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Democracy and Education*



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Method of writing scientific papers

Scientific Paper Writing Method

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Introduction

1

Individual researchers may choose to research any subject that meets their interests as long as they have the required background for that specific research. They have the ability to write the paper as they want, since they do it primarily for personal satisfaction.

The research, however, should also cover other general and specific objectives, most notably the strengthening of the common fund of pre-existing scientific knowledge for sharing¹. To achieve this, however, it is necessary for the paper to be written with a specific methodology and structure that is consistent with scientific ethics.

The structure of a scientific paper, depending on its type, ie, bibliographic or research, has a strictly specific structure, which every researcher must devoutly follow. This is to ensure both the consistency of the paper as well as the clarity and credibility of its results and, consequently, its contribution to the Common Knowledge Fund and to the scientific dialogue. It also has to be written in such a way that the research findings make the way it is carried out clear, so that it is also repeatable by other researchers, a fact that it increases its credibility.

Finally, a scientific paper cannot be understood only by the authors or the experts of their narrow scientific circle. It has to meet another basic criterion: it has to be formulated in a way that it can be understood by as wide a social group as possible, which contributes to the upgrade of the social educational level.

The following chapters present the types of scientific papers, as well as indicative structures of them. The methodology of writing a scientific paper is presented, including its wider objectives, as well as the writing and formatting features of the text and how citations should be formatted. Finally, there are instructions on how to insert references in the footer, as well as how to create and configure the table of contents of a paper.

1 Παρασκευόπουλος, Ι. (1993), *Μεθοδολογία Επιστημονικής Έρευνας*, Τόμος 2. Αθήνα: Αυτοέκδοση, σ. 146.

Types of scientific papers

2

All kinds of papers that appear in the spectrum of scientific research can be divided into three main categories: quantitative research, qualitative research and bibliographic research. «Depending on the type of data, quantitative or qualitative, the research is quantitative and qualitative. Nowadays, there is a tendency to combine qualitative and quantitative data»². Each of the above categories has its own research methods, but there are cases such as action research that responds to both quantitative and qualitative research needs, using both qualitative and quantitative data. In the following chapters we will briefly review each of these categories.

2.1. Quantitative research

When we say “quantitative research,” we mean a set of research processes, such as descriptive, experimental, correlative and transgenic, which use quantitative data. Their characteristic is the existence of:

1. a representative or non-representative sample, ranging from 30 to 35 subjects, depending on the objectives of generating the results of the survey,
2. a data collection tool, for example a scale or a questionnaire,
3. a specific way of processing and analyzing data, using independent and dependent variables, which aims at determining the percentage in a sample corresponding to a specific population.
4. direct contact between the researcher and the research subjects.

2.2. Qualitative research

On the other hand, “qualitative research” means the set of research processes used in an event, an in-depth situation, using qualitative data emanating from the research subject.

2 Βάμβουκας, Μ. (2007), *Εισαγωγή στην ψυχοπαιδαγωγική έρευνα και μεθοδολογία*. Αθήνα: Γρηγόρη, σ. 89.

Qualitative research is a research activity that uses a set of interpretative and material practices, such as observations, notes, interviews, conversations, photographs, recordings, and diaries, with the aim of an interpretive, naturalistic approach to a phenomenon. «This means that qualitative researchers study things in their natural context, attempting to give meaning or interpret phenomena in terms of the meanings that people give to them»³. An indicative form of qualitative research is the case study, features of which can be considered as follows:

1. the absence of a large sample
2. in-depth analysis of the data (content analysis, interviews, observations, etc.)
3. direct contact between the researcher and the research subjects
4. the typically non-generalizable nature of the results.

2.3. Bibliographic research

Bibliographical research is a way of analyzing a subject in order to answer questions without the collection of empirical research data on which to base itself to substantiate the answer, but on bibliographic data such as empirical, theoretical or other bibliographic research and writings. The methodology of authoring the bibliographic research lies in:

1. a summary of the meanings of the bibliographic data under consideration
2. their categorization
3. the comparative presentation of the data
4. the critical evaluation of the data and
5. their constitution into a new single text

Through bibliographic research, we try to answer questions based not on empirical research data but on the critical analysis of other published papers (empirical studies, theoretical studies, or even other bibliographic research) related to our topic, ie summarizing, sorting, comparing and composing material that has already been published.

A bibliographic research consists of four distinct parts as follows:

1. the **Introduction**, where the purpose and the plan the paper are described
2. the **Clarification of Terms**, where certain basic terms being used as the main conceptual tools of the paper are briefly clarified
3. the **Review of the basic theories and the wider existing literature**, as well as their evaluative comments in the last subsection, and
4. the **Conclusions** resulting from the bibliographic review as well as **suggestions** to further address the issue

³ Denzin & Lincoln (2005), Στο: Ίσαρη, Φ., Πουρκός, Μ. (2015), Ποιοτική Μεθοδολογία Έρευνας. Εφαρμογές στην Ψυχολογία και στην Εκπαίδευση. Αθήνα: Ελληνικά Ακαδημαϊκά Ηλεκτρονικά Συγγράμματα και Βοηθήματα, ISBN: 978-960-603-455-8, σ.σ. 11-12.

Indicative structures of bibliographic and research papers



3.1. Indicative structure of a bibliographic research

Title (lowercase with the first letter of each sentence) capitalized

Author name and surname

Abstract

In the abstract, the author makes a brief presentation of the bibliographic research in 100-130 words, including the purpose of the paper in relation to the problem, how he/she worked to approach the problem, the conclusion of the approach and why the paper is useful to the reader.

Keywords

Title in Greek

This is where the title of the article is translated into Greek

Abstract in Greek

This is where the abstract of the article is translated into Greek

Keywords in Greek

1. Introduction

The introduction briefly presents of the problem addressed by the bibliographic research, justifies the choice of the subject and presents the structure of the paper. The size of the introduction depends on the type of paper. For papers of 4,000-5,000 words, the introduction cannot exceed 250-400 words.

2. Clarification of terms (e.g. definitions, concepts, etc.)

3. Theoretical approaches to the specific subject

This chapter and its subchapters review the basic theories and the wider existing literature on the subject as well as their critical commentary, in the last subchapter.

4. Conclusions and suggestions

Bibliography (Greek, foreign, websites, etc.)

Author biographical data

3.1.1. Indicative contents of a bibliographic paper with a specific theme

Interculturalism and empathy in education

Author name and surname

Abstract

Keywords: ...

Διαπολιτισμικότητα και ενσυναίσθηση στην εκπαίδευση

Ονοματεπώνυμο συγγραφέα

Περίληψη

Λέξεις-κλειδιά: ...

Interculturalism and empathy in education

Name and surname of the author

Abstract

Keywords: ...

1. Introduction

2. Clarification of terms

- 2.1. Culture
- 2.2. Interculturality
- 2.3. Communication
- 2.4. Intercultural Communication
- 2.5. ... etc.

3. Theoretical Approaches to Intercultural Education and Empathy

3.1. Interculturality in Education

- 3.1.1. Causes of Interculturality
- 3.1.2. Evolution of Interculturalism
- 3.1.3. ... etc.

3.2. Empathy in Education

- 3.2.1. The Role of Empathy in Education
- 3.2.2. The role of empathy in classrooms with culturally different students
- 3.3.3. ... etc.

4. Conclusions - Suggestions

Bibliography

- Greek
- Foreign
- Websites

Author biographical data

3.2. Indicative structure of a research paper

Title (lowercase with the first letter of each sentence capitalized)

Author name and surname

Abstract

In the abstract the author makes a brief presentation of the paper in 100-130 words, which includes elements of the theoretical part, the purpose and aims of the paper in relation to the problem, a general position on how he/she worked and what the results were, and the reasons why the reader should read the article.

Keywords

Title in Greek

This is where the title of the article is translated into Greek

Abstract in Greek

This is where the abstract of the article is translated into Greek

Keywords in Greek

1. Introduction

The introduction is a brief presentation of the problem that the research deals with, the choice of the topic is justified, and the structure of the paper is presented. The size of the introduction depends on the type of paper. For papers of 4,000-5,000 words, the introduction cannot exceed 250-400 words.

2. Theory

In this chapter and in its sub-sections there is a review of the basic theories and the wider existing literature on the subject, as well as their critical and evaluative commentary, in a separate sub-chapter. The theoretical part closes with two subchapters, the penultimate one including the purpose of the research, and the last one formulating with the formulation of the research hypotheses (general and individual), as shown in the following example, which must clearly emerge from the theoretical part and to support the necessity of conducting relevant.

2.1. Clarification of terms (e.g. definitions, concepts, etc.)

2.2. Theoretical approaches to the subject (eg description of bilingual education)

2.3. Criticism of what has been presented (eg critique of theories, views, etc.)

2.4. Relevant prior studies

2.5. Purpose of research

2.6. Research hypotheses

2.6.1. General hypothesis

2.6.2. Individual hypotheses

3. Methodology

Depending on the purpose and the research hypotheses posed at the end of the theoretical part, the investigative methodology to achieve the aims of the research is formed. This requires the selection of an appropriate sample, the configuration or selection of a suitable research tool and finally the choice of the appropriate method for the analysis of collected data.

3.1. Research sample

3.2. Research tools, such as a questionnaire, interview, observation

3.3. Method of research data collection

3.4. Method of research data analysis

4. Research results presentation

4.1. ...

4.2. ...

4.3. ... etc.

5. Conclusions and suggestions

6. Research limitations

Bibliography (Greek, foreign language, websites, etc.)

Author biographical data

3.2.1. Indicative contents of a research paper with a specific theme

Subjectification and subjectivity of religiousness in students of different cultural groups of sixth grade

Author name and surname

Abstract

Keywords: ...

Υποκειμενοποίηση και υποκειμενικότητα της θρησκευτικότητας σε μαθητές πολιτισμικά διαφορετικών ομάδων της Στ' Δημοτικού

Ονοματεπώνυμο συγγραφέα

Περίληψη

Λέξεις-κλειδιά: ...

1. Introduction

2. Theory

2.1. Clarification of terms

2.2.1. Subjectivity

2.2.2. Subjectification

2.2.3. Diversity

2.2.4. etc

- 2.2. Theories of subjectification and subjectivity
- 2.3. Culturally diverse groups and religious subjectivity
- 2.4. Relevant prior studies
- 2.5. Purpose of the research
- 2.6. Research hypotheses
 - 2.6.1. General hypothesis
 - 2.6.2. Individual hypotheses

3. Research Methodology

- 3.1. Research sample
- 3.2. Research tools
- 3.3. Method of research data analysis

4. Presentation of the research results

- 4.1. Faith in God according to gender
- 4.2. Degree of religious faith according to gender and religion
- 4.3. ...etc

5. Conclusions – suggestions

6. Research limitations

Bibliography

- Greek
- Foreign
- Websites

Author biographical data

Writing a scientific paper

4

Writing a scientific paper is not just a means of personal satisfaction, **but** it must also strengthen the “common fund” of pre-existing scientific knowledge for the purpose of sharing and respond to specific and wider objectives.

4.1. Wider objectives

The wider objectives of a scientific paper are:

1. to help solve or address a specific problem
2. to be understood by the readers, not only those who are experts of the object, but by readers of an as wide as possible education level
3. to disclose all methodological data so that the research is repeatable by other researchers
4. to follow specific evidence, with an obvious internal structure
5. to be original and offer new data in the scientific discussion

4.2. Specific authoring and formatting features

4.2.1 Text elements

- **Paper title:** at the first line of the first page
- **Author’s details:** name, title, contact email. On the first page under the title of the paper
- **Summary:** 100-130 words
- **Keywords:** basic key words of the paper
- **Author’s biography:** 45-60 words, embedded in the file after the bibliography.
- **Title of paper, headings and author’s name:** in lowercase with the first letter of each word capitalized
- **Main text:** 4,000-5,000 words for full articles, 2,000-3,000 words for brief-concise articles.

4.2.2 Article types

Full articles: 4000 - 5000 words

- Full theoretical articles
- Full qualitative research articles
- Full quantitative research articles

Preliminary research announcements: 2000-3000 words

- Research projects - Introductory presentations of planned surveys
- Pilot surveys
- Doctoral theses
- Postgraduate theoretical or research papers

Brief/concise articles: 2000-3000 words

- Brief / concise research presentations
- Brief / concise theoretical presentations
- Presentations of educational activities
- Presentations of cultural educational activities
- Presentations of supervisory teaching instruments/aids
- Educational software presentations
- Book presentations

Teaching scenarios all specialties: 2000 - 3000 words

- Teaching plans and projects
- Laboratory presentations
- Educational scenarios
- Innovative Programs and Activities

4.2.2 Page formatting and layout

4.2.2.1 Page layout

- The paper must be typed in Microsoft Word.
- **Page size:** A4
- **Orientation:** vertical
- **Margins:** normal (2.54 cm. Left, 2.54 right, 3.18 up, 3.18 below).

4.2.2.2 Text formatting

- **Font:** Times New Roman 10
- **Spacing:** single

- **Space before and after:** 0
- **Indent:** first line (1,27 cm).
- **Alignment:** full

4.2.2.3 Titles and headings

- **Format:** bold
- There is 1 blank line **before and after**.
- **Table and chart/diagram titles:** above the table or chart/diagram, fully aligned with a blank line before and after.

4.2.2.4 Text structure

- The paper must be divided in **chapters and subchapters**.
- To be documented with **bibliographical references**.
- **Complete bibliography** at the end of the paper, divided into: Greek, foreign and webpages.

4.2.2.5 Numbering of chapters, tables, charts, icons, etc.

- The numbering of tables must be consecutive.
- Check for proper numbering of chapters and subchapters.
- The numbering of charts must be consecutive.
- The numbering of the images must be continuous.
- Numbered lists should be replaced by bullet lists
- No abbreviations of words.
- Tables and charts should fit the size of the page.

4.3. Bibliographical references

- **Bibliographical references** are inserted in the form of **footnotes** at the end of each page.
- The **numerical style** is used and not the APA style.
- When a writer is repeated as a bibliographical reference, we do not use "ibid-", instead, we repeat the entire reference to the referenced page.
- All authors' names and dates in any article, regardless of the language in which they are written, are deleted from the text and are referred only in the footnote.
- All texts that differ from the language used by the author **are referenced in the source language, translated into the author's language and transcribed in the text**. If, for example, a text is written in Greek, all the concepts or phrases belonging to another language, for example in English, are referred to in that language, ie. in English, are translated into Greek and are listed in the text in Greek. This rule excludes the Ancient Greek language.

4.3.1. Types of bibliographical references

Each paper essentially consists of three types of texts:

1. **Quote:** Texts that are precisely copied from a book, article, or other scientific work. These texts appear in the work in quotes, with a reference at the bottom of the page. The referral number is entered **outside the quotation marks before the punctuation mark**.
2. **Mention:** Texts that essentially constitute the meaning of a paragraph, page, article, or book. These texts appear in the paper without quotation marks, with a reference at the end of the paragraph **of meaning**. The referral is entered at the bottom of the page and the number is entered at the end of each paragraph being referenced and before the punctuation mark.
3. **Personal opinions:** The personal opinion and presence of the writer must be obvious in the paper. The author judges, compares, outlines, expresses his/her opinion, depends on the subject. His/her interventions contribute to the composition of individual elements of the project, form the overall cohesion and thus constitute the level of the scientific paper.

4.3.2. Bibliographical references

References list the **specific page** which is quoted or referenced.

Referring to a page is listed as **p.**, while when it comes to multiple pages the inscription is done as **p.p.**

4.3.2.1. References to books

Georgogiannis, P. (1999), *Topics in Intercultural Education*. Athens: Gutenberg, p. 110.
{Author surname}, {Name Initial}., {(publication year)}, {Book title}. {Publication location}: {Publishing house}, {page number/numbers}.

4.3.2.2. References to translated books

Bernstein, B. (1989), *Pedagogical codes and social control*, (trans.) I. Solomon. Athens: Alexandria, p.p. 150-151.
{Author surname}, {Name Initial}., {(publication year)}, {Book title}. {(trans.) translator name}. {Publication location}: {Publishing house}, {page number/numbers}.

4.3.2.3. Second level references

When a theory is mentioned in the text, for example The theory of cultural identity development, which was formulated by Jackson and the recovery of the information was made by G. Klefara's book, then none of the names is mentioned in the text and the reference is made as follows:

Jackson (1975). In: Klefara G., (2003), *The role of cultural identity in the psychological counseling of individuals of different cultures*. Proceedings of the Conference, Intercultural Counseling, Athens: EKEP, p.14.

{Author surname}, {Name Initial}., {(publication year)}. In {Author surname}, {Name Initial}., {(publication year)}, *{Book title}*. {Publication location}: {Publishing house}, {page number/numbers}.

4.3.2.3. References to journal articles

Mitsis, N. (2002), The skill of speech in terms of the communicative approach of Greek as a second or foreign language. *Intercultural Education - Greek as a Second or Foreign Language*, vol. 2, p.p. 4-10.

{Author surname}, {Name Initial}., {(publication year)}, {Article title}. *{Journal title}*, {vol./issue number}, {page number/numbers}.

4.3.2.4. References to collective volumes chapters

Markou, G. (1997), School and social (re) integration of repatriated pupils: the perspective of parents. In: E. Skourtou (επιμ.), *Issues of Bilingualism and Education*. Athens: Nisos, p.p. 103-137.

{Author surname}, {Name Initial}., {(publication year)}, {Chapter title}. In: {Editor's Name initial}. {Editor's surname} (ed.) *{Book title}*, {Publication location}: {Publishing house}, {page number/numbers}.

4.3.2.5. References to conference proceedings

Galanis, G. & Prentouli, D. (2002), Albanian-speaking teachers in Greek classes. A challenge or a necessity for Greek society?;. In: P. Georgogiannis (ed.) (2002), *Intercultural Education - Greek as a Second or Foreign Language*, vol. II, Proceedings of the 4th International Conference (Patra June 28-July 1, 2001). Patras, p.p. 44-62.

{Author surname}, {Name Initial}., {(publication year)}, {Paper title}. In: {Editor's Name initial}. {Editor's surname} (ed.) {(publication year)}, {Book title}, {Conference details}, {Publication location}: {Publishing house}, {page number/numbers}.

4.3.2.6. References to webpages

Cornes, A., *Intercultural Empathy*. In: <http://www.global-excellence.com/getfile.php?g=40> (accessed on 5/1/2009)

{Author Surname}, {Name Initial}., {Article Title}. In: (full website address) (date in which the article was accessed)}

4.3.2.7. Reference to an entire bibliographic source

If the author wants to refer to the whole of a bibliographical source (book, article, paper, etc.), the reference is introduced in accordance with the above instructions, but without the page number.

4.3.2.8. Bibliography at the end of the paper

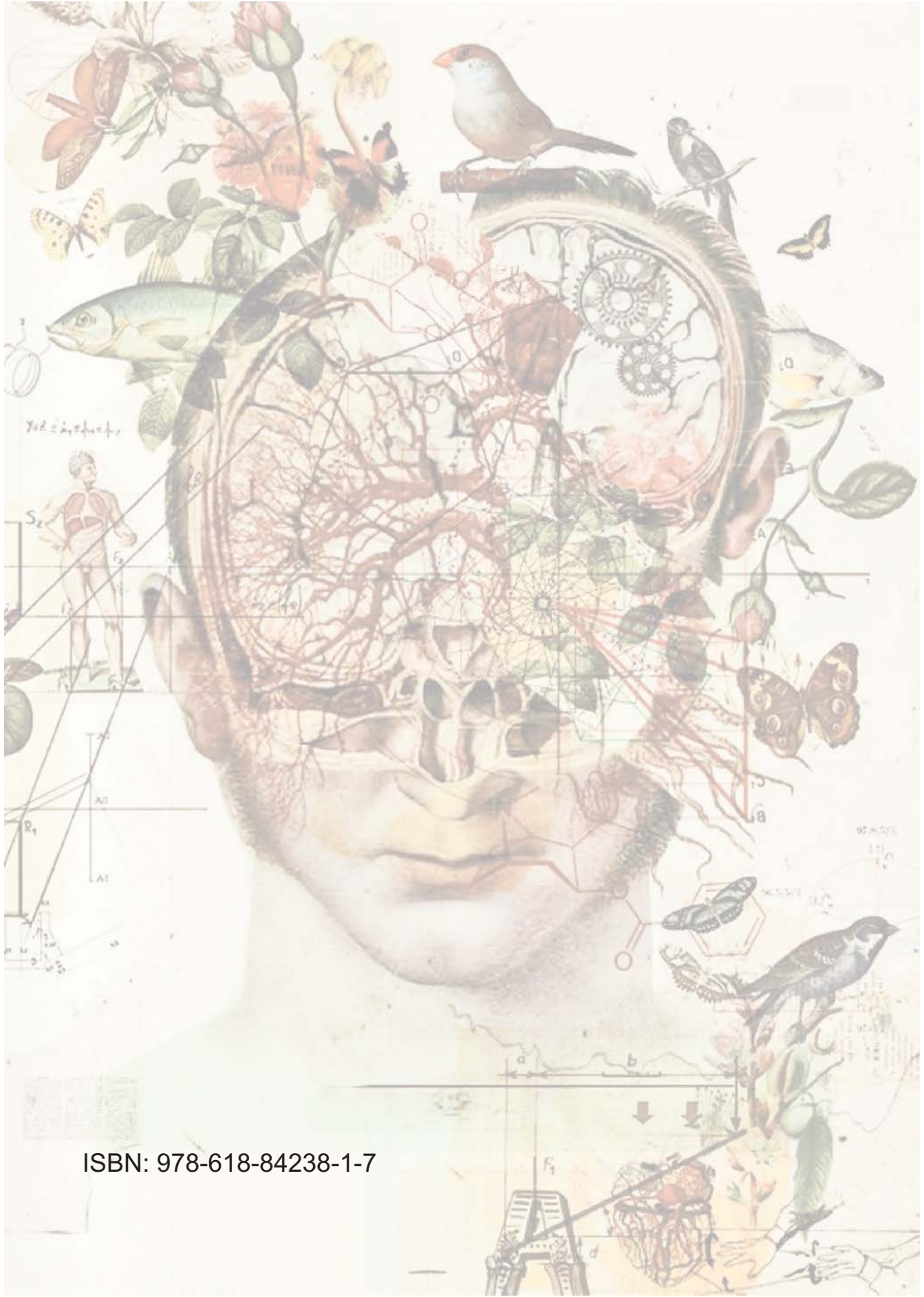
4.3.2.8.1. References

All footer references include the paper number or numbers from which information or quotes were retrieved for the purpose of writing the paper, always in the language the text was written into.

4.3.2.8.2. Bibliography

The bibliography is given in the language of the bibliographic sources used by the author. For example, if the author writes in Greek and uses bibliography in English and Italian, the bibliography at the end of the paper will be divided into Greek-speaking, English-speaking, Italian-speaking and web-pages.

When the bibliography is composed at the end of the work, the page numbers mentioned in the footer, are omitted.



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