiming conclusive research findings solely on the basis of a single study assessed by formal statistical significance, typically for a p -value less than 0.05. Research is not most appropriately represented and summarized by p -values, but, unfortunately, there is a widespread notion that medical research articles

It can be proven that most claimed research findings are false.

should be interpreted based only on p -values. Research findings are defined here as any relationship reaching formal statistical significance, e.g., effective interventions, informative predictors, risk factors, or associations. “Negative” research is also very useful. “Negative” is actually a misnomer, and the misinterpretation is widespread. However, here we will target relationships that investigators claim exist, rather than null findings.

As has been shown previously, the probability that a research finding is indeed true depends on the prior probability of it being true (before doing the study), the statistical power of the study, and the level of statistical significance [10,11]. Consider a 2×2 table in which research findings are compared against the gold standard of true relationships in a scientific field. In a research field both true and false hypotheses can be made about the presence of relationships. Let R be the ratio of the number of “true relationships” to “no relationships” among those tested in the field. R

is characteristic of the field and can vary a lot depending on whether the field targets highly likely relationships or searches for only one or a few true relationships among thousands and millions of hypotheses that may be postulated. Let us also consider, for computational simplicity, circumscribed fields where either there is only one true relationship (among many that can be hypothesized) or the power is similar to find any of the several existing true relationships. The pre-study probability of a relationship being true is $R/(R+1)$. The probability of a study finding a true relationship reflects the power $1 - \beta$ (one minus the Type II error rate). The probability of claiming a relationship when none truly exists reflects the Type I error rate, α . Assuming that c relationships are being probed in the field, the expected values of the 2×2 table are given in Table 1. After a research finding has been claimed based on achieving formal statistical significance, the post-study probability that it is true is the positive predictive value, PPV. The PPV is also the complementary probability of what Wacholder et al. have called the false positive report probability [10]. According to the 2×2 table, one gets $PPV = (1 - \beta)R / ((1 - \beta)R + \alpha)$. A research finding is thus

Citation: Ioannidis JPA (2005) Why most published research findings are false. *PLoS Med* 2(8): e124.

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Abbreviation: PPV, positive predictive value

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THE BASIC CHARACTERISTICS OF SCIENTIFIC ENGLISH



Source: <https://teachtranslatetravelrepeat.com/the-basic-characteristics-of-scientific-english/>

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Article | Published: 29 January 2014

RETRACTED ARTICLE: Stimulus-triggered fate conversion of somatic cells into pluripotency

[Haruko Obokata](#) , [Teruhiko Wakayama](#), [Yoshiki Sasai](#), [Koji Kojima](#), [Martin P. Vacanti](#), [Hitoshi Niwa](#), [Masayuki Yamato](#) & [Charles A. Vacanti](#) 

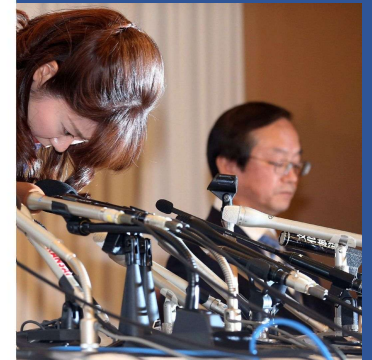
Nature **505**, 641–647 (2014) | [Cite this article](#)

540k Accesses | **189** Citations | **3038** Altmetric | [Metrics](#)

 A [Correction](#) to this article was published on 30 July 2014

 A [Retraction](#) to this article was published on 02 July 2014

 This article has been [updated](#)



Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

Mandeep R Mehra, Sapan S Desai, Frank Ruschitzka, Amit N Patel

Summary

Background Hydroxychloroquine or chloroquine, often in combination with a second-generation macrolide, are being widely used for treatment of COVID-19, despite no conclusive evidence of their benefit. Although generally safe when used for approved indications such as autoimmune disease or malaria, the safety and benefit of these treatment regimens are poorly evaluated in COVID-19.

Methods We did a multinational registry analysis of the use of hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19. The registry comprised data from 671 hospitals in 55 continents. We included patients hospitalised between Dec 20, 2019, and April 14, 2020, with a positive laboratory finding for SARS-CoV-2. Patients who received one of the treatments of interest within 48 h of diagnosis were included in one of four treatment groups (chloroquine alone, chloroquine with a macrolide, hydroxychloroquine alone, or hydroxychloroquine with a macrolide), and patients who received none of these treatments formed the control group. Patients for whom one of the treatments of interest was initiated more than 48 h after diagnosis or while they were on mechanical ventilation, as well as patients who received remdesivir, were excluded. The main outcomes of interest were in-hospital mortality and the occurrence of de-novo ventricular arrhythmias (as defined on the basis of sustained ventricular tachycardia or ventricular fibrillation).

Findings 96 032 patients (mean age 53·8 years, 46·3% women) with COVID-19 were hospitalised during the study period and met the inclusion criteria. Of these, 18 668 patients were in the treatment groups (1868 received chloroquine, 3783 received chloroquine with a macrolide, 3016 received hydroxychloroquine, and 6221 received hydroxychloroquine with a macrolide) and 77 364 patients were in the control group. 10 698 (11·1%) patients died in hospital. After controlling for multiple potential confounding factors (age, sex, race or ethnicity, body-mass index, underlying cardiovascular disease and its risk factors, diabetes, underlying lung disease, smoking, immunosuppressed condition, and baseline disease severity), when compared with mortality in the control group (9·3%), hydroxychloroquine (18·0%; hazard ratio 1·335, 95% CI 1·235–1·447), hydroxychloroquine with a macrolide (23·8%; 1·447, 1·368–1·531), chloroquine (16·4%; 1·365, 1·218–1·531), and chloroquine with a macrolide (22·2%; 1·368, 1·273–1·469) were each independently associated with an increased risk of in-hospital mortality. Compared with the control group (0·3%), hydroxychloroquine (6·6%; 2·365, 1·935–2·906), hydroxychloroquine with a macrolide (8·1%; 5·106, 4·106–5·983), chloroquine (4·3%; 1·011, 2·100–4·596), and chloroquine with a macrolide (6·5%; 4·011, 3·344–4·812) were independently associated with an increased risk of de-novo ventricular arrhythmia during hospitalisation.

Interpretation We were unable to confirm a benefit of hydroxychloroquine or chloroquine, when used alone or with a macrolide, on in-hospital outcomes for COVID-19. Each of these drug regimens was associated with decreased in-hospital mortality and an increased frequency of ventricular arrhythmias when used for treatment of COVID-19.

Funding William Harvey Distinguished Chair in Advanced Cardiovascular Medicine at Brigham and Women's Hospital.

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Introduction

The absence of an effective treatment against severe COVID-19 has led to the use of drugs that have been shown in laboratory conditions to have antiviral properties as well as immunomodulatory



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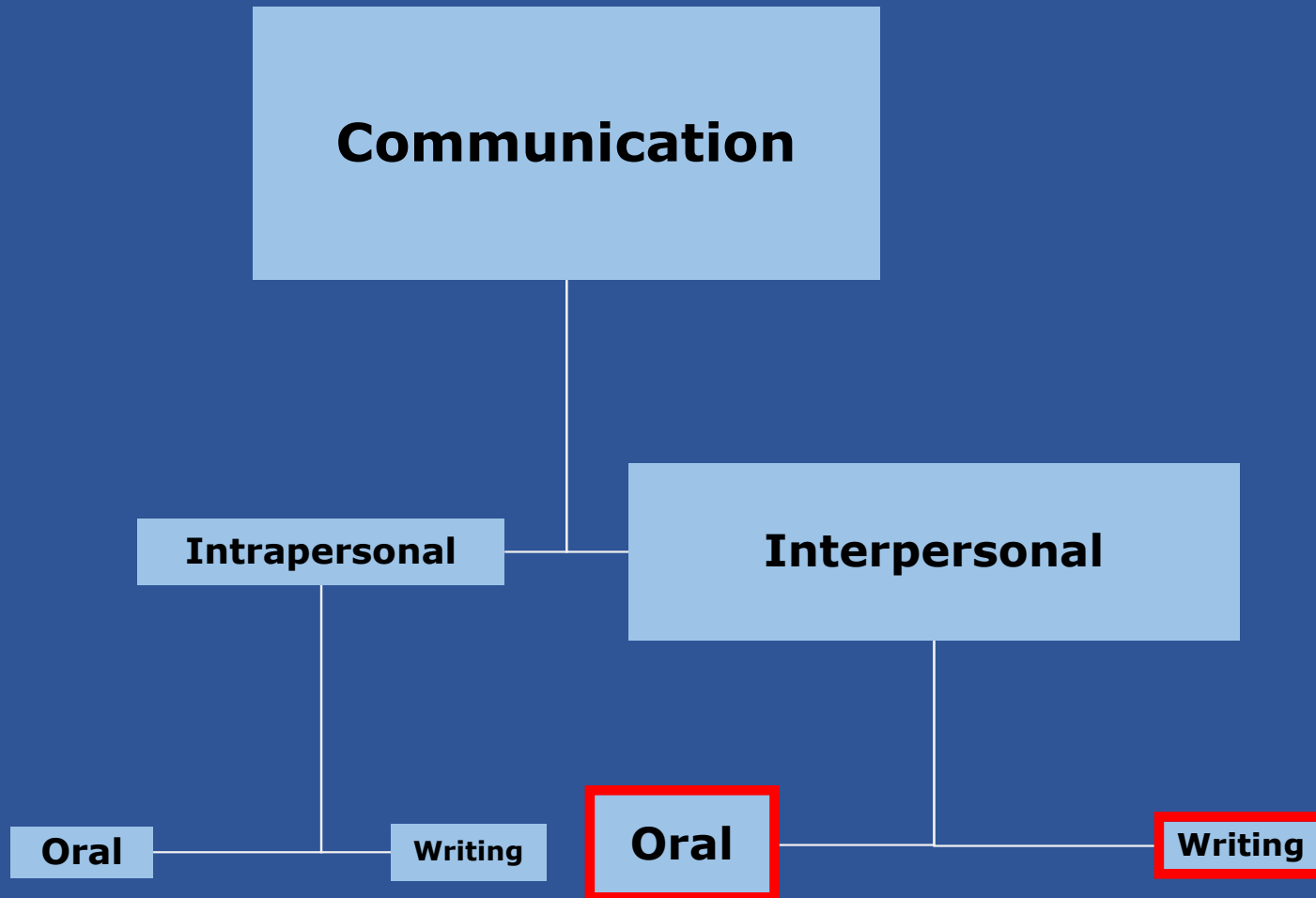
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1. Definition

(Wikipedia).

Scientific English is a register of English used in scientific professions, such as by scientists (Teflpedia).

Scientific English is a **specialized**, **formal**, and **objective** register prioritized for **precision**, **clarity**, and **conciseness** in research communication. It relies on **specific** structures like the **passive voice**, **technical** terminology, **nominalization**, and **hedging** to present data accurately while reducing **bias**. It is **essential** for global academic discourse. (IA).

The words '**Scientific English**' often conjure up (*évoquent*) convoluted (*alambiqué, compliqué*), impenetrable sentences in the mind's eye (*esprit*). What if I told you that it should not be this way? What if I said that Scientific Language (of any kind) should actually be easy for almost anyone to read? Would you call me crazy? Before getting into **Scientific English**, we need to understand a bit about why it exists and what it does (<https://teachtranslatetravelrepeat.com/the-basic-characteristics-of-scientific-english/>)

It is an initiation to scientific **communication** in English. Through different tests, students will **learn** how to use the main **tools** of **scientific communication** in **English**, such as: **understanding** research articles, **writing** an abstract, **preparing** a poster and oral presentation on science and society topics, as if they were at an international congress, and engage in debates. It also aims at reassuring students and encourage them to use **English** to discuss scientific topics with other people, even if their English level **is not very good**. **It is a way to communicate in English** (<https://www.eugloh.eu/events/scientific-english>).

2. Goals

To **learn** and **improve** the skills in English expression (Jahn, 2007):

- ❖ In **scientific** reading and writing,
- ❖ In oral communication.

Nature and Features of Scientific English Language

-  Scientific English = **specialized** form of the English language used primarily in **academic** and research contexts.
-  One of the most notable aspects is its **clarity** and **precision**.
-  Scientists strive to communicate complex ideas **succinctly**, minimizing **ambiguity**.
-  This is crucial because **misinterpretations** can lead to **errors** in research findings or applications.
-  Another important feature is **objectivity**
-  Scientific writing avoids **personal** bias and **emotions**, focusing instead on **facts** and **evidence**. This objectivity is achieved through the use of a **formal** tone and specific **terminology**.
-  The vocabulary in scientific English often includes specialized **jargon** that is **unique** to various fields, such as biology, chemistry, or physics.
-  This specialized language allows for precise communication among **experts** but can be challenging for **laypersons**.



The structure of scientific writing is also highly standardized. Common formats include the **IMRAD** structure: Introduction, Methods, Results, and Discussion.



This organization helps readers to **easily** navigate through the research process, from understanding the problem to **interpreting** the findings.



In contrast to normal English, which is more **flexible** and often allows for **subjective** expression, scientific English prioritizes **accuracy** and **uniformity**.



The aim is to communicate **findings** and **ideas** in a way that can be **universally** understood and **replicated**.



Overall, the nature and features of scientific English reflect its **purpose**: to **convey** complex information **accurately** and **effectively** to a **diverse** audience, including researchers, policymakers, and the general public.

English as *lingua franca*

- 🧪 Evolution of the scientific language
- 🧪 Comparison between English and other languages
- 🧪 Scientific English vs literature

Introduction

- 🧪 Introduce yourself
- 🧪 Requirements (English level)
- 🧪 Quiz
- 🧪 Reminder
- 🧪 Definition

Writing expressions

- 🧪 Thesis, reports, articles
- 🧪 Conferences, seminar, colloque....

Scientific English

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- 🧪 Vocabularies
- 🧪 Grammar
- 🧪 French to English: False friends?

Oral expressions

- 🧪 Thesis defence
- 🧪 Conferences, seminar, colloque....

Bibliographical research

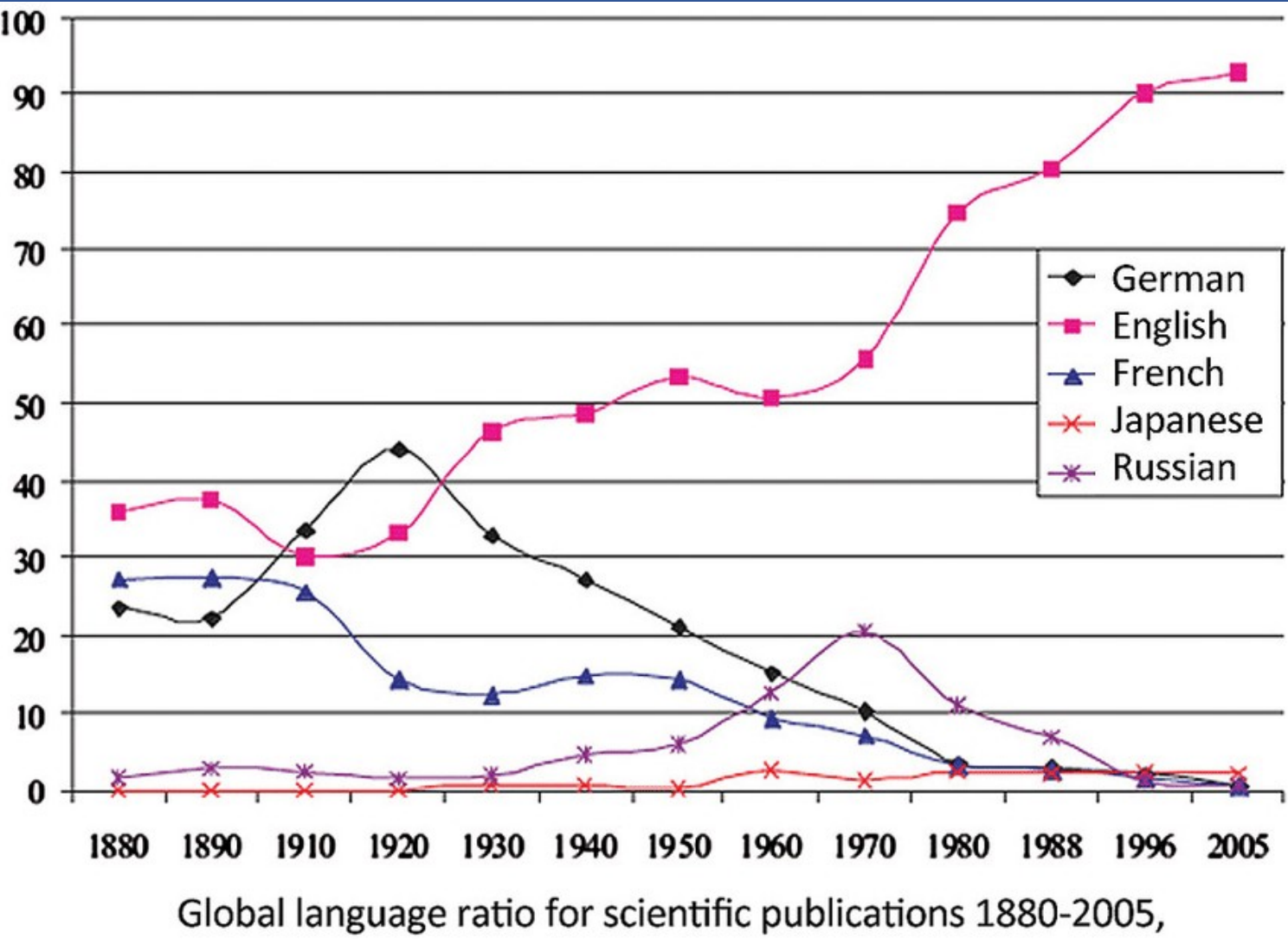
- 🧪 Internet
- 🧪 Software (Endnote)

I. Evolution



II. Comparison between English & other languages

III. Scientific English vs literature



Source: Bargheer and Pabst. 2016. Learned publishing.

1. Definition of language

The method of human communication, either spoken or written, consisting of the use of words in a structured and conventional way.

It is a system of words or signs that people use to express thoughts and feelings to each other

It is a **system of communication**, a **medium for thought**, and **a social interaction**
(Source: Meriem-webster.com).

the principal method of human communication, consisting of words used in a structured and conventional way and conveyed by speech, writing, or gesture (Source: Dictionary).

a system of conventional spoken, manual (signed), or written symbols by means of which human beings, as members of a social group and participants in its culture, express themselves. The functions of language include communication, the expression of identity, play, imaginative expression, and emotional release. (Source: Britannica).

2. Classification

-  The English language (introduction);
-  Language families in the world, the notion of a proto-language;
-  The Indo-European language family, Germanic languages as its subgroup;

 508 million speakers

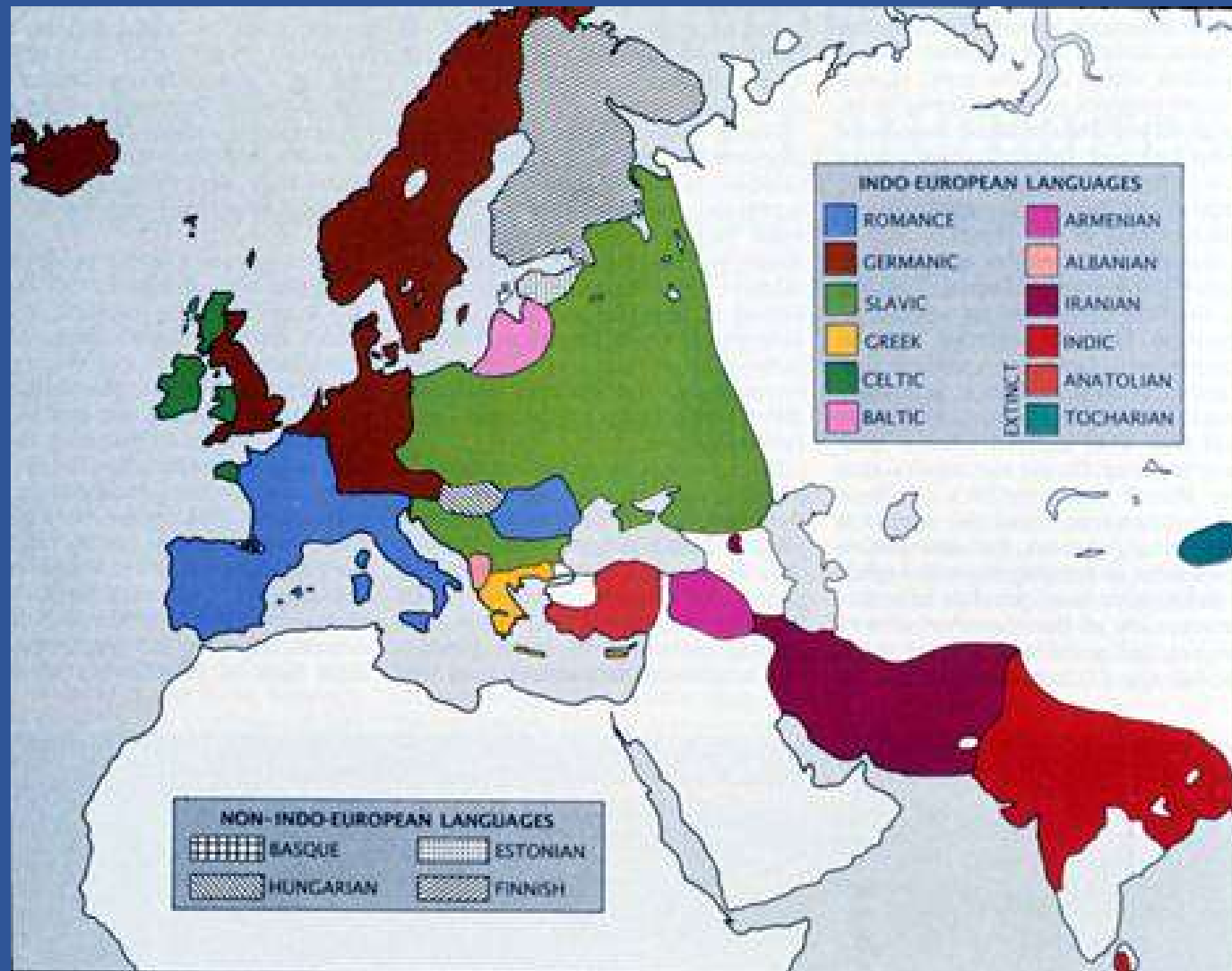
 167 million speakers use it as a second language

 a lingua franca – a language used among people who have no other tongue in common

 in some areas it has provided a base for pidgins and creoles.

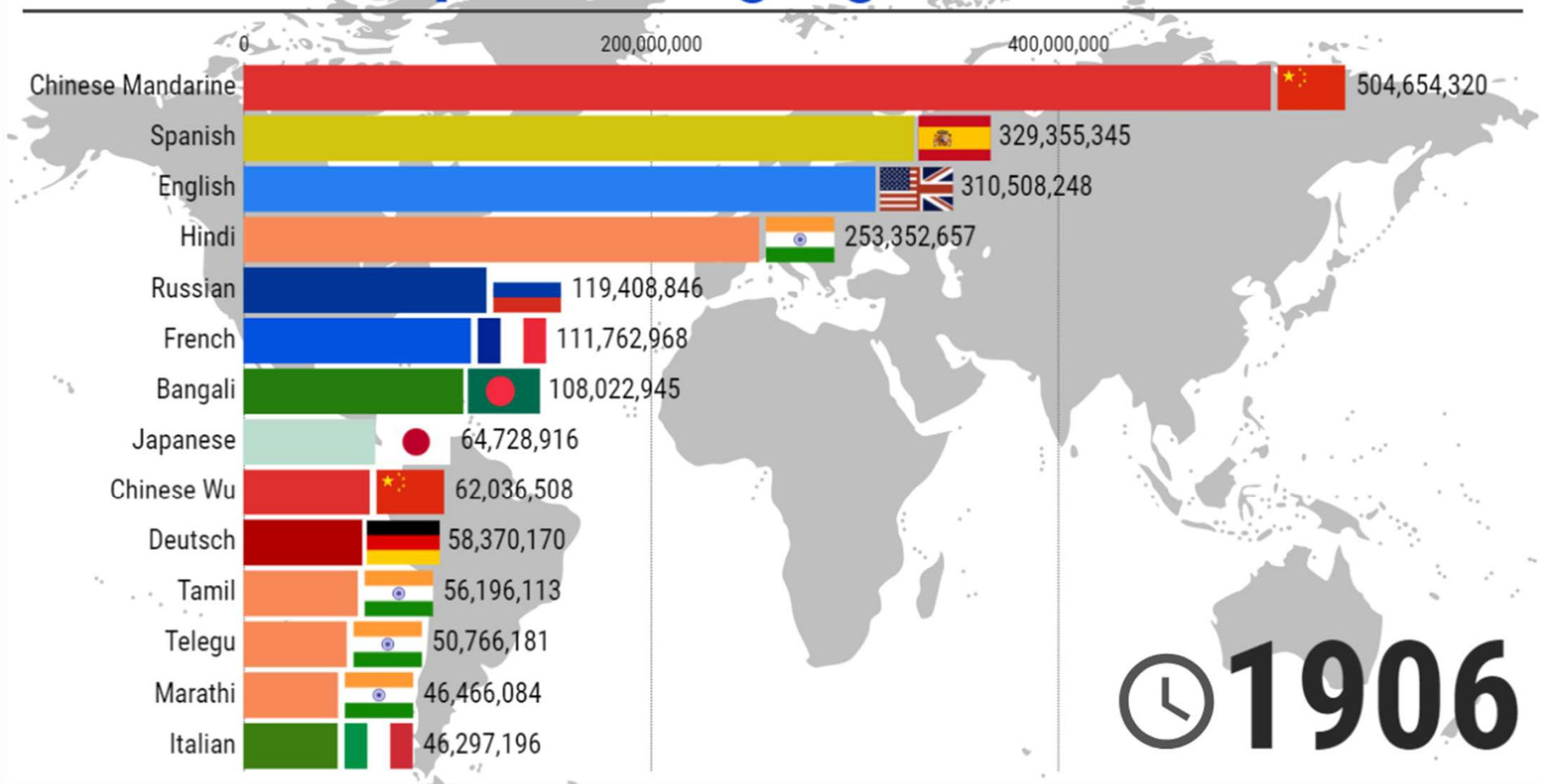
Indo-European Language Family

-  Germanic,
-  Romance,
-  Celtic,
-  Greek,
-  Armenian,
-  Albanian,
-  Baltic,
-  Slavic,
-  Iranian,
-  Indic,
-  among the dead ones: Anatolian, Tocharian, Italic

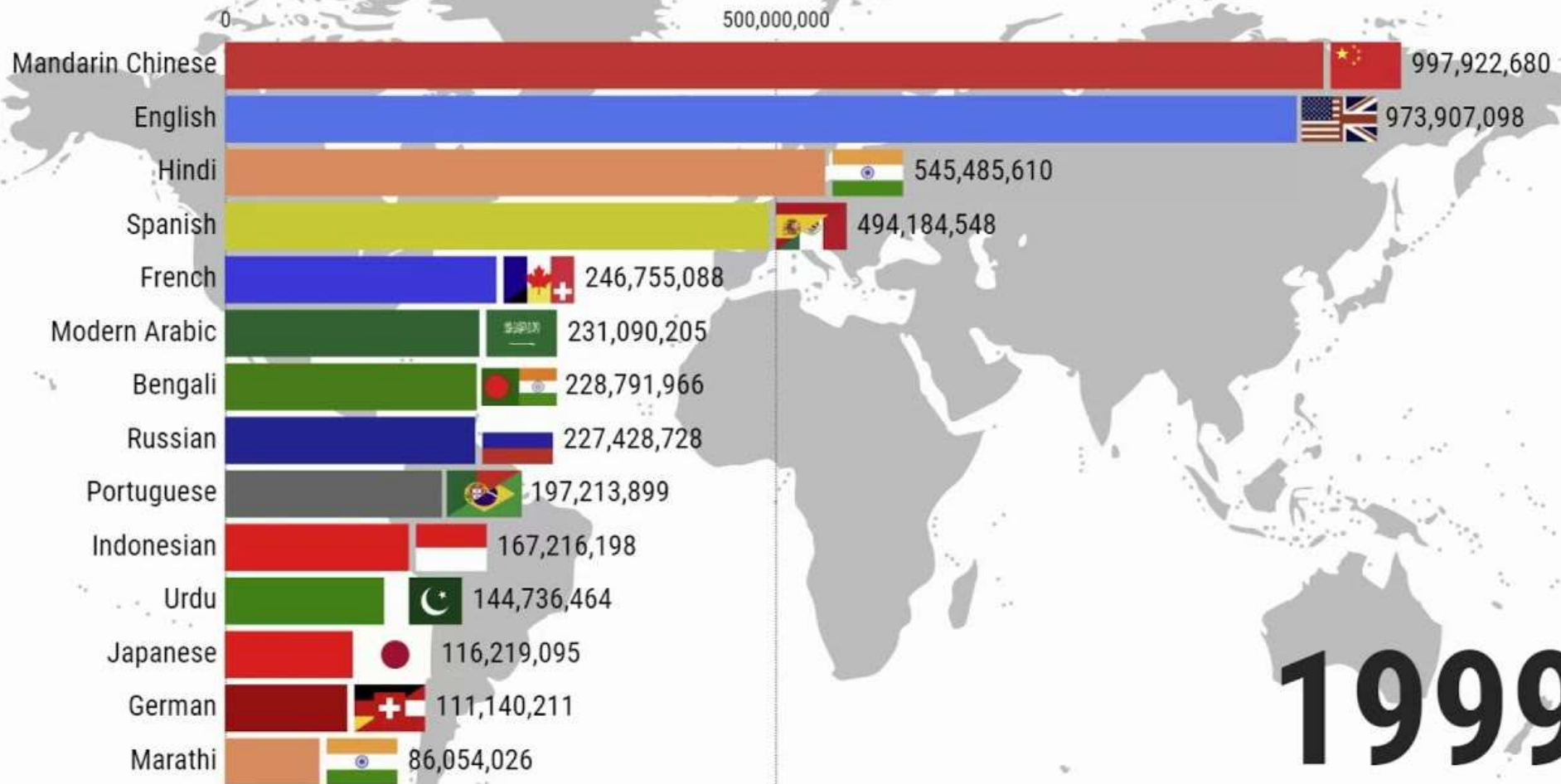


3. Rank and English in the world

Most Spoken Languages in the World

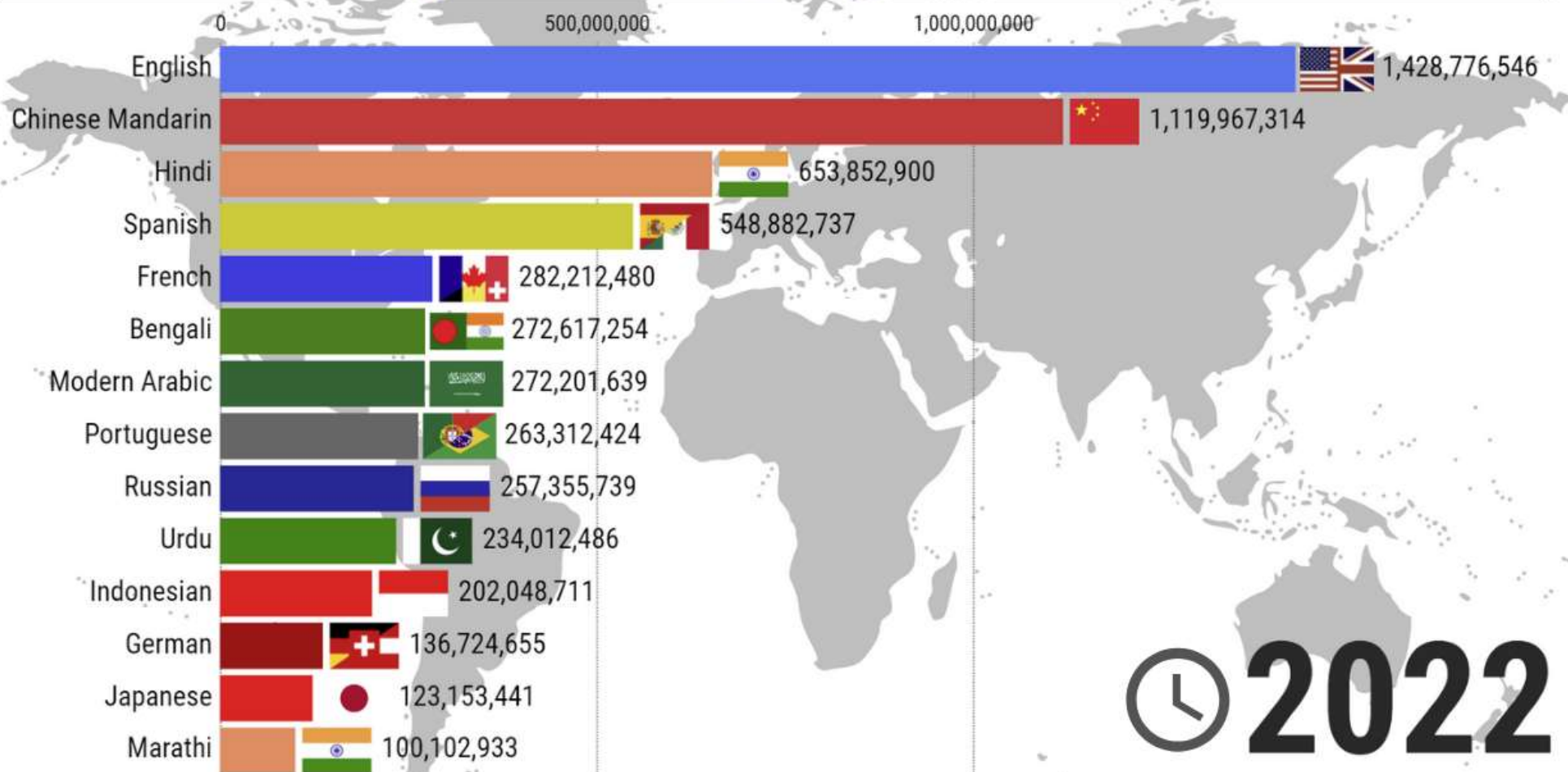


The Most Spoken Languages in the World



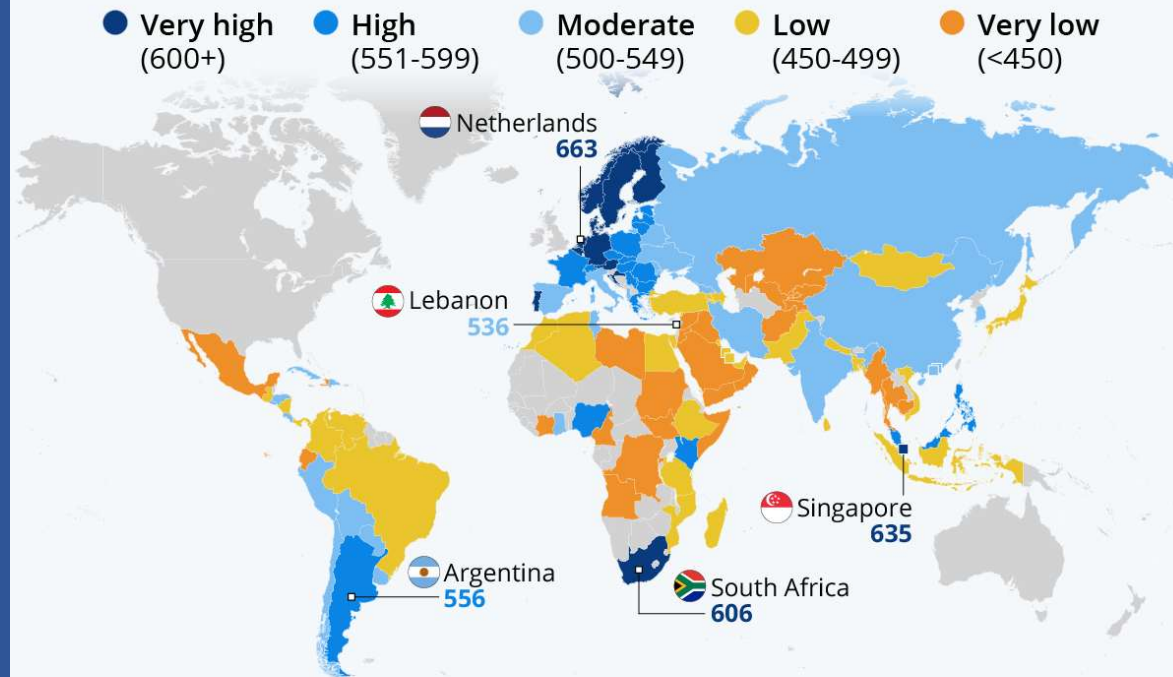
1999

Most Spoken Languages in the World



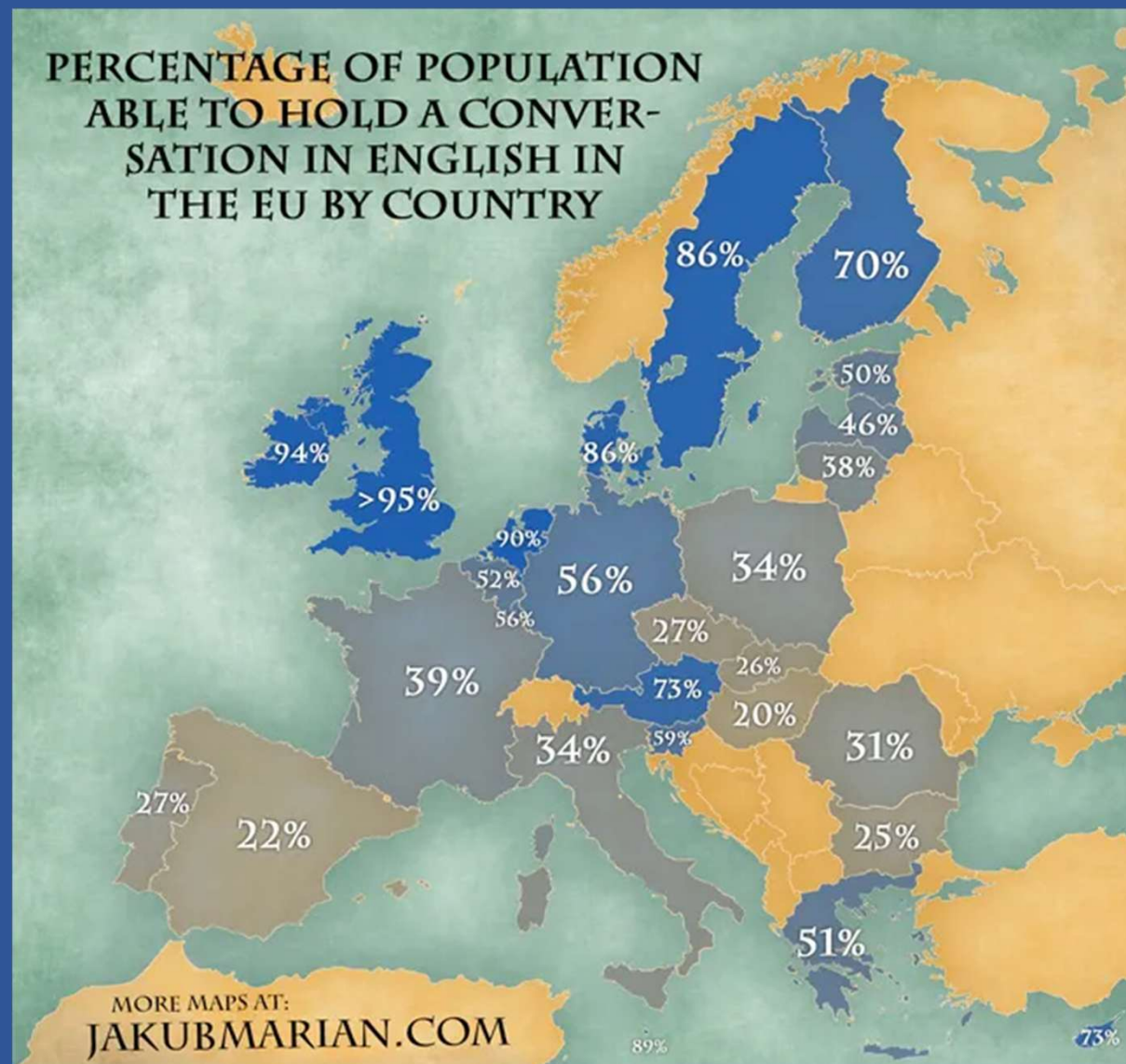
English, The Global Language?

Worldwide English proficiency levels by nation
in 2021 (in index points)*



* Only countries with English as a foreign language included.
Based on EF SET tests of 2 million adults (aged 18+) across 112 countries.
Source: EF English Proficiency Index 2021

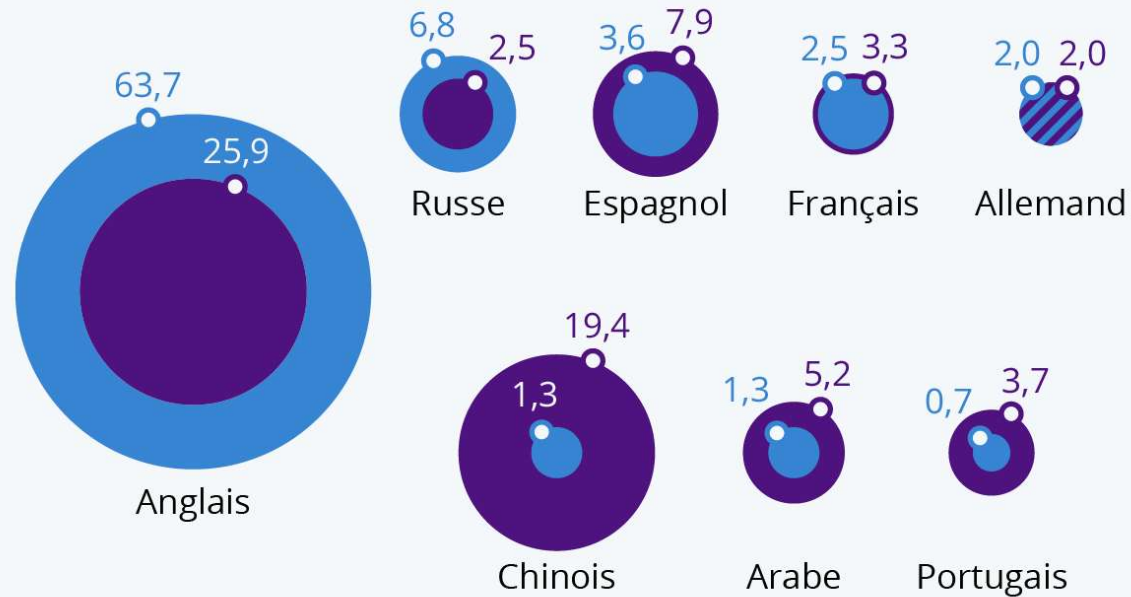




Quelles langues parle Internet ?

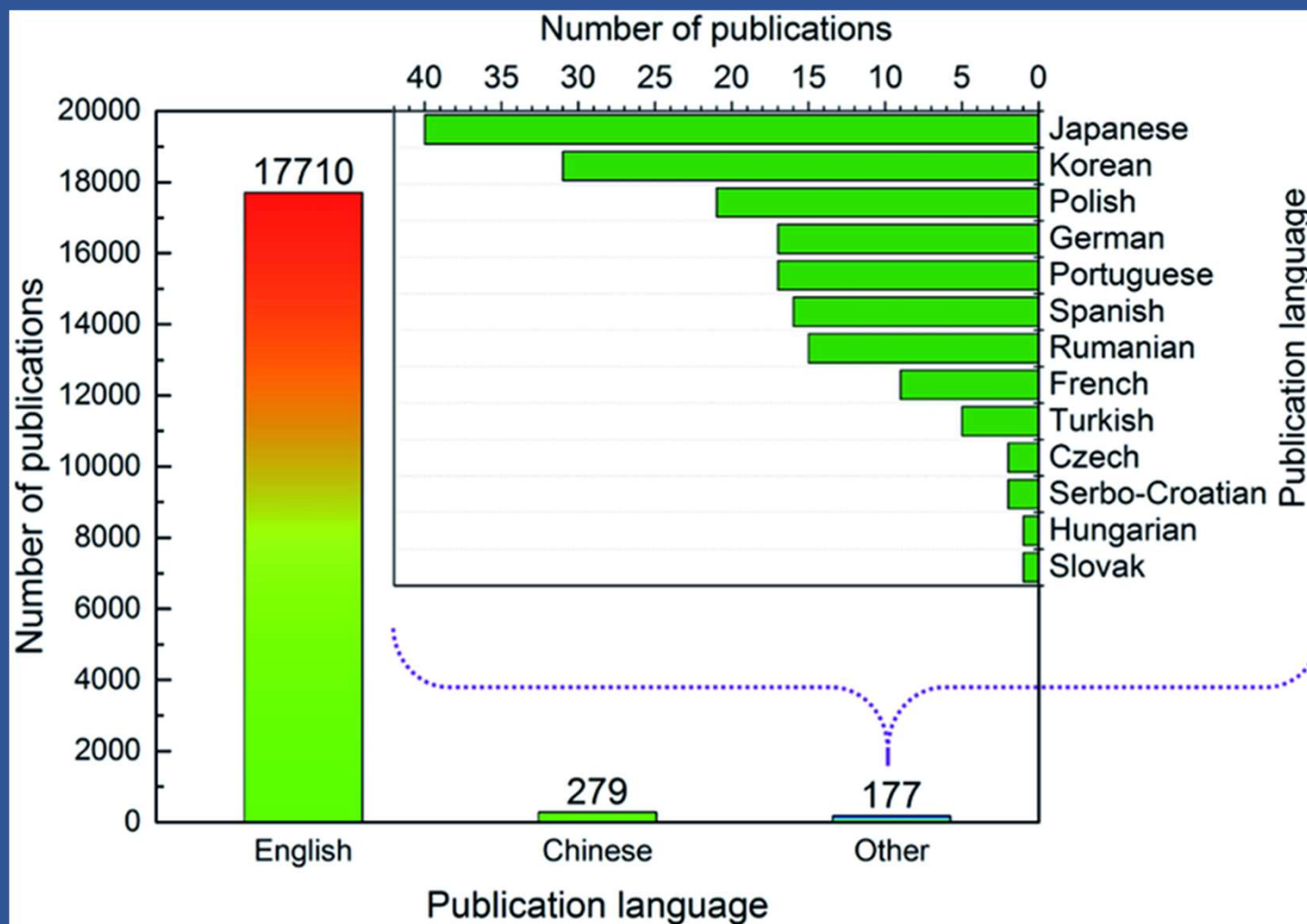
Comparaison des langues utilisées par les sites web dans le monde et de la part d'internautes locuteurs *

● % de sites dans cette langue ● % d'internautes locuteurs

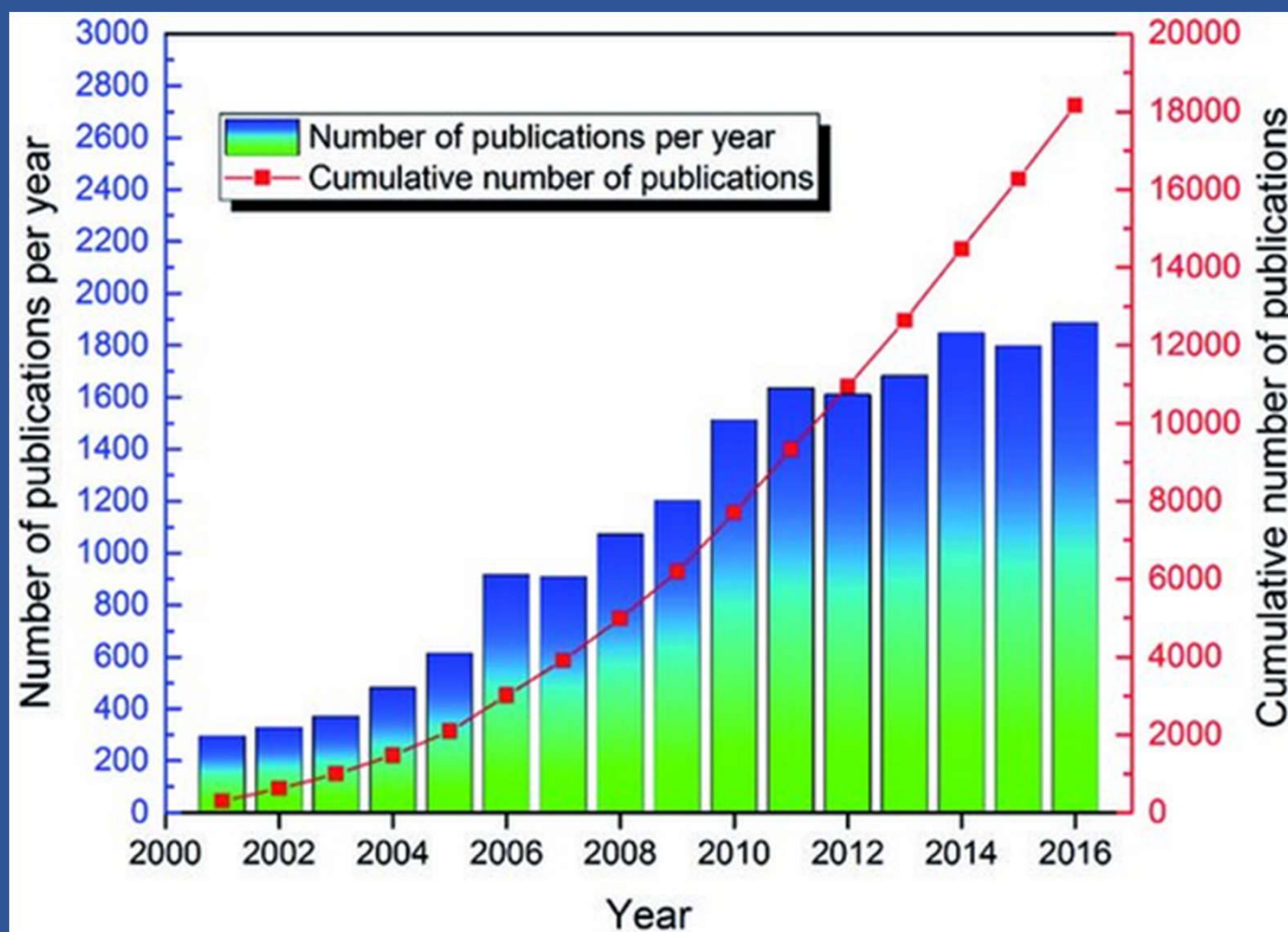


* Analyse des sites web : février 2022. Estimation des internautes locuteurs : 2021.
Sources : W3Techs, Internet World Stats





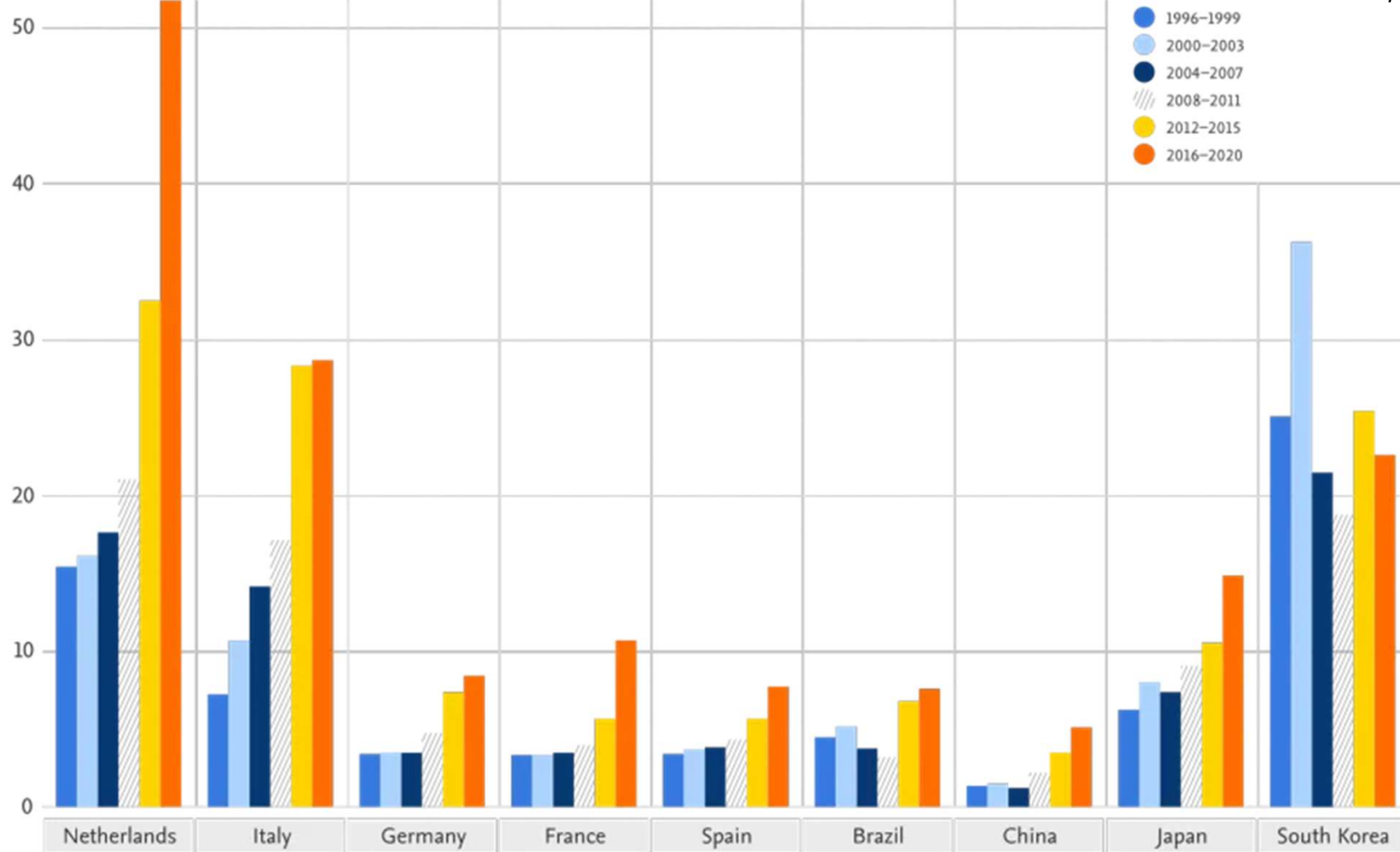
Source: Jiang et al. 2018. RSC Advances.



Jiang et al. 2018. RSC Advances.

Ratio of journal articles published in English to those published in the country's official language

Source: Scopus.



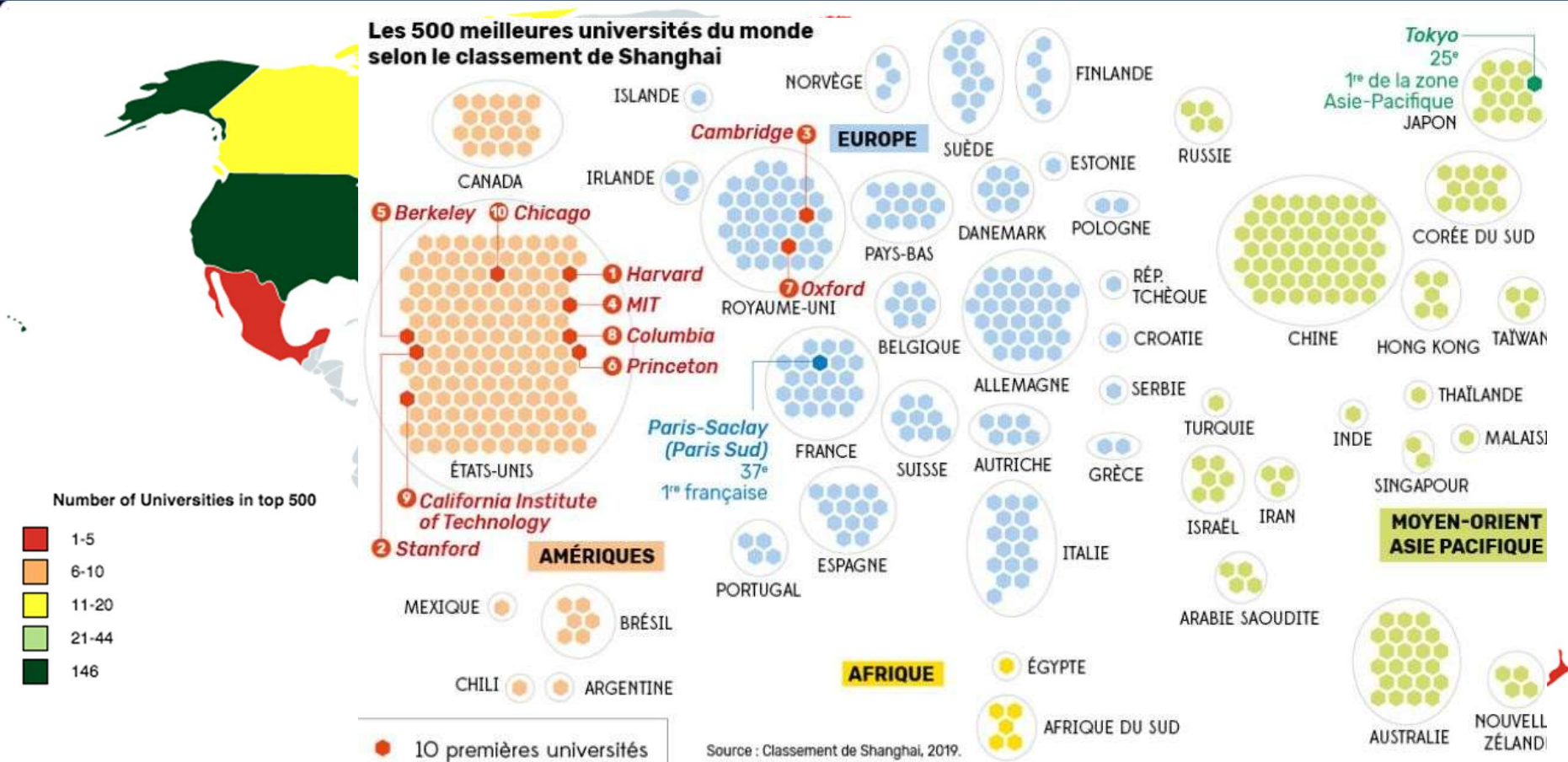


ShanghaiRanking's Academic Ranking of
World Universities
2023

TOP 100

2023 RANK	2022 RANK	INSTITUTION	NATION/REGION	TOTAL SCORE
	1	Harvard University	US	100.0
	2	Stanford University	US	74.8
	3	Massachusetts Inst Tech (MIT)	US	69.1
4	4	University of Cambridge	GB	67.9
5	5	University of California, Berkeley	US	63.4
6	6	Princeton University	US	60.1
7	7	University of Oxford	GB	59.5
8	8	Columbia University	US	55.3
9	9	California Institute of Technology	US	54.5
10	10	University of Chicago	US	53.8

11	11	Yale University	US	52.2
12	12	Cornell University	US	50.5
13	13	University of California, Los Angeles	US	48.0
14	15	University of Pennsylvania	US	47.7
15	16	Paris-Saclay University	FR	47.0
16	14	Johns Hopkins University	US	46.8
17	18	University College London	GB	45.9
18	17	University of Washington	US	45.4
19	21	University of California, San Diego	US	44.8
20	20	ETH Zurich	CH	44.1
21	19	Univ California – San Francisco	US	44.0
22	26	Tsinghua University	CN	40.3
23	23	Imperial College London	GB	39.9
24	22	University of Toronto	CA	39.7
25	27	Washington University in St. Louis	US	39.0
26	28	University of Michigan–Ann Arbor	US	37.8
27	24	The University of Tokyo	JP	37.7
28	25	New York University	US	37.3
29	34	Peking University	CN	36.7
30	30	Northwestern University	US	35.8



Abstract: To explain the transition between the southern mixedwood and the northern coniferous bioclimatic domains that are dominated, respectively, by balsam fir (*Abies balsamea* (L.) Mill.) and black spruce (*Picea mariana* (Mill.) B.S.P.), 59 sites were selected throughout the two bioclimatic domains. The regeneration (seedling abundance) and mortality (difference between seedlings and saplings) of balsam fir seedlings were compared within and between bioclimatic domains. We also determined the soil types (clay and till), summer growing degree-days above 5 °C (GDD_5), and total summer precipitation (PP_MA). Balsam fir regeneration was strongly linked to parental trees and was higher in the mixedwood bioclimatic domain than in the coniferous domain, with higher regeneration occurring on till than on clay soils. Mortality was higher on till than on clay soils due to competition between balsam fir seedlings, with other species having either no effect or decreasing mortality. Unlike PP_MA, GDD_5 positively influenced balsam fir regeneration. The dynamics of balsam fir stands in the coniferous bioclimatic domain were attributed to a decrease in balsam fir regeneration and to an increase in its mortality, most likely due to a lack of suitable establishment substrates (till soils) and cooler temperatures. Small balsam fir populations still persist in the northernmost latitudes of the species' range, mainly where parental trees occur on good establishment substrates. Our study contributes to a better understanding of the effect of species, climate, and site condition on latitudinal vegetation dynamics at a global scale.

237 words

Résumé : Pour expliquer la transition entre les domaines bioclimatiques des forêts mixtes du sud et des forêts résineuses du nord, qui sont respectivement dominées par le sapin baumier (*Abies balsamea* (L.) Mill.) et l'épinette noire (*Picea mariana* (Mill.) B.S.P.), 59 stations ont été sélectionnées dans les deux domaines bioclimatiques. La régénération (abondance des semis) et la mortalité (différence entre le nombre de semis et de gaules) des semis de sapin baumier ont été comparés dans chacun des domaines bioclimatiques et entre eux. Nous avons aussi déterminé le type de sol (argile et till), les degrés-jours de croissance au-dessus de 5 °C pendant l'été (DJC_5) et les précipitations estivales totales (PP_MA). La régénération en sapin baumier était fortement liée aux arbres parentaux et était plus élevée dans le domaine bioclimatique des forêts mixtes que dans celui des forêts résineuses, avec des valeurs plus élevées sur les tills que sur les sols argileux. La mortalité était plus forte sur les tills que sur les sols argileux à cause de la compétition entre les semis de sapin baumier, alors que la mortalité des autres espèces n'était pas influencée ou diminuait. Contrairement aux PP_MA, les DJC_5 influençaient positivement la régénération en sapin baumier. La dynamique des peuplements de sapin baumier dans le domaine bioclimatique des forêts résineuses a été attribuée à une diminution de la régénération en sapin baumier et à une augmentation de sa mortalité, qui ont probablement été causées par un manque de substrats d'établissement approprié (tills) et des températures plus froides. De petites populations de sapin baumier sont toujours présentes sous les latitudes les plus nordiques de son aire de distribution, surtout aux endroits où les arbres parentaux sont présents sur de bons substrats d'établissement. Notre étude contribue à une meilleure compréhension des effets de l'espèce, du climat et des conditions des stations sur la dynamique latitudinale de la végétation à l'échelle globale. [Traduit par la Rédaction]

311 words

Comparison between French & English writing. *Source: Messaoud et al. 2019. Canadian Journal of forest research.*



No gender,



Publish in English or perish (Volanschi, 2008),



English is trully a working language (Palma et *a/*. 2019):

- **96%** of the documents are written in English,
- 95% of researchers write directly in English (including your devoted teacher),
- 53% of researchers « think » in English.

Difficulties:

- Grammar (62.5%),
- Idiomatic expressions (69.64%),
- Influence of the French language (64.28%),
- Special terms (14.28%).

Definition of Science: Science is **curiosity** in thoughtful action about the world and how it **behaves**.

The *Scientific* method usually means a series of **steps** that scientists follow to **discover** how nature **works**.

Scientists put forward **ideas** about how nature **works**. Then, they usually **test** the idea in the **real** world. An idea that **predicts** how the world works is called a **hypothesis**.

Sometimes the observations come **before** the idea or theory.

Sometimes science happens mostly inside a scientist's **head**. *Source: Nasa.*

the systematic **study** of the structure and behaviour of the physical and natural world through **observation**, **experimentation**, and the **testing** of theories against the evidence obtained. "the world of science and technology".

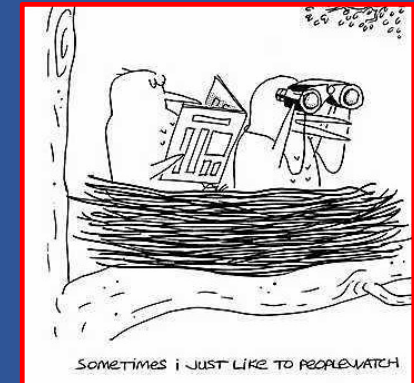
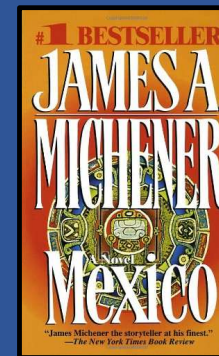
Knowledge of any kind. *Source: Dictionnary.*

Science is a **rigorous**, systematic **endeavor** that builds and organizes **knowledge** in the form of **testable** explanations and **predictions** about the world. Modern science is typically divided into **three** major branches: the natural sciences (e.g., physics, chemistry, and biology), which study the physical world; the social sciences (e.g., economics, psychology, and sociology), which study individuals and societies; and the formal sciences (e.g., logic, mathematics, and theoretical computer science), which study formal systems, governed by axioms and rules. *Source Wikipedia.*

Science versus literature

How Are They Alike? How Are They Different?

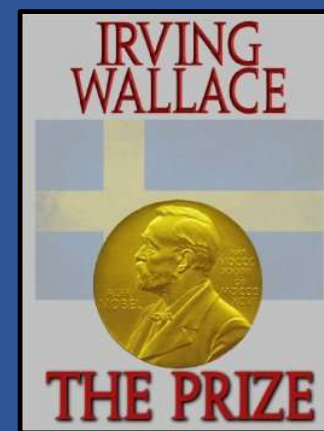
Science	Literature
Writing and inquiry	Writing and inquiry
recording and communicating the results of their investigations	Novelists, playwrights (dramaturges)
	History of place and its people or with different kinds of novel or play by watching people, thinking what makes them tick



Science	Literature
Picks out a loose federation of kinds of inquiry	Picks out a loose federation of kinds of writing
requires imagination of structures, explanations, classifications, laws which, when it's successful are real/true	Requires imagination , fiction
the writing in which scientists engage is essential to their enterprise	Inquiry in which writers of imaginative literature engage is essential to their enterprise
but as a means to the end of finding out significant, explanatory truths, well-warranted by evidence, about the world and how it works	As a means to the end of writing edifying, entertaining, provocative, expressive, moving, illuminating novels, plays, etc...



Science	Literature
A scientist must go beyond speculation to check his theory, etc., against the world, in "a kind of dialogue between the possible and the actual" (Sir Peter Medawar)	A writer Imagines people, events, stories, which, if he's successful, are illuminating about real human beings and real human actions.
A scientist would be disconcerted to discover that the laws, etc., he imagined are NOT real	a writer would be no less disconcerted to discover that the people and events he imagined WERE real
	Novels, etc, are often in real places, and involve real events (Wallace about the Prize)
A Scientist uses metaphors (tool)	A writer uses metaphors (exploration)



Science	Literature
Scientific texts are putatively truth-stating, refer to stuff, things, events in the real world. They are evidence-presenting	Not (mainly) truth-stating and not (mainly) referring to real stuff, things, etc. They are not evidence-presenting
Scientific texts are usually aimed at an audience of others in the field	works of literature are not aimed at other authors, but at---well, at readers
They are written in a direct , explicit, dry, closed style	usually written in a more oblique , implicit, warm, open style

English as *lingua franca*

- Evolution of the scientific language
- Comparison between English and other languages
- Scientific English vs literature

Introduction

- Introduce yourself
- Requirements (English level)
- Quiz
- Definition
- Reminder

Terminology

- Vocabularies
- Grammar
- French to English: False friends?

Scientific English

Oral expressions

- Thesis defence
- Conferences, seminar, colloque....
- Posters

Writing expressions

- Thesis, reports, articles (IMRAD)
- Conferences, seminar, colloque....

Bibliographical research

- Internet
- Software (Endnote)

Ecology and Environment:

Ecology (from [Ancient Greek οἶκος](#) (*oîkos*) 'house', and [-λογία](#) (*-logía*) 'study of')^[A] is the [natural science](#) of the relationships among living [organisms](#), including [humans](#), and their [physical environment](#). Ecology considers organisms at the individual, [population](#), [community](#), [ecosystem](#), and [biosphere](#) level. Ecology overlaps with the closely related sciences of [biogeography](#), [evolutionary biology](#), [genetics](#), [ethology](#), and [natural history](#).

Ecology is a branch of [biology](#), and is the study of [abundance](#), [biomass](#), and distribution of organisms in the context of the environment. It encompasses life processes, interactions, and [adaptations](#); movement of materials and [energy](#) through living communities; [successional](#) development of ecosystems; cooperation, competition, and predation within and between [species](#); and patterns of [biodiversity](#) and its effect on ecosystem processes.

Environment means what surrounds us. It may be living or non-living things. It includes physical, chemical and other natural forces. Living things live in their environment. They constantly interact with it and adapt themselves to conditions in their environment. In the environment there are different interactions between animals, plants, soil, water, and other living and non-living things (*Wikipedia*).

Ecology is the study of **inter-relationship** of organisms with **physical** as well as biotic **environments**.

Organisms and environment are **interrelated** and **interdependent**. Any change in the environment affects the living organisms and vice-versa.

Environment refers to all the conditions that **influence** and **affect** the **development** and **sustainability** of life of all organisms present on the earth. It is an immediate **surrounding** of living organisms in which it lives and operates (<https://byjus.com/neet/ecology-and-environment/>).

Ecology is the study of the relationships between living organisms, including humans, and their physical environment; it seeks to understand the vital connections between plants and animals and the world around them. Ecology also provides information about the benefits of ecosystems and how we can use Earth's resources in ways that leave the environment healthy for future generations (*The Ecological Society of America, ESA*).

Difference between Ecology and Environment

Environment is everything that surrounds us, whereas ecology is how all those work. It refers to the study of the interaction of organisms with their environment. Ecology seeks to understand life processes, adaptation and biodiversity. On the other hand, the environment aims to identify the internal and external factors that affect the **population** (<https://byjus.com/biology/difference-between-environment-and-ecology/>).

Environment	Ecology
Environment refers to the interaction between the physical, chemical and biological components.	Ecology is the study of the relationship between organisms and their environment.
The environmental issues include pollution, deforestation, global warming, and other broader issues.	The ecological issues include population size, diversity, distribution of organisms, and competition between them.
Studies the internal and external factors affecting the environment.	Aims to understand life processes, distribution, adaptation and biodiversity.

Cambridge Dictionary Translate Grammar Thesaurus Cambridge Dictionary +Plus Shop

environment English French-English English-Arabic English-

Meaning of *environment* in English

environment

noun

UK /ɪnˈvaɪ.rə.mənt/ US /ɪnˈvaɪ.rə.mənt/

environment *noun* (NATURE)

▶ **the environment** [s]

environment *noun* (SURROUNDINGS)

B2 [C]

the conditions that you live or work in and the way that they influence how you feel or how effectively you can work:

- **working environment** *The office is quite bright and airy - it's a pleasant working environment.*
- **home environment** *As a parent you try to create a stable home environment.*

+ More examples

+ SMART Vocabulary: related words and phrases

(Definition of *environment* from the Cambridge Advanced Learner's Dictionary & Thesaurus © Cambridge University Press)

Add to word list

month.
cars.

I. Vocabularies

Accélérateur	<i>Accelerator</i>
Acoustique	<i>Acoustics</i>
Aérodynamique	<i>Aerodynamics</i>
Agrobiologie	<i>Agrobiology</i>
Aimant	<i>Magnet</i>
Alchimie	<i>Alchemy</i>
Ampoule	<i>Bulb</i>
Analyse	<i>Analysis</i>
Anode	<i>Anode</i>
Anthropologie	<i>Anthropology</i>
Anthropologue	<i>Anthropologist</i>
Appareil	<i>Device</i>
Archéologie	<i>Archaeology</i>
Archéologue	<i>Archaeologist</i>
Astronomie	<i>Astronomy</i>
Astrophysicien	<i>Astrophysicist</i>

II. Grammar

Catalyseur	<i>Catalyst</i>
Cathode	<i>Cathode</i>
Cerveau	<i>Brain</i>
Chalumeau	<i>Blow-torch</i>
Champ d'étude	<i>Field of study</i>
Chercheur	<i>Researcher</i>
Chimie	<i>Chemistry</i>
Chimie inorganique	<i>Inorganic chemistry</i>
Chimie organique	<i>Organic chemistry</i>
Chimiste	<i>Chemist</i>
Cinétique	<i>Kinetics</i>
Comité, commission	<i>Panel</i>
Comparaison	<i>Comparison</i>
Compteur	<i>Meter</i>
Condensateur	<i>Capacitor</i>
Coupelle	<i>Cupel</i>
Coupe transversale	<i>Cross-section</i>

III. French to English: False friends?

Astrophysique	<i>Astrophysics</i>
Avancée	<i>Advance</i>
Balance	<i>Scale(s)</i>
Ballon	<i>Flask</i>
Base	<i>Basis</i>
Batterie	<i>Battery</i>
Bec Bunsen	<i>Bunsen burner</i>
Biochimiste	<i>Biochemist</i>
Biologie	<i>Biology</i>
Biologiste	<i>Biologist</i>
Biophysicien	<i>Biophysicist</i>
Biophysique	<i>Biophysics</i>
Blouse	<i>Lab coat</i>
Budget consacré à la recherche	<i>Research budget</i>

I. Vocabularies

Creuset	<i>Crucible, mortar</i>
Cuve	<i>Vat</i>
Cybernétique	<i>Cybernetics</i>
Découverte	<i>Discovery, finding, find</i>
Découverte majeure	<i>Breakthrough</i>
Défi	<i>Challenge</i>
Défier, lancer un défi	<i>To challenge</i>
Développer	<i>To develop</i>
Domaine de recherches	<i>Research area</i>
Donner des résultats	<i>To yield results</i>
Dynamique	<i>Dynamics</i>
Échantillon	<i>Sample</i>
Électrode	<i>Electrode</i>
Électronique	<i>Electronics</i>
Embryologie	<i>Embryology</i>
Embryologiste	<i>Embryologist</i>
Engin	<i>Device</i>
Énigme	<i>Conundrum</i>
Entonnoir	<i>Funnel</i>
Éprouvette	<i>Test tube</i>
Éprouvette graduée	<i>Burette</i>
Étude	<i>Study</i>
Étuve	<i>Incubator</i>
Expérience, test	<i>Experiment, test, trial</i>
Expert	<i>Expert</i>
Exploit	<i>Achievement</i>

II. Grammar

Faire de la recherche	<i>To do research</i>
Formule	<i>Formula</i>
Four, fourneau	<i>Furnace</i>

III. French to English: False friends?

Généticien	<i>Geneticist</i>
Génétique	<i>Genetics</i>
Génie	<i>Genius, mastermind</i>
Géochimiste	<i>Geochemist</i>
Géophysicien	<i>Geophysicist</i>
Géophysique	<i>Geophysics</i>
Groupe d'experts	<i>Think tank</i>
Hotte	<i>Hood</i>
Hydraulique	<i>Hydraulics</i>
Hypothèse	<i>Hypothesis</i>
Immunologie	<i>Immunology</i>
Immunologiste	<i>Immunologist</i>
Incubateur	<i>Incubator</i>
Indice	<i>Clue</i>
Informaticien	<i>Computer scientist</i>
Informatique	<i>Computer science</i>
Ingénierie	<i>Engineering</i>
Ingénieur, technicien	<i>Engineer</i>
Innovateur	<i>Innovator</i>
Instruments	<i>Apparatus</i>
Inventeur	<i>Inventor</i>
Invention	<i>Invention</i>
Labo	<i>Lab</i>
Laborantin	<i>Lab assistant</i>
Laboratoire	<i>Laboratory</i>
Lamelle (en verre)	<i>Coverglass</i>
Lentille	<i>Lens</i>
Manomètre	<i>Manometer</i>
Matériel	<i>Equipment</i>

I. Vocabularies

II. Grammar

III. French to English: False friends?

Mathématicien	<i>Mathematician</i>
Mathématiques	<i>Mathematics</i>
Mécanique	<i>Mechanics</i>
Mesure	<i>Measure</i>
Métamorphose	<i>Metamorphosis</i>
Météorologie	<i>Meteorology</i>
Méthode	<i>Method</i>
Microbiologie	<i>Microbiology</i>
Microscope	<i>Microscope</i>
Nanomètre	<i>Nanometer</i>
Objectif	<i>Lens</i>
Observation	<i>Observation</i>
Optique	<i>Optics</i>
Papier filtre	<i>Filter paper</i>
Papier tournesol	<i>Litmus paper</i>
Percée	<i>Inroad</i>
Perspective	<i>Prospect</i>
Petit génie	<i>Whiz(z) kid</i>
Phénomène	<i>Phenomenon (plu. -na)</i>
Physicien	<i>Physicist</i>
Physiologie	<i>Physiology</i>
Physiologiste	<i>Physiologist</i>
Physique	<i>Physics</i>
Pile	<i>Battery</i>
Pionnier	<i>Pioneer</i>
Pipette	<i>Pipette</i>
Plateau	<i>Tray</i>
Prélever à la pipette	<i>To pipette</i>
Preuve	<i>Proof</i>
Preuves	<i>Evidence</i>

Principe	<i>Principle</i>
Prisme	<i>Prism</i>
Processeur	<i>Processor</i>
Processus	<i>Process</i>
Profane	<i>Layman</i>
Progrès	<i>Progress</i>
Progresser	<i>To progress, to advance</i>
Proposer une hypothèse	<i>To speculate, to reason</i>
Prouver	<i>To prove</i>
Rayon X	<i>X-ray</i>
Réacteur	<i>Reactor</i>
Recherche appliquée	<i>Applied research</i>
Recherche et développement	<i>Research and development</i>
Recherche fondamentale	<i>Fundamental research, basic research</i>
Recherches sur le terrain	<i>Fieldwork</i>
Réussir	<i>To achieve</i>
Robotique	<i>Robotics</i>
Savant, érudit	<i>Scholar</i>
Scalpel	<i>Scalpel</i>
Science	<i>Science</i>
Scientifique (n.)	<i>Scientist</i>
Scientifique (adj.)	<i>Scientific</i>
Séismologie	<i>Seismology</i>
Seringue	<i>Syringe</i>
Service de recherche	<i>Research department</i>
Spécialiste	<i>Specialist</i>
Spécialiste des sciences de la terre	<i>Geoscientist</i>
Stroboscope	<i>Stroboscope</i>
Synthèse	<i>Synthesis</i>

Technique	<i>Technique</i>
Théoricien	<i>Theoretician</i>
Théorie	<i>Theory</i>
Théoriser	<i>To theorise</i>
Thermodynamique	<i>Thermodynamics</i>
Thermomètre	<i>Thermometer</i>
Toxicologie	<i>Toxicology</i>
Travaux de recherche	<i>Research work</i>
Trouver	<i>To find (out)</i>
Tube à essai	<i>Sampling tube</i>
Tube en U	<i>U-tube</i>
Universitaire	<i>Academic</i>
Vase à bec	<i>Beaker</i>
Vase de Dewar	<i>Dewar flask</i>
Visionnaire	<i>Visionary</i>

1. Tenses

Past	Formula	Usage	Example
Simple	S + V (past)	Describe an action already completed	I went to the grocery store.
Continuous	S + "Be" (past) + V - ing	Describes an action isn't complete because it is interrupted by another action	They were going to the store when their car ran out of gas.
Perfect	S + Had + V (p.p.)	Describes two actions at two different times. Before the second action occurs, the first action is complete.	He had gotten gas before leaving for the store.
Perfect Continuous	S + Had + Been + V - ing	Describes complete action that happened before a second action.	They had been driving for 30 minutes when they ran out of gas.
Present			
Simple	S + V (base)	Describes a routine	I go to the grocery store every Sunday.
Continuous	S + "Be" + V - ing OR S + "Be" + Going to + V (base)	Describes what is happening right now.	I am going to the grocery store.
Perfect	S + "Have" + V (p.p.)	Describes what is happening right now.	She has bought all of her groceries.
Perfect Continuous	S + "Have" + V (p.p.)	Describe actions started in the past and continuing in the present	I have been shopping all day.
Future			
Simple	S + Will + V (base)	Describes an action you plan to do in the future	I will go to the grocery store on Sunday.
Continuous	S + Will + Be + V - ing	Describes a continuous future action	She will be shopping at the grocery store later.
Perfect	S + Will + Have + V (p.p.)	Describes an action will be completed in the future before another is completed.	They will have finished shopping by the time you get home from school.
Perfect Continuous	S + Will + Have + Been + V - ing	Describes an action will be continuing in the future,	I will have been waiting all day to get those chips.

Source: <https://www.slideshare.net/NathanielMcLeod1/grammar-cheat-sheetpdf>

Using tenses in scientific writing

Tense considerations for science writing

When you write an experimental report, or draft a thesis chapter, you need to choose which tense, or tenses, to use.

This flyer provides advice intended to help you become more conscious of what the choice of verb tense involves, and to become better able to notice the tense choices that writers in your particular field have made.

From your chosen tense, your reader receives two kinds of information. One concerns **time**: it is about 'when' (past, present or future). The other relates to whether an event or process is **open** or **closed**.

The examples below illustrate the distinction between 'open' and 'closed' events:

*How long **were** you at Melbourne Uni?*

Simple past / closed event: the other person has already graduated.

*How long **have you been** at Melbourne Uni?*

Present perfect / open event: the other person is still engaged on his / her course.

What do tenses do?

Verb tenses present a **relationship** between

- the present moment (now), and,
- another moment or period in time (which may be long or short).

These moments or periods may be in the past, present or future.

Tenses manage time by placing them within particular relationships or 'time frameworks'.

As a generalisation: in various types of scientific writing, some time frameworks are more commonly used than others. Their frequency varies from one section of a paper or report to another, and they can also vary between one scientific discipline and another.

The next section gives some advice about the various tenses.

Abstract

This usually refers to your unpublished results and uses the **past tense**.

Introduction

Your introduction needs to include background information which is generally accepted as fact in a discipline. You also need to explain why the research you are reporting is important. It is usually presented in the **present tense**. Example:

*Genomics **provides** crucial information for rational drug design.*

You will need to refer to existing research relevant to your work, and you can indicate your opinion of the research you are writing about by careful tense selection.

For example, when you use the **present tense** you are indicating to the reader that you believe that the research findings are still true and relevant, even though the original research may have been conducted some time ago. Example:

*Many of the lakes and wetlands in the region **are located** in craters or valleys blocked by early Pliocene lava flows (Ollier & Joyce, 1964).*

Present perfect tense to report research

If you use **present perfect tense** in your introduction when you refer to previous research, you communicate 'recency' or 'currency'. Currency may be **positive** (asserting that previous studies have established a firm research foundation) or **negative** (asserting that not enough relevant or valid work has yet been done).

Positive and negative currency can even be asserted in the same sentence, as in the example below (which uses the **passive voice**): Example:

*A great deal of **research has been conducted** on the basic techniques of nuclear transfer, but few **experiments have been carried out** to discover the most appropriate age of the cytoplasm to support nuclear transfer most effectively.*

This suggests that you believe that more experiments are necessary. The existence of a 'research gap' is further emphasised by the phrase: 'but few experiments'.

Methods

Past tense to describe what was done

In your methods section it is customary to use a form of the **simple past tense** to describe what you did in your study. **Passive voice** is often used. Examples:

*Total phosphorous (TP) and total nitrogen (TN) **were measured** in the laboratory using standard procedures.*

*The standard protocol **was followed** for the preparation of the media from stock solutions.*

The two previous examples are in the past tense, but in the passive voice. Have a look at the following examples in the past passive and past active voice.

Past passive

*Three 2 litre samples **were taken** at a depth of between 0.1 and 0.5 m at the down-wind end of each wetland.*

Past active

*Each of the three groups **took** 2 litre samples at a depth of between 0.1 and 0.5m at the down-wind end of each wetland.*

From your reading, which voice do you think is most often used in your scientific discipline – active, or passive?

Present tense for diagrams and figures

If you use figures or diagrams to help explain what you did, refer to the figure or diagram using the **present tense**. Examples:

*Table 1 above **demonstrates** the success of cloning in various animal species.*

*Figure 2 below **shows** methylation in mouse 2-cell embryos.*

Results

Past tense for results obtained

In the results section, use the **past tense** to detail the results you obtained. Examples:

*Overall, more than 70% of the insects **collected** were non-phytophagous.*

*Results **indicated** that prolonged exposure to ultra-violet radiation **had** a positive correlation with the development of melanomas.*

*Following activation of NT oocytes with strontium, the cell cycle **resumed** in both groups.*

Present tense to refer to figures, tables and graphs

As in the previous sections, use the **present tense** when you refer to figures, tables and graphs.

Examples: Figure 1 **displays** the comparative variation in the morphology of donor chromatin in both age groups of oocytes.

Table 1 below **shows** the stream flows calculated for each stream using Equation 1.

Discussion

Present tense to explain significance of results

In your discussion section, you will explain the significance of the results. The **present tense** is normally used for this. Example:

*Removal of vegetation for agricultural purposes **appears** to negatively affect the water quality of streams.*

Past tense to summarise findings, with present tense to interpret results

Writers may use the **past tense** to summarise their findings, **in combination with** the **present tense** to explain or interpret what the results mean. Examples:

*As the maxima and minima **did not correspond** to high and low tides, it is possible that the patterns **observed may not be** the result of mixing of waters with different concentrations.*

*Leaf carbon and phenolic content **did not** differ across sites, **indicating** that the response of secondary plant chemicals such as phenolics to water **is** complex.*

In Example 1, the phrases 'it is possible that' and 'may not be' are used to indicate that other explanations are possible. This is an example of the use of limiting words to discuss findings in an academically **tentative** way.

Example 2 is **less tentative**. If you make a statement such as this, you are completely confident that your results and conclusion are correct.

Conclusion

A combination of tenses to highlight past research and future directions

In the final section of your thesis or report you summarise the main findings and the major implications of the study, point out any limitations, and offer suggestions for future research. To do these things you may use a **combination of tenses**. Example:

*Although the study **found** evidence of tillage and irrigation within the study area, from the data collected it **was not** possible to determine if the effects of agriculture upstream **cause** (or **caused**) higher levels of total nitrogen downstream. Further studies **are** therefore necessary to determine the effects of agriculture on the health of Stringybark Creek.*

Further Resources

Swales, J. M. & Feak, C. B. (2004). *Academic Writing for Graduate Students*. (2nd ed.). Ann Arbor: University of Michigan Press. (Pages 254-256).

Exercices





 **blessed**



 **blesé**



 **button**



 **bouton**



I. Vocabularies

II. Grammar

III. French to English: False friends?





 coin

 coin



 pass an exam

 passer un examen

English as *lingua franca*

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- Reminder

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Scientific English

Oral expressions

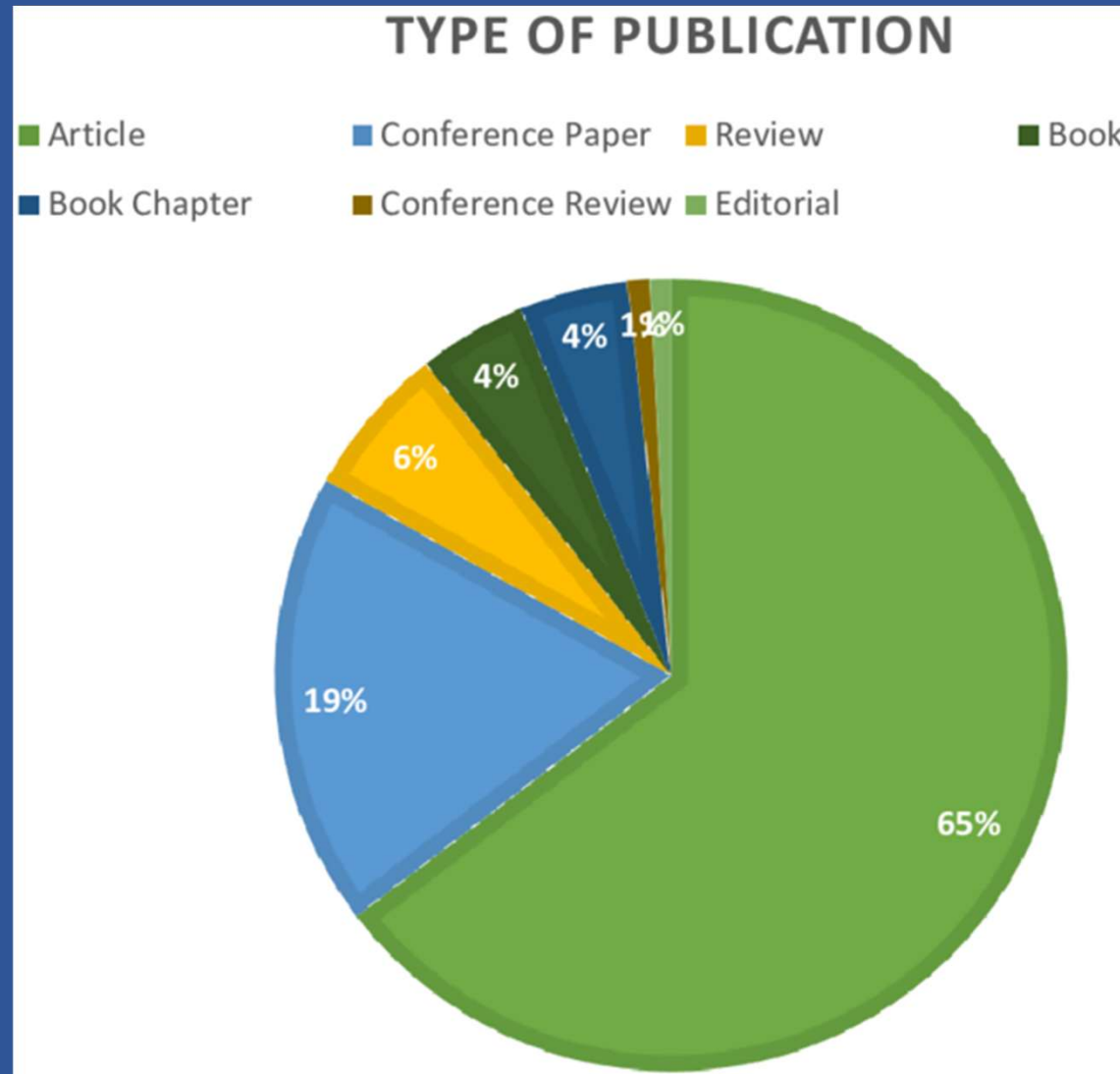
- Thesis defence
- Conferences, seminar, colloque....
- Posters

Bibliographical research

- Internet
- Software (Endnote)

Writing expressions

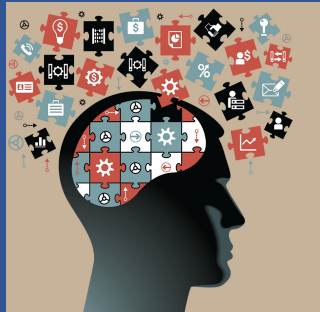
- Thesis, reports, articles (IMRAD)
- Conferences, seminar, colloque....



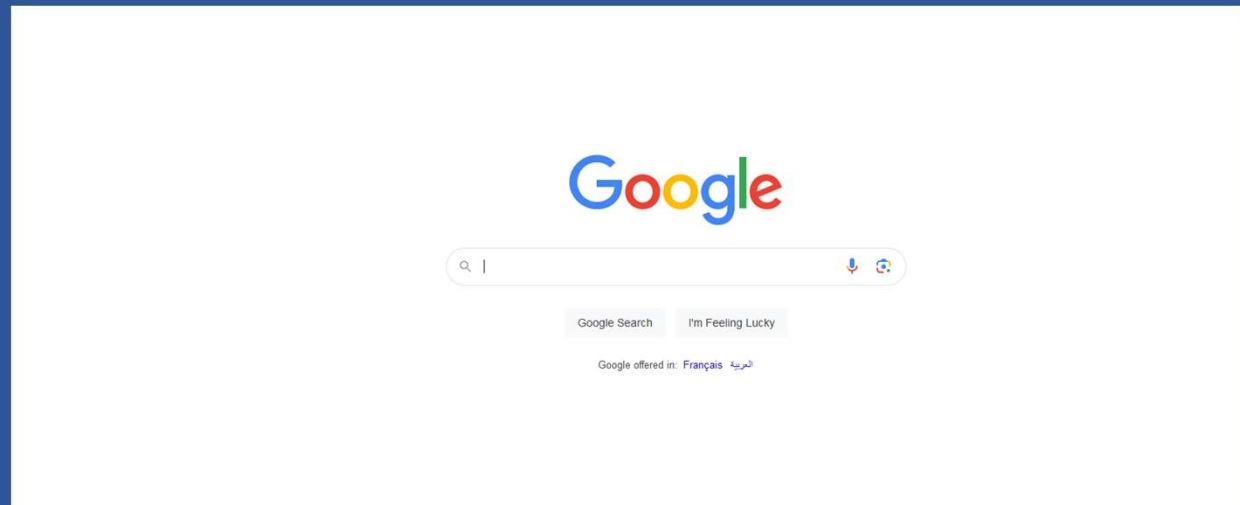
Cardenas et al. 2022. Res Militaris.

1. Topic or subject (thinking, curiosity, feedback...)
2. Research (library/internet/borrow), (physical/virtual)
3. Select (relevant)
4. Download article(s)/books/reference(s)
5. Read

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How Many Species Are There on Earth and in the Ocean?

Google Search

I'm Feeling Lucky

Google offered in: [Français](#) [العربية](#)

I. Internet

II. Software

1. Topic or subject (thinking, curiosity, feedback...)
2. Research (library/internet/borrow), (physical/virtual)
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Langue: Français



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Summon

Rechercher Rechercher avec Summon...

Rechercher

Charte SNDL

SNDL comprend plusieurs catégories de ressources électroniques :

Les ressources acquises via des abonnements auprès des fournisseurs habilités : Elles sont classées en quatre grands domaines : Sciences de la vie et de la terre, Sciences et techniques, Sciences humaines et sociales, Multidisciplinaires. Ces ressources sont de plusieurs types : e-journals, bases de données scientométriques, e-books, etc.

Votre portail d'accès aux ressources électroniques nationales et internationales en ligne

Le SNDL vous permet l'accès à la documentation électronique nationale et internationale, très riche et

Les ressources libres disponibles sur le Net peuvent être de tout type (ouvrages, thèses, rapports, ...)

1. Topic or subject (thinking, curiosity, feedback...)
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- Exercises

What is a Thesis?

“A written work resulting from original research, especially one submitted for higher degree in a university” (Alias, 2011).

Why write a Thesis?

- Science aims to find pattern, trends, and structure in the experiment,
- Good scientific writing aims to bring forward in the text,
- Structure and organization of scientific knowledge

What's in the Thesis?

- Addresses a problem or series of problems,
- Describes what was know about the problem(s),
- What you did to solve the problems,
- What you think the results means,
- How further progress can be made. (Alias, 2011).

الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي

People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Algiers 1 Benyoucef BENKHEDDA



Faculté des Sciences
Département de

Mémoire de fin d'étude pour l'obtention du diplôme de

Master en ...*filière*

Spécialité :

Présenté par :

Mme, Melle, M.

Thème

Titre de mémoire

Devant le jury composé de :

Mme. M.	Pr. Université Alger 1	Président
Mme. M.	Professeur. Université Alger 1	Encadreur
Mme. M.	MCB. USTHB	Co-Encadreur
Mme. M.	MCA. Université Alger 1	Examineur
Mme. M.	Professeur. Université Alger 1	Encadreur

Année universitaire : 2022–2023

Remerciements

Nous remercions ...

Dédicaces

Lorem ipsum ...

Noms des étudiants 1 et 2

Résumé

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Mots clés : internet, Web, base de données, ...

- ☐ Sommaire/Table des matières (Contents, table of contents)
- ☐ Liste des figures (figure captions)
- ☐ Liste des tableaux (table captions)
- ☐ Liste des abréviations (liste of abbreviations)
- ☐ Introduction Générale (Main introduction)
- ☐ Chapitres (chapters)
- ☐ Conclusion Générale (main conclusion)
- ☐ Références bibliographiques (References)
- ☐ Annexes (Appendices)

Organization of a Paper (Research4life)

- ☐ Title
- ☐ Abstract
- ☐ Introduction
- ☐ Methods
- ☐ Results
- ☐ Discussion/Conclusions
- ☐ Acknowledgements
- ☐ References

Note: most scientific journals follow the format of the Structured Abstract. Occasionally, the Results and Discussion are combined – when the data need extensive discussion to allow the reader to follow the train of logic of the research.

- ❑ **Methods** - provides the reader enough details so they can understand and replicate the research; explains how the problem was studied; identifies the procedures followed; explains new methodology in detail; includes the frequency of observations, what types of data were recorded, etc.
- ❑ **Results** - presents the findings, and explains what was found; shows how the new results are contributing to the body of scientific knowledge; follows a logical sequence based on the tables and figures presenting the findings to answer the question or hypothesis(es).

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1. What is an oral presentation?

Making an oral presentation means presenting the results of research work, on a given subject, to an audience.

2. Objectifs :

Before any intervention, even short-term, you must know very clearly what you are aiming for.

« Pourquoi prendre la parole ? »

inform, justify, convince, introduce a debate, a questioning, explain; trigger (*déclencher*) an action, distract, explain...Educate, convince and charm your audience...

So many intentions that must be clear to you and that the public must be able to perceive.

this is why the oral presentation is necessarily visual and **expressive**, even **theatrical**.

Defining a **goal** comes down to asking yourself a series of questions:

-  What do I **expect** from the audience?
-  What do I want **him** to do?
-  At the end of my presentation, what will be the **result**?
-  If my audience could only remember one **idea**, **what** would it be?

So many questions, which will allow you to better **target** your intervention.

Here are some rules for properly preparing your oral presentation

3. Preparation

To present a subject in a clear, precise and illustrated way, you have to first of all find the problem, and then respond to it in an **argued manner**. For example, if we decide to talk about the tertiary sector (services), we have to decide whether we talk about it from a historical, economic, geopolitical angle, etc.



To argue and illustrate your work, you have different **sources**: the dictionary and general works to better understand the subject. You can also search university libraries. Internet (be careful to use it appropriately: **copy and paste should be banned!**) In any case, sort(*trier*) your sources and only use documents that **correspond** to your **subject** to analyze them. Gather your analyzes in a structured plan in two or three parts.



Since you will be presenting your work orally, it is important to follow a **simple** and **clear** argumentative **logic**, so that the rest of the class can **follow** your development. Likewise, for better understanding, only **write the headlines or short paragraphs**, which will support your speech.

The preparation work will be carried out in 4 steps:

1. “**Unpacking ideas**” in bulk (*en vrac*), write down what comes to mind in the **context** of the desired objective.
2. The **choice of ideas**: a difficult moment, this choice will be made by **elimination** depending on the audience, the objective, the time available. Limiting yourself to two or three strong ideas makes memorization **easier**.
3. The **hierarchy** of ideas: allows the audience to **receive** and **retain** the message even more **effectively**.
4. The **organization** of ideas: consists of making a plan which will be the point of reference both for you and for your audience, to whom you will have clearly announced it.

4. Presentation:

-  Do not read your notes, and to avoid any **temptation**, only **keep** a set of notes with you during the presentation; in fact, a **long** reading would have the effect of putting your audience to **sleep**. Vary your **tones** and **speak** loudly **enough** to capture the class's attention.
-  **Adapt** your register to that of your classmates: do not use **difficult** words without explaining them. Be like a **professor** who presents the **fruit** of his **research** work.
-  Be personable, express yourself carefully and sometimes write down keywords on the board. **Articulate** carefully and **speak slowly** for those who want to **take** notes. **Look** at the class since they represent the **feedback**.

-  **Respect** the **time** given to you for your presentation and make sure that your different parts are **approximately** equal in size. Also **leave** time for questions from the class at the end of the presentation.
-  To bring life to your presentation, you can use drawings, diagrams, videos, etc., which are related to the subject.
-  You can also **move** around the class in a way that **keeps** your **audience's attention** through movement.

Attention !!!

When you argue:

-  Do not **assert** (affirmez) anything that you **cannot** substantiate/justify.
-  **Structure** your message to end with a **strong** point.
-  **Choose** your arguments based on the audience.
-  **Get ahead** of some oppositions or counter-arguments.

-  A **rich**, colorful, evocative vocabulary.
-  **Concrete** situations, anecdotes, experiences.
-  The **call** to the imagination, or to the dream.
-  **False** questions, real questions.
-  **Anticipation** of reactions.
-  The **call** to curiosity, humor, emotion.
-  **Involving** the audience in the process:
 - le prendre à témoin,
 - parler en son nom.

A common point in the organization of any type of speech will be the rule of three:

introduction, development, conclusion



-  **Introduction:** this is what I'm going to tell you
-  **Developpement:** this is what I tell you
-  **Conclusion:** that's what I told you

Attention :

- Always **beginning** and **concluding** an intervention are important and **essential** phases (progression in the speech)
- The **conclusion** (results) is different from the **summary**!

4.1. Introduction

The introduction is a **key** moment of the intervention - Kind of hello.

Your goal is to make yourself **heard** and **understood**. An introduction can be developed at the end, when the subject is structured, when we know the different parts that we are going to treat (in the intro we introduce the different parts of the development...)

4.1.1. What are the objectives of the intro?

 **Hook** (*accrocher*) the audience: from the **FIRST** minutes it is about **holding** the attention of your audience, inviting them to listen by using a striking (*frappante*) image, a question, a quote (*citation*), facts about them... while giving you an appropriate image.

 Inform about what will follow, which consists of answering the questions:

What ? The subject, the theme;

Why ? Interest in the subject, motivation;

how ? Time management (the different parts to address...); public involvement (questions, feedback, etc.).

4.1.2. What to say in the introduction? The structure

- a) **State** the question you are going to address. The subject has to be clear from the start.
- b) **Situate** the subject once you have stated it. Why this problem? specify it, limit it, define it...
- c) **Indicate** the points covered (announce the plan):
 - The recipient needs to be warned in advance of the different stages of the presentation.
 - He has to have reference points so as not to get lost.

This **way** you prepare your listeners to **walk** with you and make them **want** to go further.

4.2. Development

There are different types of plan de différents types de plan to organize a speech (chronological, dialectic, comparative, and interactive plan/approach:

-  **Chronological** approach: Articulation around time (yesterday, today, tomorrow... before, now, after...) ;
-  **Dialectic** approach and its variantes: Thesis-antithesis-synthesis, for or against, advantages/disadvantages.
-  **Comparative** approach: applied to subjects putting two elements in opposition.
-  **Interactive** approach: is used to study a phenomenon/event (observation, causes, and consequences)

4.3. Conclusion

-  **Reminder:** The start of an intervention can only be properly oriented if we know where we are going. Except in the case of improvisation, the opening of a speech can only be seriously composed after the whole has been finalized.
-  As a general rule, the conclusion and the structure of the intervention are therefore prepared before preparing the introduction.
-  How to conclude ? A first necessity is therefore to clearly mark the conclusion.

 Some examples of means for the conclusion:

Mark a **pause**, a **silence**, before approaching the conclusion;

Take a **panoramic** look at the listeners to “reprove” and “warn” them;

Emphasize the transition from development to conclusion with different **diction** (slowing down, break in tone, etc.);

Thank the audience for their attention.

To conclude well is to leave:

-  A **trace**, a **reminder** of what you **said**, to the extent that we better remember what is most recent,
-  One last **good** image of you. A good conclusion has to be precise and therefore prepared. It has to **summarize** the **main** ideas developed (two to three sentences). It can “**open**” to a question, a personal position, an **invitation** to debate or questioning. Any clumsy (*maladroit*) formula should be **avoided** (“Well, there you go, I’ve finished»).

4.4. Illustrate your remarks with visual aids/support

-  **Visual** aids have an undeniable pedagogical interest if they are well constructed and well used.
-  They should **illustrate** the speech in a **concise** and **pictorial** way, without **redundancy**, in order to facilitate the **memorization** of the key points.
-  The speaker will use current **technical** means: Powerpoint slides, videos, etc.

Slides have to be **few** in number.

Around 1 slide/min (depending on the type of presentation...).

They have to be **brief** (max. 30 words/slide).

They have to be **legible**: write them in lowercase, in letters in size 28 and 32 for the titles, without **overuse** of colors.

They have to be clear: one **theme** per **slide**, **no more** than **three** ideas, a **concise** style.

They have to be **illustrated**: by **alternating** texts with graphics, diagrams, drawings.

4.5. Adaptation of behavior to the audience

Prepare carefully (plan, support, repetition).

You will be more **reassured** and you will **reassure** your audience. Help your audience:

-  by **adapting** your language;
-  by **illustrating** your words;
-  by being **clear, concise** (short) and **precise**.
-  He will be **grateful** to you.

-  **Let the other person speak:** We cannot listen to others if we are talking.
-  **Put the interlocutor at ease:** Show him that he is **free** to express himself.
-  **Show that you want to listen:** We are **interested** in what he says, we don't do anything else at the same time.
-  **Avoid distraction:** Our **gaze** is directed towards our only **interlocutor**.



Put yourself in the other person's place: It's about trying to **understand** their point of view.



Being patient: It means giving it the **necessary** time, not **interrupting** it.



Stay calm: Getting **angry** can only lead to giving the **wrong** meaning to words.



Refrain (*s'abstenir*) from criticizing: They lead to **defensive** reactions.

To ask questions :

It's about really **listening** and **encouraging** you to continue, to **develop** other points. And always remain **attentive** to others.