1. What is the primary purpose of scientific English?

2. How does scientific English differ from everyday English?

3. What is one of the key features of scientific writing?

4. Why is objectivity important in scientific writing?

Source: University of Tlemcen

5. What role does specialized terminology play in scientific English?

6. Why might scientific English be challenging for laypersons?

7. What is meant by the term "impersonal tone" in scientific writing?

Source: University of Tlemcen

L'EXPRESS POLITIQUE MONDE ÉCONOMIE CLIMAT TECH SCIENCES SOCIÉTÉ IDÉES Connexion 1€ seuleme

SCIENCES ET SANTÉ | SCIENCES

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

L'EXPRESS PUBLICITÉ

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

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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 factors that influence this problem and some corollaries thereof.

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

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 = $(1 - \beta)R/(R - \beta R + \alpha)$. 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/

1. Definition

(Wikipedia).

English in the fields of **Science** and **Research** (https://englishlive.ef.com/en/blog/career-english/science-vocabulary/).

Academic English means any English used in formal texts and presentations by students, researchers and teaching staff of any discipline. For me, ***scientific English*** is a subset of academic English, and is the **English** used by those studying **scientific** subjects (e.g. chemistry, biology, engineering, mathematics….) rather than **humanistic** subjects such as history or philosophy. In any case, there is no clear distinction and even humanist subjects can be very 'scientific', e.g. the philosophy of mathematics (Wallwork, 2016).

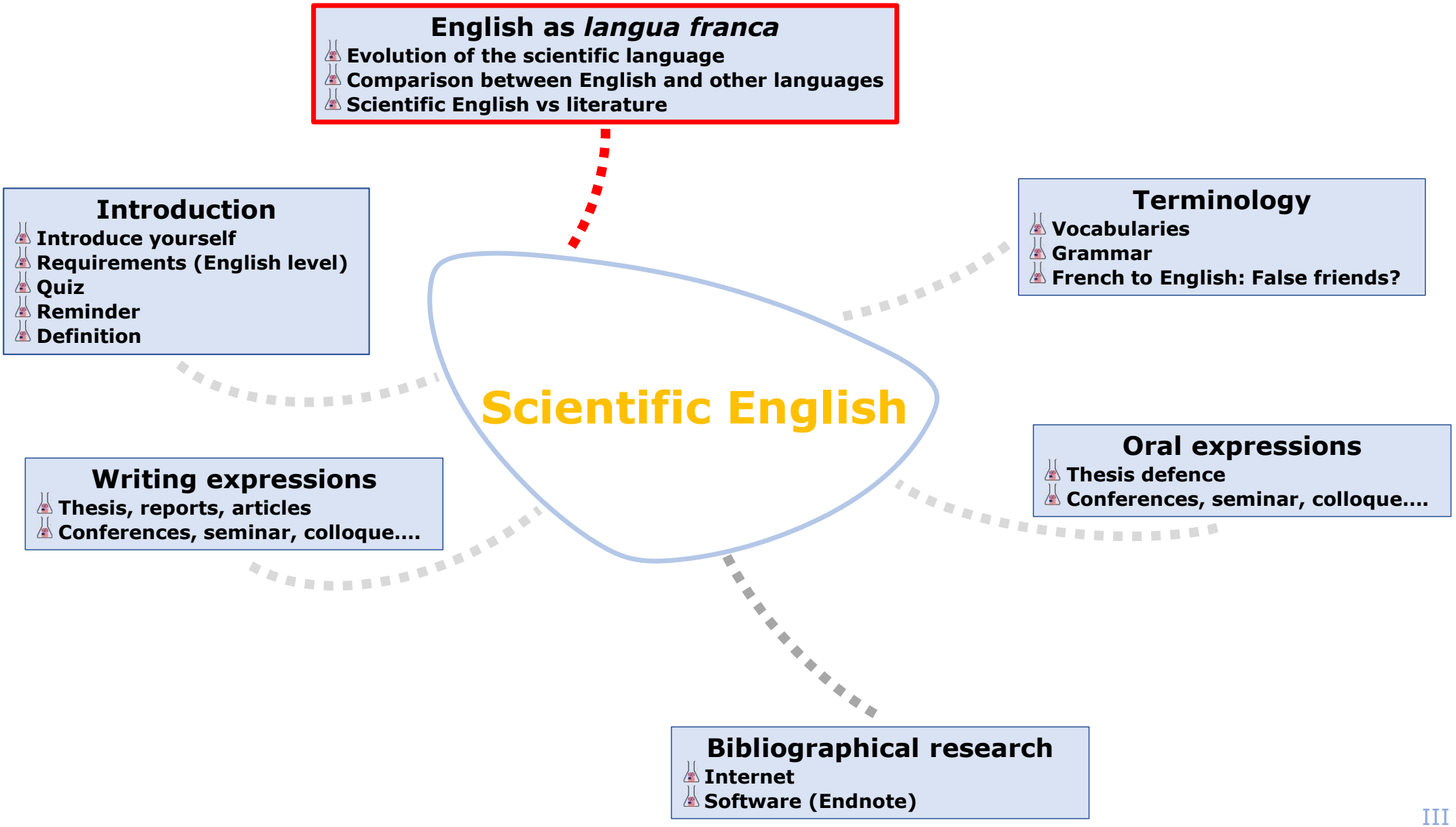
The words '**Scientific English**' often conjure up (*évoquent*) convoluted *(alambiqué, compliqué*), impenetrable sentences in the mind's eye (*esprit*). What if I told you that it should not be this way? What if I said that Scientific Language (of any kind) should actually be easy for almost anyone 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/*)*

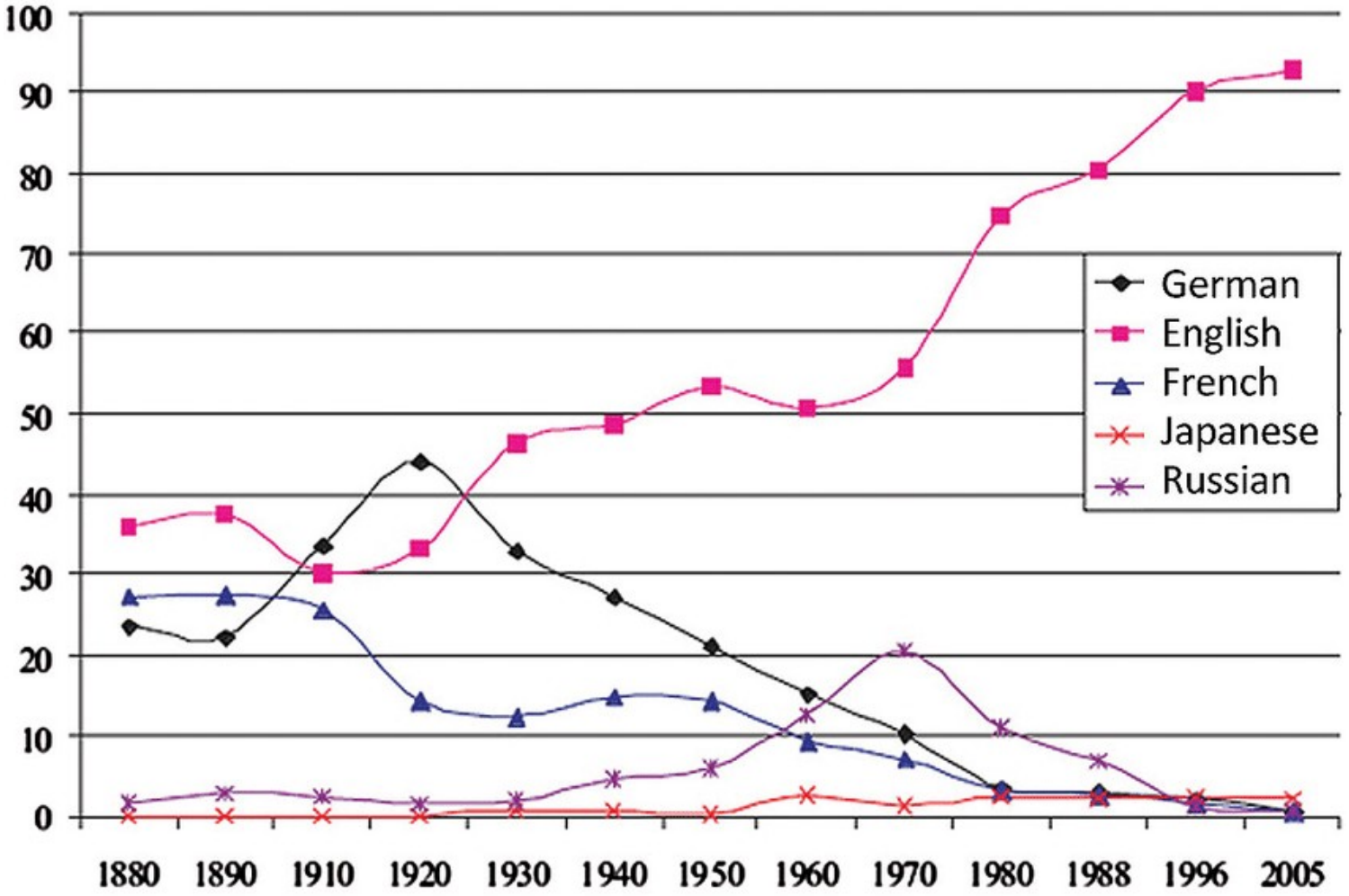
It is an initiation to scientific **communication** in English. Through different tests, students will **learn** how to use the main **tools** of **scientific communication** in **English**, such as: **understanding** research articles, **writing** an abstract, **preparing** a poster and oral presentation 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).

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 *langua 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
Terminology
Vocabularies
Grammar
French to English: False friends?
Scientific English
Writing expressions
Thesis, reports, articles
Conferences, seminar, colloque….
Oral expressions
Thesis defence
Conferences, seminar, colloque….
Bibliographical research
Internet
Software (Endnote)



Global language ratio for scientific publications 1880-2005,

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*).

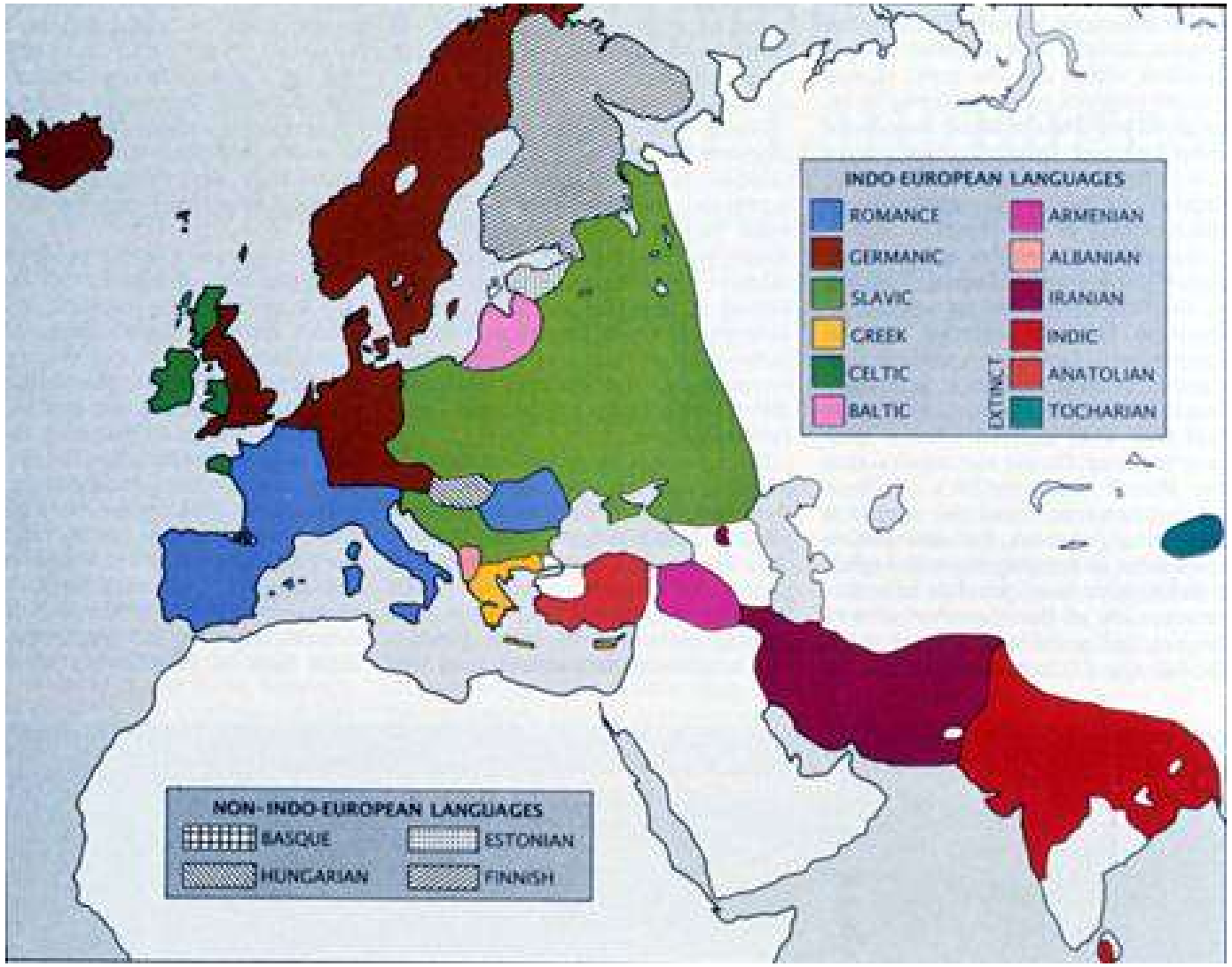
2. Classification

- 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;

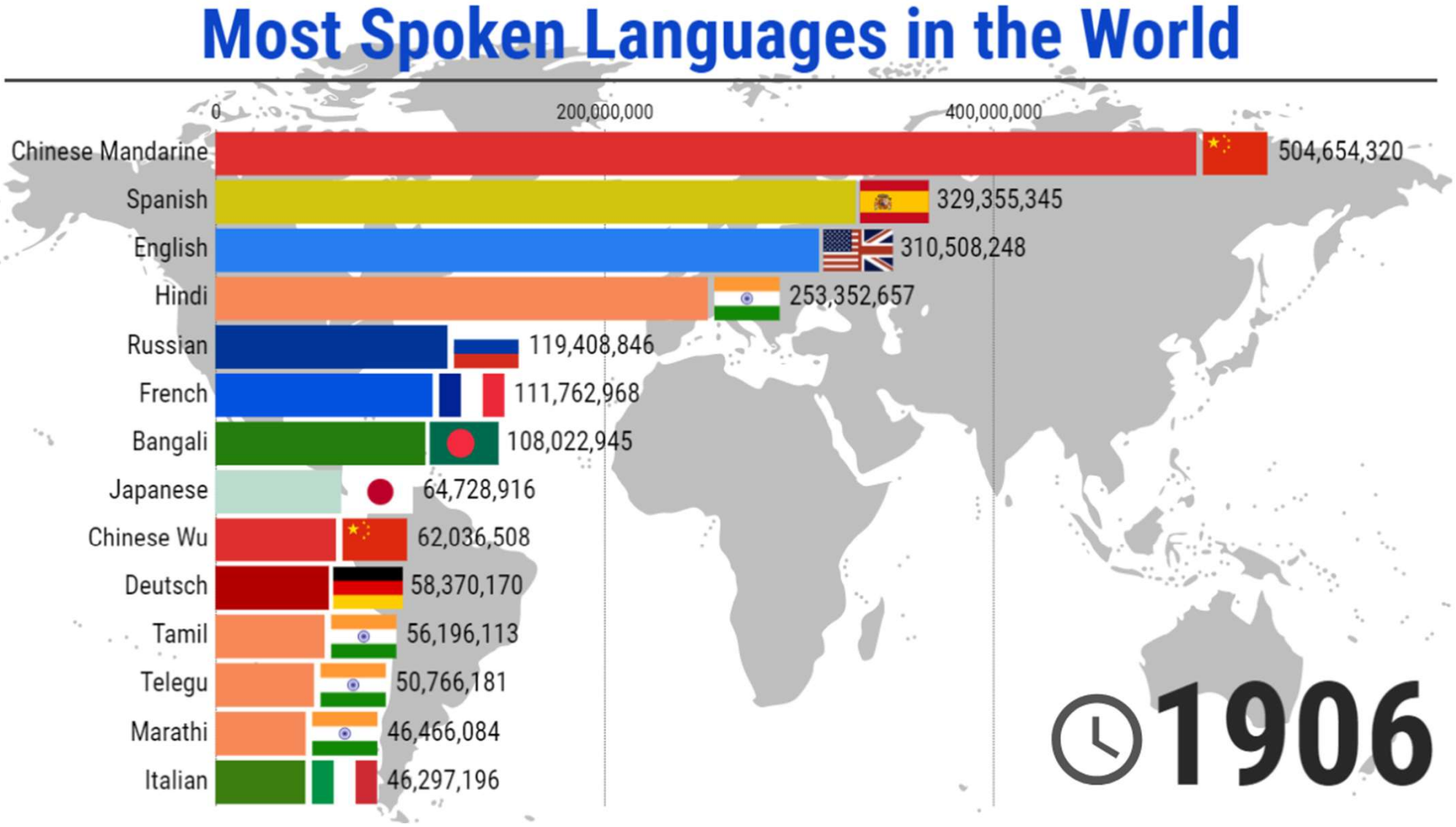
- 508 million speakers
- 167 million speakers use it as a second language
- a lingua franca – a language used among people who have no other tongue in common
- in some areas it has provided a base for pidgins and creoles.

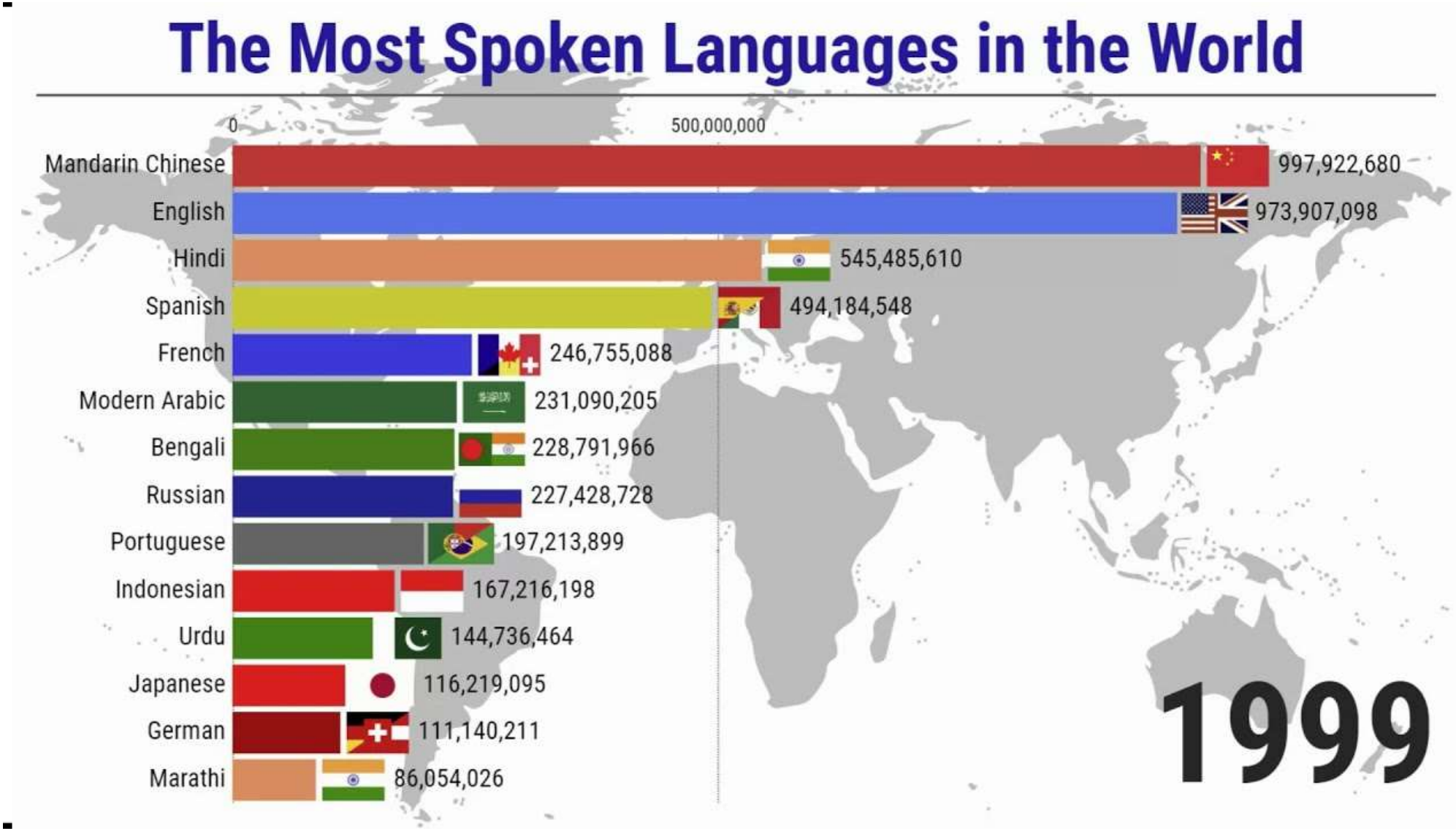
Indo-European Language Family

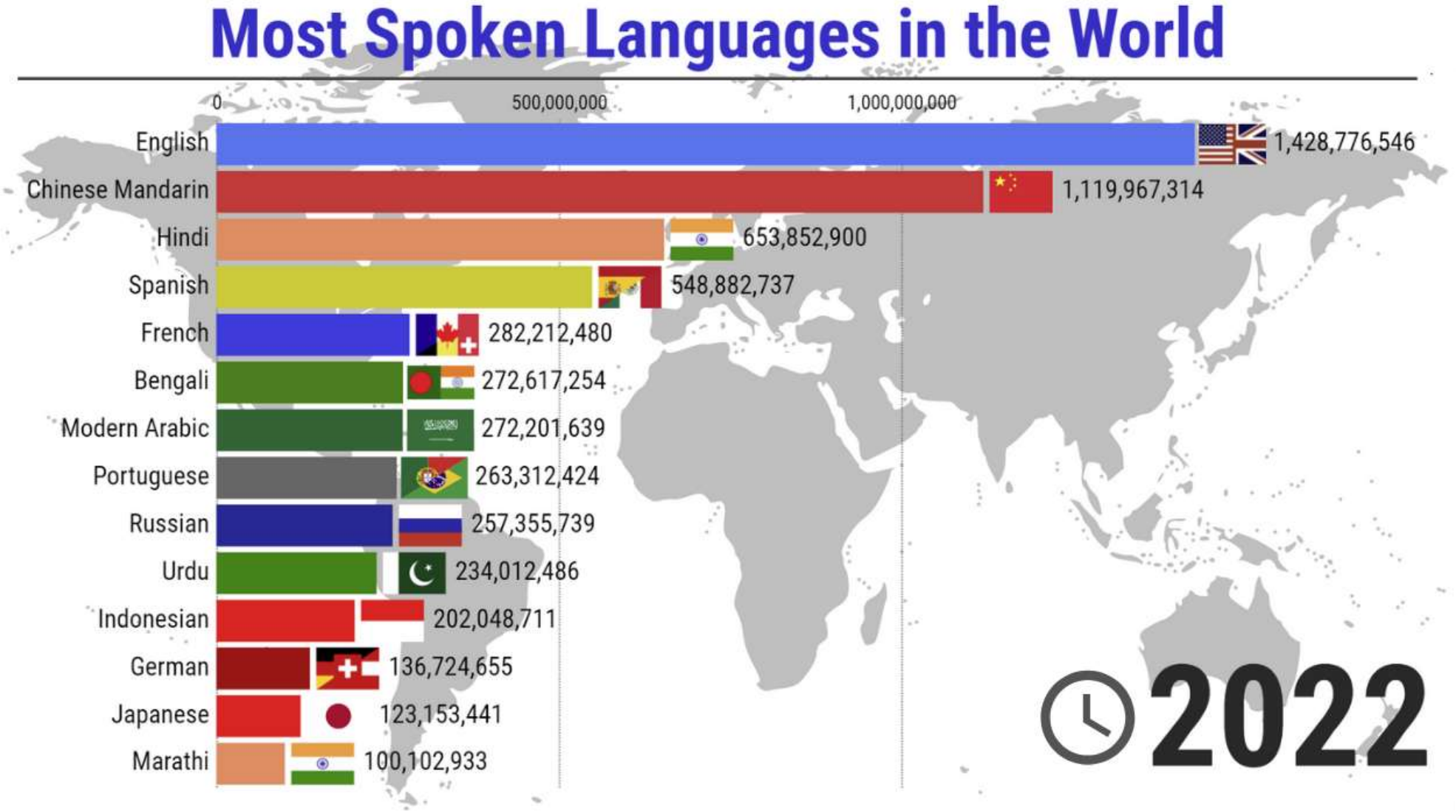
- Germanic,
- Romance,
- Celtic,
- Greek,
- Armenian,
- Albanian,
- Baltic,
- Slavic,
- Iranian,
- Indic,
- among the dead ones: Anatolian, Tocharian, Italic


INDO-EUROPEAN LANGUAGES
ROMANCE
GERMANIC
SLAVIC
GREEK
CELTIC
BALTIC
ARMENIAN
ALBANIAN
IRANIAN
INDIC
EXTINCT
ANATOLIAN
TOCHARIAN
NON-INDO-EUROPEAN LANGUAGES
BASQUE
HUNGARIAN
ESTONIAN
FINNISH

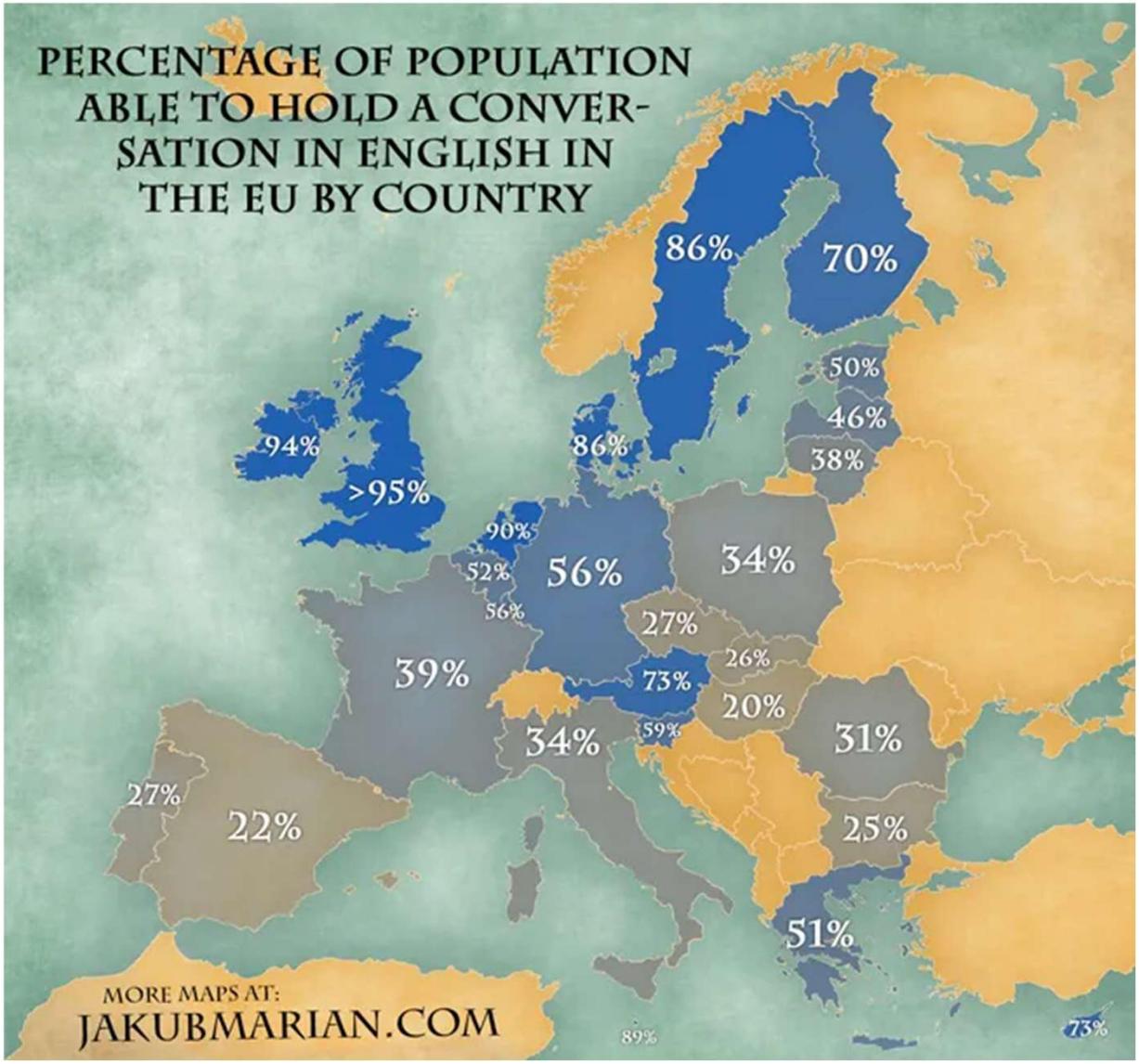
3. Rank and English in the world

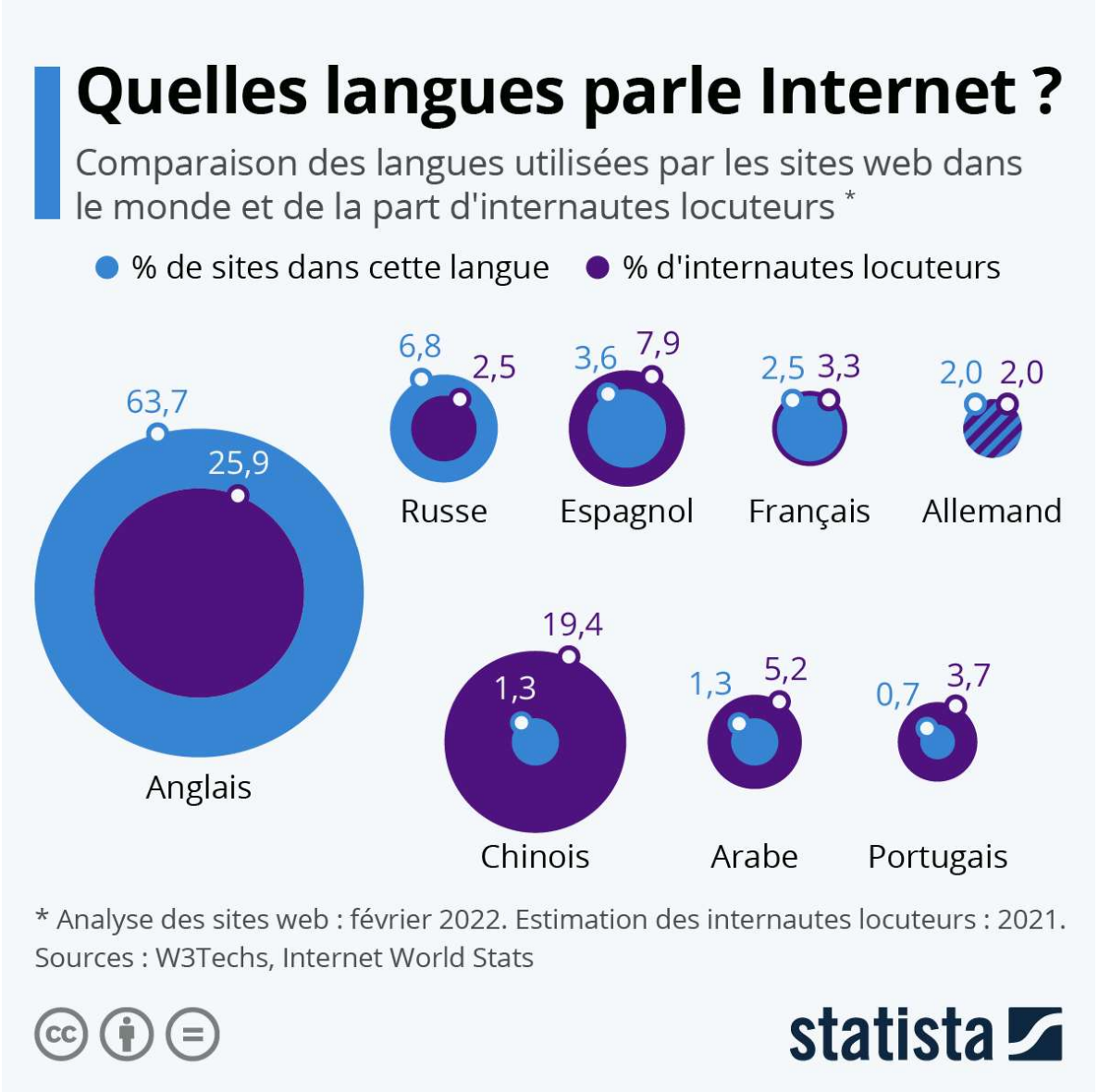


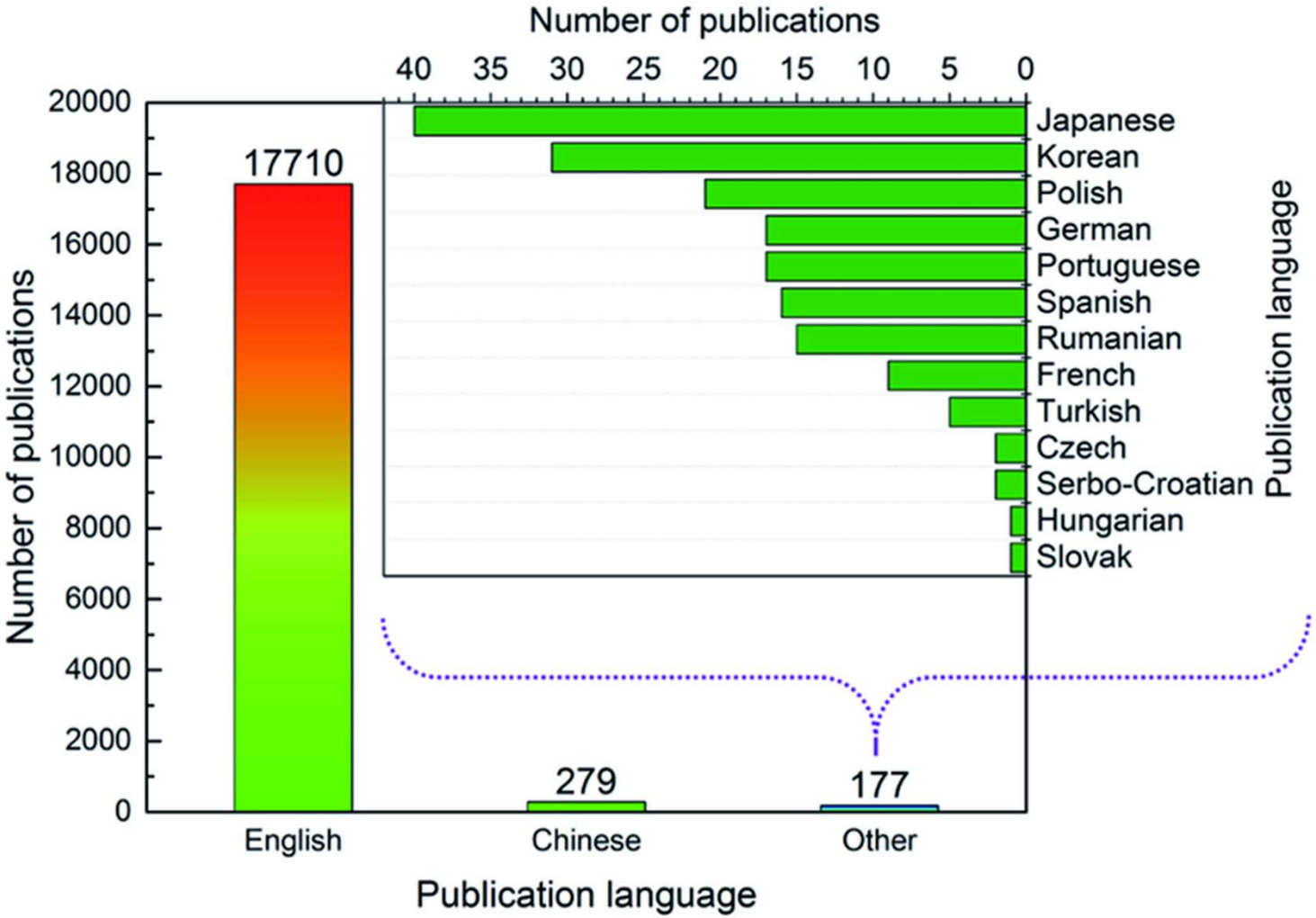

The Most Spoken Languages in the World
0
500,000,000
Mandarin Chinese
997,922,680
English
973,907,098
Hindi
545,485,610
Spanish
494,184,548
French
246,755,088
Modern Arabic
231,090,205
Bengali
228,791,966
Russian
227,428,728
Portuguese
197,213,899
Indonesian
167,216,198
Urdu
144,736,464
Japanese
116,219,095
German
111,140,211
Marathi
86,054,026
1999


Most Spoken Languages in the World
0
500,000,000
1,000,000,000
English
1,428,776,546
Chinese Mandarin
1,119,967,314
Hindi
653,852,900
Spanish
548,882,737
French
282,212,480
Bengali
272,617,254
Modern Arabic
272,201,639
Portuguese
263,312,424
Russian
257,355,739
Urdu
234,012,486
Indonesian
202,048,711
German
136,724,655
Japanese
123,153,441
Marathi
100,102,933
2022

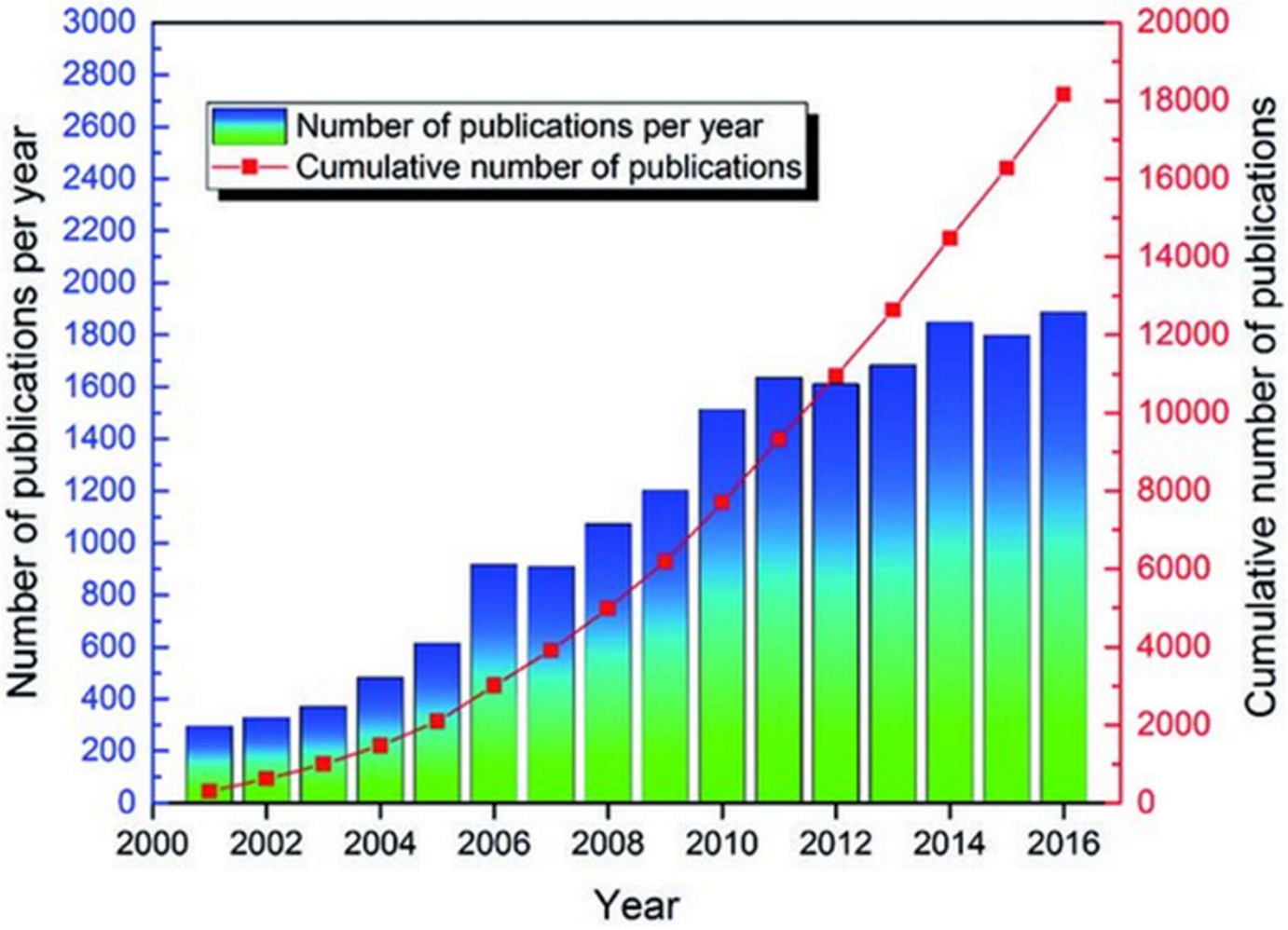
English, The Global Language?
Worldwide English proficiency levels by nation in 2021 (in index points)*
Very high (600+)
High (551-599)
Moderate (500-549)
Low (450-499)
Very low (<450)
Netherlands 663
Lebanon 536
Singapore 635
Argentina 556
South Africa 606
* Only countries with English as a foreign language included.
Based on EF SET tests of 2 million adults (aged 18+) across 112 countries.
Source: EF English Proficiency Index 2021
statista


PERCENTAGE OF POPULATION ABLE TO HOLD A CONVER-SATION IN ENGLISH IN THE EU BY COUNTRY
86%
70%
50%
46%
38%
94%
>95%
86%
90%
52%
56%
56%
34%
27%
26%
39%
73%
20%
59%
34%
31%
27%
22%
25%
51%
MORE MAPS AT:
JAKUBMARIAN.COM
89%
73%


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
63,7
25,9
Anglais
6,8
2,5
Russe
3,6
7,9
Espagnol
2,5
3,3
Français
2,0
2,0
Allemand
19,4
1,3
Chinois
1,3
5,2
Arabe
0,7
3,7
Portugais
* Analyse des sites web : février 2022. Estimation des internautes locuteurs : 2021.
Sources : W3Techs, Internet World Stats
statista



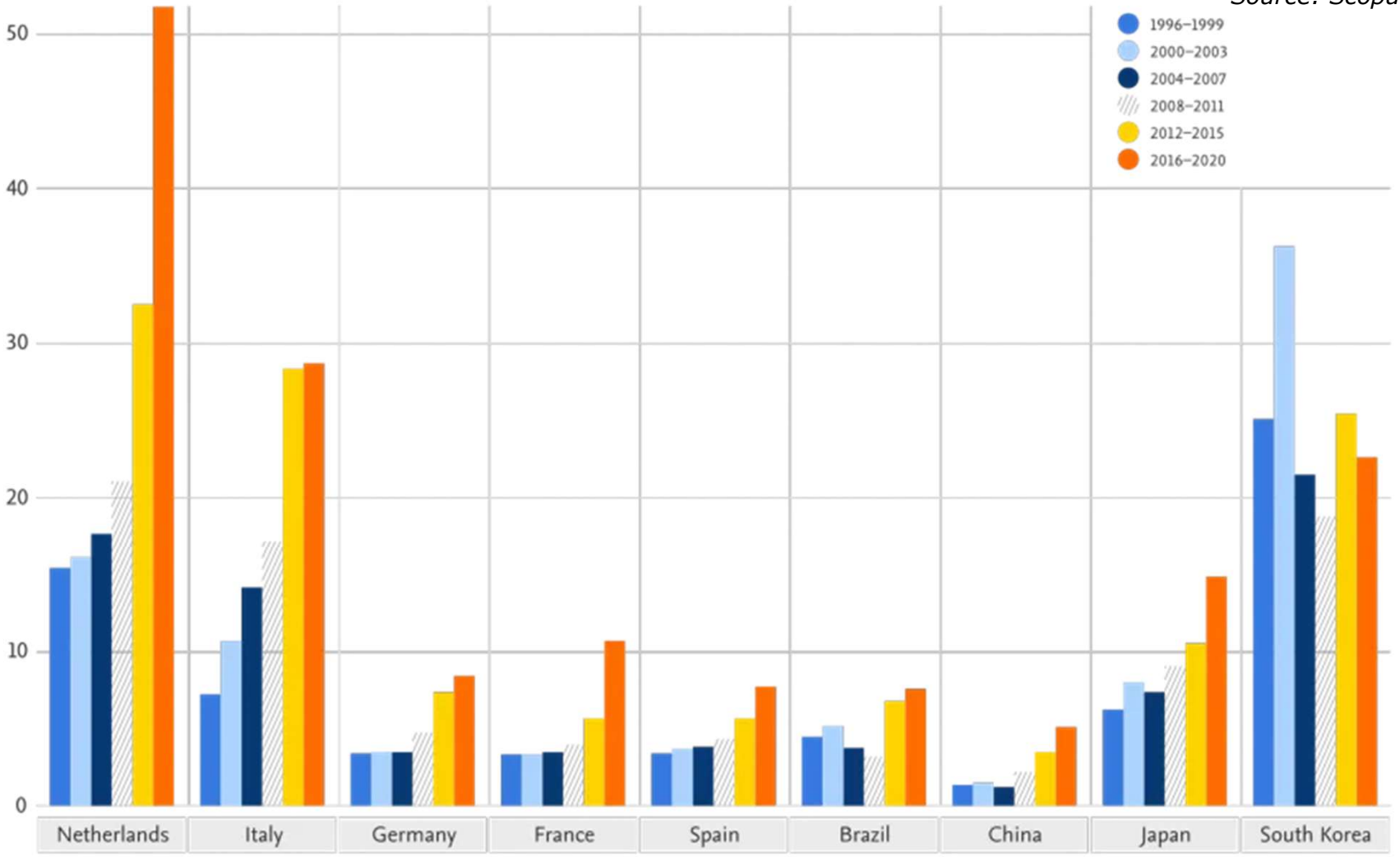
Source: Jiang et al. 2018. RSC Advances.



Jiang et al. 2018. RSC Advances.

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

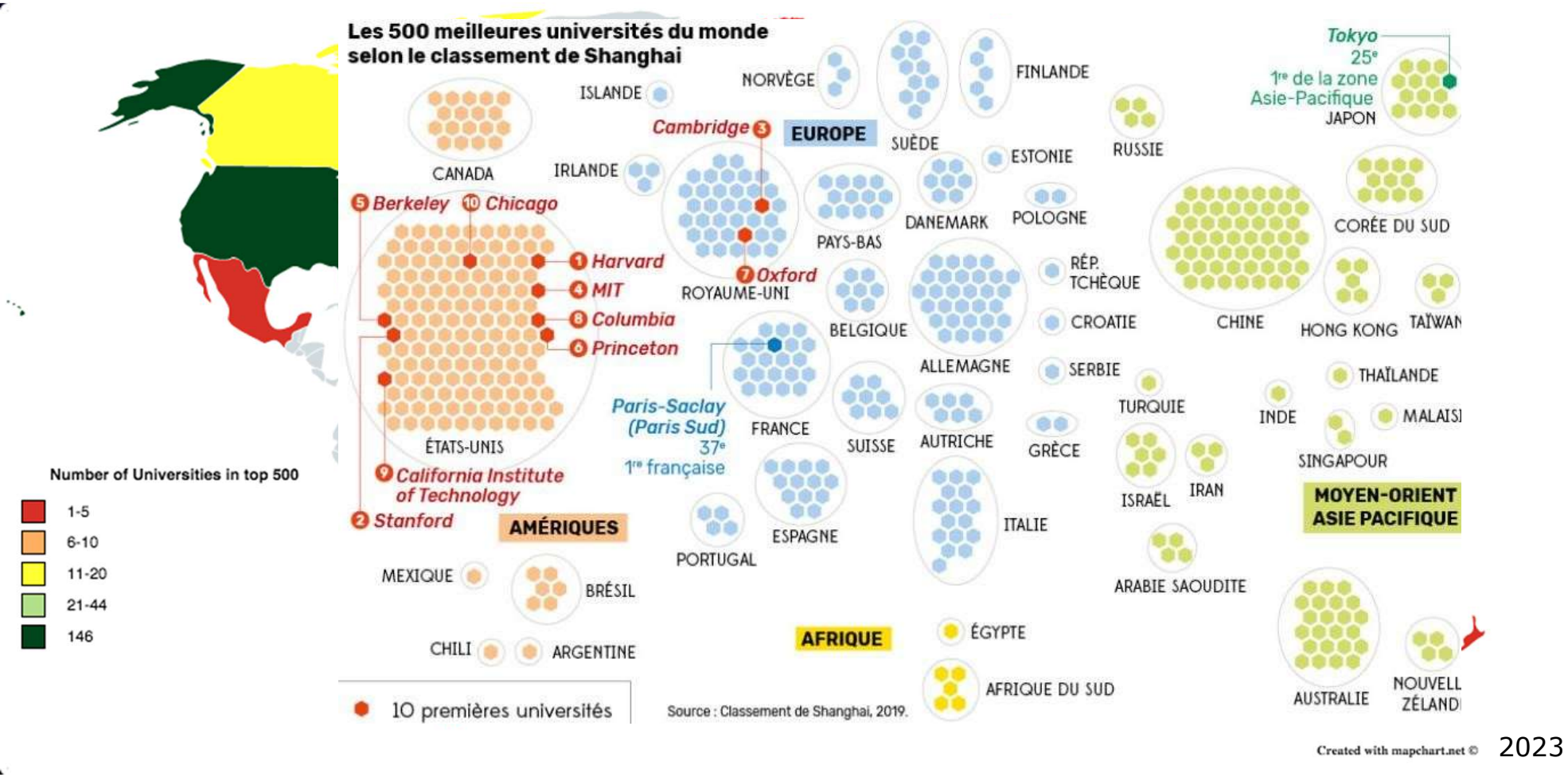
Source: Scopus.



ShanghaiRanking's Academic Ranking of World Universities 2023

TOP 100

2023 RANK	2022 RANK	INSTITUTION	NATION/ REGION	TOTAL SCORE
1	1	Harvard University	US	100.0
2	2	Stanford University	US	74.8
3	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


Les 500 meilleures universités du monde selon le classement de Shanghai
Number of Universities in top 500
1-5
6-10
11-20
21-44
146
CANADA
ISLANDE
NORVÈGE
FINLANDE
SUÈDE
RUSSIE
Tokyo
25e
1re de la zone Asie-Pacifique
JAPON
Cambridge 3
EUROPE
IRLANDE
ESTONIE
5 Berkeley
10 Chicago
1 Harvard
4 MIT
8 Columbia
6 Princeton
7 Oxford
ROYAUME-UNI
PAYS-BAS
DANEMARK
POLOGNE
CORÉE DU SUD
RÉP. TCHÈQUE
BELGIQUE
CROATIE
CHINE
HONG KONG
TAÏWAN
ALLEMAGNE
SERBIE
THAÏLANDE
Paris-Saclay (Paris Sud)
37e
1re française
FRANCE
SUISSE
AUTRICHE
TURQUIE
INDE
MALAISI
GRÈCE
SINGAPOUR
ÉTATS-UNIS
9 California Institute of Technology
2 Stanford
AMÉRIQUES
ISRAËL
IRAN
MOYEN-ORIENT ASIE PACIFIQUE
PORTUGAL
ESPAGNE
ITALIE
ARABIE SAOUDITE
MEXIQUE
BRÉSIL
AFRIQUE
ÉGYPTE
CHILI
ARGENTINE
AFRIQUE DU SUD
AUSTRALIE
NOUVELL ZÉLAND
10 premières universités
Source : Classement de Shanghai, 2019.
Created with mapchart.net ©

2023

Definition of Science: Science is **curiosity** in throughtful 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".

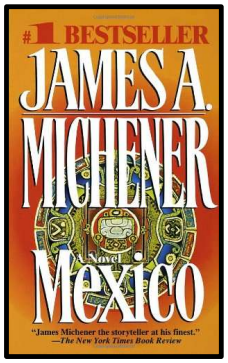
Knowledge of any kind. *Source: Dictionnary.*

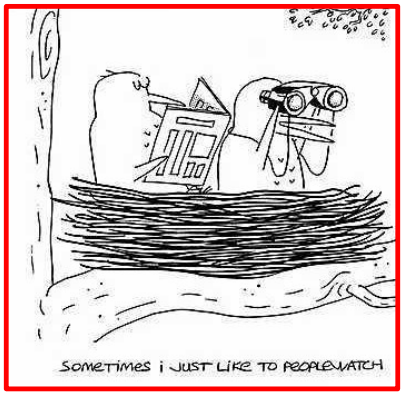
Science is a **rigorous**, systematic **endeavor** that builds and organizes **knowledge** in the form of **testable** explanations and **predictions** about the world. Modern science is typically divided into **three** major branches: the natural sciences (e.g., physics, chemistry, and biology), which 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?

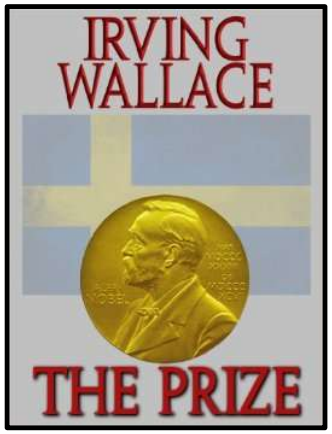
Science	Literature
Writing and inquiry	Writing and inquiry
recording and communicating the results of their investigations	Novelists, playwrights (dramaturges)
	History of place and its people or with different kinds of novel or play by watching people, thinking what makes them tick



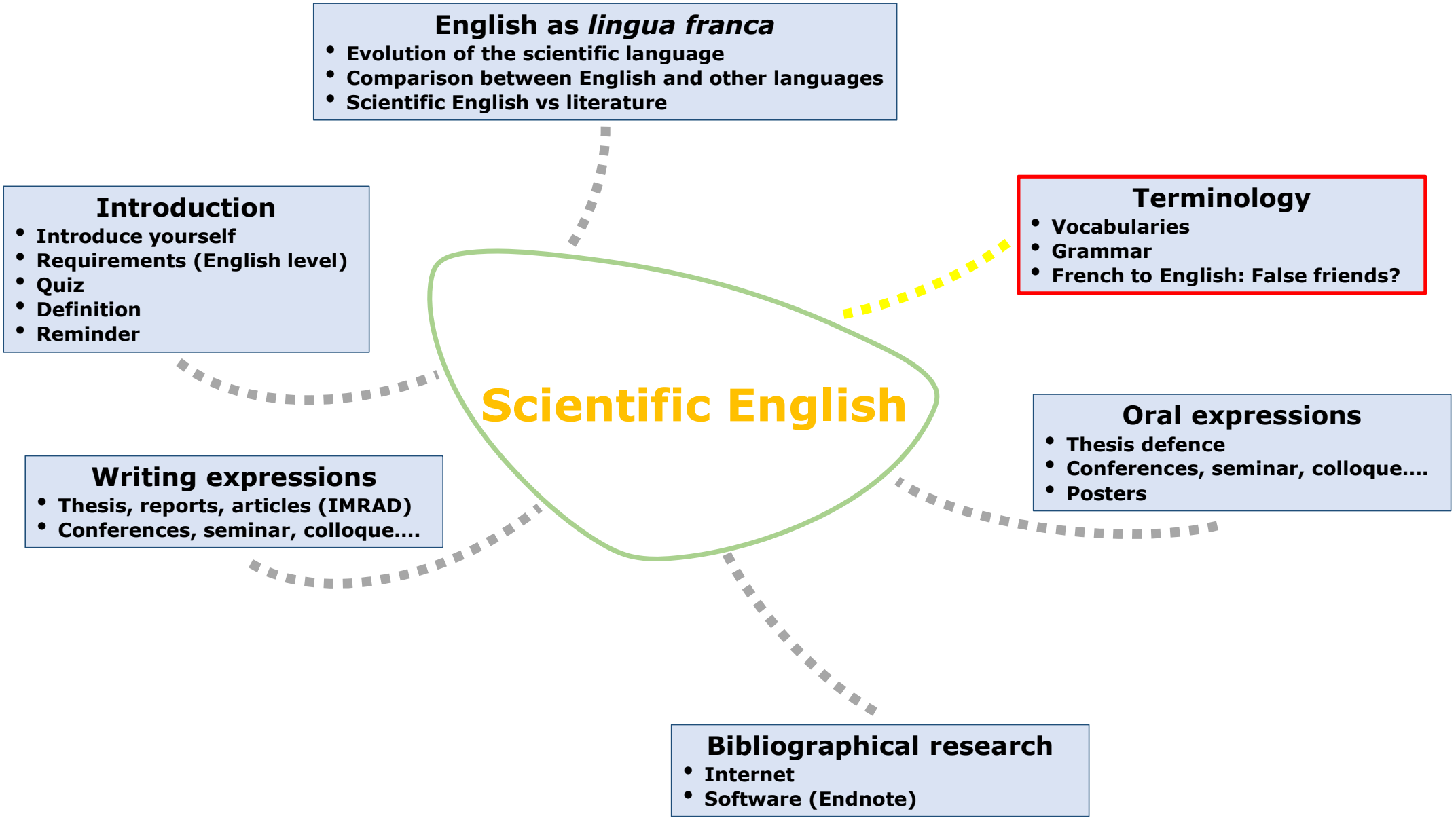


Science	Literature
Picks out a loose federation of kinds of inquiry	Picks out a loose federation of kinds of writing
requires imagination of structures, explanations, classifications, laws which, when it's successful are real/true	Requires imagination, fiction
the writing in which scientists engage is 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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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.

2. Clauses (*Source: Bouhaddad, 2023*)

A clause is a group of words with its own subject and verb. Clauses allow you to combine ideas to show their relationship. This adds logic and cohesion to your speech and writing. There are two types of clauses: **independent clauses** (main clauses) and **dependent clauses** (subordinate clauses and relative clauses).

- ✓ **An independent clause** is a complete sentence because it has its own subject and verb and expresses a complete thought.
- ✓ **A dependent clause** is part of a sentence, so it cannot stand alone.

Subordinating conjunction

Example: He had no qualification; **however** he got the job.
Independent clause **Dependent clause**

- ✓ Dependent clause cannot stand alone, although it has a subject, verb, and object.
- ✓ A dependent clause often starts with a word that makes the clause unable to stand alone, subordinating conjunctions,
- ✓ Subordinating conjunctions link an independent clause to a dependent clause.

3. Sentences (Source: *Bouhaddad, 2023*)

There are four types of sentences:
1. **Simple sentences**: They contains a subject and a verb, and it may also have an object and modifiers. However, it contains only one independent clause.

Some students like to study in the mornings.

2. **Compound sentences**: They contains at **least** two independent clauses. These two independent clauses can be combined with a comma and a coordinating conjunction or with a semicolon. The coordinators are as follows: for, and, nor, but, or, yet, so.

I tried to speak Spanish, and my friend tried to speak English.

Sami played football, so Maria went shopping.

Sami played football, for Maria went shopping.

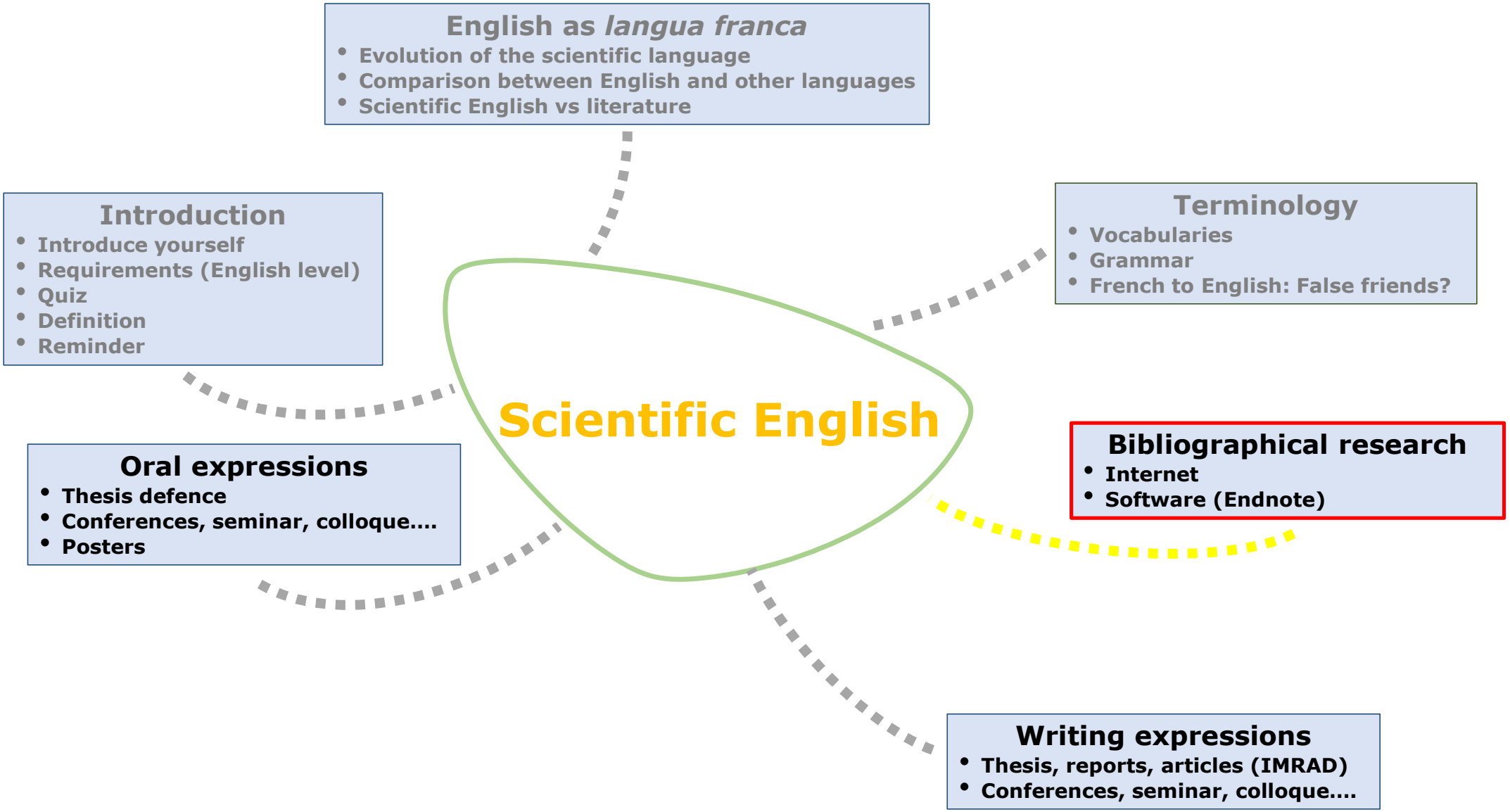
3. **Complex sentences:** They contains at **least** one independent clause and at **least** one dependent clause. Dependent clauses can refer to the subject (who, which) the sequence/time (since, while), or the causal elements (because, if) of the independent clause. If a sentence begins with a dependent clause, note the comma after this clause. If, on the other hand, the sentence begins with an independent clause, there is not a comma separating the two clauses.

The students are studying because they have a test tomorrow.
After they finished studying, Juan and Maria went to the movies.

4. **Compound-complex sentences**: Sentence types can also be combined. contains at **least** two independent clauses and at **least** one dependent clause.

Though Mitchell prefers watching romantic films, he rented the latest spy thriller, and he enjoyed it very much.

Laura forgot her friend's birthday, so she sent her a card when she finally remembered.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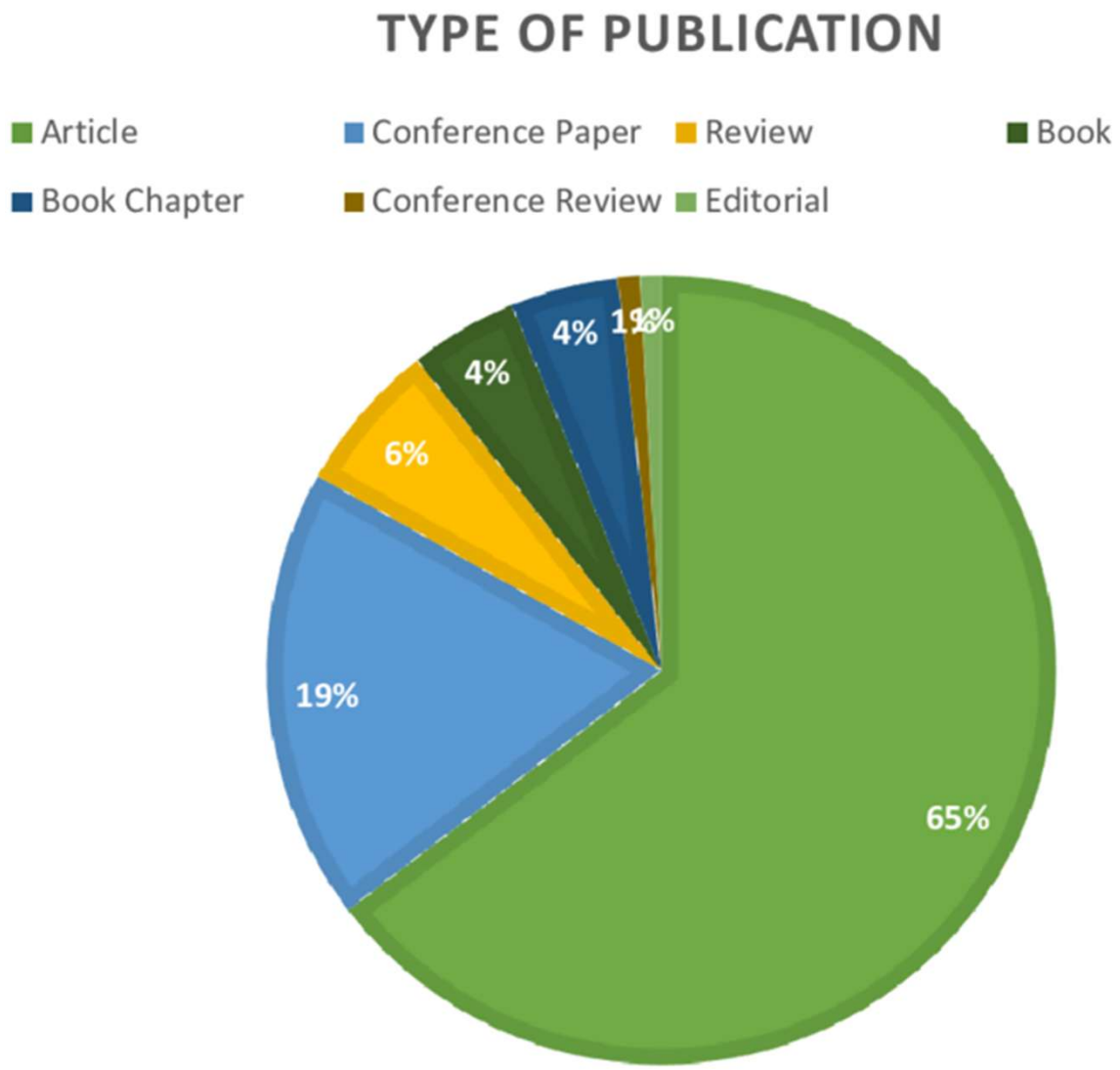
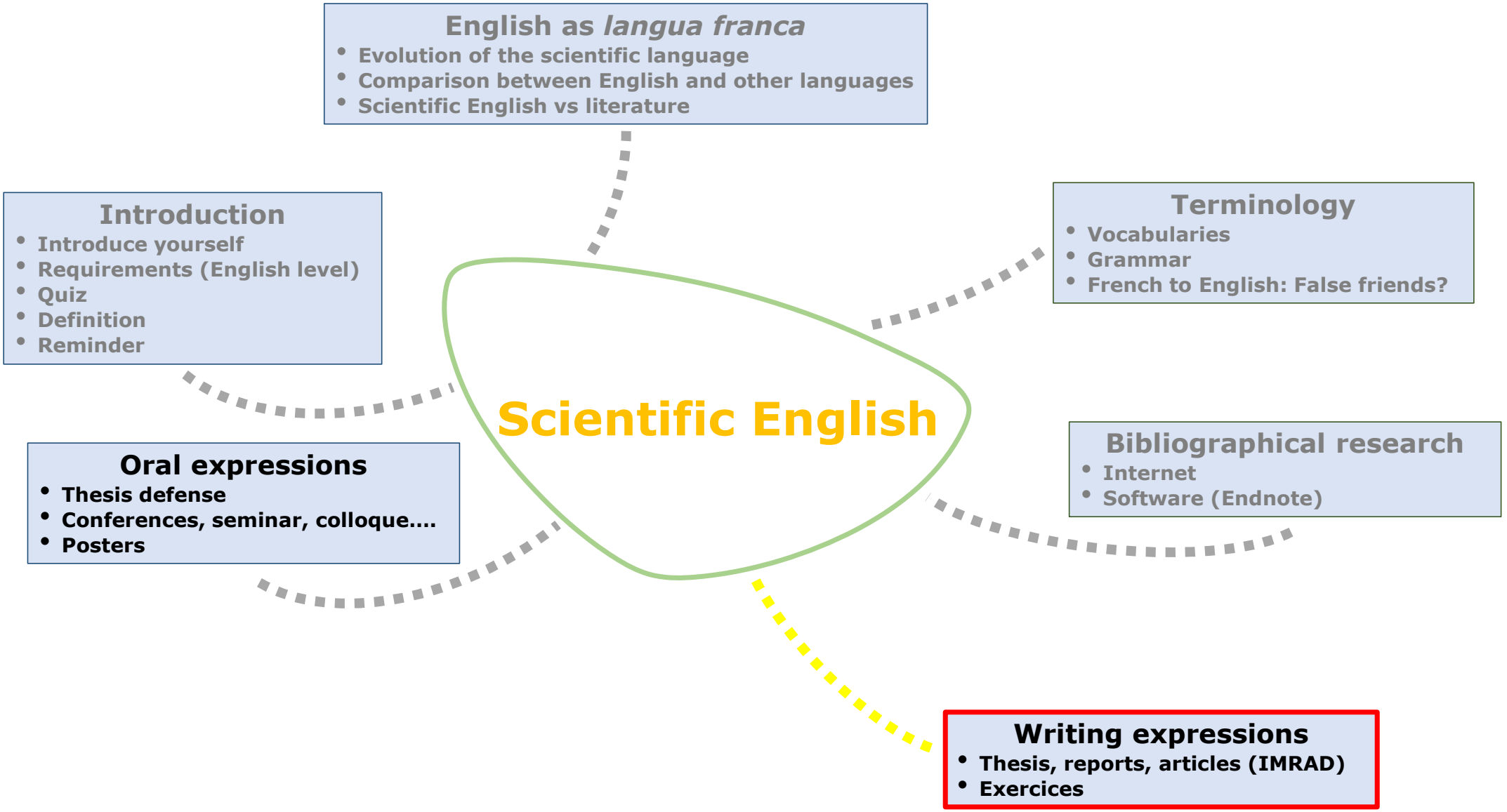


Cardenas et al. 2022. Res Militaris.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What is a Thesis?

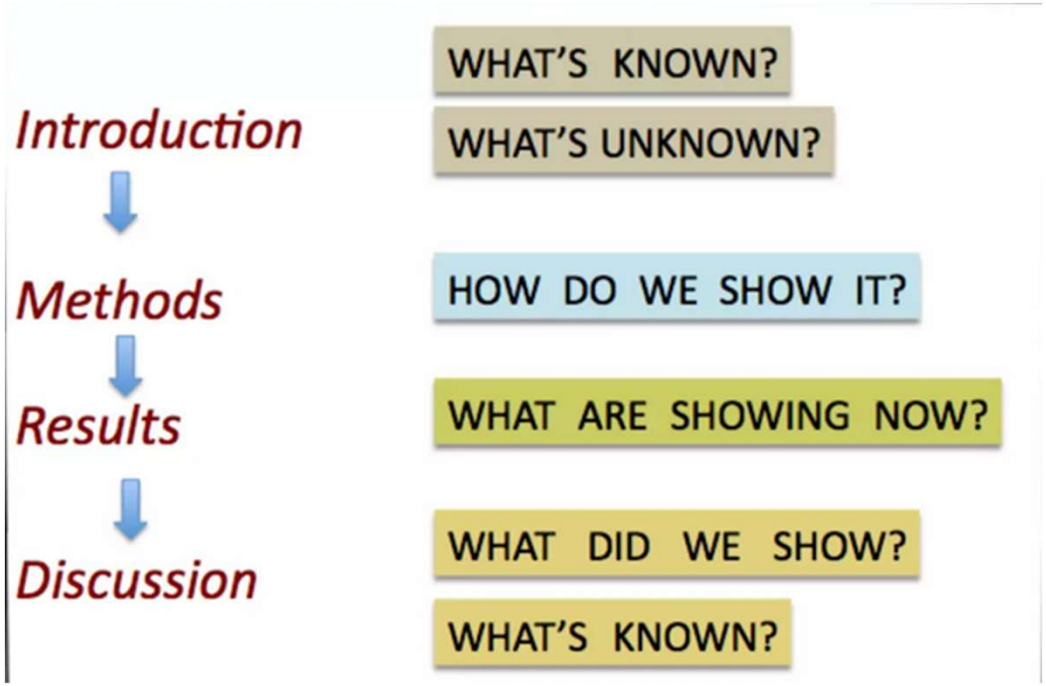
"A written work resulting from original research, especially one submitted for higher degree in a university" (Alias, 2011).

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).



(Source: Alias, 2011)

Or the **IMRAD** Format

- **I**ntroduction: What was the question?
- **M**ethods: How did the research(s) try to answer it?
- **R**esults: What did the researchers find?
- **A**nd
- **D**iscussion: What do the results mean?

- **Title** – describes paper's content clearly using keywords (for databases and search engines)
- **Abstract** - a summary (~ 150-400 words) of the problem, the method, the results and the conclusions; the reader can decide whether or not to read the whole article
- **Introduction** - clearly states the problem being investigated & reasons for the research; summarizes relevant research to provide context; identifies the questions being answered; briefly describes the experiment, hypothesis(es), research question(s) & general experimental design or method.

- **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.

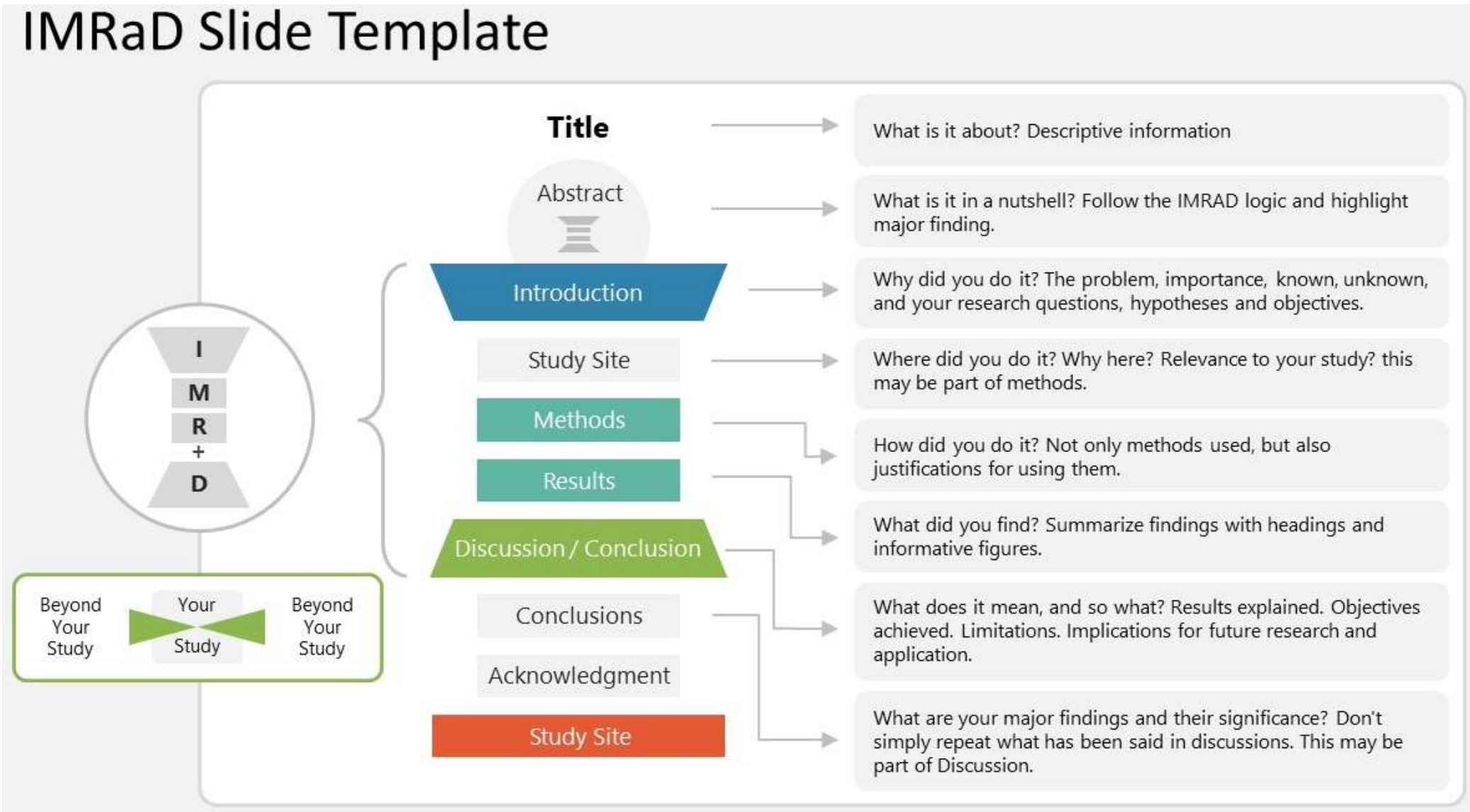
- **Results** - presents the findings, and explains what was found; shows how the new results are contributing to the body of scientific knowledge; follows a logical sequence based on the tables and figures presenting the findings to answer the question or hypothesis(es).

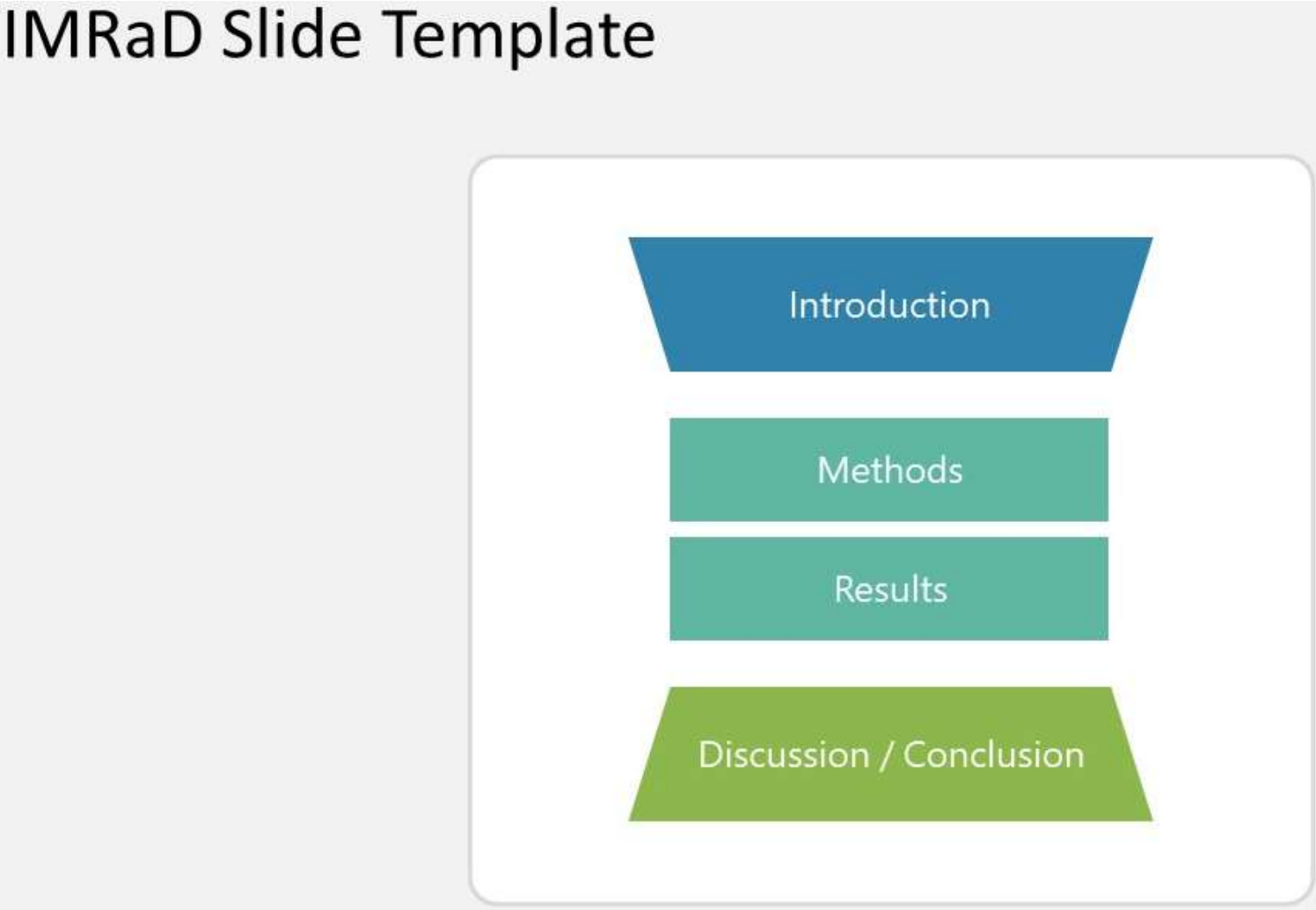
- **Discussion/Conclusions** - describes what the results mean regarding what was already known about the subject; indicates how the results relate to expectations and to the literature previously cited; explains how the research has moved the body of scientific knowledge forward; outlines the next steps for further study.

- **Acknowledgements** – recognize various contributions of other workers.

- **References** - the sources of previously published work; includes information not from the experiment and not 'common knowledge'.

IMRaD Slide Template

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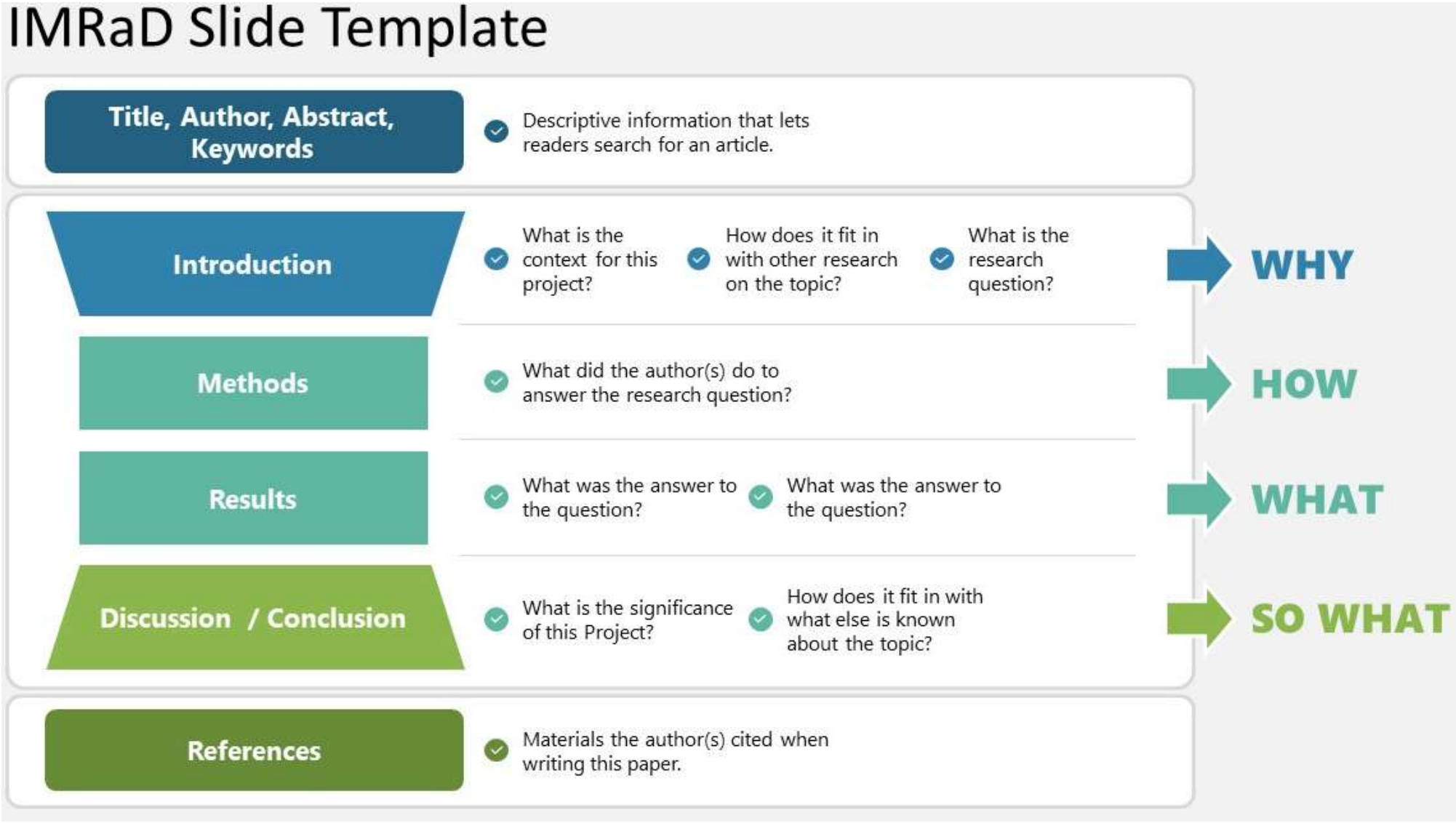
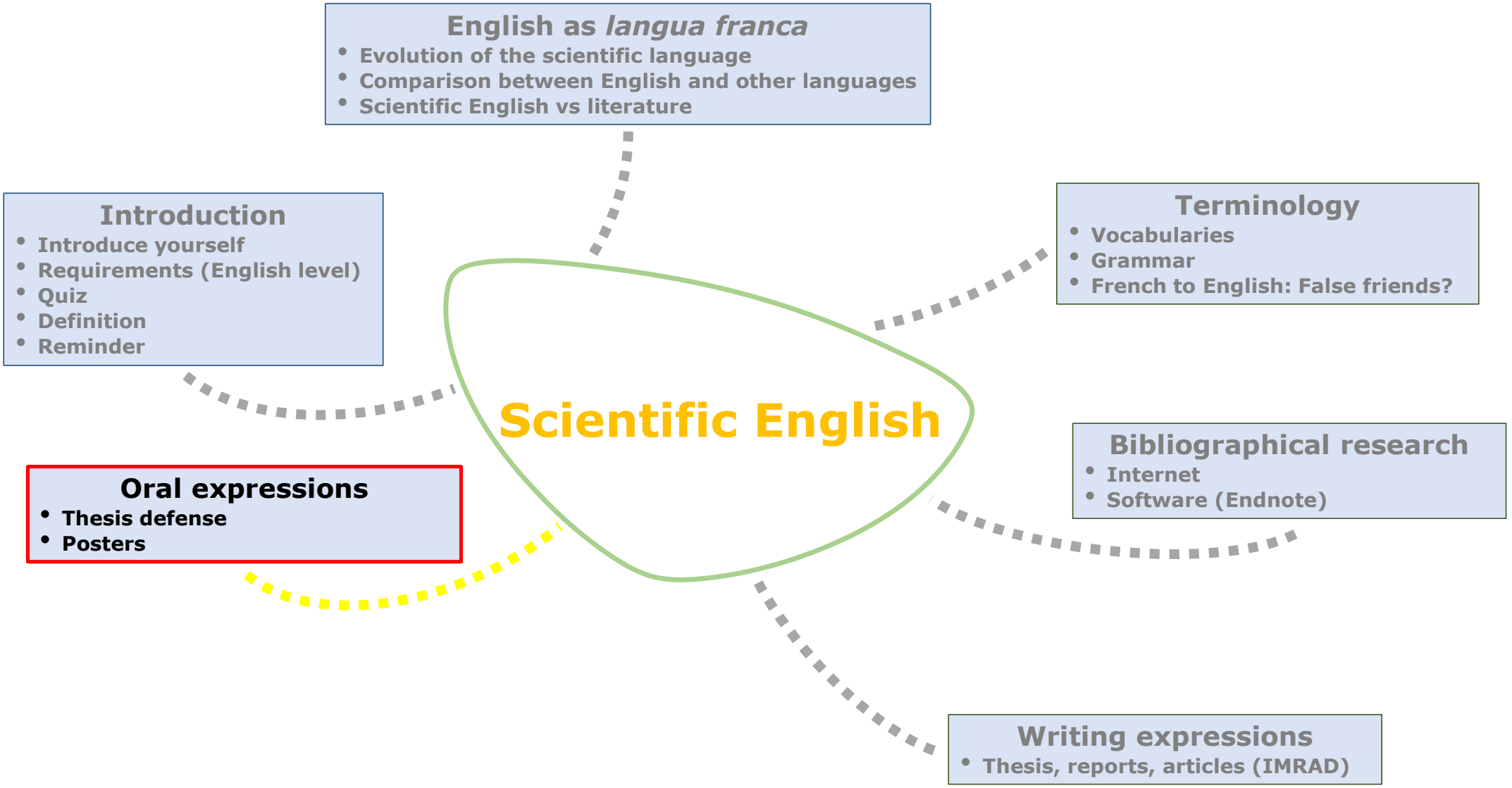
Methods
Results
Discussion / Conclusion


IMRaD Slide Template
Title, Author, Abstract, Keywords
Descriptive information that lets readers search for an article.
Introduction
What is the context for this project?
How does it fit in with other research on the topic?
What is the research question?
WHY
Methods
What did the author(s) do to answer the research question?
HOW
Results
What was the answer to the question?
What was the answer to the question?
WHAT
Discussion / Conclusion
What is the significance of this Project?
How does it fit in with what else is known about the topic?
SO WHAT
References
Materials the author(s) cited when writing this paper.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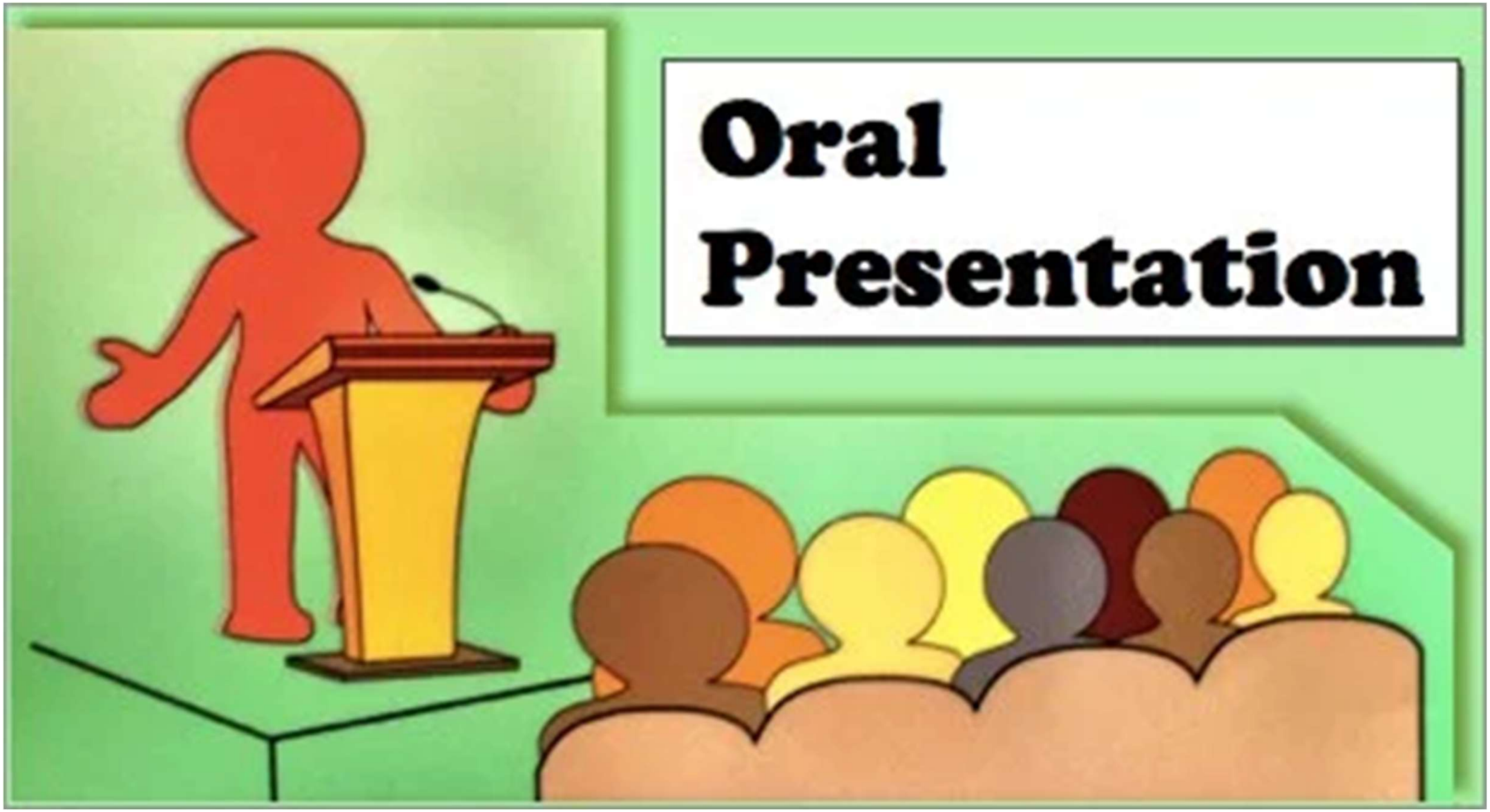

Oral
Presentation

I. Thesis defence II. Conferences, seminar, colloque III. Poster

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 !!!

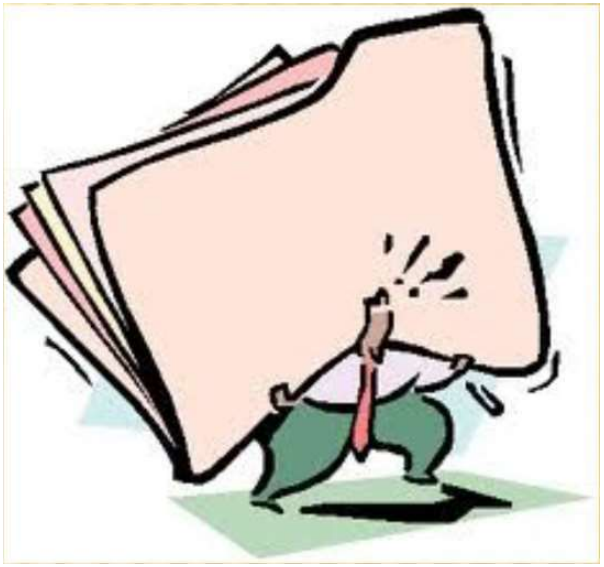
When you argue:

- 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, developpement, 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.