

## Research Approaches and Methods

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### COURSE INFORMATION

<i>Program of studies</i>	Faculty of Urbanism
<i>Type of course</i>	Required course
<i>Level of course module/unit</i>	Master's
<i>Program of studies</i>	2 ECTS (theoretical workload for student: 45 hrs)
<i>Competences to be developed</i>	<ol style="list-style-type: none"> <li>1) Understanding the elements defining the research and the difference between study and research</li> <li>2) Knowledge of the research specific jargon and algorithm</li> <li>3) Acquire the abilities needed to make a poster, deliver a presentation or publish a paper</li> <li>4) Learn basic principles of research ethics</li> </ol>
<i>Objectives</i>	Placed among formative disciplines, the course aims to endow a future specialist in architecture, urbanism and spatial planning with fundamental research abilities, especially those focused on disseminating the results, and familiarizing him/her with the legal framework of Romanian research. The accent is set on dissemination, by organizing a conference and a peer-review session.
<i>Teaching methods</i>	Lectures, PowerPoint presentations
<i>Evaluation</i>	<p><b>3</b> p. literature review, <b>3</b> p. presentation, <b>3</b> p. article, <b>1</b> p. for meeting at least one of the three criteria (handing in some output).</p> <p><u>The literature review, presentation and article</u> will focus on a topic chosen by the student.</p> <ul style="list-style-type: none"> <li>- The literature review will not exceed 1 A4 page (Times New Roman 12, single spacing) including the reference list, consisting of reviewing at least ten items to show supportive, unsupportive and neutral issues and underline new research directions.</li> <li>- The article will not exceed 8 A4 pages, and the presentation, 10 min., including the questions.</li> </ul> <p>The literature review will be graded by the instructor only. The presentation and article will be graded by the instructor (weight 50%) and other two colleagues (25% each).</p> <p>During the classes, bonuses are granted for correct answers, in order to be used to fully or partially meet the requirements. Granting bonuses depends on the attitude of the entire series to the course, indiscipline resulting into total cancellation.</p>
<i>Bibliography</i>	<ol style="list-style-type: none"> <li>1) Petrișor A.-I. (2012), <i>Abordare și metode de cercetare. Note de curs (Research approach and methods. Course notes)</i>, Editura Universitară „Ion Mincu”, Bucharest, Romania, ISBN 978-606-638-027-0, 117 pp.</li> <li>2) Petrișor A.-I. (2011), <i>Systemic theory applied to ecology, geography and spatial planning</i>, Lambert Academic Publishing GmbH &amp; Co. KG, Saarbrücken, Germany, ISBN 978-3-8465-0260-0, 172 pp.</li> </ol>

## Course notes

### Part I. General concepts in research

#### 1. Definitions of research

- Action of researching, studying, searching, investigating, analyzing – object of the course
- Examination, view, check, test
- Consulting, documenting (see English – *research* vs. *search*, or French – *recherche* vs. *cherche*) – this is why for the above we often use *scientific research* (*research*, *recherche*)
- Visit, relation (Bible): “*research the imprisoned*” – Cazania lui Varlam, 1643
- Investigation (juridical) – this is why for the above we often use *scientific research* opposed to the *penal* one
- Military interpretation – recognition, acquisition of information on the enemy

#### 2. Typology of research

Different authors distinguish:

- **Fundamental** research (also called *theoretic* or *basic*) aims to define or delimit concepts, elaborate theories and uses a classical approach, where the researcher starts from observations used to formulate hypotheses, tested through experiments producing data; their analysis leads to the confirmation or non-confirmation of hypotheses.
- **Applied** research solves specific issues through experiments and is also called experimental development. If the investigator modifies variables, it becomes *research-action*.
- **Descriptive** research analyzes in detail (including comparisons) the content of case studies or phenomena; can attempt to explain the results, analyze them in a historical content, make correlations, or include interviews.
- **Experimental** research tests hypotheses, often as part of fundamental research.
- **Operational (methodological)** research aims to develop new research methods.

Apart from these, though dictionaries do not make a clear distinction, there is a separation between research and study. Studies use known methods to test an existing theory in a new region or sample. Their scientific impact is limited, are rarely funded, and results are hardly publishable. Research includes an innovation element (method or theory), has a greater scientific impact, funding is easier and results are publishable. In general, studies can be a part of research.

Romanian laws distinguish:

1. **Fundamental research** – activity developed to acquire new knowledge of phenomena and processes, formulate and test hypotheses, conceptual models and theories
2. **Applied research** – activity designed to use scientific knowledge for the improvement or development of new products, technologies and services
3. **Technological development** – consists of system engineering and technological engineering, used to apply and transfer research results to the economy and society, aiming to introduce new technologies, products, systems and services or improve the existing ones, and includes:
  - a. **Pre-competitive research**, oriented to the transformation of results from applied research in plans and schemes for new products, processes or services, including the production of experimental model and first prototype, which cannot be used for commercial purposes
  - b. **Competitive research**, oriented to the transformation of results from pre-competitive research in products, processes and services able to answer directly to the demands of the market, including system engineering and technological engineering and design.

### 3. Phases of research

1. **Topic:** chosen based on resources; must underline novel, original elements
2. **Documentation:** extensive literature review to prove novelty using a critical approach (uncertainties: different opinions, lacks)
3. **Objectives:** what, when, where, how (suggest the means)
4. State **hypotheses** (empiric observations, previous studies, theoretic constructs, documentation)
5. **Work plan:** methods, data, analysis

### 4. Territorial research

#### 1. Instruments

- a. Field study
- b. Map
- c. Multi-scale analysis

#### 2. Methods

- a. Description – ideally quantitative
- b. Typology
- c. Choreme analysis
- d. Tegeo – couple object-information
- e. Analysis of organization
- f. LFA Analysis (Logical Framework Approach)
- g. SWOT Analysis
- h. Complex methods

#### 3. Data / statistical analysis

Studies made on *populations* by **descriptive statistics** produce certain results, while those made on *samples* by **inductive/inferential statistics** lead to uncertain results. The scientific expression of uncertainty is given in *inductive statistics* by statistical inference.

Statistical inference represents the extrapolation of judgments from samples drawn through specific statistical-mathematical procedures to populations. The attempt to explain one or more scientific observations is called *scientific hypothesis*.

These hypotheses need to be sustained by data (experiments, observations) and statistics. **Statistical hypotheses** are statements concerning one or more *populations* made to check *scientific hypotheses*. A *scientific hypothesis* consists of a **null hypothesis** (“there are no differences”) and an **alternative hypothesis** contradicting it and corresponding to the *scientific hypothesis*.

After applying a **statistical test**, the *null hypothesis* is rejected when significant differences are detected or not, otherwise. **Significant differences** are too large, compared with a chosen **level of significance** ( $\alpha$ ), to be attributed to random fluctuations, but are due to a significant reason, *i.e.*, the *scientific hypothesis*.

However, the null hypothesis is not accepted even if no significant differences are found, as the probability of its being true is not 100%, but  $(1-\alpha) \times 100\%$ .

### 5. Fraud / ethics in science

- Production of (fake) data
- Elimination of results
- Falsification (equipment, materials, processes, results)

- Distorted interpretations (including those of cited papers) or not sustained by results
- Plagiarism – including self-plagiarism (or multiple publication)
- Conflict of interests
- “Salami slicing”
- Integrity of images
- Authorship: adding or eliminating

## **6. Flow of research projects**

- Establish the study design: data sources, analysis methods, sample size, variables, required and available resources, funding conditions.
- Proposal
- Experiments or observations – produce data
- Data processing, preliminary estimations (results)
- Data analysis; check if results are correct and credible, ask new questions
- Refine results; anticipate their dissemination (might need additional analyses); discussions with other experts
- Presentation of results

## **7. Funding of research**

- Internal
  - UEFISCDI/CNCS
    - Programs ideas, human resources – addressed to research teams, evaluation focused on assessing people, particularly the lead expert
    - Partnerships – addressed to consortia of institutions; evaluation of the scientific proposal, lead expert, consortium (division of roles and funds), feasibility of expenses
    - Nucleus Program, direct funding based on classification
    - Capacities – institutional infrastructure
  - Sector programs of line ministries
- International territorial research
  - ESPON – low funds, call launched for a short time, require international consortia
  - SEE – South-East Europe; withdrawal of a partner cancels entire proposal
  - INTERREG, CADSES
  - URBACT
  - FP8
  - Other programs, organizations

## **8. The proposal**

- Scientific part
  - Goal, objectives, hypotheses – attractive, “marketed” presentation.
  - Literature review of what is known, importance (plead) – literature, issues, necessity and plausibility. Include economic figures (number of people affected, costs, media excerpts)
  - Potential results:
    - “Abstract”, intangible (“results” or “outcomes”) – what does the project change (better knowledge of topics; more efficient activities etc.)
    - Concrete, tangible (“outputs” or “deliverables”) – what does the project “produce” – books, papers, Internet site etc.
  - Preliminary studies (and results) underline the expertise and competence of the project team.

- Methods
  - Design
  - Place
  - Subjects (including sample size)
  - Questionnaires, laboratory techniques, data analysis
  - Limits and advantages
  - Time chart
- Economic and administrative part
  - Abstract
  - References (list; for the most important, include copies)
  - Questionnaires
  - CVs
  - Estimated budget
  - Administrative documents
    - Confidentiality forms, eventual conflicts of interests etc.

### **9. Evaluation and promotion criteria**

1. Publications (papers, books, chapters), conference deliverables
  - Non-periodic publications – have ISBN (International Standard Book Number) – size (no. of pages) not correlated to it
  - Periodic publications – have ISSN (International Standard Serial Number)
  - There are publications with both ISBN and ISSN
  - “Peer review” publications: contents evaluated by specialists from the same field, called “reviewers”, who decide whether: (1) the submission is rejected, (2) the submission is accepted conditioned on operating some changes, (3) the submission is accepted as it is
  - ISI publications
    - Thomson Scientific in Philadelphia, USA publishes Master Journal List – 14656 journals in 31 data bases
    - ISI-quoted journals must be present in the following (9975) databases. Citations are monitored for computing indices such as the impact factor (IF)
      - Arts & Humanities Citation Index – 1165
      - Science Citation Index Expanded – 6800
      - Social Sciences Citation Index – 2010
    - Journals in the Master Journal List, but not quoted are called ISI-indexed
  - Indices
    - Impact factor: ratio of ISI citations during the current year of papers published during the last two years and number of papers published during the last two years
    - Article influence score: ratio of the number of citations of papers published by a journal in other journals during the last years weighted with their influence, excluding auto-citations, and number of papers published by the respective journal
  - Old CNCSIS categories
    - A – ISI-quoted journals
    - B+ – indexed in international databases, including ISI-indexed journals
    - B – recognized journals
    - C – potential of recognition
    - D – in the lists of CNCSIS
  - New CNCS categories – humane sciences
    - A – increased national and international visibility
    - B – high impact, national visibility

- C – average impact, national academic environment
- 2. Participation to research projects (national and international)
- 3. For higher ranks – coordination of research projects (attraction of funds)
- 4. Teaching (old criteria)
- 5. Recognition: prizes, exhibitions, citations, coordination of professional structures, memberships, training specialists

Teaching	PhD required		Research	PhD required	
	Before 2011	After 2011		Before 2011	After 2011
<b>Preparer</b>	No	Rank unavailable			
<b>Assistant</b>	No	Yes	Research Assistant	No	Yes
<b>Assistant Professor (Lecturer)</b>	No	Yes	Scientific Researcher III	No	Yes
<b>Associate Professor (Reader)</b>	Yes	Yes	Scientific Researcher II	Yes	Yes
<b>Professor</b>	Yes	Yes Habilitation	Scientific Researcher I	Yes	Yes

## 10. Errors in research

- Work environment
- Data, measurement, sample selection
- Selective, subjective observations
- Involvement of the ego
- Illogical reasoning
- Excessive generalizations
- Time, resources, motivation

## Part II. Elaborating publications and presentations

### 1. Posters

#### *Sections of a poster*

- **Title:** 2 lines – short and straight, is an attracting or rejecting business card. Avoid capitalizing: THIS TITLE IS CRYING OUT!
- **Authors and affiliation** (latest can be placed on the bottom part), including contact information
- **Abstract:** not needed, most times it is required before and published in a volume (sometimes with ISBN), people can search a poster because they read the abstract before
- **Introduction** (200 words): general and specific background (with references), hypotheses/objectives
- **Materials, methods** (200 words) – brief and straight, state differences, eventual problems and their resolution
- **Results** (200 words): most important, use graphs, not tables
- **Conclusions** (300 words): specify the results and whether they support the hypotheses or not
- **Acknowledgements** (40 words) – funding

## 2. Conferences

### ***Abstract***

Authors must observe the guidelines. It can be structured implicitly or explicitly, including:

- **Introduction** – 2-3 sentences on the general and specific background, hypotheses/ objectives
- **Materials / methods** – 2-3 sentences
- **Results and discussion** – 2-3 sentences, show whether hypotheses are supported or not
- **Conclusion** – 1 sentence

### ***Presentation***

We live today in a world where broadcasting information passed from text to image, then to moving images and is going to 3-D moving images; we cannot capture people's attention by:

- Reading monotonously a written text (worst choice),
- Projecting images while reading monotonously a written text.

Most often, authors communicate in conferences using a Power Point presentation and its oral discussion. The best solution is to use automatic settings and comply with the warnings of the program, designed for a maximum impact. Authors should use 12 slides for a regular 15 minutes presentation: 1 introductory slide (title, authors, affiliation), 2 background slides with 2-3 references (not read, but indicate preliminary documentation), 1 slide with the objectives / hypotheses, 2 method slides, 3 result slides (graphs, not table), 1 discussion slide, 1 conclusion slide, 1 slide to thank the audience and ask for questions. The aim is to briefly present original findings, not what is already known.

### ***Avoid:***

- Designs loaded with useless elements; images used for background must be almost transparent
- Too many colors, fonts, useless clip-art images
- Too many slides, small fonts
- Copying the paper in a Power Point presentation
- Using visual transition between slides
- Automatic transition from one slide to another
- Tables

### ***Tips for the beginning***

- Link to the conference. Use a joke (“It’s a little bit hot today”, etc.), a formal formula (“I am honored to be here”); choice depends on the familiarity and relationship with the audience (people already known, prestigious personalities etc.)
- Author(s) must introduce themselves and present a 30 seconds abstract of their presentation focusing on original results

### ***Tips for the presentation***

- Classical teaching rules – do not point using the finger etc.
- Avoid: remote control, laser marker, Power Point marker; ideally use a radio / TV / car antenna
- Avoid automatic advancement of slides; ideally use arrows, Page Up, Page Down, or space key
- Check before whether the presentation is displayed correctly
- Submit it onto the screen using F5 or the program button; do not leave it opened for editing
- Permanent visual contact with the audience

### ***Conclusion tips***

- Thank the audience
- Allow time for questions

- Invite audience to ask questions
- Answer questions; “I don’t know, but will check and contact you later; can I have your contact info” is also an answer
- Thank for questions, ask for more questions during the break
- Do not come to deliver the presentation and leave immediately

### ***1890 Oxford University Rules of Civilized Polemics***

1. In any scientific, social and politic polemics, the discussion should confine to the change of ideas and only at those ideas which have affinity with that issue.
2. The parties in polemics use as argument either scientific theories, or concrete facts, relevant in respect of the problem discussed.
3. The parties do not have the right to bring into discussion the opponent’s character, temperament or past, as those neither confirm, nor invalidate the validity of the ideas they assert.
4. The parties do not have the right to discuss the reasons which determine the opponent’s ideatic attitude, as he diverts the discussion from the issue itself.
5. Labeling the opponent by mentioning the thinking school, professional organization or political party he belongs to constitutes a violation of the polemics rules and proves the lack of arguments weakness.
6. In a civilized polemics it matters only the arguments brought by the opponent as a person and not as member of a school or organization. You are not right because you are a materialist thinker, an owner or a worker, but only if your arguments are convincing or not.

## **3. The Paper**

### ***Types***

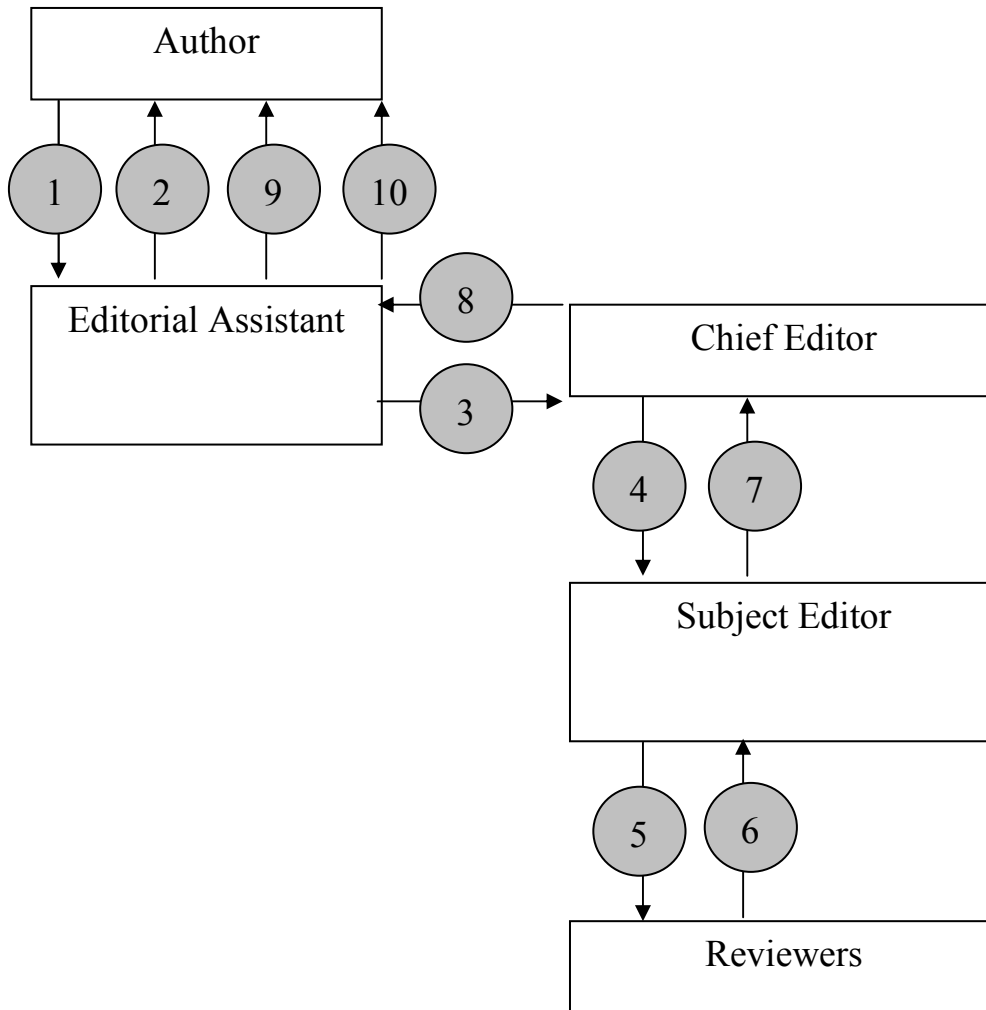
- Review – means review of literature from a certain area, presumes a good knowledge of the field; usually, authors have published extensively original research articles before
- Opinion (lesser in science) – similar to the previous one, can also underline methodological errors
- Original research
- Book reviews
- Invited – different from bulk invitations

### ***The “peer review” process***

1. Author submits a paper
2. Editorial Assistant confirms reception and thanks the author
3. Editorial Assistant forwards submission to Chief Editor
4. Chief Editor can directly reject the submission – informs the Editorial Assistant, who informs the author on the decision, or sends it to the Subject Editor
5. Subject Editor can directly reject the submission – informs the Chief Editor, who informs the Editorial Assistant, who informs the author on the decision, or sends it to the Reviewers
6. Each reviewers decides whether the submission should be rejected or accepted as it is or conditioned on operating some changes, informs the Subject Editor
7. Subject Editor weights opinions, takes a decision and informs the Chief Editor
8. Chief Editor informs the Editorial Assistant on the decision
9. Editorial Assistant informs the Author. If the submission is accepted as it is, the Editorial Board decides in which issue it will be included and informs the Author. In some cases, the Author must sign specific forms – copyright transfer etc., or pay publication charges, if any. If the paper is rejected, in some cases Authors are allowed to resubmit it to the same journal or must choose a different one and start over. Changes can be major – in this case the Author operates them and shows each Reviewer how were his/her comments addressed (some journals reject papers if a single reviewer Rejected them); for minor changes, steps 6-8 lack.

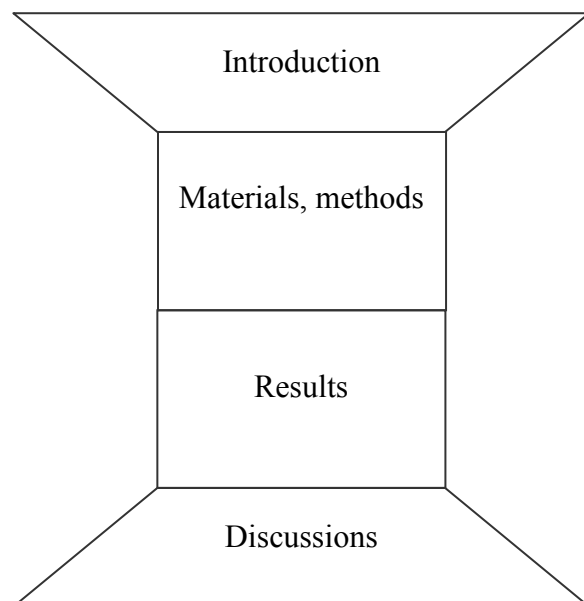


10. Editorial Assistant sends the Author a final version of the paper for approval or minor changes.



**Structure of papers**

- Title
- Authors, affiliation, corresponding author
- Abstract
- Key words
- Classifications
- Introduction
- Materials and methods
- Results
- Discussions
- Conclusions
- Acknowledgements
- References
- Appendices



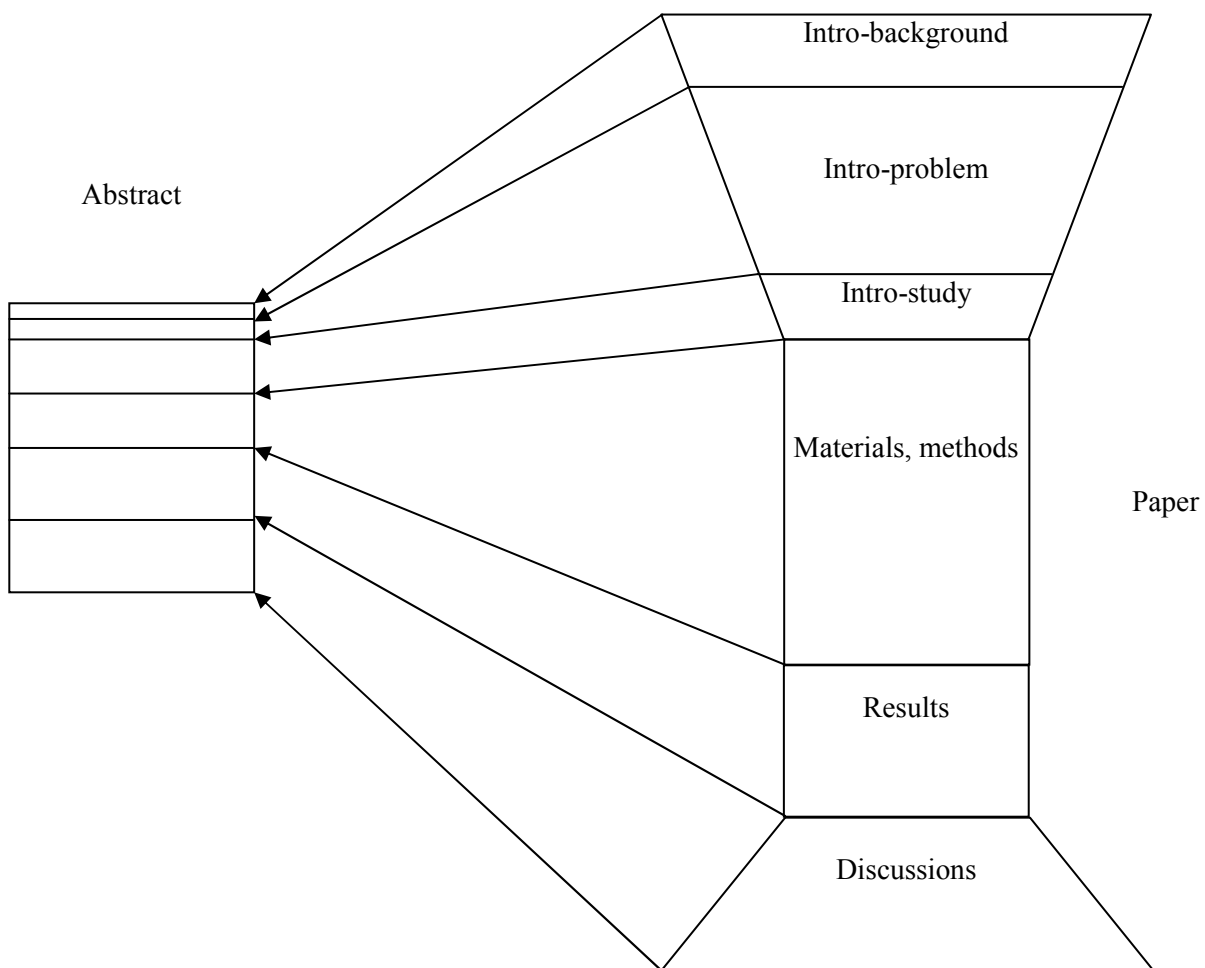
**Title**

- Brief, unambiguous, straight
- Appropriate generalization

- Marketing role: must attract
- No abbreviations
- Running title: short title, used in correspondence or headings

### *Authors*

- People who contributed
- Order differs: Amfiteatru Economic – academic rank; other countries – coordinator is first or last
- Affiliation
- Corresponding author: will be addressed by readers, people requiring offprint copies
- Submissions imply that that the paper has not been published or submitted and is not considered for publication by any other journal, that the study and data are original, the contents of the paper known and approved by all authors, who contributed to writing the paper and/or carrying out the research described in the paper, and authors assume the full responsibility for the contents, correctness and originality of the submissions.



### *Abstract*

- Is the “business card” of a paper
- Based on subject, can be structured implicitly or explicitly; structure mirrors entire paper
- Conventions correspond to the ones of the paper
- No abbreviations or citations
- Usually limited in size
- Last to be written, after the completion of full paper
- For international journals, it is usually the only free piece

- Structure: background, goal and hypothesis, methods, results, discussion, conclusions, recommendations

### *Key words*

- Usually no more than 5 required
- Foreign journals use standards corresponding to certain databases
- Must not be generic (e.g., urbanism, architecture), but specific
- Adapted to the aim of article: methods, theory

### *Introduction*

Justifies the need of research by placing it in a context established through a literature review; it is the most documented part of an article and must prove a in-depth and up-to-date knowledge of a field through references.

Introduction has several sections:

- General background – field and major area of interest: documented using very popular papers
- Specific context – theoretic or methodological. Review the literature underlining what is known and what isn't
- The issue: place it in the context of identified lacks
- For methodological papers, also discuss methodologies used by other studies
- Objectives or hypotheses of research

### *Materials and methods*

Describe materials and methods used, including data and their analysis: experimental, lab techniques; questionnaire; data processing and analysis; elimination of values, observations that could affect the results. Usually standard methods are not described, but the paper where they were published is referred. However, any deviations are described. Passive voice is recommended to depersonalize the section; personal note is occasionally appropriate for theses or dissertations.

“Methods” include:

- General view of experiment
- Population, sample
- Place
- Restrictions, limiting conditions
- Sample (subject) selection
- Procedures (obligatory)
- Materials (obligatory, if there is no separate section)
- Variables
- Statistical analysis

“Materials”, if existing, include:

- Lab equipment
- Field equipment
- Subjects (people, animals)
- Natural substances
- Materials produced
- Questionnaires, tests
- Computational models
- Mathematical models

### *Results*

First state the objectives / hypotheses. Results are displayed as graphs (preferred) or tables; do not replicate information (graphs and tables presenting the same results). Also specify negative results. If there is a separate *Discussion* section, describe results (usually quantitatively: an increase, decreases, differs. If there is only one section, compare results with those of similar studies etc.

### *Discussions*

Compare results with the hypotheses. Attempt to explain eventual differences or indicate that results support hypotheses. In the explanation, attitude differs from “a possible explanation is” to “certainly”, based on statistical support. Compare the results with those of other studies supporting the hypothesis (or not). Identify conceptual or methodological limitations. Clearly indicate future

research directions. Do not replicate the information in *the* Results section. For a common *Results and Discussion* section, information is ordered as R1 + D1 + R2 + D2 + R3 + D3 or R1 + R2 + R3 + D.

The general structure is:

1. Reference to the objectives / hypotheses
2. Reference (not copying!) to the most important results, to whether they support the hypotheses or not, and how do they compare to those of other studies
3. Possible explanations of results, eventually speculative
4. Limitations of study – what could prevent the generalization of results
5. Implications of the study (generalization of results)
6. Recommendations for future results and practical implications of results

<i>Placement (identification) of results</i>	<i>Brief presentation of most important results</i>	<i>Attempt to explain results, comparison with other studies, comments, generalization</i>
Results regarding... are presented in Fig./ Table...	Fig./ Table... indicates an increase/ decrease of... during... in the area...	The increase/ decrease can be explained by... could be due to... has been also described by...

### *References*

- Cite only “first hand” sources
- Cite publications (with ISBN or ISSN), not Internet sites, brochures, *in press* papers
- Stiles – follow the guidelines
- Balance: not too many, not too few – depends on the type of paper
- New, rigorous papers
- The thirst for an impact factor determined ethic-less journals to ask authors to cite recent papers from the same journal
- Auto-citations o not matter

### *Citation of references in text*

- Texts taken as they are must be inserted between quotation marks
- In-text references must be found in the list and conversely
- Most papers are cited in the introduction (theoretical and methodological background), some in the methods (if the methods were already used) and some in the discussions (comparison with similar studies)
- Two types of citation: author-focused (for important authors or unique studies – Smith (2008) shows that... or results- focused: similar studies indicate an increase of... (Smith, 2008; Jones, 2008; Smith and Jones, 2009)
- Citations using author(s) and year or numbers (corresponding to final list)

### *Acknowledgements*

- Those who funded research: this paper is a result of the research project... funded by...
- Those who contributing to writing the paper with suggestions (if applicable) or in conferences – nominal
- Reviewers – generic, for their comments

### *Footnotes*

Footnotes are avoided in sciences, but used in humane sciences, economy, sociology etc.

**Submission**

- **Cover letter:** very important for orienting the submission to reviewers most able to understand it. Must include copyright statements, compliance with editing guidelines and state the main focus: specific topic, type (theoretical, methodological, research etc.).
- **Potential reviewers:** some journals do not make specific statements, other ask authors to suggest potential reviewers, adding their own ones. Even though usually stated, authors must know that reviewers must be from another institution (usually a different country).

**4. Communication in science**

- For conferences and papers: confirm reception of materials even if not stated or suggested
- Thank (but state why). Journals thank authors for their interest. Authors thank journals for considering submissions, even when they are rejected. In conferences we thank the organizers, even if not physically present.
- Western civilization show respect to scientific titles and ranks.
- Observe e-mail communication etiquette.
- Communication does not mean slavery. Reviewers can mistake. Argue for your answer in a civilized way.
- Final recommendations
  - Know your public
  - Know your message – structure it if needed
  - Presentation style: personal in communication, impersonal for papers; active – passive voice
  - KISS – Keep It Simple and Short (humane sciences vs. sciences), formal or informal, jargon (e.g.,: *Triticum aestivum*), empty words
  - Acronyms and abbreviations – when to use?
    - **Allowed:** etc./ş. a., et. al., unpub., n. d., c./ca., op. cit. (opp.), n. b., i. e./viz./sc., vs./v. (EN), v. (RO), e. g./d. e./d. ex./ex., A. D./A. C./C. E./D. C., B. C./B. C. E., p. (pp.), s. (ss.)/§ (§§), nr./no./#, vol., pers. comm./in litt., cf./apud, Reviews on Advanced Materials Science – RAMS – Rev. Adv. Mater. Sci. 30(1):27-59; measurement units, first names. Defined abbreviations: ISI, field-specific abbreviations
    - **Not allowed:** Fr.
    - **Names can be abbreviated:** Smith, Smith R., Smith Helen – text or references
  - Bulleted lists

**Criteria for assessing the quality of presentations**

<b>Criterion</b>	<b>Explanation</b>
1. Quality of discourse	Clear, fluent, intelligible discourse
2. Quality of graphics	Not too much, but not pale
3. Capacity to convey information	Presentation style – was the public kept attentive?
4. Timing	Did the presenter make it, allowing room for questions?
5. Relationship between contents and message	Was the presentation focused on known, unessential issues, or was it too short?
6. Novel, original elements	If I were to pay an attendance fee, was this presentation worthy of it, did I find anything new?
7. Relationship between title and contents	Was I expecting more than announced in the title or introduction?
8. Conclusions, “take home” message	Did it exist?
9. Relationship with the public	Did the presenter try to communicate with the public?

***Criteria for assessing the quality of papers***

<b>Criterion</b>	<b>Explanation</b>
1. Relationship between contents, title, abstract and key words	Do the title and key words “announce” more than is actually written? Are key words well chosen and different from the title?
2. Logical structure	Does the text “flow” as a whole and piece by piece? Is there any logic for the inclusion and positioning of each paragraph?
3. Observance of Author Guidelines	Does the paper comply with the Author Guidelines?
4. Is the paper documented up-to-date?	Is the paper documented (see citations)? Are the latest papers cited?
5. Relationship between contents, discussions and conclusions	Are conclusions a logical consequence of arguments presented? Is the discussion of results logical with respect to the theoretical framework presented in the introduction and research objectives or hypotheses?
6. Relationship to the background	Does the introduction frame clearly, logically and completely the issue in a theoretical context?
7. Quality and clearness of language	Is the language clear, correct (spelling, grammar), and as impersonal as possible?
8. Own contribution	Can the own contribution of author, novelty and originality elements be detected?
9. Contribution to the field	If I were to pay for reading the paper, is it worthy? Does it teach me a lesson?