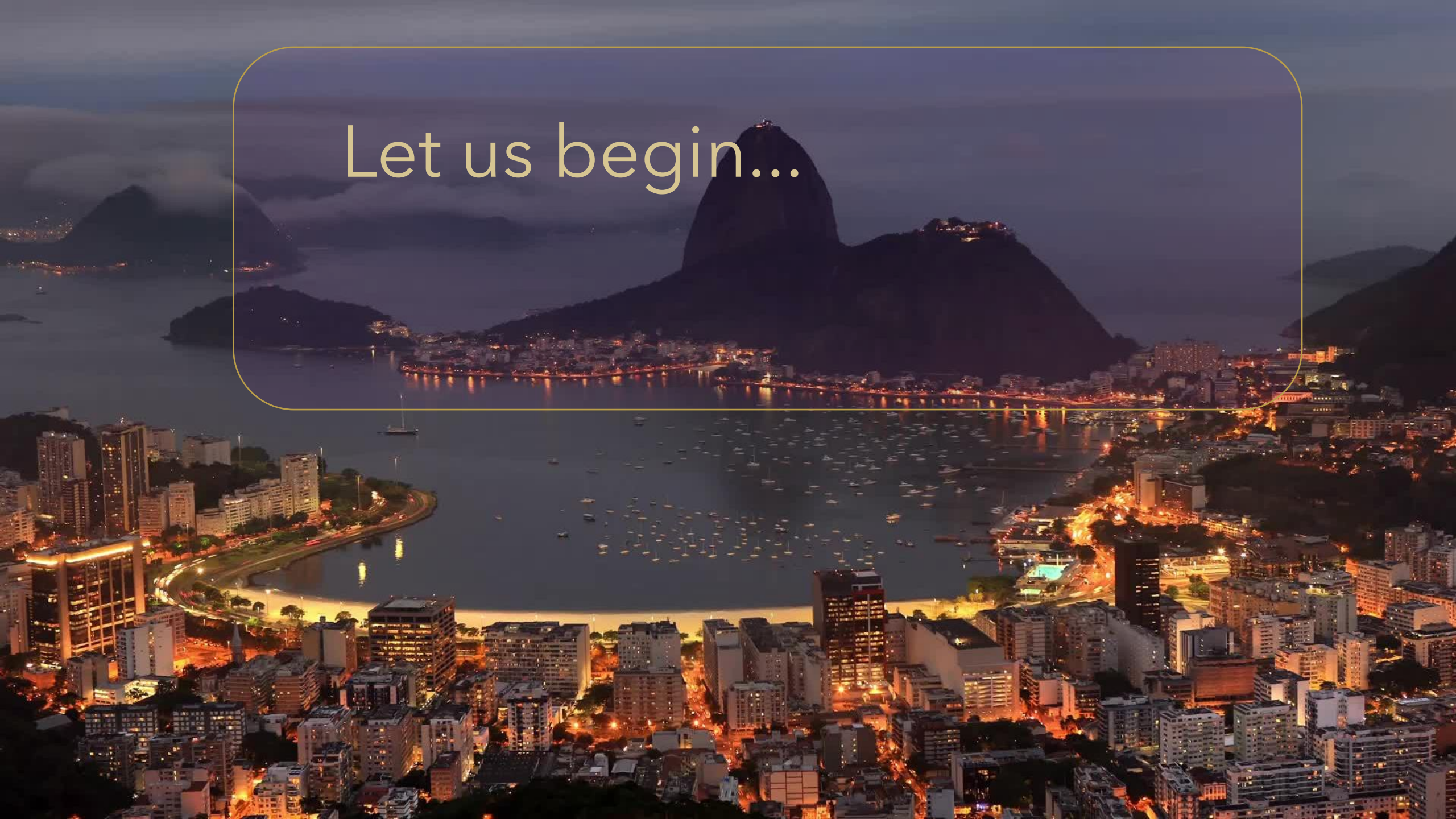


Let us begin...



A wide-angle, high-angle photograph of Rio de Janeiro at night. The city's lights are visible in the foreground and middle ground, reflecting on the water. Sugarloaf Mountain (Pão de Açúcar) is the central focus in the background, its peak illuminated. The sky is dark with some clouds. A yellow rectangular frame with rounded corners is superimposed over the upper half of the image.

12-02-2022

A nighttime aerial view of Rio de Janeiro, Brazil. The city's lights are visible, reflecting on the water of the bay. In the background, the iconic Sugarloaf Mountain (Pão de Açúcar) is silhouetted against the dark sky. The text "Research in English Term II" is overlaid on the image in a white, sans-serif font, enclosed within a thin yellow rounded rectangle.

Research in English

Term II



Research in English Term II

YOUR
MASTER
THESIS

EXAM IN
Methodology

YOUR
MASTER
THESIS

Research in English

Term II

EXAM IN
Methodology



YOUR
MASTER
THESIS

Both will be evaluated and given an excellent, good, satisfactory or unsatisfactory mark depending largely on your desire and effort.

EXAM IN
Methodology





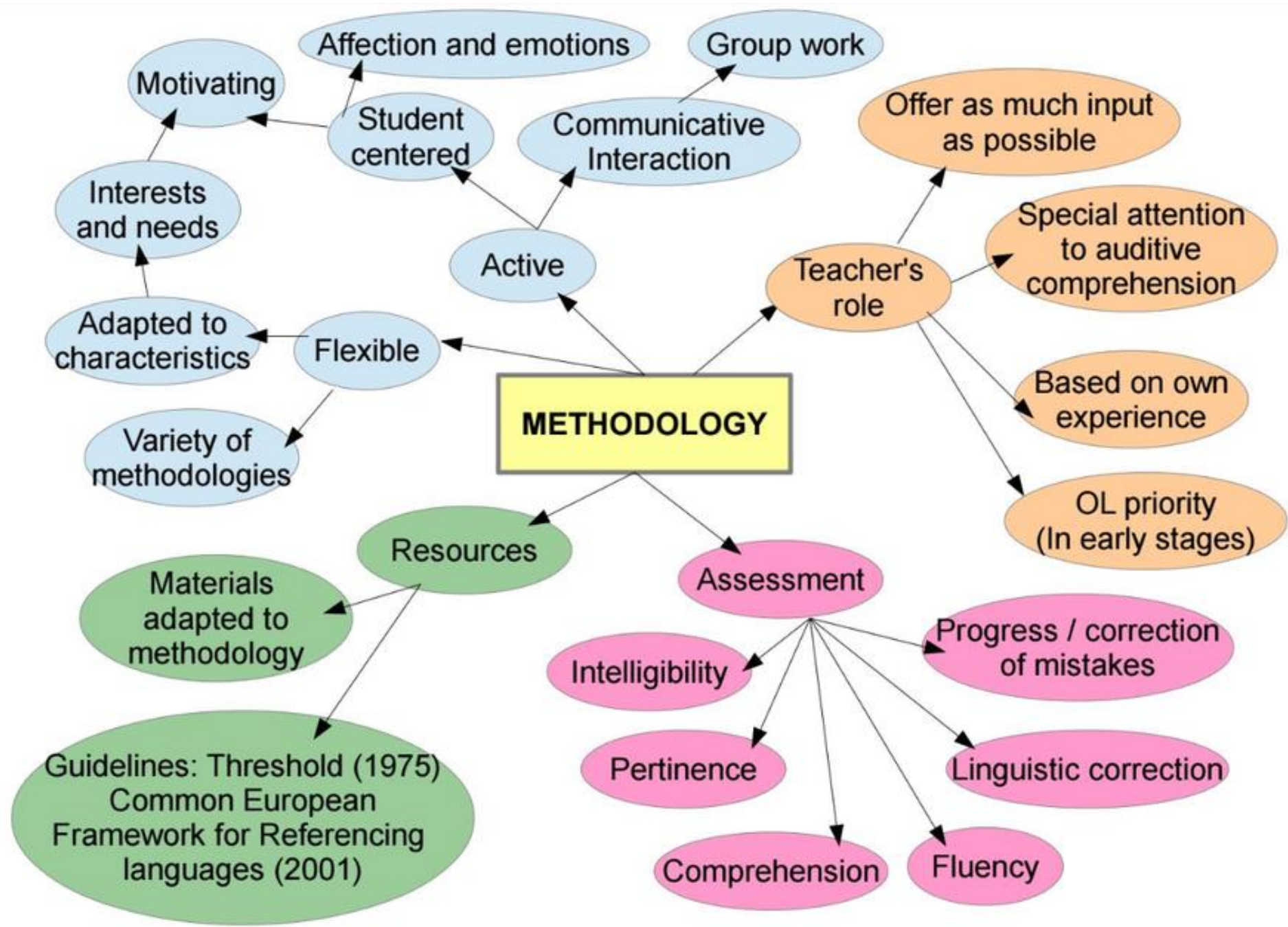
Research
in
English

COURSE
resource
folder

MORE
Reading

Research
in
Moodle

Methodology
in
Moodle



“Methodology” versus “Research Design”

Methodology refers to the principles, procedures, and practices that govern research,

whereas

research design refers to the plan used to examine the question of interest.

“Methodology” should be thought of as encompassing the entire process of conducting research (i.e., planning and conducting the research study, drawing conclusions, and disseminating the findings).

By contrast, “research design” refers to the many ways in which research can be conducted to answer the question being asked.

Fundamentals of scientific research

- ☐ Object and subject of Research
- ☐ Research Hypothesis.
- ☐ Requirements for the scientific apparatus of the study.
- ☐ Qualitative and quantitative research methods.
- ☐ Requirements for the results of scientific research.
- ☐ Qualitative and quantitative methods of scientific research.
- ☐ Competence of applied linguistics and changes in the concepts, relationships and intentions of teachers.
- ☐ Language modeling for special purposes and a professional communicator in applied linguistics and education.

II

RESEARCH GAP

Аналитический обзор литературы: Research Gap

Уточнить термины и понятия.

Уточнить базовую онтологию / модель

Гипотеза - вопрос требующий исследования

Методы

Материал

Этапы пошагово



- ❑ **Technology of education** is most simply and comfortably defined as an array of tools that might prove helpful in advancing student learning and may be measured in how and why individuals behave.
- ❑ Educational Technology relies on a *broad definition* of the word "*technology*".
- ❑ Technology can refer to material objects of use to humanity, such as machines or hardware, but it can also encompass broader themes, including *systems, methods of organization, and techniques*.
- ❑ Some modern tools include but are not limited to overhead projectors, laptop computers, and calculators. Newer tools such as "smart phones" and games (both online and offline) are beginning to draw serious attention for their learning potential.

II

What blessings did technology bring?

I've searched on the internet and I've read a lot of information about the topic, including articles about how technology has been a blessing for us. These advances made our daily lives easier with decreased hard labor and increased mechanize labor. Technology has made modern life considerably free from stress or more comfortable than the life that was in the past long years. The word "technology" is really extensive or board that it could covers all. It helps us in so many ways, as well as being a teacher. Technology helps us to be more effective in teaching students and to do PowerPoint presentations in the lectures even in our meetings. It enable us to perform better that we could ever imagine, do things quickly and efficiently, which totally saves our time and money. It's not only for educational reasons but also for building up communications, business, and to make our society better.



MO

Definition of “Research”

Research is generally defined as an examination of the relationship between two or more variables.

Research is an examination of the relationship between one or more independent variables and one or more dependent variables. In even more precise terms, we can define research as an examination of the effects of one or more independent variables on one or more dependent variables.



MO

Criteria for Research Problems

- ❑ **First**, the research problem should describe the relationship between two or more variables.
- ❑ **Second**, the research problem should take the form of a question.
- ❑ **Third**, the research problem must be capable of being tested empirically (i.e., with data derived from direct observation and experimentation).

II

RESEARCH GAP

1 Что уже известно

2 Что еще неизвестно

21 Что неизвестно и никогда не будет известно

22 Что неизвестно сегодня но может быть выяснено
в результате исследования

221 То что я могу узнать при опоре на метод и что
действительно представляет интерес

222 Где пролегает граница между известным и тем
неизвестным что представляет интерес для меня
и может быть мной выяснено на основе научного
метода



MO

Methods

By methods,
we normally mean that range of approaches used in educational

research to gather data which are to be used as a basis for inference and interpretation, for explanation and prediction.

Traditionally, the word refers to those techniques associated with the positivistic model – eliciting responses to predetermined questions, recording measurements, describing phenomena and performing experiments

PRIMARY RESEARCH METHODS

MO



[PRIMARY RESEARCH METHODS \(learningapps.org\)](https://learningapps.org/primary-research-methods)



MO

Methodology

If methods refer to techniques and procedures used in the process of data-gathering, the aim of methodology then is to describe approaches to, kinds and paradigms of research (Kaplan 1973). Kaplan suggests that the aim of methodology is to help us to understand, in the broadest possible terms, not the products of scientific inquiry but the process itself.



MO

The English notion of Scientific Method

The development of the scientific method is usually credited to Roger Bacon, a philosopher and scientist from 13th-century England, although some argue that the Italian scientist Galileo Galilei played an important role in formulating the scientific method. Later contributions to the scientific method were made by the philosopher Rene Descartes.



MO

The English notion of Scientific Method

Although some disagreement exists regarding the exact characteristics of the scientific method, most agree that it is characterized by the following elements:

1. • Empirical approach
2. • Observations
3. • Questions
4. • Hypotheses
5. • Experiments
6. • Analyses
7. • Conclusions
8. • Replication



MO

Hypothesis

Once one has a hypothesis to work on, the scientist can move forward; the hypothesis will guide the researcher on the selection of some observations rather than others and will suggest experiments.



MO

Hypothesis

Scientific research presupposes coming up with a hypothesis, which is (put simply) an educated—and testable—guess about the answer to your research question.

A hypothesis is often described as an attempt by the researcher to explain the phenomenon of interest.

Hypotheses can take various forms, depending on the question being asked and the type of study being conducted.



MO

Hypothesis

Hypotheses attempt to explain, predict, and explore the phenomenon of interest. In many types of studies, this means that hypotheses attempt to explain, predict, and explore the relationship between two or more variables. To this end, hypotheses can be thought of as the researcher's educated guess about how the study will turn out. As such, the hypotheses articulated in a particular study should logically stem from the research problem being investigated.

WHAT IS HYPOTHESIS?

Hypothesis [haɪ'pɒθəsis] (pl. hypotheses [-si:z]) is a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation;

Origin: late 16th cent.: via late Latin from Greek hupothesis 'foundation', from hupo 'under' + thesis (= 'placing')

WHAT IS HYPOTHESIS?

A hypothesis is an idea which is suggested as a possible explanation for a particular situation or condition, but which has not yet been proved to be correct. [FORMAL]

MO

Hypothesis



[Scientific hypothesis \[haɪ'pɒθəʃɪs\] \(learningapps.org\)](https://www.learningapps.org/definition/scientific-hypothesis)



MO

Stages in the development of a science

- 1 Definition of the science and identification of the phenomena that are to be subsumed under it.
- 2 Observational stage at which the relevant factors, variables or items are identified and labelled, and at which categories and taxonomies are developed.
- 3 Correlational research in which variables and parameters are related to one another and information is systematically integrated as theories begin to develop.



MO

Stages in the development of a science

4 The systematic and controlled manipulation of variables to see if experiments will produce expected results, thus moving from correlation to causality.

5 The firm establishment of a body of theory as the outcomes of the earlier stages are accumulated.

Depending on the nature of the phenomena under scrutiny, laws may be formulated and systematized.

6 The use of the established body of theory in the resolution of problems or as a source of further hypotheses.



MO

An eight-stage model of the scientific method

Stage 1: Hypotheses, hunches and guesses

Stage 2: Experiment designed; samples taken; variables isolated

Stage 3: Correlations observed; patterns identified

Stage 4: Hypotheses formed to explain regularities

Stage 5: Explanations and predictions tested; falsifiability

Stage 6: Laws developed or disconfirmation (hypothesis rejected)

Stage 7: Generalizations made

Stage 8: New theories.

Typical Sections of an English Research Manuscript

For manuscripts that describe empirical studies, the following sections are typically included:

1. Title
2. Abstract (brief summary of the study)
3. Introduction (rationale and objectives for the study; hypotheses)
4. Method (description of research design, study sample, and research procedures)
5. Results (presentation of data, statistical analyses, and tests of hypotheses)
6. Discussion (major findings, interpretations of data, conclusions, limitations of study, and areas for future research).

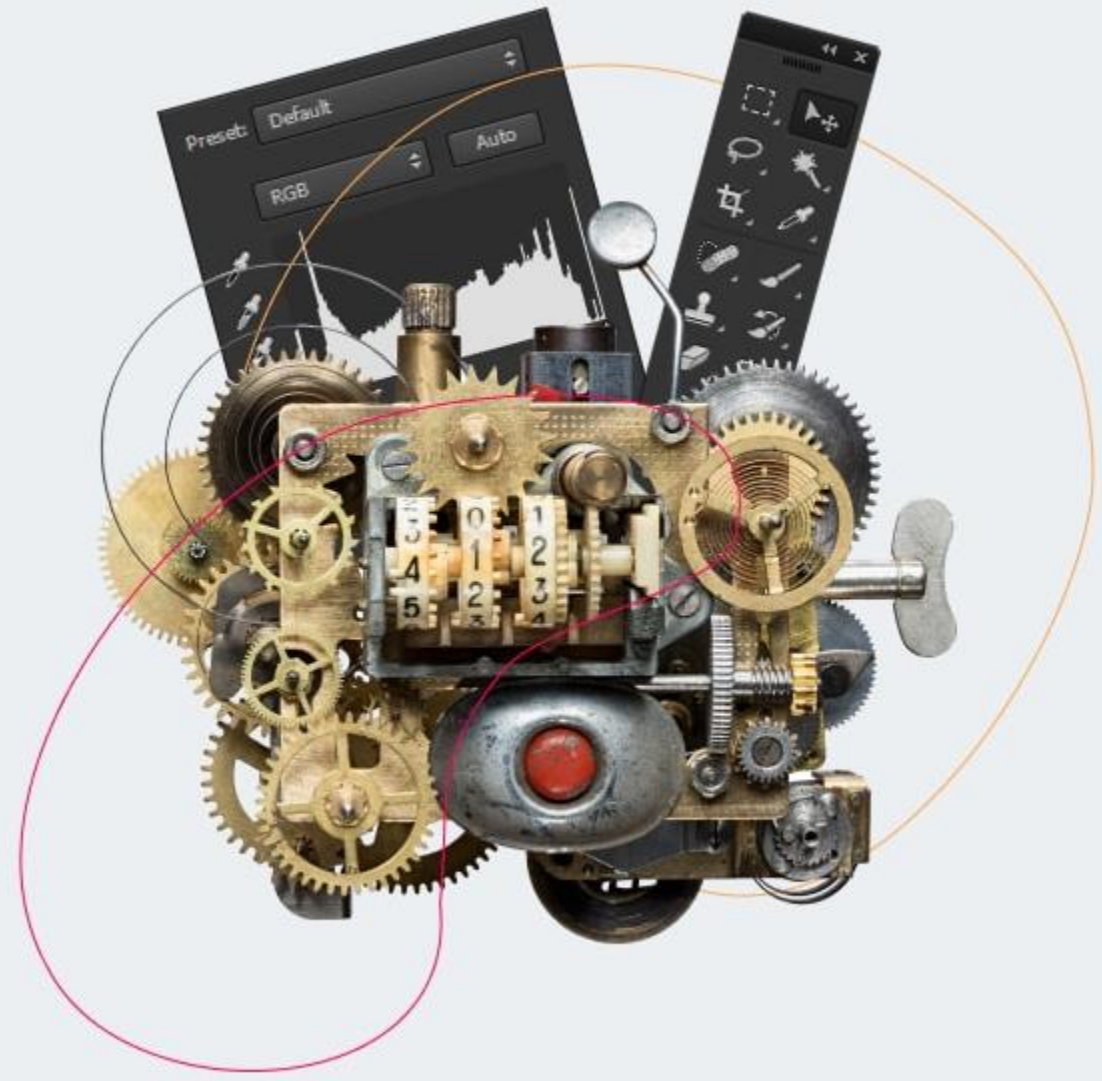
Typical Sections of an English Research Manuscript

IMRAD Стандартная структура научной статьи / презентации по результатам КР

Title (Название статьи)	Указывается тема исследования, автор, аффилиация. В студенческих сборниках также научный руководитель.
Annotation (Аннотация)	Конкретизирует содержание статьи и кратко отражает структуру IMRAD
Key Words (Ключевые слова)	Указываются ключевые термины и понятия исследования
Introduction (Введение)	Проблема, актуальность, новизна, объект и предмет; цели и задачи; Аналитический обзор литературы; ключевые понятия исследования.
Methods (Методы)	Методы, материал анализа, условия эксперимента, методики и средства проведения исследования
Results (Результаты)	Анализ, интерпретация и первичное обобщение полученных в результате исследования новых данных.
Discussion (Обсуждение)	Полученные ответы, их достоверность, значение,
Conclusion (Заключение)	Обобщение полученных результатов и выводов по ним; перспективы дальнейших исследований.
References (Литература)	Библиографические данные статей оформляются по требованиям издания (e.g. ГОСТ, APA etc.). Указываются все процитированные и проанализированные источники.

LITERATURE REVIEW

- A. Have other researchers done any work in this topic area?
- B. What do the results of their studies suggest?
- C. Did previous researchers encounter any unforeseen methodological difficulties of which future researchers should be aware when planning or conducting studies?
- D. Does more research need to be conducted on this topic, and if so, in what specific areas?





Questions for discussion

1. What is Scientific Knowledge? What features seem specific for it?
2. What is a scientific method? Why do we need it?
3. What features should scientific results have to fit a notion of a method-based study?
4. What is methodology? What meaning does English word 'methodology' have?
5. What levels of methodological thought can you name?
6. Are all possible methodological approaches just the same?
7. What is a scientific approach? Is it just a system of belief? Is it a sort of a model?
8. What is Meta-Language? Why do we need it?
9. Are all methods equivalent in Research?
10. What are key stages of scientific research?
11. What is the difference between theory analytical review and empirical research?
12. What is the difference between qualitative and quantitative methods in English Research tradition?
13. Can you name various qualitative and quantitative methods in English Research tradition?
14. What role should an observer play in the research? Should one stay visible or invisible? Can observer influence research results?
15. Can you tell the difference between educational scientific research methods and general research methods?

Exercises

Ex. 01. Research Project Statement Structure

Ex. 02. Research Project Statement

Ex. 03. Five key questions for your introduction

Ex. 04. Research project introduction /Erico/

Ex. 05. Introducing a Research presentation

Ex. 06. Primary Research Methods Typology

Ex. 07. A short research report

Ex. 08. English academic report structure

Ex. 09. English discourse on experiment structure

Ex. 10. Scientific Research Definitions 01m.

A SAMPLE TEST.

Fill in the blanks based on proper research terms choice.

1. _____ can be defined as a methodological and systematic approach to the acquisition of new knowledge.
2. The defining characteristic of scientific research is the _____.
3. The _____ approach relies on direct observation and experimentation in the acquisition of new knowledge.
4. Scientists define key concepts and terms in the context of their research studies by using _____ definitions.
5. What are the three standard general goals of scientific research?

A SAMPLE TEST.

Fill in the blanks based on proper research terms choice.

Options

- a) description, prediction, and understanding/explaining
- b) empirical;
- c) operational;
- d) science;
- e) scientific method;

ANOTHER SAMPLE TEST

English standard article structure

- a. Discussion
- b. Introduction
- c. Literature cited / References
- d. Methods
- e. Results
- f. Title

Need a
tip?

1	2	3	4	5	6



Research paper standard methodological issues:

What material did you collect and process in your study?

1. What methods did you apply in your term paper and why?

2. What theoretical models were involved in your study?

3. What concepts were involved in your study?

4. Did you use any special analysis techniques in your study?

☐ Какой материал вы собрали и обработали в ходе вашего исследования?

☐ Какие методы вы применили в вашей работе? Что определило (или чем обоснован) ваш выбор?

☐ Какие теоретические модели были задействованы в вашем исследовании?

☐ Какие концепции и понятия были актуальны для вашего исследования?