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## INTRODUCTION / INTRODUCERE

The efficiency of the educational process is closely related to the pedagogical research. Specialists in different fields are concerned with knowing, interpreting, understanding and explaining the various aspects of the educational action, identifying cause-to-effect type of relationships, formulating conclusions, theories, outlining of some innovative practices.

The scientific research competences are proof of professional maturity, the high level of the theoretical and practical-methodological abilities that the teacher has developed during his / her teaching career. The responsibility of the work done and the respect for the sources consulted are two defining principles of the scientific research, and the exploitation of the results obtained following an investigative approach must reflect both a critical attitude towards information sources and a reflective, interrogatory one, in relation to the data acquired in the following documentation.

The documentation is an essential step in the designing and writing process of the scientific papers, it is necessary to define the basic concepts for understanding the main aspects of the theme chosen. The inventory progress reached by a problem at a theoretical level, but also in practice , by consulting various information sources, allows to avoid roads already traveled, on the one hand, and, on the other hand, offers the possibility of discovering new perspectives of a creative approach of the educational phenomenon, shaping some of the theoretical and praxiological directions.

The selected information, synthesized, organized following the documentation will then be interpreted and structured in a personal and constructive way.

*The Annals of the University of Craiova, Psychology and Pedagogy series*, edited by the Department for Teaching Staff Training, through the Center for Psychopedagogical Research (Romanian acronym CCPP), brings to your attention for no. 40 for 2019, the theme *Scientific research: from the documentary and drafting acribia to ethics and deontology*.

How can we ensure professionalism, objectivity into the research approach? What are the requirements to be observed in the bibliographic documentation? What are the main sources of documentation and the selection criteria? What methods and tools for information and documentation does the researcher have available? How can we capitalize on the results of documentation by avoiding (self) plagiarism? What are the requirements, the rules for using and quoting the sources? What are the rules for editing a work? What criteria do we refer to in (self) evaluation research science? What are the professional standards which ensure a correct conduct of a researcher?

The answers to these questions can be provided by elaborating theoretical and practical-applicative papers to be found in the **topics** proposed for this issue:

1. Documentation - an important step in the investigative approach
2. Selection and capitalization of information and documentation sources
3. Rules / exigencies of writing a scientific paper
4. Distortions and errors in research
5. Ethical a and Standards in country research
6. Criteria for the (self) evaluation of scientific research
7. Reflexivity, objectivity, honesty - essential characteristics of a researcher
8. The voices of the scientific text: primary author, secondary, translator. Modalities of differentiation and enhancement.

The studies are organised in several sections of the journal: **Theoretical Approaches - Re-evaluations and Openings; Educational practice - new perspectives; Research Laboratory.**

**Editors in chief**

Associate Professor Florentina MOGONEA, PhD, University of Craiova,  
Associate Professor Alexandrina Mihaela POPESCU, PhD, University of Craiova.

# THEORETICAL APPROACHES. REVISITED AND NEW PERSPECTIVES / APPROCHES THÉORIQUES – RÉÉVALUATIONS ET OUVERTURES

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## ETHICAL FUNDAMENTALS IN SCIENTIFIC RESEARCH

Vali ILIE<sup>1</sup>, Ecaterina Sarah FRĂSINEANU<sup>2</sup>

### **Abstract**

*Conducted in a complex context, the pedagogical research has the moral purpose of improving the quality of education, by capturing certain relationships between the existing variables. Professional ethics in educational research can be understood as a set of values, principles, rights and obligations of the researchers involved in this professional field. The development of ethical and conduct codes of research in the field of education is a necessity on condition that the world of science values academic integrity.*

*The present study is premised by the question "What are the reference points we must ethically refer to in scientific research?". Analyzing research from an ethical point of view, we designed a technological model in order to systematize the knowledge related to the existing codes of conduct and to guide the actions characteristic to educational research, thus identifying the fundamental ethical principles.*

**Keywords:** Research, Ethics, Deontology, Education.

### **1. Introduction**

If *academic ethics* refers to the moral values that are recognized and respected by the academic community, *academic integrity* implies respecting the ethical and professional principles, the standards and practices of individuals or institutions in the field of education and research. *Academic integrity* means being honest and fair about every scientific activity, all through the specific endeavor (from the formulation of the aims and the outline of the mission, to evaluations, conclusions and proposals). It includes conducting the research in an ethical manner and refraining from manufacturing and manipulating data. The growth of software products and services designed to ensure respect for the academic integrity has been significant lately.

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From an etymological point of view, the word "integrity" comes from Latin, where it is found in the form of "integritas", meaning "whole, complete". Thus, "integrity" defines the integral character of an individual, the feeling of dignity, justice and conscientiousness, expressing the quality of being or remaining intact, of keeping their qualities unchanged. It is important to understand and value academic integrity as an expression of our beliefs about what is good and right.

*Research ethics* is a set of criteria and norms that guide the research activity and its full exploitation, i.e., the ways of ensuring the human interactions involved in the research. It is a specialized discipline based on the study of ethical values and norms that serve the purposes and objectives of the research. Ethics in research is especially interested in analyzing the ethical issues that are raised when people are involved as participants in it.

It is necessary that the academic policies and practices of the community should send a clear message that data forgery, falsehood, fraud, theft and other dishonest behaviours are unacceptable. University studies and research promote the ability to work independently and in collaboration with others. As the results of evaluation must truly reflect personal learning and performance, it is important to be aware of the limitations of collaboration in certain situations. In our opinion, the values underlying the research objectives can have ethical implications on how people should be treated. Researchers operate under the auspices of several roles that may affect their judgments about what is and what is not ethical. Therefore, the provision of a quality assurance framework for the service of ethics in the field of research is highly required.

Cultures differ in the priority they attach to certain ethical principles and issues (e.g., the importance attached to individual autonomy in relation to loyalty to the group, the perception of power and authority, the ability to deal with uncertain situations). However, at the international level, there are a number of common requirements and measures, standards and principles for the ethical foundation of research, that are valid regardless of the field of knowledge and the topic or type of research.

## **2. Literature review**

### **2.1. Scientific research today**

The word "science" derives from the Latin word "scientia", which means "knowledge". Thus, *science* is a systematic ensemble of knowledge about nature, society and thinking. Most scientists consider that scientific inquiry is that which corresponds to the scientific method, so necessary in the progress of human knowledge. Scientific method allows researchers to independently and impartially test the pre-existing theories and previous findings and to submit them to debates, changes or improvements. Viewed retrospectively, sciences evolved from a pre-scientific, proto-scientific (pre-consensual) phase, characterized by divergent thinking, towards a stable consensus. The world of science always curves upon itself, creating new fields of thought, nurturing knowledge and offering research new problems, themes, topics to investigate. The purpose of science is to create scientific

knowledge, and the purpose of scientific research is to discover laws and theories that can explain natural or social phenomena, or, in other words, to create scientific knowledge.

The attribute *scientific* characterizes that form of knowledge that satisfies a series of methodological, general and particular requirements and criteria. Developed and put into operation by cybernetics and general systems theory, the new paradigm of scientific knowledge is far from being a cumulative process, achieved by expanding the old paradigm. Among the features of the scientific spirit there are: respect for the truth, intellectual curiosity, intellectual independence, the belief that there are stable principles of existence, critical thinking, problem solving skills (Rădulescu, 2011, pp. 26-33 – our translation).

*Research* is a rational approach that seeks to discover the answer to the fundamental questions that man poses in relation to the surrounding world. It is carried out in the laboratory, in the archives, on site or in the University, underlying sustained effort, individually or collectively. It can be completed by significant innovations or it can make modest contributions. But it always refers to certain ethical values and principles. The basic element of research is the search for knowledge, that is, the collection of data, information and facts, if necessary, their challenge, decanting and evaluation, in order to increase of knowledge. Research and scientific knowledge involve various options, debates and controversies. There are several types of explanations and strategies regarding the origin of scientific knowledge. Thus, we can access the following types of research strategies (Agabrian, 2004): inductive, deductive, retroductive, abductive and transductive.

The *research functions* include:

a) The descriptive-explanatory function (it determines their causes and effects, expresses the effort to find "statistical representativeness", i.e., a sufficiently large number of cases belonging to the same type that gives credibility to conclusions, it presupposes the call for an initial theory in the interpretation of data, it establishes relationships, priorities, hierarchies, etc.);

b) The praxiological function (it allows for the formulation of some improvement hypotheses in different contexts and concrete situations in order to efficiently intervene, to implement innovations);

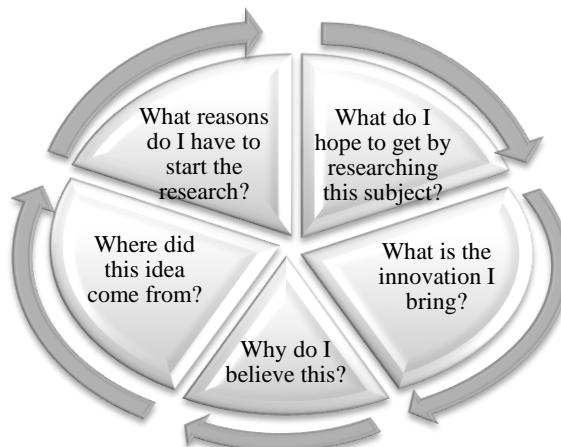
c) The predictive function (it proposes models, solutions for carrying out a process, event, perspective act, it offers confrontation possibilities, it exercises control over the future evolution).

Because the results of the research are fed into the teaching process, and the information and experience gained in the teaching process can often lead to a contribution at the research level, it is difficult to say where the education and training activities end and where the research activities start (OECD, 2002, p. 36). Researchers are specialists who work in the design or creation of new knowledge, products, processes, methods and systems and in the management of the related projects. From an organizational perspective, "the role of the researcher is that of initiating the process of change in groups and organizations" (Chelcea, 2007, p. 203).

On the other hand, we can all benefit from sharing our ideas with other researchers from a wide range of backgrounds and from all over the world. Interacting with others, sharing experiences and building common networks is a central means of learning and research (even beyond the topic itself). Those who work on their own need a certain self-awareness, a way to keep an internal monitor on their approach. In general, it is suggested that "the only constraint under which the scientist would be found, would be the one exercised by data of the controllable intersubjective experience and, possibly, by accepted theories. Kuhn argues, on the contrary, that the critical exercise in mature science will be drastically limited by the very nature of vocational education" (Flonta, 2008, p. 26 – our translation).

More recently, there has been a growing interest in ensuring ethics in research and a number of operational specifications are being made. For example, the recommendations offered by the *APA Scientific Directorate* to help researchers avoid ethical issues are the following (Smith, 2003): honestly discussing intellectual property, raising awareness of multiple roles, observing informal consent and confidentiality rules, using ethical resources.

Inquisitiveness is specific to humans in general. If, in terms of character, it is necessary to answer questions such as *Am I honest in presenting the results of the research? Do I trust the partners I collaborate with during the research?*, from the level of training point of view(that partially reaches the motivational sphere), the answer to the following questions helps us initiate, as well as to continue and complete the research.



**Figure no. 1. Questions needed in the investigative process**

One of the topics of interest of the regional debate in Timișoara (2016) was ethics, impartiality and scientific rigor, which addressed the need to develop a culture of ethics and institutional ownership, institutional responsibility regarding academic/scientific ethics, as well as the implementation of preventive measures. The preventive measures promoted within it are (The Presidential Administration, The Department of Education and Research, 2016, p. 18 – our translation):

- The introduction of a separate chapter in the Law of Education with explicit provisions for observing scientific rigor, with sanctions and concrete measures (e.g., peer review, anti-plagiarism systems, etc.);
- The elimination of incompatibilities and inconsistencies in the doctoral legislation;
- The alignment of the codes of good practice and research ethics to the international ones;
- The establishment of an independent commission to analyze the conflict of interest of any kind;
- The building of a centralized database for PhD / Master's / Bachelor's degree/ articles in the Romanian language;
- The improvement of the software dedicated to identify cases of plagiarism, the obligation to introduce sanctions for all cases of non-compliance with good conduct in research.

From a managerial perspective and in accordance with the ethical principles, moral values and norms, academic institutions should focus on the following directions of action (Fishman, 2014, pp. 30-31):

- To develop and publish clear, accurate academic information, integrity policies, procedures and statements that can be consistently understood and implemented;
- To promote the positive aspects of academic integrity;
- To inform all community members about the standards of academic integrity so that expectations are understood as part of the community culture;
- To practice actions described in the campus policies consistently and correctly;
- To develop, explain and administer transparent systems for judging integrity violations;
- To keep up to date of current developments in technology and educational practices in order to anticipate the increased risks and to address potential problems;
- To periodically evaluate the academic effectiveness, integrity policies, procedures and practices, revise and revitalize them, if necessary.

The proactive approach to reducing academic deviations should be a team effort at the level of academic institutions. Some institutions require students to sign a contract of integrity at the beginning of each academic semester. Other institutions require students who repeat unwanted behaviour (or engage in what is considered a flagrant violation) to participate in an integrity course. This course may or may not be mentioned, at the end of the academic preparation, in the student's transcript of records. Each institution must find its own direction and develop standards that best suit its own mission and goals.

There are a number of reasons for which scientific fraud occurs: career pressure (generated by the obligation to publish periodically a certain number of studies, as results of the research conducted), the competitive environment (the fear that another colleague or group working in the field may publish faster); convenience

(despite the fact that the imagined experiment generates data that are inconsistent with reality, it calls for improvisation), the ease of data manufacture (some experiments may be non-reproducible for objective reasons, and expect for the falsified data to be unobserved).

Permanent reporting on the specific principles of research ethics leads to the avoidance of mistakes, errors and deviations in the academic sphere. The fundamental ethical principles that ensure the moral balance are the following (Jupp, 2010, pp. 192-193):

- 1) The principle of the relationship between the researcher and the subjects of the research - the research should not harm the respondents, but the long-term consequences of participating in the research are not always easy to calculate;
- 2) The principle of the informed consent - it respects the rights of people to know that they are being studied and to know the purposes of the research and what is expected of them (it suggests that implicit research is not acceptable, as neither is hiding the real goals of the researcher or any other form of misleading);
- 3) The principle of respect for the right to privacy – there are problems related to intrusive questions and, in particular, questions about sensitive issues, such as sexual conduct or illegal activities (or certain legal aspects, from the perspective of data protection legislation);
- 4) The principle of confidentiality – it refers to ensuring that the collected information will be used exclusively for research purposes.

Ethics committees represent an institutional response to one or more problem cases. They can change the practice by applying appropriate policies and individual consultation, and indirectly, by educating and stimulating awareness of ethical rules throughout the system. Ethical procedures must be known and understood by all social actors, and accredited higher education institutions, research institutes, units and structures must contribute to ensuring and guaranteeing the ethics of research.

## **2.2. Ethics and deontology in educational research**

*Ethics* (Gr. *Ēthos* - *custom, habit, moral*) is the science that deals with the theoretical study of human values and condition from the perspective of moral principles and their role in social life. Ethics examines desirable human behaviours, following a model crystallized over time through the games of social actors. If ethics is seen as a philosophical discipline that studies morality, a "science" of moral laws and principles, *morality* (as an object of ethics) designates the application of these laws and principles in particular acts of life. Morality has predominantly cognitive and normative functions, and morality makes it possible to adapt, based on values, representing a synthesis between knowledge and sensitivity.

Morality is a quality of consciousness, which we acquire, and moral laws are expressed in the form of imperatives because they always encounter human opposition. The functions of ethics include:

- a) The cognitive function: the descriptive phase (the values, the moral facts are highlighted as discovered or discoverable realities), the analytical-synthetic phase (these realities are translated scientifically), the explanatory phase

(corresponding to ethical doctrines) and the phase during which the unity between common and scientific knowledge is achieved;

b) The normative (axiological) function: the role of ethics is that of conceptualization, systematization, communication and rationalization (it discovers norms as consequences of the axiological universe);

c) The persuasive function: persuasion is present in the moral sphere;

d) The projective function: it indicates the desired degree of morality, orienting and offering a certain direction.

The knowledge of the main *ethical theories* represents the foundation on which an ethical code is built, necessary in shaping deontology in the field of educational research.

*The ethics of virtues* appears as a theory-leader in contemporary moral philosophy and it is based on the idea that virtuous people are happier and have better social relationships with the others. Plato believes that the ultimate purpose of education is wisdom, because this is the supreme virtue, through which happiness is acquired. Out of wisdom derive the other virtues (justice, gratitude, courage) that contribute to human happiness. The Greek philosopher pleads for the education of the individual (from the earliest age) in order to acquire the virtues of the citizens, which supposes to be morally good, to obey the commandments of the reason or the law of the State. To them a series of unwritten laws are added, of equally great importance: "My opinion is that, in order to live properly, it is not appropriate to be after pleasure and try to avoid pain at all costs, but to follow a certain middle path (...) "(Platon, 1995, p. 204, our translation). Inviting to concerns with the soul, he knew that inner happiness makes the soul stronger.

Aristotle takes a step forward in relation to Plato's theory and emphasizes the role of moral exercise: "(...) we acquire virtues after having completed an activity, as it happens with arts. For example, by building houses you become an architect and by playing the guitar, you become a guitarist. Likewise, by practicing justice, you become righteous (...)" (Aristotel, 1988, p. 32, our translation). "The Nicomachean ethics" includes: *Eudaimonism* (happiness or flowering), *Arete* (excellence or virtue) and *Phronesis* (practical or moral wisdom). Aristotle recommends that virtues should be accepted not only for the life of the individual, but also for the life of the fortress-state. He argued that virtues are acquired through regular practice, and the excellence of character and intelligence are assumed mutually. With Aristotle, the main purpose of practical wisdom is to cultivate morality or virtue, which allows us to live together. He calls wisdom in action or practice "*phronesis*" (moral sense). This means the ability to apply ethical reasoning to current situations in order to make wise judgments and do what is right.

*Deontological ethics* is represented by Kant. Deontology could be described as a system of duties/ rules based on ethical theory. Kant starts from the concept of duty, and the main formulation of Kantian ethics is the categorical imperative. Moral duties are embodied in the so-called categorical imperative (it can be universalized for all rational beings). The moral value of an action is not measured by its consequences (after being successful), but by the intention that animates it and the

principle that guides it. Analyzing the ideal of the sovereign good as a principle that determines the ultimate purpose of pure reason, Kant launches three questions: *What can I know?* *What should I do?* and *What am I allowed to hope?* If the first question is purely speculative, the second is purely practical, it belongs to pure reason and it is moral. The third question is both practical and theoretical, therefore, the practical leads only as a guide to solving the theoretical problem and, when it arises, the speculative problem (Kant, [1781], 1994, pp. 573-574, our translation).

Focusing on the Kantian moral system, Călin states that it embeds several components (Călin, 2001, pp. 43-45):

- 1) The moral content of human behavior: self-respect and respect for the others (these are presented in the form of two kinds of duties, respectively moral actions: duty to oneself and duty to another);
- 2) Man as a moral subject in relation to the antinomy of the freedom of his actions ("You must, because you can!") and the good or autonomous will;
- 3) The moral law that is just as important as the sky above it (the phenomenon of consciousness that occurs in the moral subject, the greatness of the intellect that commands our soul universe).

*Utilitarian ethics* is a variant of theological ethics. Contrary to Kant's moral rigour, utilitarianism (represented by Bentham and J. S. Mill) is a moral doctrine underlying the belief that the useful or what can bring us maximum happiness must be the supreme principle of our activity. Being empirically tested, utilitarianism reflects the cause-and-effect reasoning, as in science (but it must be kept in mind that good intentions do not always lead to good results).

*Postmodern ethics* is an applied ethics (eg bioethics - the study of ethical controversies brought about by advances in biology and medicine; geoethics - the combination of earth sciences and ethics; business ethics; pedagogical ethics; research ethics). Looking at the two aspects of ethics (philosophical and scientific) in their interaction, we can situate ethics in a cultural horizon in which the functions that it performs allow and favour the education of character. Applied ethics is made up of an array of disciplines that try to philosophically analyze cases, situations, dilemmas that are relevant to the real world. These disciplines include information technology ethics, animal protection ethics, business ethics, medical ethics, environmental ethics, public policy ethics, media ethics, scientific research ethics.

*Codes of ethics* are based on the mission, principles and values of an organization. They have the role of directing the individual and group human behaviours, regulating the behaviour of the employees so that they comply with the moral standards of the organization. The general code of ethics in scientific research regulates good conduct in the field of development and innovation in the units and institutions that are part of the research-development system, among which are the Universities. The ethical code covers a number of responsibilities: responsibilities towards the research participants; responsibilities towards employers, funders, sponsors; responsibilities towards colleagues. It takes into account international regulations and standards on ethics in scientific research and teaching activity, including *The European Charter for Researchers The Code of Conduct for the*

*Recruitment of Researchers* (2005), *the Charter of Fundamental Rights of the European Union* (2012), *Regulation regarding the organization and functioning of the National Council for Scientific Research (CNCS)* (2017).

More detailed and specific than the codes of ethics, *the codes of conduct* explain very clearly how the members of an organization should behave. They contain the procedures to be followed and the sanctions that will be applied for violating their provisions.

A product of the 20<sup>th</sup> century, deontic logic is the logic of normative propositions or rules. *Deontology* (gr. "Deontos" – *necessity, need, what is right, obligation* and "logos" – *science, study, speech*) is a scientific discipline that studies the rules of professional conduct, ethical obligations and general duties to be fulfilled, specific rights, as well as the personality traits necessary to practice a profession. Deontic logic, from the point of view of von Wright, refers to the field of human actions, acts of conduct and behaviour. Specific to it are the concepts of "obligatory", "allowed", "indifferent", "forbidden", to which others like "tolerated" and "strictly controlled" can be added (Surdu, 2003, p. 120, our translation).

In relation to axiology, deontology supports the legitimization of practices through value-based decision-making. *Deontological codes* regulate all forms of professional activity, through norms that provide precise guidelines of behaviour in different situations. In the sphere of research, deontological obligations include: treating with respect the subjects included in the research sample; citing any text / fragment taken from other authors; making available to the evaluators the documents that prove the research results; observing the succession of the research stages.

### **3. Developing a technological model for the ethical foundation of educational research**

In our approach we started from the question "What are the guidelines to which we must ethically refer in scientific research?". Based on the mainstream literature in the field, we set out to identify the fundamental *ethical principles* that direct the activity of the actors involved in a pedagogical research approach: the principle of quality assurance, the principle of intellectual property, the principle of confidentiality, the principle of anonymity, the principle of consent and privacy, the principle of volunteer participation, the principle of responsible participation, the principle of the researchers' independence, the principle of the researchers' impartiality, the principle of collaborative research.

Based on these, *the directions of action* can be outlined, depending on how they answer to the questions that arise in the phases of design, implementation and evaluation of educational research: the implementation of good practices at the level of educational research, motivation and raising the aspirational level through valuable knowledge and enthusiasm, capitalizing and promoting diversity, stimulating creativity for innovation, updating and developing knowledge in the researcher's vocational area, promoting positive behaviour in relation to others, integrating technology to research.

***The ethical foundation of research at the level of each element***

**Issues/ Themes (topics)**

- Does the content sample cover the researched topic?
- How does the topic influence the choice of the research type?
- What has been researched and published on the chosen topic?
- Does it have practical utility?

***Participants***

- What happens to informal consent if participants' observation is done in secret?
- What risks might the research present for them?
- Can they leave the research sample?
- How does the publication of research results affect them?

***Researchers***

- What risks do they face during the investigation?
- Do they choose their research topic according to professional concerns and interests?
- How fair is the call to a professional position in order to have access to information or people to whom we otherwise would not have access?
- To what extent does it respect the confidentiality initially promised to participants?

***Funders***

- Does it respect the ethical principles in the field of research funding?
- What are the criteria according to which funding is carried out?
- Do they know the long-term benefits and damage?

***Beneficiaries***

- Who are the beneficiaries?
- Are there conflicts of interest (e.g. financial reward?)
- Does it condition the research conduct in any way?
- What facilities or restrictions are connected to them?

***Employers***

- What are the specific requirements regarding ethical approval?
- Are they public or private institutions?
- Are they individuals or institutions?

***Research methods***

- How closely do they meet the research objectives?
- What are their advantages and limitations?
- Do they respect the ability and willingness of the respondents to participate?
- Do they meet the criteria of ethical conduct?

***Space and time resources***

- What are the criteria against which the natural or laboratory conditions are chosen?
- How do they intervene on space?
- What is the correspondence between the time available and the one that the participants are willing to allocate?
- How long are the subjects willing to participate in the research?

***Information resources***

- How do we make sure that we treat the other researchers' activity with accuracy and fairness?
- What does it mean to include research documentation?
- How do we select the sources of documentation (primary or secondary?)
- How do we protect our data (in physical or electronic format?)

**Figure no. 2. The technological model of ethical foundation of research**

This model is based on the ethical principles of research and it generates clear directions to follow in order to observe the code of ethics and the deontological code.

#### **4. Conclusions**

The research that involves human subjects raises unique and complex ethical, legal, social and political problems. The success of research depends, to a large extent, on the personality of the researcher. In addition to scientific, methodological and managerial knowledge, there are also other individual moral qualities that provide answers to questions such as: *what is good /bad, how should we behave?* The training for research should be mostly self-training, preferably led by someone with experience in the respective field of activity. In higher education institutions, research and teaching are always closely linked, as most teachers undertake teaching as well as research activities and the equipment serves both purposes.

In order for the society to support and believe in research, researchers must follow ethical standards. Most universities have an ethics committee. It examines all research proposals to ensure that they do not raise ethical issues. On the one hand, we emphasize the importance of protecting the rights of researchers, on the other hand, we consider the safety and well-being of research participants. The questions we asked in the proposed technological model are able to take into account all the research elements and to ethically substantiate scientific research.

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# **L'ENSEIGNEMENT DE L'AUDIOVISUEL SPÉCIFIQUE : L'EXALTATION D'UNE EXPÉRIENCE PERSONNELLE QUI MET EN JEU LA PÉDAGOGIE DIFFERENCIÉE ET LA TECHNOPÉDAGOGIE**

**Wafa BAHRI<sup>1</sup>**

## **Résumé**

*À l'ère actuelle, les technologies peuplent les instituts de l'enseignement supérieurs. Penser cet entrecroisement entre enseignement et nouvelle technologie nous renvoie vers la compréhension des enjeux, défis, contraintes et horizons de cet entrecroisement comme cheminements vers une rencontre fertile. Pour ce faire, notre étude s'appuie sur les pédagogies de l'enseignement de l'audiovisuel spécifique, destiné pour un groupe de mastère professionnel spécialité « audiovisuel pour l'éducation de l'enfant », comme corpus d'étude analysé de part et d'autre cet article. Dans ce sens, nous partons de la pédagogie différenciée comme modèle d'apprentissage pour finir à penser de nouvelles pistes conceptualisées par une technopédagogie. Ces pistes sont entrevues comme solutions vers le perfectionnement de l'acte de l'enseignement conçu dans sa dimension cognitive et créative.*

**Mots clés :** *Audiovisuel spécifique, Pédagogie différenciée, Technopédagogie, Techniques de l'apprentissage (micros-ateliers, compétences transversales).*

## **Specific audiovisual education: the exaltation of a personal experience involving differentiated pedagogy and technopedagogy**

### **Abstract**

*In the present era, technologies populate higher education institutes. Thinking about this intersection between teaching and new technology leads us to an understanding of the issues, challenges, constraints and horizons of this interweaving as paths towards a fertile encounter. To do this, our study is based on the pedagogies of the teaching the specific audio-visual, intended for a professional masters group specialization "audiovisual for the education child", as a corpus of study analyzed on both sides this article. In this sense, we start from differentiated pedagogy as a model of learning to finish thinking of new paths conceptualized by a technopedagogy. These tracks are seen as solutions to the perfection of the act of teaching conceived in its cognitive and creative dimension.*

**Key words:** *Specific audiovisual, Differentiated pedagogy, Technopedagogy, Learning techniques (micro-workshops - transversal skills).*

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## Introduction

Penser l'enseignement comme opération relative au développement technologique nécessite une recherche dans chaque terme d'une manière distincte afin de mettre au point les différents rapports qui peuvent avoir lieu. Ceci est dans l'objectif de répondre à la question suivante : L'entrecroisement de l'enseignement dans sa logique classique avec les nouvelles technologies définit une nécessité ou un confort ? L'acte de l'enseignement part de l'objectif de faire comprendre quelque chose, deux acteurs principaux y interviennent, l'éducateur et l'éduqué. Depuis l'âge classique, Platon avait introduit l'éducation en tant que "passage du savoir", un passage assuré par un éducateur connaissant et reçu par un éduqué méconnaissant. À l'ère actuelle, la possession du savoir est devenue une opération facile vu que le monde de l'Internet ouvre de nouveaux horizons informatifs. Reste que la manipulation du savoir acquis s'avère le souci de l'enseignant. Ce dernier cherche à mettre en place une pédagogie adéquate pour garantir l'étape de la manipulation du savoir. À ce niveau, une remarque fuse à cette réflexion : l'espace de l'Internet impose des changements importants, voire radicaux, sur l'espace réel (l'espace de la classe), ce, dans la perspective où l'enseignant affronte la difficulté de l'apprenant « savant ». Il devra donc classifier ce savoir au service des modules du cours, clarifier les nuances entre les termes rencontrés de part et d'autre des moteurs de recherche et guider l'apprenant dans le but d'affiner et de filtrer les informations récupérées. Dans ce sens, le rapport du développement technologique à l'enseignement, à priori, est un rapport de transcendance, parfois on parle de trop-plein de connaissance ou de fausses pistes cognitives. D'où la nécessité d'entrevoir des solutions méthodiques à travers lesquelles ce développement fonctionne au profit de l'enseignement.

Les réflexions ci-dessus véhiculent une relation nécessaire voire indispensable entre enseignement et nouvelles technologies. En précisant un domaine d'enseignement, qu'est l'audiovisuel, la recherche sera plus fructueuse dans l'objectif de viser un champ bien précis. Ce domaine, en termes de technique d'exécution, se base déjà sur des technologies de l'image, du son, des programmations, des logiciels et sur un apport intensif au développement du matériel de la prise de vu, des équipements du tournage et des studios. Ces spécificités du domaine de l'audiovisuel projettent l'enseignement d'une telle discipline dans le cercle de l'innovation technologique. D'où, l'enseignement de l'audiovisuel en dehors de ce cercle sera de l'ordre de l'abstrait. On s'attache donc, à travers cet article, à comprendre les enjeux de la pratique pédagogique dépendante des technologies, voire la technopédagogie. Cet attachement s'articule selon notre domaine de recherche, l'audiovisuel, et nous nous intéresserons d'une manière particulière à l'audiovisuel spécifique, destiné à une catégorie d'étudiants bien précise.

Dans quel sens alors les nouvelles technologies peuvent-elles s'opérer comme de nouvelles modalités d'enseignement ?

Dans le cas de l'enseignement de l'audiovisuel, et dans l'objectif d'encadrer la relation de l'apprenant avec l'espace virtuel et de donner plus de l'ampleur à ce

type de formation, sera-t-il bénéfique de transformer cet espace en une extension de l'espace de la classe ?

Quels sont les enjeux de l'enseignement de l'audiovisuel spécifique aux étudiants en mastère professionnel ? Et dans quelle mesure intervient la pédagogie différenciée ?

### **1. L'enseignement de l'audiovisuel spécifique : enjeux et défis (Éduquer à l'image, éduquer par l'image)**

L'enseignement de l'audiovisuel est d'emblée une opération composée, voire complexe. Cette complexité s'articule sur deux axes principaux : éduquer à l'image et éduquer par l'image. L'éducation à l'image audiovisuelle consiste en une mise au point de différents rapports à cette image : en un premier temps, l'étudiant est face à une image déjà produite, il est censé comprendre, lire, analyser, interpréter et décoder les signes et les symboles qu'elle véhicule. En un deuxième temps, l'étudiant est lui-même producteur de l'image, il est censé imaginer, créer, écrire, filmer, monter et mener un projet jusqu'au bout de sa production finale. L'éducation à l'image s'opère suivant ces deux axes dans l'objectif d'incruster l'étudiant dans le champ de l'audiovisuel. Il acquiert ainsi une terminologie spécifique qui lui permet d'analyser et de s'exprimer par rapport à un produit, et, d'une autre part il s'adapte d'une manière progressive au cursus créatif enveloppant les différentes étapes de la production audiovisuelle. Dans cette perspective, il faudra mettre en place une méthodologie claire et concise pour pouvoir assurer et garantir cette étape de l'éducation à l'image. Comment articuler alors ces axes rétroactifs de l'image audiovisuelle ?

Concernant l'éducation par l'image, il s'agit d'un choix méthodologique qui se base sur les compétences transversales. L'étudiant, futur spécialiste en audiovisuel, maîtrise cette spécialité par et dans les métiers de l'audiovisuel. Le long de notre expérience personnelle dans l'enseignement de l'audiovisuel nous avons constaté qu'une difficulté surgie à l'enseignement de cette spécialité, elle est au niveau de l'adéquation entre la triade technique, théorie et pratique : la création audiovisuelle enseignée suivant la technique conduit vers un profile de techniciens, enseignée à travers la théorie emmène la plupart du temps vers des idées compliquées voire abstraites. Et à ce propos De Baecque formule le point de vue suivant :

Je ne pense pas que l'on puisse apprendre l'art de manière théorique. C'est un peu comme un manuel pour conduire un avion : vous pouvez savoir par cœur comment il faut faire, quel bouton il faut pousser pour voler, mais au moment où vous prendrez l'avion dans vos mains, il tombera (De Baecque. 2007, p. 83).

Aussi, les méthodes qui se basent sur les pratiques (films ou autre) induisent à une sorte de blocage, l'étudiant est ébloui par des projets qui lui semblent assez poussés par rapport à ces compétences. Pour éviter ces faux chemins, nous avons eu recours aux compétences transversales où l'on exploite les capacités des étudiants et leurs motivations par rapport à une alliée bien précise dans ce domaine. Par exemple, dans l'atelier de l'écriture scénaristique il est question de *pitcher* une idée puis

développer cette idée sous forme de scénario. La question se pose donc comme suit, enseigner en se basant sur des ouvrages, des films, des interviews avec des professionnelles ou se référer à des scripts originaux ? La mise en œuvre des compétences transversales s'articule comme réponse à cette question. Nous citons ici l'exemple des étudiants en mastère professionnel de spécialité « Audiovisuel pour l'éducation de l'enfant » afin de décrypter cette idée. Deux données s'avèrent importantes : La plupart des étudiants sont des littéraires (ils ont eu le domaine des Lettres comme spécialité en baccalauréat), ils ont des connaissances en termes linguistique et narratif et ils ont pris l'habitude d'écrire des histoires avec un style romanesque. De l'autre côté, l'objet d'un scénario c'est de raconter une histoire avec un style visuel. Il s'agira donc d'exploiter la compétence de l'écriture chez les étudiants, leur demander d'écrire des histoires puis de transformer les codes romanesques en codes visuels. La faculté de l'imagination s'avère utile et permet ainsi aux étudiants de construire une trame narrative cohérente. Cette trame en obéissant à la technique de l'écriture d'un scénario se transforme en addition de points dramaturgiques.

Donc, la complexité dont on a parlé au début réside au niveau de la particularité de chaque étape de la production audiovisuelle. La mise en œuvre des compétences transversales des étudiants permet de hiérarchiser ces étapes et de créer une sorte de rapprochement entre les connaissances et les acquis d'une part et cette particularité d'un travail audiovisuel d'une autre part. Dans un sens plus large, il s'agit de transformer ces connaissances, par la technique, en une pratique audiovisuelle. Cette démarche ne renonce pas d'une manière radicale aux méthodes classiques qui se basent sur l'exaltation de théories et de pratiques audiovisuelles célèbres, mais, pour éviter de donner un cours abstrait qui emmène vers un blocage, il vaut mieux accéder d'une manière ascendante : commencer avec des théories simples, faire des projections des travaux des étudiants et véhiculer des exemples du quotidien. Nous avons choisi cette méthode, en termes d'enseignement de l'audiovisuel, vu la spécificité de la branche : audiovisuel pour l'éducation de l'enfant, une branche destinée aux étudiants de l'Institut Supérieur des Cadres de l'Enfance. Cette branche propose donc l'audiovisuel comme médiateur vers la spécialité d'origine qu'est l'éducation de l'enfant. Ceci dit, dans quelle mesure parle-t-on d'un audiovisuel spécifique ? Et quels sont les enjeux de cette médiation entre deux disciplines ?

## **2. L'audiovisuel spécifique, un médiateur nomade**

Qu'est-ce qu'on sous-entend alors par audiovisuel spécifique ? L'enseignement de l'audiovisuel, d'une manière générale, sous-entend une formation qui vise la technique et l'esthétique de l'image fixe ou animée. Cette image est future composante d'un film, d'un documentaire, d'une publicité ou autre. À l'Institut Supérieur des Cadres de l'Enfance, l'audiovisuel est spécifique par rapport à la spécialité de l'institut formant des spécialistes pour l'éducation des enfants ; ainsi le mastère professionnel avait pris la nomination : Audiovisuel pour

l'éducation de l'enfant. Ce parcours académique est assuré par le rôle médiatique que joue l'audiovisuel.

Un médiateur agit, opère, connecte (Boullier, 1988, 48), il assure un lien entre deux unités. L'action faite au sein de ce mastère s'élabore comme une action d'interconnexion au sein de la discipline « cadre de l'enfance ». C'est un lien tissé entre l'éducateur et l'enfant d'une part, et, entre l'éducateur et l'environnement de l'enfant d'une autre part. C'est effectivement, dans ce double sens, que le directeur de l'Institut avait conçu le rôle médiatique de l'audiovisuel. Les étudiants seront capables de communiquer avec l'enfant à travers l'image audiovisuelle et d'une autre part, ils seront capables de communiquer à un public les sujets en rapport avec l'enfant, aussi, à travers l'image audiovisuelle. Et c'est en partant de cette perspective qu'on puisse parler d'un médiateur nomade : un médiateur qui s'opère comme référent pour un dialogue fictif dont les interlocuteurs sont variables ; un dialogue entre éducateur et enfant et/ou un dialogue entre éducateur et public autour de l'enfant. L'audiovisuel sert donc comme instrument, comme matériaux de réflexion, pour créer un discours avec et autour de l'enfant. Et là, nous pensons que c'est une innovation dans le cadre institutionnel tunisien. Elle part d'un regard croisé sur les sciences de l'éducation, notamment, en soulevant le drapeau défensif de l'interdisciplinarité. Donc, l'audiovisuel spécifique pour les éducateurs de l'enfant dépasse la nomination d'une discipline et advient comme concept nomade, défini suivant le territoire où s'applique sa médiation.

En partant de ce constat qui encadre et explique l'enseignement de l'audiovisuel spécifique pour les cadres de l'enfant et en nous basant sur notre pratique personnelle, nous estimons que cette branche ne s'opère pas dans une dimension pragmatique, c'est une formation qui vise à donner naissance aux metteurs en scène du monde de l'enfance. Ils fabriquent des idées, des films et des spots qui parlent de l'enfant et parlent à l'enfant. Nous estimons que l'apport créatif domine le cheminement pragmatique. Et étant donnée la courte durée de la formation ça sera difficile de toucher à tout les métiers de l'audiovisuel, mais, ça sera fécond d'admettre la conception, la modélisation et la création. La conception de stratégies visuelles vigilantes et judicieuses en faveur de la sensibilisation et de l'éveil social, institutionnel, familial ou politique par rapport aux soucis qui ornent le monde de l'enfant. La modélisation de nouveaux prototypes d'action sur les instructions liées à l'enfant comme un être faible qui n'a besoin que de la protection, concevoir l'enfant comme un être capable d'agir, d'imaginer, d'illustrer et de participer au développement socio-économique et à, la création d'un courant cinématographique qui enveloppe un ensemble de films pour l'enfant. Un cinéma détourné des contenus classiques.

Ainsi, notre expérience se basait sur les deux étapes déjà citées et qui consistent à suivre les deux axes complémentaires d'une formation en audiovisuelle, l'éducation à l'image et l'éducation par l'image. Ces deux étapes construisaient le socle de notre méthodologie ; nous expliciterons le cheminement suivi, nous tenterons à clarifier que ce socle méthodologique s'articule aussi comme produit du cours : les étudiants sont censés être conscients de cette méthodologie apprise, et

qu'ils vont adapter. Ils seront des spécialistes en audiovisuel pour les enfants. Ceci dit, ils sont menés à assurer une éducation qui se base sur l'image, éduquer l'enfant à l'image, créer chez lui une culture de l'image, et d'un autre côté, utiliser l'image comme médiateur pour saisir l'acte de l'éducation et lui donner plus de l'ampleur.

### **3. La pédagogie différenciée**

Si un parcours méthodologique des compétences transversales à été féconde dans l'atelier de l'écriture scénaristique, il ne pourrait être généralisé pour le reste des ateliers, comme l'atelier de « La méthodologie pratique pour un projet audiovisuel » au sein duquel nous avions la mission de produire des projets. Ce vu que cette méthode se basait sur la maîtrise de la langue et la capacité de la rédaction qui étaient un point commun entre les étudiants. Mais, le groupe présentait, en contrepartie, plusieurs points de différences qui le rend un groupe hétérogène par excellence. Cette hétérogénéité part de pratiques professionnelles variées des étudiants. Après avoir fini leurs cursus académiques en licence, la majorité avait exécuté un travail de terrain pour quelques années avant de décider de continuer leurs parcours académiques en s'inscrivant en mastère professionnel. Ils travaillent dans des domaines variés avec différentes fonctions : conseillers pédagogiques au service de pédiatrie (santé publique), éducateur (jardin d'enfants), inspecteur (Ministère de la Femme, de la Famille, de l'Enfance et des Séniors), script (domaine du cinéma), accompagnement des enfants autistes... etc. Ce parcours professionnel influence d'une manière directe l'étudiant et lui acquiert une pensée assez relative à son domaine de travail. Ainsi, la généralisation d'une seule méthode de travail s'avère une mission impossible et l'agencement des étudiants suivant une seule pédagogie s'avère difficile et à priori non fructueux.

Dans ce sens, et en prenant en considération ce constat par rapport à la nature variée des étudiants, nous avons eu recours à la pédagogie différenciée. Terme inventé en 1970 par Louis Legrand et désigne une pédagogie destinée pour un groupe dont les profils sont différents, un effort de diversification méthodologique susceptible de répondre à la diversité des élèves (Legrand, 1995, 24). Par la suite, il s'agit de mettre en place des méthodologies appropriées à l'application de cette pédagogie.

Dans le but d'appliquer la pédagogie différenciée, nous avons eu recours à la méthodologie suivante : compartimenter l'atelier en deux alliées, une partie pour un cours théorique et une autre pour un séminaire. Le séminaire se déroule sous forme de table ronde où s'effectuent les corrections des projets. Chacun présente son avancement et reçoit les corrections nécessaires avec la collaboration de ces collègues. L'individualisation ne nie pas le travail du groupe ; différencier, c'est avoir le souci de la personne sans renoncer à celui de la collectivité (Meirieu, 1995, 8). En se basant sur cette pédagogie, les étudiants bénéficient d'un encadrement spécifique chacun dans son domaine d'exécution et, d'une autre part ils interagissent. C'est un système d'interactivité qui permet l'échange des informations, la prise en considération de la différence entre les étudiants et l'appropriation de cette différence sous la lumière des contraintes de l'atelier de l'audiovisuel. Cette méthodologie se

base essentiellement sur un système composé : l'enseignant communique à l'étudiant des informations qui le concernent d'une manière directe et suivant une méthode particulière par rapport à son profil, et, en même temps, il le prend comme exemple pour véhiculer des consignes pour le reste du groupe. Aussi c'est le cas pour les exercices pratiques : la salle de la classe se transforme en un atelier d'écriture dans laquelle contribuent tous les étudiants (*pitcher* des idées, créer des nœuds dramaturgiques, imaginer des nuances narratives, construire des personnages), ou en un atelier de mise en scène en choisissant un projet dont l'étudiant meneur de l'idée prend le rôle du réalisateur et distribue les tâches au reste des étudiants. C'est un système de micro-ateliers que nous avons installé en classe.

Notre réflexion s'initiait en une prise en compte de la nature des étudiants et du calibre de chacun d'entre eux. Afin de développer leurs potentiels et de réaliser l'objectif de l'atelier, la pédagogie différenciée s'avérait comme solution étant donnée la variété et l'élan entre ces étudiants.

La méthodologie du travail en séminaire permettait la création d'un rapprochement entre ces profils et assurait un entraînement nécessaire sur le travail en groupe et la distribution des tâches, deux qualités primordiales dans le domaine de l'audiovisuel. Nous avons en sorte que la pédagogie de la différenciation n'aboutissait pas à la création de projets isolés. La compartimentation de l'atelier de la méthodologie pratique en ateliers audiovisuels spécifiques comme l'atelier scénario, réalisation, permettait l'incrustation de l'étudiant dans l'ambiance de la pratique audiovisuelle. Il va de soi que cette démarche peut conduire l'étudiant à une sorte de familiarisation avec le registre de l'audiovisuel et il pourra par conséquent élaborer son propre projet d'une manière consistante et cohérente. Mais, de notre position d'enseignante, nous visons beaucoup plus que la consistance et la cohérence, nous visons la créativité. C'est pour cela que nous avons proposé un questionnement initial par rapport aux pratiques pédagogiques : cette pédagogie différenciée, bien que fructueuse, elle accentue la contrainte du temps et elle invite l'enseignant à suivre le fil conducteur de chaque profile. Cette contrainte pourra influencer, probablement, le travail sur la créativité. Ceci dit, sera-t-il possible de joindre une deuxième pédagogie comme annexe pour la première ? Et s'il y en a une contrainte de temps, sera-t-il possible d'avoir recours à l'espace virtuel comme extension de l'espace réel ?

#### **4. La technopédagogie : Le médium est le message**

Les nouvelles technologies sont à la base de nouvelles approches méthodiques dans le domaine de l'enseignement de l'audiovisuel et du cinéma, tout comme plusieurs autres disciplines. Le recours à ces technologies facilite la tâche de l'enseignant et met à sa disposition un matériel développé lui permettant de faire des projections, de consulter en ligne des films comme corpus de travail et d'assurer des mise en images des idées *pitchées*<sup>2</sup> par les étudiants. Ainsi des micro-tournages peuvent avoir lieu. D'autre part, la créativité conçue comme approche distinctive

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<sup>2</sup> Pitch est un mot anglais signifiant l'illustration d'idées de films

d'un projet audiovisuel incarne l'étudiant dans un champ vaste où la pensée et la réflexion sauraient valoir l'unicité de son projet. La création et la qualité artistique ne seront abordables qu'à travers un cursus de recherche riche et varié. Dans le but de répondre à la contrainte de la créativité et de dépasser la contrainte du temps restreint dans l'espace de la classe, il sera donc judicieux d'exploiter d'une manière plus ample ce développement technologique. Cette exploitation réside dans la mise en place d'une technopédagogie qui se base, effectivement, sur la technologie comme outil médiatique qui garantisse le perfectionnement de l'enseignement, non seulement comme opportunité d'échange du savoir, mais aussi comme une initiation vers la création.

En prenant en considération notre pratique personnelle en termes de création artistique et dans le domaine de l'enseignement, nous estimons que l'espace virtuel peut être conçu comme extension territoriale qui assure ces deux opérations (enseignement et création). Pour le cas du mastère professionnel « audiovisuel pour l'éducation de l'enfant », par exemple, les étudiants n'ont pas eu de formation en audiovisuel le long de leurs parcours académiques en licence, pour eux, c'est un domaine inconnu d'où la difficulté de mener leurs projets en termes techniques et créatifs en même temps. Donc, la pédagogie différenciée, le temps restreint et la méconnaissance du domaine construisent les soucis qui se trouvent à la base de notre recours à la technopédagogie. Dans ce sens, nous proposons l'addition d'une formation E-Learning afin de donner plus de chance à cet apprentissage.

Ce type de formation, en parallèle avec la formation présentielle permettra en un premier temps de consacrer plus de temps aux micro-ateliers dont on a parlé plus haut, pour l'atelier de la réalisation par exemple, il sera possible d'animer un e-cours interactif à travers une plateforme numérique qui permet à l'enseignant et aux étudiants de discuter les fiches des projets, échanger des idées, se mettre d'accord sur la mise en scène, le matériel nécessaire, les effets en postproduction, des castings de groupe pourront aussi avoir lieux... puis l'espace de la classe sera l'espace de l'exécution. De cette manière, on assure un gain du temps et on continue à travailler suivant l'interactivité déjà établie à travers les séminaires. En un deuxième temps, les étudiants auront un espace de collaboration sur cette plateforme, dans cet espace ils communiquent des informations, partagent des expériences, révisent des notions et des théories et ils distribuent des adresses ou des liens utiles pour le cheminement créatif de chacun d'entre eux. Ce cheminement créatif s'enrichit au gré de cette plateforme numérique par une interaction synchrone entre étudiants, enseignant et pistes de recherches disponibles en ligne ou distribuées par l'un des acteurs de la formation E-Learning. En un troisième temps, l'enseignant anime des conférences en direct avec ces étudiants et favorise ainsi une croissance rapide au niveau des acquis et un bon développement des projets.

Nous estimons que l'emploi de la technopédagogie dans sa dimension médiatique modélise la nature de l'apprentissage : l'enseignement de l'audiovisuel vise des projets qui s'articulent comme médiateurs à travers un agencement d'images et de sons, cet agencement sera l'unité constitutive de l'acte de l'enseignement. De cette manière l'étudiant est incrusté par et dans les techniques avec lesquels il

travaille. On rejoint à partir de cette idée la position du théoricien McLuhan qui affirme, en suivant une démarche emblématique, que le médium est le message (1968, 8). Cette affirmation était à la base d'une grande polémique vu que le médium a été toujours considéré en se référant à sa définition latine comme milieu ou comme matériel, McLuhan met l'accent sur une interaction entre le message et l'espace où on véhicule ce message. Dans ce sens, le contenu du message s'influence du médium qui l'accueillit. En paraphrasant cette réflexion, nous pensons que la plateforme numérique destinée pour un apprentissage en audiovisuel peut fonctionner comme médium de la technopédagogie renforçant ainsi ses canaux et permettant la modélisation d'une formation réseautique, synchrone, médiatisée et féconde.

### **Conclusion**

L'incarnation des nouvelles technologies dans le cercle de l'enseignement supérieur constitue un entrecroisement heuristique, permettant ainsi la découverte du rôle médiatique assez particulier des plateformes numériques conçues comme supports d'apprentissage. En nous basant sur notre expérience personnelle dans l'enseignement de l'audiovisuel spécifique pour les cadres de l'enfant, nous avons distingué des techniques d'apprentissages appropriés tels les compétences transversales, les micro-ateliers et le système des séminaires. Ainsi nous nous sommes rendu compte qu'une pédagogie généralisée pour tous les étudiants ne pourrait être à la base d'une formation exhaustive. Dans ce sens, la pédagogie différenciée poussait l'enseignement vers les bouts du perfectionnement sans pourtant ne l'atteindre. Et, ce dit, nous avons entrevu la technopédagogie, formulée par le biais de la formation E-Learning, comme extension féconde et comme piste médiatique entre l'espace de la classe et l'espace virtuel. La virtualité est dans cette perspective perçue comme espace riche et variée où l'étudiant en audiovisuel pourra accéder à une formation plus étendue en termes d'apprentissage et en termes de recherche : à travers cet espace hybride, nous visons une canalisation du potentiel créatif. Au gré de l'interactivité à multiple sens, entre étudiant et enseignant, entre étudiant et étudiant, entre étudiants et corpus de travail, en engageant de nouveaux facteurs et de nouveaux acteurs qui favorisent ce moment heuristique attendu et désiré, l'étudiant pourra se positionner comme élément actif et participatif dans l'opération de l'apprentissage.

Ce que nous avons développé dans cet article vise le sens, l'analyse, la décortication et la découverte de nouveaux horizons d'apprentissage dans le domaine de l'audiovisuel dans le but de saisir la technique, la méthodologie de la construction d'un projet et aussi de la prévision de la création artistique. Nous estimons que l'addition d'une formation à distance à la formation présentielle élargira le champ éducationnel et favorisera la construction d'un noyau créatif. L'étudiant affronte de nouvelles zones de recherches, une variété de travaux créatifs dont il s'inspire, transforme, dépasse et comprend le part esthétique, symbolique et imaginaire.

Dans le monde de l'art, à l'ère contemporaine, on ne parle plus d'œuvre d'art plus qu'on parle de pratique artistique. La démocratisation de l'art, l'incarnation de l'espace public et l'ébranlement des normes de la relation artiste / spectateur

induisent à la mise en place de nouveaux concepts à la base de cette nomination (pratiques artistiques), le partage, l'interactivité et la collaboration. Peut-on entamer l'enseignement suivant la même logique impliquée par cette contemporanéité (agir en même temps), parle-t-on à l'ère actuelle de pratiques pédagogiques actives, l'enseignant et l'apprenant peuvent-ils partager et collaborer dans l'acte de l'apprentissage ? Ces questionnements et ce rapprochement entre le monde de l'art et le monde de l'enseignement nous permettent d'arriver à la fin de cet article vers une nouvelle hypothèse qui suppose, effectivement, la création et l'approche heuristique à la base de l'opération de l'enseignement.

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## **ETHICAL ASPECTS IN PROVIDING A QUALITATIVE RESEARCH IN SCIENCE EDUCATION**

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### **Abstract**

*Every domain of knowledge requires a certain level of perceiving data, knowledge, realities. That's why it differs how areas specific to exact science can be easier investigated with the help of quantitative research methods, while areas of social knowledge (including Education Sciences) need.*

*Educational research has supportive value for practitioners in education and acts as a booster for didactic innovation.*

*There is a logic in the investigating demarche of pedagogical research, the way we can understand the necessity of carrying out some sine-qua-non conditions for performing a research that is at the same time original, ethical and qualitative.*

**Key words:** Educational Research, Quality of educational research, Plagiarism.

In the analysis of scientific domains, the criterion of objectivity or the subjective interpretation of the knowledge domain, represents an aspect which makes the difference in perceiving data, and therefore gives different grades of using them.

The acquisitions from the area of exact sciences are comprehended more easier (because they express substantial facts), unlike social sciences (including educational sciences), strongly diffused, automatized sometimes, with a complex and complicated subject: the one who learns. The borders across sciences are difficult to outline, which allows transfers of methodology and experiences.

In the area of educational sciences have gathered theories, ideas, techniques certified in experimental way, constituted in premises of innovating educational processes and in striving to multiply their quality and efficiency.

Research in education is considered a support for innovation and an enlargement for educational-instructive processes. For a teacher, educational research is a gain and an obligation as well. As a benefit, educational research, materializes as the pedagogical culture that a teacher is required to hold.

We speak of a positive fact: pedagogical research has spread and produced a number of remarkable results. But we also speak of obstacles in achieving the impact of educational research in pedagogical practice. We have to understand that there is

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a relation between researchers in the domain of educational science and the users of the results of pedagogical explorations (materialized in dissemination of conclusions, results and products of research and their application in teaching practice), in order to improve the teaching process and to increase the quality of students' learning outcome.

We may speak of a proximity of pedagogical research to teaching practice, as long as the results of one of them come from teachers' needs and contribute to improve their activity.

Pedagogical research enjoys an autonomy degree, based on the reflection upon teaching activity and the ideal of its improvement, in the way of achieving an efficient educational system in accordance to the profile of a graduating student (at different school levels).

Pedagogical research itself generated a branch of educational science: educational research methodology. The subject of this branch/ pedagogical discipline is represented by the stages, methodological and instrumental mechanism and the acting plan of a research in educational field.

The main problems in educational research are related to:

- Identification and the definition of question/ problem/ thematical interrogation to which an answer is looked for based on documentation/ on theoretical foundation;
- The use of an appropriate methodology leading to explanations;
- The transfer of conclusions/ results to educational practice;
- The possibility to replicate/ multiplicate the results in other educational contexts;

It is of interest whether a specific research topic is a cause or an effect of the central theme.

By analogy with the graphical representation of the tree, we can ask ourselves whether a certain problem is one of its roots that leads us to the trunk, or is one of the branches that grows from the trunk?

„The problem tree” is a useful instrument to the activity of **identifying and documenting a central theme, but also to that of defining the purpose, the objectives and the results** expected of the research. This method is based on the idea that **any research theme is caused by the existence and the action of multiple factors and that, in its turn, it represents a cause** for other connected research themes.

There is a logic of the investigation of educational research. Each stage is important, represents a logic and a functional step in achieving the research and correlates with the other stages within the context/ complex assembly of the research.

These stages are:

- The demarcation of searched problem;
- The design of the activity of research;
- The organization and displaying of educational research;
- Analysis, processing and interpreting the data;
- The development of final conclusions;

- The valorization of research results.

Every stage has sub-stages or specific functions which contribute to the progress of the research. Their highlighting takes place within Gantt Diagram of the research project, and within scheme of sequences of activities.

Gantt Diagram of the research project has as main objective to establish the necessary period to conducting the investigative project and to determine the order of activities.

**The main objective** of Gantt chart is establishing the necessary time for carrying out a project and determining the order in which tasks should take place. During a project, Gantt diagrams are useful in monitoring the progress.

As main objectives, here are:

- Clearly illustrates the stage of a project,
- It can often be adjusted, to illustrate the actual stage of the tasks,
- It helps solving temporal interdependency between tasks.

To realize a Gantt diagram, you have to follow these **steps**:

1. Make **a list with all the activities of included in plan**. Show, at each task, when it can start the earliest, the predicted duration and whether is parallel or is after another.

2. Write down on a piece of paper **the days or weeks till the end** of the plan.

3. **Introducing the targets**. Make a basic list of Gantt diagram. Insert each task, showing which is the first date when it can begin.

#### 4. **The distribution of activities**.

Take the Gantt synopsis/draft and use it to plan the activities. Distribute them so that the sequential ones to take place in the required order. Make sure that the activities that depend on others, do not start until the others are over.

5. **Presenting the analysis**. Drawing the last version of Gantt chart: the synopsis analysis, distributing activities and analyzing the resources.

6. When you create a Gantt diagram, limit yourself to a reasonable number of tasks (no more than 15 or 20), so that the diagram may fit in one page.

As steps, there are:

- The identification of logic activities and of significant moments;
- The encryption of the activity;
- Building a diagram for the investigative project;
- The approximation of time required for each activity;
- Updating Gantt diagram, as the project has advanced.

Sequences of activities are related to the content elements of the investigative project:

- „,the purpose and the objectives of the research;
- variables,
- research hypotheses,
- methods of research (mixed: quantitative and qualitative),
- gathering data,
- results of the research,

- data interpretation (statistics methods, SPSS),
- drawing conclusions,
- the identification of the possibility to multiply and transfer them.

The activity sequences of a research where are used quantitative and qualitative methods:

„A – Theoretical substantiating

B – Establishing the categories and samples that are to be questioned, selection of the research methods and procedures

C – Survey based on questionnaires

D – Group focus

D – The analysis of curriculum documents

E – The revision of the research project

F – The elaboration ” (Labăr, 2008, p. 89).

The quality of a research is obtained by finding the answers to the next interrogations:

- „Is the researched problem significant?
- is the approach original?
- are the investigation tools enough reliant (true) and solid?
- is measuring strongly connected to the variables targeted in the research?
- are fully and unambiguously tested in the investigation, the enounced hypothesis?
- is the surveyed population representative for people who are used as generalization base?
- does research meet ethical standards?
- is the research sufficiently advanced to justify results?” (Lazăr, 2015, p. 67). Being original in scientific research of social life (after E.M. Phillips and D. Pugh (1984), quoted by G. Văideanu (1988, p. 299) means:
  - „to conduct empirical research (on the ground, practical) on issues has never been addressed yet;
  - to give a new interpretation to old ideas a;
  - to bring new evidence to already known problems;
  - to elaborate new synthesis;
  - to use the knowledge gained for studying socio-cultural realities in other countries;
  - to practice methods and techniques of research in different socio-cultural;
  - to perform interdisciplinary research;
  - to look different from a different theoretical perspective, socio-cultural realities;
  - to present the acquired knowledge in a manner that has never been tested before”.

Among the conditions necessary to ensure the originality of an educational research, there can be listed:

- theme novelty,
- novelty of the techniques, procedures and instruments of investigation used,
- the originality of the conclusions,
- the stringency of the methods, techniques and procedures of gathering and processing data,
- the demonstration coherence,
- the validity of the conclusions,
- theoretical and practical significance of the results in time and space,

There would be one more thing: finding the most adequate way “to wrap” the content:

- the success of the final closure may compensate many shortcomings;
- there are even „specialists in art of closing and writing, who succeed to seduce in as much, that very few manage to see that inside there is, in fact, nothing (this is not, however, an ideal to follow)” (Topa, 1996/1998, p. 285).

A “big” problem is plagiarism. Is considered „a trend of the academic environment”. To avoid unintentional plagiarism we should:

- „to put between quotation marks any text that belongs to others;
- to mention the name, title of the work, place of publishing, the publishing house, year, page;
- to pay attention to the distinction between common knowledge and information from the field of intellectual property rights;
- to reproduce in our own words the main ideas of a text, mentioning correctly the author and work that inspired us;
- to learn to take „intelligent notes”, not by copying phrases and sentences from teachers’;
- to get used to work with reading cards” (Chelcea, 2003, p. 40).

Ethical aspects of a research strongly correlates with the purpose and objectives of achieving it.

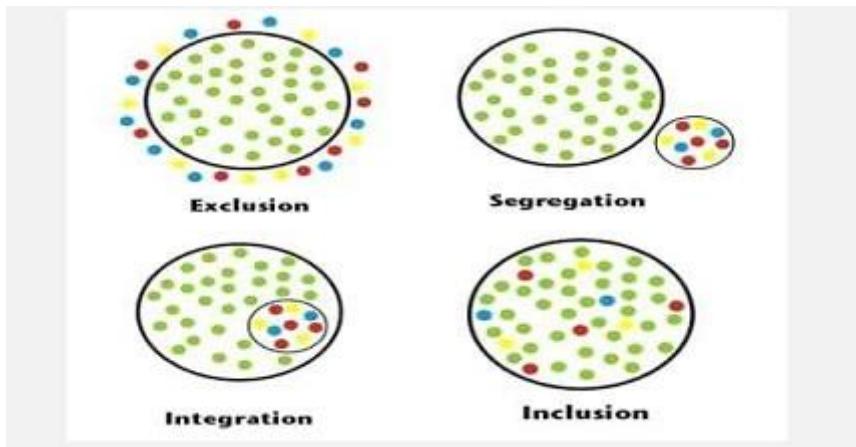
The objectives reflect and detail the purpose of the research. Usually, when general objectives are drawn, is used the expression: „the research project contributes to...”

Objectives must be achieved through the implementation of the research project, that's why they must be defined in terms of sustainable benefits.

Usually, when specific objectives are drawn, there are used the next expressions: „increase/ improvement/ development...”.

Between the purpose and the objectives of the research there is a close interdependency and a set of mutual relations. A goal has several objectives, and the achievement of the goal depends on the achievement of the objectives.

The operation of gradual transition from the purpose to objectives is called *derivation*, and the progressive transition from the objectives to purpose is called *integration* (Figure no. 1):



**Figure no. 1. Integration and deduction**

There are indicators to verify the objectives. Their expression must be done in SMARTER terms:

(S) **Specific:** provide information about the specific characteristics of a certain objective,

(M) **Measurable:** they show qualitative and quantitative aspects of an objective, that can be measured by known measurement units,

(A) **Accessible:** possible to find,

(R) **Relevant:** they are significant for the measured objective,

(T) **Within a time frame:** they refer to a certain period,

(E) **Evaluable**

(R) **Reassessed**

It is useful that aspects to be known, for they confer quality and representative power to any educational research, and are connected not only with the result/product, but also with ethical problems.

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# **EDUCATIONAL PRACTICE – PERSPECTIVES / PRATIQUES ÉDUCATIVES - NOUVELLES OUVERTURES**

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## **L'INNOVATION DE L'ENSEIGNEMENT DE LA GRAMMAIRE CONTRASTIVE AUX APPRENANTS DE LANGUES ÉTRANGÈRES : UNE PERSPECTIVE DÉONTOLOGIQUE**

**Mojmír MALOVECKÝ<sup>1</sup>**

### ***Abstract***

*The deontological dimension of innovative research in the teaching of a foreign language grammar oriented on the needs of a learner, a future foreign language teacher. Description of case study in the frame of a research project task targeted to the innovation of teaching grammar of Romance languages in study programs of future Romance language teachers. Theoretical and practical problems of innovation of language teaching at the university by an eclectic use of general linguistic ideas to reinvent the application of the contrastive method of analysis by an updated enunciative linguistic approach, constructing a bilingual parallel corpus, and reflecting metalinguistic description of native language and foreign language. Selection of verbal phrases with prepositions in Romance languages, French and Spanish, to specifically point out one of the examples of systemic differences between analytical isolation Romance languages and flective synthetic Slavic languages. Rigorous critic attitude in the choice of linguistic theory that can be applied in realizing the student-oriented contrastive handbook of Romance languages and Slovak language verb constructions. Creation of innovated enunciative approach based on core ideas of E. Benveniste with the active use of computational linguistics knowledge in the construction of the bilingual parallel corpus. Highlighting the contrastive linguistic phenomena by application of detailed sentence schemes on the contextualized target language phrases reflecting Slovak tradition of metalinguistic description.*

**Key words:** Learner, Innovation, Contrastive method, Corpus construction, Deontology.

L'éthique et la déontologie dans la recherche pédagogique et didactique peuvent être comprises dans différentes dimensions. La première en étant le respect des principes requis dans le travail scientifique et de leur de mise en œuvre, une autre dimension plus large en est que la pratique déontologique du scientifique doit aller

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au-delà de la façon dont la recherche est menée. Or l'attitude déontologique doit précéder les travaux de recherche. Avant d'entamer une recherche, le scientifique doit prendre en considération le point de vue déontologique et éthique de l'orientation de sa recherche fondamentale ou appliquée. Il devrait prendre en compte l'utilité des futurs résultats présumés : en recherche pédagogique ou didactique, aider à améliorer la pratique pédagogique et didactique de l'enseignement. Cette quête à l'utilité relève de la demande du public pédagogique. Il est impossible de mesurer ou quantifier cette praticité à chaque étape du procédé de recherche. Ce fait est souvent incompris des décideurs des schémas financiers de support des projets de recherche. L'argumentatif actuel nourrit le mépris général pour la recherche fondamentale en sciences humaines favorisant la recherche appliquée en la matière la considérant être plus proche de l'utilité des sciences dures. Afin de pouvoir persuader positivement le public sur la nécessité de compléter l'engouement général pour le développement des sciences naturelles ou techniques par l'enthousiasme pour la recherche fondamentale en sciences humaines au détriment d'autres conceptions restrictives non-holistiques. Pour aboutir un tel changement sociétal il est indispensable de cultiver la pensée déontologique et éthique du chercheur. Il est difficile de formaliser les prérequis pour l'analyse future de la qualité du choix du sujet et de son utilité. C'est au chercheur de veiller au respect des règles de l'éthique et de la déontologie appropriés au domaine étudié. Il serait préférable, en toute démarche scientifique, de faire une analyse des aspects déontologiques et éthiques débouchant sur l'attitude critique pour aboutir à la construction de pratiques innovantes. Or il est plus facile de solliciter les idées déontologiques en postulant des principes en théorie que bien les appliquer en pratique d'une recherche scientifique. En quête de l'exemplification pertinente de nos idées théoriques, nous rendons compte, par la présente étude, du projet de recherche *KEGA 038UK-4/2014 Approche énonciative en grammaire contrastive — verbe en langues romanes et en slovaque* visant l'innovation des cours de grammaire des langues romanes (le français et l'espagnol) au sein des programmes d'études du Département des langues romanes de la Faculté des Sciences de l'Éducation de l'Université Comenius de Bratislava en Slovaquie de 2014 à 2016 (Malovecký et col., 2014). Le groupe de recherche était composé des linguistes enseignants-chercheurs romanistes et slovaquistes. En marge du projet, l'analyse de la situation contrastive italien – hongrois était effectuée par Domokos (2016). La base initiale de travaux de recherche était une analyse de la situation en classe de grammaire en *Module système linguistique* au niveau licence des programmes d'étude du français ou espagnol langues étrangères. Les préliminaires déontologiques du projet ayant couvert l'analyse de la situation actuelle des étudiants débutant après leur baccalauréat les études philologiques à l'université soit dans le cadre du programme d'études de formation de futurs enseignants, soit dans le programme d'études en langues et cultures étrangères. En analysant cette situation de départ, nous pouvons dépister les causes de problèmes et difficultés en apprentissage de la grammaire d'une langue étrangère romane par des étudiants non-débutants en grande partie d'une langue slave maternelle. Cela engendre une situation contrastive du contact des langues.

Dans le but de pouvoir orienter l'innovation de l'approche de l'enseignant sur l'apprenant il est d'abord nécessaire de connaître et de décrire sa situation et son parcours précédent afin de savoir quelle est son expérience de l'apprentissage des langues étrangères avant son entrée à l'université et quelles sont ses habitudes en apprentissage de langue étrangère. Or, selon nos observations en cours de grammaire, les étudiants en licence des langues étrangères font face au manque de cohérence entre les différents métalangages linguistiques utilisés par les communautés linguistiques, celui de la langue maternelle d'une part et celui de la langue étrangère d'autre part. Dans une telle situation surgissent de nombreuses interférences terminologiques. De manière simplifiée, nous pouvons conceptualiser la situation de départ de sorte que les étudiants slovaques maîtrisent de nombreux termes métalinguistiques relatifs à leur langue maternelle. Cependant en apprentissage de langues étrangères ils ont l'habitude des méthodes orientées à la communication. En début de licence, les étudiants se retrouvent dans un environnement où de nombreux enseignants, choisissent *bona fide* comme la meilleure des solutions possibles de proposer aux étudiants la production la plus récente des manuels de grammaire produite par des locuteurs natifs de langue étrangère étudiée. Les enseignants considèrent une telle démarche comme déontologique. Cependant, grâce à des entretiens avec des étudiants en cours de grammaire française, nous avons spécifiquement identifié et analysé les problèmes liés à l'utilisation des synthèses de grammaire française (*Grammaire expliquée du français — Niveau intermédiaire* (Poisson-Quinton, Mimran, Mahéo-Le Coadic, 2004) ou *Grammaire méthodique du français* (Riegel, Pellat, Rioul, 2006). Bien que les auteurs des ouvrages en question réfèrent par leur titre aux notions de l'explication et de l'approche méthodique, les étudiants slovaques du français langue étrangère ne valorisent pas ces deux aspects en s'exprimant sur l'accessibilité de ces deux synthèses grammaticales. Les étudiants en question, donc ceux contraints à préparer leur examen de grammaire française, n'étaient pas inexpérimentés en apprentissage des langues étrangères. Typiquement, ils maîtrisent bien l'anglais ou une autre langue étrangère. Les difficultés du public ainsi défini ne relèvent pas de son inaptitude à apprendre les langues étrangères. En plus les étudiants considèrent les langues étudiées à l'université être plus difficiles que celles apprises avant leur entrée en licence. N'ayant pas l'expérience de l'analyse des difficultés de l'apprentissage des langues étrangères les étudiants attribuent souvent leurs difficultés à la complexité du système linguistique de la langue étudiée. Paradoxalement, la linguistique générale par sa classification typologique des langues ne fournit pas ce type d'argument. Néanmoins, du point de vue comparatif, les systèmes linguistiques des langues romanes sont considérés être moins complexes que ceux des langues slaves. Or, à la différence de telles estimations des étudiants, en analysant la situation, nous pouvons en conclure que l'analyse des résultats de l'utilisation des ouvrages de synthèse grammaticale cités a révélé un problème récurrent, la méconnaissance du métalangage grammatical en langue étrangère étudiée. Pourquoi une telle difficulté apparait-elle fréquemment ces dernières années ? En dépistant ce phénomène, il est indispensable de décrire en

grands traits les tendances et les usages en enseignement des langues étrangères dans les établissements scolaires en Slovaquie ces dernières années. Bien que nous supposions la bonne volonté déontologique de tous les acteurs qui interviennent dans le processus de la création du curricula pour les lycées ou pour les programmes licence universitaires, il est possible d'identifier les lacunes en préparation du passage de l'étudiant du lycée à l'université. Les objectifs d'apprentissage diffèrent aux lycées de ceux à l'université, par conséquent les choix du personnel pédagogique respectif sont différents. En plus dans les écoles fondamentales et aux lycées, les objectifs de l'apprentissage des langues étrangères diffèrent des objectifs des cours de langue première — maternelle. Dans les écoles secondaires, malgré une coopération interdisciplinaire, le contenu de chaque matière linguistique, à savoir la langue slovaque et son enseignement de la grammaire et les langues étrangères distinctes enseignées à l'école secondaire, ont chacune son propre métalangage grammatical. Depuis les premières années de l'école élémentaire, en cours de langue slovaque les élèves sont progressivement initiées au métalangage grammatical et linguistique. Dans le cas des langues étrangères, en revanche, la préférence est donnée aux méthodes centrées sur les compétences de communication, en minimalisant le métalinguistique en langue étrangère. C'est après ce parcours préférant le métalangage de la première langue de l'élève et par conséquent cette langue est dans la plupart des situations aussi la langue d'enseignement de l'école, que les lycéens, avant de passer le baccalauréat, prennent la décision sur le début de leur parcours en enseignement supérieur. Ceux qui envisagent les études philologiques d'une langue étrangère sont souvent motivés par leur expérience positive de l'apprentissage de langue étrangère. Et c'est à ce point-là que le vécu estudiantin et les attentes de continuité peuvent différer des réalités des études universitaires. Les divergences profondes entre les modes d'enseignement de la grammaire au lycée et à l'université mettent en difficulté un grand nombre d'étudiants futurs enseignants de langues romanes. Dans le cadre des curricula de programmes de formation de futurs enseignants, une langue étrangère ne peut plus être restreinte uniquement à l'amélioration des compétences de communication. Connaître la description métalinguistique d'une langue étrangère est nécessaire pour plusieurs raisons, Le futur diplômé du programme de formation des enseignants doit acquérir une connaissance adéquate, de la description métalinguistique de la norme et de l'usage de la langue étrangère, comparable à celle des locuteurs natifs, qu'ils soient linguistes ou non. Ce niveau d'expertise est requis afin de pouvoir être dans le futur le porteur de l'information métalinguistique en tant qu'enseignant ou linguiste.

Vu cette mise en relief de la situation, il est indispensable de détailler les contraintes du choix des manuels utilisés en programmes de licence de langue romane. Nous avons mentionné que suivant l'approche déontologique les enseignants choisissent les méthodes et manuels récents des auteurs linguistes grammairiens natifs. Ces manuels et méthodes manquent souvent de lien suffisant entre la recherche linguistique et didactique et la pratique de l'enseignement de la langue étrangère étudié et de la langue première — maternelle des étudiants. De surcroit, vu les possibilités et le nombre du personnel chercheur restreints, les

analyses scientifiques pertinentes, visant l'efficacité avec laquelle les méthodes d'enseignement de phénomènes grammaticaux sont appliquées par rapport aux résultats des étudiants, manquent. En plus, les maisons d'édition des manuels de grammaire ou de méthodes de langue étrangère n'indiquent pas systématiquement si et quelles recherches linguistiques et didactiques ont été effectués pour la vérification d'effectivité du matériel didactique particulier ou d'une méthode spécifique utilisée dans un manuel de langue étrangère. Les auteurs se contentent souvent à énumérer les caractéristiques par exemple suivant le *Cadre européen commun de référence pour les langues* (2001) et déclarent la conformité du manuel ou méthode sans clairement indiquer les d'études et les systèmes de vérification de qualité fiables ou standardisés. De plus, les enseignants sont souvent ils sont des enthousiastes, testeurs de nouveautés du marché.

Dans le but de pouvoir remédier la situation lors de la formation de futurs enseignants dans les départements des langues romanes, il est nécessaire de compléter le matériel pédagogique existant par des études et des produits répondant à la demande en situation contrastive langues romanes — langue slave. Bien que les manuels et méthodes des auteurs natifs de langues romanes sont largement utilisés, le public slovaque dispose de grammaires des auteurs slovaques, notamment de la grammaire de traduction *Francúzska gramatika*. C'est une grammaire du français en langue slovaque écrite par un l'auteur de renom, romaniste slovaque Taraba (2008). Cet ouvrage est excellent pour faire correspondre les métalangages de la grammaire, il prend en compte les tendances récentes en description de la grammaire française et les synthétise. Riche en exemples et leur traduction, il permet à l'utilisateur slovaque, apprenant du français langue étrangère, de dépister le sens exact des exemples représentants les faits de langue décrits. Mais la grammaire en question n'est pas exhaustive et les étudiants manquent d'approfondissement en comparaison des deux traditions grammaticales respectives. Les traductions des exemples ne sont pas analysées et décrites. Le manuel ne met pas en relation de comparaison contrastive la métadescription des faits de langue de langue française avec ceux du slovaque.

La grammaire traditionnelle de traduction peut être complétée par les informations sur la langue cible de paire de traductions. Évidemment le concept évolue ainsi vers une grammaire contrastive de traduction incluant l'information d'analyse grammaticale pour les deux langues. Mais une telle transformation orientée à l'apprenant peut l'aider à acquérir les connaissances nécessaires pouvant améliorer ses résultats non pas uniquement en grammaire contrastive, mais grâce à la complexité des informations aussi en compétences langagières, notamment en précision de compréhension en langue étrangère et en traduction. De tels postulats en théorie ont dû être prouvés scientifiquement lors de notre projet de recherche. L'analyse des cours du *Module système linguistique du français* nous a montré le besoin de renforcer l'idée de l'explication contrastive pour faire correspondre les métalangages en langue étrangère étudié et en langue maternelle en consolidant les compétences langagières et soutenant la compétence en traduction. Nous avons cherché les arguments linguistiques structuraux hormis ceux relatifs à la fréquence des unités lexicales en langue étudiée. Suivant la théorie linguistique qui considère

le prédicat être la composante syntaxique clé de l'énoncé et profitant des résultats récents de la linguistique slovaque dans le domaine des caractéristiques du verbe en langue slovaque synthétisés par Dzivíaková (2014), nous avons choisi le domaine de constructions verbales. L'idée clé du projet était l'usage systématique du concept contrastif à l'aide de la schématisation de la description métalinguistique contrastive des syntagmes verbaux de langues romanes (français, espagnol), complété ensuite par la description de l'analyse de la traduction slovaque de l'énoncé. Pour chacune des langues d'analyse, nous avons utilisé la description métalinguistique honorant sa tradition linguistique respective. Or les différences dans la perception de la description pour les langues romanes et pour la langue slovaque sont basées sur une typologie linguistique différente des langues contrastées et, par conséquent, sur les différences en traditions de description grammaticale. Pour faciliter à l'apprenant d'étudier de manière holistique les phénomènes en question en complexité de liens structuraux nous avons procédé à la construction du support comparant les descriptions des énoncés en langues romanes et leur traduction adéquate en slovaque. La base du support était un corpus bilingue parallèle en langues romanes (espagnol, français) et en slovaque que nous avons créé à partir des extraits choisis selon les critères prédéfinis. Les exemples des énoncés authentiques proviennent du corpus annoté de référence espagnol *CREA anotada* (Corpus de Referencia del Español Actual, (2015), qui contient des textes d'années 1975 – 2000 de tous les pays hispanophones et du corpus français *CER* (Corpus L'Est Républicain, 2015), qui est composé de textes d'années complètes 1999, 2002 et 2003 du quotidien L'Est Républicain. La base de la sélection des phénomènes linguistiques est constituée d'ouvrages de référence pour les constructions du verbe + préposition, à savoir la base de données *ADESSE* (*Base de datos de Verbos, Alternancias de Diátesis y Esquemas Sintáctico-Semánticos del Español*) (2015) pour l'espagnol et le *Dictionnaire des verbes du français actuel* (*Constructions, emplois, synonymes*) des auteurs Florea et Fuchs (2010) pour le français. En utilisant les corpus linguistiques de textes authentiques nous nous référons à Benveniste afin de bien saisir la segmentation du texte en analyse parce que « l'énonciation : c'est l'acte même de produire un énoncé et non le texte de l'énoncé qui est notre objet » (Benveniste, 1970) et donc en théorie des constructions prépositionnelles du verbe nous analysons la typologie de la production des énoncées afin de pouvoir procéder au choix et au triage sémantique des exemples par rapport aux contextes auxquels ils réfèrent.

En observant les perspectives de l'approche énonciative en linguistique, nous observons constatons que la vision originale de Benveniste, intégrant une sélection de ses évolutions ultérieures en linguistique francophone, correspond le mieux aux objectifs de notre concept d'innovation en linguistique contrastive. Son application nous permet de fonder les bases de relations en situation de communication ce qui nous permet de faciliter à l'étudiant de percevoir les rapports contrastifs entre la norme et l'usage en langue étrangère par rapport à la norme et l'usage en langue maternelle. Cela étant représenté par la formulation de l'énoncé par le destinataire en langue d'origine – processus de traduction (analyse et interprétation, puis reformulation du traducteur) – destinataire en langue cible. L'énoncé formulé en

communication correspond à notre définition de la base énonciative, que nous jugeons indispensable pour analyser et décrire la grammaire de la construction prépositionnelle du verbe. Benveniste a résumé sa théorie de l'énonciation dans *L'appareil formel de l'énonciation* (1970) et plus tard il a développé ses idées en la matière dans ses *Problèmes de linguistique générale II* (1974). Pour lui « L'énonciation est cette mise en fonctionnement de la langue par un acte individuel d'utilisation. » (Benveniste, 1970) et aussi (Benveniste, 1974, p. 80). Or, dans sa théorie il met en valeur la langue et sa mise en fonctionnement par un acte individuel d'utilisation et c'est ce point que nous trouvons indispensable à analyser et décrire pour l'apprenant. Lui permettre à pouvoir percevoir comment cette mise en fonctionnement en formulation de communication est faite en situation réelle par les locuteurs natifs. Par la suite, en le mettant en rapport avec les procédées parallèles en formulant la traduction du message communiqué nous mettons en relation directe la communication du message et de sa structure profonde avec la forme de la structure de surface en langue cible. Nous modélisons à ce point les structures et la forme correspondante en langue cible. Paradoxalement, les résultats de la schématisation des structures en langue cible ne montrent pas la répétitivité et ne permettent pas, vu les différences typologiques, de mettre en valeur les parallélismes entre la langue romane et la langue slave, mais au contraire, mettent en relief les différences entre les langues analysées. Cela renforce l'argument de l'impossibilité de la traduction mot à mot afin de respecter la signification de la structure profonde. Ainsi, l'apprenant peut observer la nécessité de transformation complexe de la forme lors de la réexpression en processus de traduction et il apprend comment les structures formelles de surface ne sont pas répétitives et parallèles à celles de la langue d'origine où la structure verbe et préposition est plus simple que la structure de la phrase traduite. Ce type d'analyse contrastive permet de démontrer à l'apprenant comment le respect de la structure formelle en traduction mot à mot éloigne le sens du texte traduit du respect de la structure profonde, c'est-à-dire la signification de l'énoncé. Dès les débuts de la théorie de l'énonciation « la langue se trouve employée à l'expression d'un certain rapport au monde » (Benveniste, 1966, p. 82). Pour l'apprenant de langue étrangère, il est indispensable d'étudier les énoncés produits par les locuteurs natifs pour apprendre les modèles onomasiologiques en contextes, c'est-à-dire de savoir comment ils reflètent le monde. Ensuite, l'apprenant peut lui-même les réutiliser de manière sémasiologique en d'autres situations de communication pour déterminer la signification de l'énoncé par rapport à la référence. Benveniste avait des décennies avant les années de linguistiques discursives et pragmatiques résumé les liens internes entre le locuteur, le discours, et la référence au sein de l'énonciation :

« La condition de cette mobilisation et de cette appropriation de la langue est, chez le locuteur, le besoin de référer par le discours, et chez l'autre, la possibilité de co-référer identiquement, dans le consensus pragmatique qui fait de chaque locuteur un co-locuteur. La référence est partie intégrante de l'énonciation » (Benveniste, 1966, p. 82).

La critique de la théorie de Benveniste se rapporte soit au manque de la base épistémologique de sa théorie, tout en reconnaissant que Benveniste a réintroduit le terme de langage saussurien d'un point de vue ontologique. C'est ainsi qu'argumente Sungdo (1997 : 216 — 217) « Du fait de l'écart entre l'objet théorique et le réel phénoménologique, le projet de la théorie de l'énonciation qui envisage la substance de l'événement n'est pas fondé en termes épistémologiques. De surcroît elle n'est pas axiomatisée excepté le domaine précis de la deixis discursive. » Cette critique prouve un des points forts, à savoir la discursivité, ainsi que les points faibles de la théorie de Benveniste et de son immaturité dus au fait que l'auteur devait mourir deux ans après la publication du deuxième tome des *Problèmes de linguistique générale II* (1974) sans pouvoir approfondir sa théorie. De nombreux critiques vont plus loin que de nier l'énonciation de Benveniste, une théorie ayant ses racines dans l'époque de l'essor des linguistiques structuraliste qui la précédait. Nyckees en négation de la théorie de l'énonciation conteste l'idée même de la langue, car il décrit les difficultés de concept notionnel de langue qu'il ne considère pas comme un cadre nécessaire à la recherche linguistique en résumant

« s'il est probable que la description des faits linguistiques ne pourra jamais éliminer toute approximation, on peut douter en revanche que les concepts de la linguistique générale puissent s'accommoder d'à peu près. C'est aux instruments de s'adapter à la complexité de l'objet d'étude, et non pas l'inverse. » (Nyckees, 2008 : 27).

L'évolution subséquente des concepts de Benveniste par Culoli correspond en grands traits à notre point de vue linguistique par son explication « L'activité de langage renvoie à une activité de reproduction et de reconnaissance des formes, or, ces formes ne peuvent être étudiées indépendamment des textes, et les textes ne peuvent être indépendants des langues. » (Culoli, cité par Paveau, Sarfati, 2010 p. 179). Précisément c'est cette valorisation de la mise en relation des formes, textes et langue que nous apprécions par rapport à l'analyse contrastive. En plus, cette idée de Culoli ne contredit pas Benveniste qui envisage « une autre approche, qui consisterait à définir l'énonciation dans le cadre formel de sa réalisation. » (Benveniste, 1970). Cette définition est proche de notre synthèse contrastive puisque l'énoncé produit représente le système de langue. Les approches discursives préconisent comme le résume Gravitz (cité par Paveau, Sarfati, 2010 p. 194), de « considérer la structuration d'un texte en le rapportant à ses conditions de production, c'est l'envisager comme discours. » Cette explication de Gravitz va dans le sens d'une discursivité textuelle mettant l'accent sur le principe holistique. En plus, le même auteur souligne que « le texte est un mode d'organisation spécifique qu'il faut étudier comme tel en le rapportant aux conditions dans lesquelles il est produit » (Gravitz, cité par Paveau – Sarfati, 2010 p. 194). Il est bien de percevoir le texte en sa totalité, mais il faut rappeler les problèmes d'analyse qui en résultent. En traduction, il est possible et nécessaire de différencier les étapes de son processus. Or, si une telle différenciation est possible, il est évident de bien pouvoir segmenter

l'analyse du discours ou du texte. La segmentation en analyse est nécessaire pour ajuster la longueur des segments du texte aux besoins situationnels de l'apprenant. De sa part, il est plus facile d'étudier un segment plus court, par exemple une construction verbale prépositionnelle schématisée et la percevoir comme modèle à réutiliser que d'avoir à la disposition une sorte de diagramme discursif contenant le schéma de la totalité du discours. De surcroit, les modèles schématisés des constructions verbales témoignent en chaque langue de la valence du verbe. Il est donc utile d'aider l'apprenant de mémoriser ces caractéristiques de valence et cela profitant de l'information en deux langues contrastées. Ainsi, suivant le procédé strictement déontologique du choix des faits de langue qui peuvent considérablement dynamiser l'apprentissage par la sélection appropriée d'exemples correspondants aux modèles syntaxiques, le chercheur oriente son attention vers l'apprenant et peut le faire progresser à l'aide d'un exemplier de grammaire de traduction enrichie de description grammaticale schématique en deux langues.

### **Conclusions**

Nouvelles approches orientées sur l'innovation du contenu en enseignement de la grammaire contrastive peuvent devenir effectives en s'inspirant de la linguistique énonciative. Le point décisif d'innovation est une segmentation appropriée du texte en langue de départ de la comparaison qui permet une mise en relief des faits de langue analysés. En plus, par rapport aux grammaires traduction traditionnelles l'apprentissage des contrastes entre deux systèmes linguistiques peut être facilité en complétant l'ouvrage par la description grammaticale de la traduction en langue cible de la paire de comparaisons. L'innovation peut devenir pertinente quand l'approche déontologique en préparation du sujet de recherche inclut l'analyse strictement critique des procès et usages en enseignement, même ceux qui sont au départ considérés par les acteurs du processus pédagogique et didactique déjà être les meilleurs possible.

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# USAGE ET MÉSUSAGE, MANIPULATION ET COMPIRATION DES IMAGES PHOTOGRAPHIQUES EN HISTOIRE: IMPASSE MÉTHODOLOGIQUE, RESPONSABILISATION DES CHERCHEURS ET REMISE EN CAUSE DES « MAITRES »

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## Résumé

*L'usage des images photographiques dans les travaux de recherche en sciences sociales en générale et en Histoire en particulier accuse des manquements épistémologiques et techniques quant à leur manipulation et présentation. Ce constat général est fait dans les onze départements d'Histoire que compte l'ensemble des universités publiques du Cameroun. Ainsi la vétusté et l'absence d'uniformité épistémologique des différents guides méthodologiques élaborés dans ces départements d'études historiques posent le problème sur la façon d'évaluer la pertinence des images photographiques dans les travaux de recherches. Cette inquiétude n'a d'effet que sur le jeune chercheur. N'ayant pas d'assise formelle bien régie sur laquelle s'agripper, ils usent de toutes les facilités numériques et novatrices de traitement et de manipulation des images afin de satisfaire les exigences idéelles des éventuels évaluateurs. Par l'usage de la méthode hypothético-déductive, il s'avère qu'en absence des standards méthodologiques professionnels actualisés et adaptés aux nouvelles technologies, cette situation rend le jeune chercheur seul maître du copyright des images qu'il propose dans les travaux. Ce qui entrave quelque peu l'idéologie épistémologique de l'historiographie camerounaise. D'où l'intérêt et la perspective de la responsabilisation, de la réflexivité, de l'objectivité et de l'honnêteté – traits définitoires des jeunes chercheurs en Histoire au Cameroun.*

**Mots clés :** *Images photographiques, Uniformité épistémologique, Historiographie camerounaise.*

**Use and misuse, manipulation and compilation of photographic images in History: methodological stalemate, accountability of researchers and master's questioning**

## Abstract

*The use of photographic images in research work in the social sciences in general and history in particular shows epistemological and technical shortcomings*

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*in their manipulation and presentation. This general observation is made in the eleven departments of history that includes all public universities in Cameroon. Thus, the obsolescence and the lack of epistemological uniformity of the different methodologies developed in these departments of historical studies pose the problem of how to evaluate the relevance of photographic images in research work. This anxiety only has an effect on the young researcher. Having no formal well-groomed base to grip on, they make use of all the facilities, digital and innovative facilities for processing and manipulating images to meet the ideal requirement of potential evaluators. By the use of the hypothetic-deductive method, it turns out that, in the absence of professional methodological standards updated and adapted to new technologies, this situation makes the young researcher the sole copyright master of the images he proposes in the works. This hinders somewhat epistemological ideology of Cameroonian historiography. Hence the interest of the perspective of accountability, reflexivity, objectivity and honesty, defining features of young researchers in history in Cameroon.*

**Key words:** Photographic images, Epistemological uniformity, Cameroon historiography.

## **Introduction**

La photographie a attiré les spécialistes des sciences sociales dès que ces disciplines se sont constituées au cours de la seconde moitié du XIX<sup>e</sup> siècle. Ce nouveau médium leur apparaissait alors comme l'outil par excellence pour recueillir mieux qu'une description des lieux, des êtres ou des choses, une empreinte fidèle, une sorte de décalque mécanique exempt de déformation (Maresca, 2011). Cette conception classique, mais toutefois non moins intéressante s'est drastiquement périmée car les nouvelles technologies de la communication et de la représentation ont apporté une large gamme de techniques de traitement des images photographiques. L'usage desdites technologies appelle, à en point douter en science sociale à l'objectivité et l'honnêteté. Le problème qui se pose est qu'il existe une impasse entre l'évaluation technique et l'idéologie épistémologique de la présentation de l'image<sup>2</sup> en Histoire. Cela est dû au contraste entre le vieillissement de la classe des chercheurs assermentés couplé du manque d'intérêt à l'arrimage aux nouvelles technologies par rapport au fait que les images sont devenues une partie intégrante et essentielle de la culture des jeunes générations de chercheurs. Ce qui crée un conflit épistémo-photographique. La photographie est un art –possédant des techniques et méthodes établies de façon conventionnelle- qui fait appel à l'objectivité et l'honnêteté de celui qui en fait usage à des fins scientifiques. Or, le cloisonnement des règles méthodologiques obsolètes en matière de disposition, dimensionnement de l'image remet quelque fois en cause l'esprit d'objectivité et d'honnêteté du jeune chercheur. Parallèlement, les protocoles méthodologiques

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<sup>2</sup> La notion d'image en langue française est polysémique. Dans cette réflexion, le terme image fait référence à l'ensemble de reproductions par prises photographiques des faits, à l'aide d'un appareil approprié (téléphone, appareil numérique, caméscope, camera... etc.) lors d'une recherche empirique.

analysés sont prompts à reconnaître l'usage des images dans les recherches historiques qu'à débattre de leurs implications épistémologiques et des conditions techniques liés à la méthodologie des images. Face à ce dilemme de rupture et continuité, entre la vétusté et l'absence de mise à jour des protocoles méthodologiques, et la nouvelle dynamique technologique qui impose aux chercheurs des méthodes novatrices dans le traitement des images photographiques, quelle attitude doit adopter le néophyte historien face à la présentation d'une image dans un travail scientifique ? Doit-on adopter l'obligance du recours aux nouvelles technologies en termes de traitement des images (rupture) ou faire prospérer (continuité) le *statu quo* méthodologique dont font montre les différents guides méthodologiques analysés ?

Ce propos s'inscrit dans une perspective méthodologique théorique, mais opérationnelle. Pour parvenir à des résultats fondées, cette analyse s'appuie sur une démarche empirique méthodique avec pour fond, une démonstration sur des figures et des archives<sup>3</sup>. Il s'agit de se questionner sur le contraste entre l'impasse et l'importance de l'illustration photographique dans les recherches historiques au sein des universités du Cameroun : éléments de discussion, abondance des logiciels de manipulation des images et *statu quo* générationnel (ouverture d'esprit des jeunes chercheurs *versus* conservatisme des évaluateurs).

## **1. Impasse et importance de l'illustration photographique des recherches historiques dans les universités du Cameroun : éléments de discussion**

Dans les techniques de recherche contemporaine, il est difficile de voir un travail scientifique sans illustrations en général et sans images photographique en particulier. Le mot illustration employé ici renvoie à l'ensemble des éléments additifs au texte (tableaux, photos, diagrammes... etc.) ayant une valeur d'application, de vérification et de démonstration et qui contribuent à étayer l'argumentaire d'une réflexion sur un sujet donné. Nonobstant la prééminence de l'illustration en sciences sociales, un vide inhérent à l'usage des images photographiques se fait toujours ressentir dans les différents manuels de recherche historique.

### **1.1. De la portée des images photographiques en Histoire**

Cette analyse part du constat fait par Péquignot selon lequel la question des images ou des usages de l'image en sciences sociales est récurrente dans nos débats depuis les premières tentatives photographiques du XIX<sup>e</sup> siècle. Elle a par la suite été déclinée dans de nombreux secteurs de la recherche (2006). Lesdits secteurs de recherche concernent plusieurs disciplines en sciences sociales parmi lesquelles l'Histoire<sup>4</sup>. Cette dernière n'est donc pas une discipline isolée car selon Mohammed

<sup>3</sup> Les archives dont il est question ici renvoient à l'ensemble des guides et protocoles méthodologiques de rédaction des thèses et mémoires en Histoire, collecté dans les différentes institutions universitaires publiques du Cameroun.

<sup>4</sup> L'Histoire ne s'est pas promptement illustrée dans l'usage de l'image photographique en tant que technique scientifique d'investigation. Devançant les autres sciences sociales, l'anthropologie a eu recours aux techniques d'enregistrement audiovisuel et à la confection de films de recherche dès avant la seconde guerre mondiale. Plus tard la sociologie s'est risquée à explorer par l'image quelques objets contemporains.

Allal : « l'idée d'une discipline totalement fermée, seule capable de justifier dans son interprétation absolue la méfiance antique envers le mélange des genres, est une idée impossible » (1977, p. 619). Pourquoi plus spécifiquement les images photographiques ? Parce qu'elles présentent cette caractéristique d'être à la lisière entre le réel – dont elles restituent une empreinte lumineuse – et sa représentation – puisque ce sont des artefacts visuels à part entière (Maresca, 2011).

L'importance de la photographie en Histoire ne date donc pas de nos jours. Les sources iconographiques qui s'associent parfois aux sources archivistiques sont pour la plupart des temps jugées pertinentes par l'apport originel et original des images photographiques. Dans la discipline historique, la photographie pas plus que les données empiriques ont une valeur éthique. Cela justifie le fait que le chercheur a effectivement fait le terrain et a récolté des données empiriques. Aussi, inclure des illustrations dans un travail de thèse semble un parti pris plutôt sympathique qui facilite la lecture, la rend plus agréable pour le jury et donne un texte plus aéré et convaincant pour un éventuel éditeur (Meyer, 2017). Elle participe au même titre que le texte à la démonstration de l'analyse, à la constitution d'une banque de données précieuse sur un quelconque sujet, elle joint l'utile (texte) au précieux (image). A titre illustratif, pendant la construction d'un immeuble, les images prises dans un intervalle d'une semaine ne sont pas semblables car, le chantier est dynamique. Dans ce cas l'historien de la ville (urbaniste) privilégie les images photographiques à la description textuelle.

Toutefois, après une revue des différents guides méthodologique des départements d'Histoire des huit Universités publiques du Cameroun<sup>5</sup> et des quatre Ecoles Normales Supérieures (ENS), nous avons constaté une impasse ou un vide épistémologique et technique dans la présentation et la manipulation des images photographiques en Histoire ; sans omettre les critères d'évaluation technique. Pour reprendre les expressions de Michaël Meyer, au-delà des cénacles dans lesquels se débattent les questions de principe, persiste une forme répandue de désintérêt (2017), qui ressort de la lecture des principaux guides et protocoles consacrés à la méthodologie en Histoire dans les institutions universitaires publiques du Cameroun. A titre illustratif, quelques passages lacunaires concernant l'usage des images tirés de certains guides méthodologiques des départements d'Histoire sont présentés ci-dessous. La possibilité d'utiliser la photographie n'y est soit pas mentionnée ou alors expédiée en deux lignes. Certains desdits guides n'accordent point d'attention spécifique à l'usage des images.

## **1.2. Cas pratique : morceaux choisis des protocoles méthodologiques des départements d'Histoire de quelques institutions au Cameroun**

D'emblée, il faut reconnaître avec Monique Haicault que le milieu de la recherche demeure encore réticent à considérer la méthodologie de l'image comme une technique à part entière, à faire enseigner et à la faire progresser. Elle demeure marginalisée par rapport aux techniques classiques, questionnaires, entretiens et

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traitements statistiques (2010). Nous avons pris cinq extraits de protocoles méthodologiques correspondant à cinq départements d'histoire de différentes universités afin de démontrer l'impasse méthodologique inhérente à la méthodologie de l'image en Histoire.

- Université de Douala (Département d'Histoire)

### **5. L'EMPLOI DES PHOTOS**



**Photo N° 1 : Foire organisée par le Ngondo en décembre 2017 à Douala au lieu-dit Parc des Princes.**

*Source : photo Alino, Douala 07 décembre 2017 (Kpwang Kpwang, p. 14).*

L'impasse dans laquelle cet extrait du projet de guide méthodologique en Histoire plonge le jeune chercheur est à dénoncer. Cette brève section sur l'usage des images photographiques ne renseigne point sur les techniques et méthodes que l'étudiant ou le chercheur doit s'approprier. Cette illustration constitue une prescription dont les étudiants en Histoire devraient s'approprier afin de présenter les images dans leurs différents travaux scientifiques. Il est ainsi impératif d'aller au-delà d'une simple illustration sommaire, d'intégrer voire préciser le/les logiciels à utiliser, le seuil tolérable de modification numérique à apporter au traitement des images photographiques et le type de formats d'images numériques à utiliser (JPG, PDF, PNG, GIF, BMP, PSD, TIFF...etc.).

Université de Yaoundé I (Faculté des arts, Lettres et Sciences humaines)

#### **2.4. Tableaux et figures**

*...Lorsque le mémoire doit contenir des photographies, on les insère dans chaque rapport en les fixant de façon appropriée. Il est également possible d'utiliser des procédés informatiques*

*permettant de reconstituer fidèlement les images* (Commission scientifique consultative, 2012, p. 5).

A l'analyse si cet extrait a le mérite d'évoquer le problème lié à l'usage des photographies, il n'en demeure pas moins qu'il existe une absence de précision technique (survol) de la question liée à la manipulation des images photographiques dans un mémoire de fin d'étude. Par ailleurs deux expressions clés issues dudit passage se caractérisent par leur absence de précision opérationnelle. Il s'agit respectivement de : « ...on les insère dans chaque rapport en les fixant de façon appropriés » et « *Il est également possible d'utiliser des procédés informatiques permettant de reconstituer fidèlement les images* ». La question qui se pose d'emblée au chercheur est de savoir l'orientation de l'expression « ...de façon appropriée... ». Sur quels critères ou normes nationales ou internationales le chercheur appartenant à cette institution doit-il se baser ? Les procédés informatiques évoqués sont muets car, la recherche contemporaine se caractérise par l'usage d'une multitude de logiciels numériques permettant de traiter et de manipuler les images à des fins objectives et subjectives.

- Université de Yaoundé I (Département d'Histoire)

### ***ILLUSTRATION***

*Graphiques, organigrammes, schémas, cartes, photographies, font partie intégrante de l'ouvrage. Comme le nom l'indique, les illustrations servent à éclairer le texte et doivent traduire l'intention pédagogique de l'auteur... Une marge de deux centimètres doit être prévue des quatre côtés de l'illustration... Il importe de veiller à ce que les titres, légendes et inscriptions accompagnent les illustrations. Ceux-ci doivent être aussi explicites que possible. Les photographies doivent être scannées* (Département d'Histoire, 2006, p. 24).

Cet extrait de texte est tiré d'un guide méthodologique élaboré en 2006, mais toujours en vigueur de nos jours. Si le retard et l'inappropriation technologique peuvent expliquer le manque d'intérêt des auteurs quant à l'usage (traitement et manipulation) des images photographiques, il n'en demeure pas moins que l'obsolescence méthodologique inhérente à cette question reste toujours d'actualité. Il appert donc impératif de corriger ce malaise ; surtout que ce département appartenant à une grande institution universitaire se revendique une notoriété méthodologique dont le nom « Ecole Historique de Yaoundé » constitue l'objectif sous-jacent.

- Université de Ngaoundéré (Département d'Histoire) et Université de Maroua (Faculté des Lettres et Sciences humaines).

Les guides méthodologiques des départements d'Histoire de ces institutions universitaires ne font mention, de façon formelle, en aucun endroit de l'usage (traitement et manipulation) des images photographiques. Sans doute, les néophytes

chercheurs qui s'appuient sur ce protocole se réfèrent à d'autres orientations externes à leur institution d'appartenance. La nécessité de l'objectivité, de la déontologie s'impose donc aux chercheurs qui ne savent sur quelles bases méthodologiques les images photographiques qu'ils présentent seront évaluées.

Quotidiennement, les étudiants sont confrontés à la critique du genre « il faut voir ce qui se fait à l'international » lancé par certains membres du jury. Ils s'efforcent d'ignorer le fait que même à l'international il n'existe pas d'unanimité autour des débats concernant le traitement des images en sciences sociales, notamment les points de vue minimalistes et maximalistes développés en sociologie visuelle (Meyer & Papinot, 2016).

Dans les productions historiques, les images photographiques ne sont pas muettes, elles sont en cela plus proches du document brut, tout en étant déjà engagées dans la l'illustration de quelques données de terrain. Il est plus aisément de photographier un chantier routier en cours que de se lancer dans une description théorique qui s'apparente à une narration ex nihilo. Tout compte fait, ces apports méthodologiques inhérents aux images, aussi essentiels soient-ils, laissent donc un certain nombre de points aveugles sur l'épistémologie de la démarche de recherche, sur le statut des données d'enquête ainsi produites (2016), ou plus généralement sur les conditions de validité scientifique des images photographiques produites à partir des données empiriques.

## **2. Abondance des logiciels de manipulation des images**

L'usage des images dans le récit historique de nos jours ne fait point l'objet de réflexion approfondie. Le chercheur se laisse dès lors aller au rythme du vent de la kyrielle de méthodes innovantes spécialisées dans le traitement des images photographiques.

### **2.1. Considérations pratiques : impasse méthodologique, liberté de manipulation, impératif déontologique**

L'image photographique peut avoir plusieurs rôles dans une recherche en sciences sociales. Elle peut servir de témoignage, elle peut avoir un statut heuristique, remplacer un raisonnement... (Péquignot, 2006). En Histoire l'image photographique est principalement utilisée à titre illustratif. A ce titre, elle ne saurait être appréhendée sous le prisme purement classique d'un fait historique. Dans cette discipline l'image doit parler d'elle-même, transmettre aisément et clairement le message au lecteur sans que l'auteur ne révèle son positionnement idéologique. C'est donc là que se pose l'écueil entre les règles méthodologiques théoriques, parfois pas bien structurées tel que présenté ci-dessus et la réalité des recherches empiriques. Le jeune chercheur étant contraint au respect du canevas méthodologique en vigueur dans son institution d'attache voit sa responsabilité mise en épreuve face à la multitude de logiciels de manipulation et de traitement des images photographiques.

Cette omission contribue à reproduire une absence de consensus concernant la place et le rôle des images dans le processus de recherche qualitative. À celles et ceux qui veulent faire ou utiliser des images, il incombe de réinventer et justifier leur

propre recette méthodologique (Meyer, 2017). Dans ces conditions, le jeune chercheur se tourne beaucoup plus résolument (technique) et dubitativement (méthodologie) vers les ressources de la mise en forme numérique afin de gagner en liberté de présentation et en richesse de contenu. (*HP Photo Creations, ...etc*). A cela il faut ajouter les appareils photo compacts, les téléphones intelligents et les tablettes numériques qui offrent des opportunités démultipliées aux chercheurs qui souhaitent utiliser les images dans leurs projets de connaissance, à condition bien sûr que cet usage ne soit pas déconnecté d'une réflexion méthodologique et épistémologique sur la démarche de recherche construite (2017). A titre purement illustratif nous utilisons l'onglet de traitement d'image de *Microsoft Word 2010* pour démontrer notre argumentaire.

## **2.2. Essai de démonstration à l'aide de *Microsoft Word 2010***

Le choix porté sur cet instrument de travail numérique se justifie par le fait qu'il nous a paru le plus simple et le plus accessible à la manipulation. Le logiciel *Microsoft Word 2010* a un petit volet de traitement des images photographiques. Les différentes boîtes de dialogue proposent entre autres : le maniement de la netteté, les effets artistiques, la rotation, le rognage, la suppression de l'arrière-plan et les effets d'ombrage... En effet, certaines fonctionnalités (couleur, luminosité, contraste) peuvent concourir à l'amélioration positive de l'illustration sans arrières pensées de trucage de l'image. Aussi, cela dépend-il du réglage de l'appareil qu'utilise le chercheur. Toutefois, l'évaluateur ou le lecteur ne peut être au courant d'une telle modification que si l'auteur en fait mention. Les figures ci-dessous donnent un aperçu des différentes manières dont les images photographiques peuvent subir des modifications multiformes liées à la manipulation d'un outil de traitement des images.



**Figure n° 1 : Montage avec effet de suppression de l'arrière-plan + rognage**



**Figure n° 2 : Image original sans effets supplémentaires**

Toutefois, selon la nature de ce que l'on veut illustrer, les modifications de l'image peuvent être source de confusion. Ici la responsabilité et l'honnêteté de l'auteur sont de mise car, le correcteur ou l'évaluateur n'a pas toujours les armes nécessaires pour s'en rendre compte des quelconques manipulations de l'image.



**Figure n°3 : (Image originale) : les enfants réfugiés dans une salle de classe au camp de Gado-Badzere**



**Figure n°4 : Image truquée par effet de rotation**

Ces deux figures (figures 3 et 4) présentent *de facto* une même réalité. La différence technique vient du fait que la figure 4 a subi un effet de rotation avec inclinaison vers le côté droit. En absences des indications techniques, comment un évaluateur pourrait-il s'assurer de l'originalité de ces images dans un document déjà imprimé ? Seul l'auteur est responsable et conscient de la manipulation de ses données photographiques issues du terrain.

Pour Meyer, ces usages non contrôlés de la manipulation des images photographiques en sciences sociales, s'appuyant sur la capacité ludique et attrayante des images, participent à une très mauvaise publicité et à délégitimer les données visuelles aux yeux de nombreux sociologues confirmés (2017). Cette délégitimation non seulement de la part des sociologues mais aussi des historiens en général n'est rien d'autre que le résultat de l'impasse de l'usage technique constaté dans les différents guides méthodologique et manuels en recherches sociales.

### **3. Du *statu quo* générationnel : ouverture d'esprit des jeunes chercheurs versus conservatismus des évaluateurs**

Le « libre arbitre » imposé aux jeunes chercheurs en Histoire par l'obsolescence des manuels méthodologiques concernant la manipulation des images, génère un corollaire dualiste : appel et remise en cause du sens de l'éthique scientifique.

#### **3.1. Du mutisme épistémo-technique à la responsabilisation du chercheur**

A défaut d'avoir une base méthodologique universelle qui précise les critères d'évaluation ou de reconnaissance de l'originalité d'une quelconque image utilisée dans un travail de recherche scientifique, l'évaluateur doit laisser la responsabilité d'éthique au chercheur qui présente le résultat de ses investigations. Le vide méthodologique relatif au traitement et à la manipulation des images photographiques observé au sein des différents départements d'Histoire des

universités publiques du Cameroun constitue un handicap, une faiblesse dans la rigueur méthodologique. Afin de combler cette impasse négligeable à première vue mais profonde sur le plan de l'éthique et de la déontologie, les évaluateurs non formés voire pas intéressés aux questions de logiciels numériques photographiques doivent se contenter de baisser la garde et de mettre les auteurs face à leur responsabilité et au risque qu'ils courrent en cas de détection du troncage des images par d'autres lecteurs avertis. C'est dans ce sens qu'il faut accorder du crédit à Jean-Claude Passeron lorsqu'il déclare que « L'image n'est pas le signe, on doit tirer toutes les conséquences méthodologiques de cette spécificité » (1991, p. 258).

L'une des conséquences à tirer est de responsabiliser le jeune chercheur face à l'usage et la présentation des images photographiques. De tels manquements techniques inhérent à l'usage des images imposent donc une réflexion et une précision logique et universelle devant aboutir à un guide méthodologique ou du moins une partie dudit guide qui devrait se consacrer spécifiquement aux techniques, logiques, méthodes de présentation et de manipulation des images photographiques.

L'analyse faite par Godard nous emble non moins intéressante. Pour ce dernier, « la « force » de l'image est liée d'une part au degré d'éloignement des éléments ainsi articulés et d'autre part à la « justesse » de ce rapprochement » (Godard, 1965, pp. 21-22). La difficulté ici est donc le fait que l'épistémologie en Histoire au Cameroun accorde sommairement une place à la « justesse » de présentation de l'image empirique dans les travaux de recherche. Ce cul de sac existe depuis plusieurs décennies : les jeunes loups de la recherche historique restent toujours sur leur faim et s'adaptent bon gré malgré à cette impasse selon des emprunts complémentaires - recours aux nouvelles technologies -, qui ne font malheureusement pas l'unanimité au sein de la classe des « maîtres » ; ces derniers qui s'illustrent par leur mutisme sur la question.

### **3.2. Ambiguïté des critères d'évaluation des images : test de raisonnement logique ?**

Le contraste est frappant entre ce rejet ou pour le moins cette réticence, et la teneur d'évaluation (critique) que déploie le jury à critiquer une image photographique pendant une soutenance publique. Sans pour autant qu'il ait une méthode formelle pour tester la pertinence technique et l'originalité des images à partir des résultats obtenus dans de nombreuses recherches de terrain. Le corollaire est patent : « la méthodologie de l'image demeure dans le milieu de la recherche d'usage encore limité et toujours objet de critique et par ailleurs peu enseignée » (Haicault, 2010, p. 4). Par exemple, il est aisément de constater que lors d'une quelconque soutenance publique de mémoires en Histoire, l'examinateur critique une photo présentant une route rurale en mauvaise état tout simplement parce que le chercheur n'a pas photographié la plaque ou le signal qui indique et certifie que ladite route est à l'endroit indiqué. Toutefois le jury appréciera la même image avec un montage photographique fait par le chercheur qui place une plaque de signalisation montée, pourtant fictive ! Dans le premier cas le jeune chercheur fait preuve d'honnêteté ;

mais dans le second, il est contraint de faire un montage visuel (entrave à la déontologie) avec un logiciel approprié afin de satisfaire les « égos » du jury.

Parallèlement, la figure 1 sus-présentée illustre ce fait. A l'origine il s'agit de deux images indépendantes et sans relations aucunes. Si un étudiant ne présente que les salles de classe comme fruit de ses recherches empiriques, il aura certainement des soucis avec le jury car on lui reprocherait de n'avoir pas tenu compte des indicateurs de précisions du lieu photographié ; malgré le fait que ce soit une image réelle, originale. Pour taire cette critique l'étudiant peut être tenté de faire un montage (salles de classe + plaque de signalisation) telle que le présente la figure 1.

Pour Meyer et Papinot, « Cette instrumentalisation des moyens visuels au service de la recherche est évidemment facilitée par les technologies de l'image numérique, légères et discrètes, qui automatisent en partie les réglages techniques nécessaires aux prises de vue ou au partage des images » (2016, p. 2). Dans ce cas, la réforme et l'actualisation des guides méthodologiques dans l'aspect relatif au traitement des images s'avère impératif. Il s'agit de faire en sorte que la communauté des maîtres et des étudiants – *universitas magistrorum et scholarium* – s'inscrit dans le cadre d'une même dimension de l'intégration du savoir.

Tout compte fait l'absence d'actualisation des différents guides et protocoles de recherche en Histoire dans les universités étudiées constitue un frein dans la promotion internationale du label épistémologique et méthodologique de l'historiographie camerounaise<sup>6</sup>. Par ailleurs, les intervalles d'objectivité et de subjectivité du chercheur sont définis par lui-même, ce qui met à l'épreuve son sens et son seuil de responsabilité et de déontologie lors des recherches. Parallèlement, cette lacune dans l'encadrement psycho-épistémologique, bien que concernant un infime aspect d'une recherche empirique - prise d'images photographiques -, constitue une impotence car « l'obstination des traces photographiques à fixer ce que nous ne discernons pas tout autant que ce que nous sommes disposés à voir peut en faire les auxiliaires précieux d'une posture curieuse sans exclusive » (Maresca, 2011). En outre, l'ultra conservatisme classique des maîtres engendrent plusieurs défis. D'abord, celui lié aux volte-face des jeunes chercheurs qui sont plus tournés vers des normes extérieures mieux structurées et constamment mises à jour.

## **Conclusion**

La question de l'usage des images photographiques à des fins scientifiques en Histoire, pose le problème des notions et règles méthodologiques dans leur double aspect épistémologique et technique. Sans être une exclusivité de l'histoire en tant que discipline, ce problème se pose également dans d'autres domaines en sciences sociales. Seulement, si un effort vers la normalisation est observé ailleurs, au Cameroun le processus de mise à jour des guides méthodologiques en Histoire n'a point été déclenché. Le label de l'historiographie camerounaise et de l'internationalisation des procédés méthodologiques ne sont point enclenchés. Les

<sup>6</sup> L'historiographie camerounaise fait référence aux différentes façons de concevoir et d'écrire l'Histoire au Cameroun par les historiens camerounais ou étrangers, dans le double aspect factuel et méthodologique, et à l'ensemble de production historique camerounaise.

différents manuels méthodologiques analysés illustrent clairement la « vétusté » de l'épistémologie méthodologique historique en vigueur au Cameroun. Cela est certainement dû à la prétention de singularité dont font montre les différents départements d'histoire, en lieu et place d'une tendance vers l'unanimité de la méthodologie au sein d'une même discipline. Les jeunes chercheurs continueront donc de voir leur esprit d'objectivité, de déontologie et de responsabilité mis à l'épreuve. Le débat historiographique sur la méthodologie de l'image ne constitue pas encore une priorité non seulement au Cameroun, mais aussi dans d'autres contrées africaines. Le Cameroun constitue l'épicentre de la mobilité universitaire en Afrique centrale et plusieurs chercheurs des pays voisins étudient et assimilent les points positifs en même temps que les limites du label méthodologique de l'historiographie camerounaise. Ce problème doit être pris en compte par la Société Camerounaise d'Histoire. Reste à savoir si les écoles historiques d'Ibadan au Nigeria, de Dakar au Sénégal et de Zaria en Tanzanie accordent une attention particulière à la problématique de la méthodologie de l'image en Histoire.

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## APPROACHING MEDICAL SCIENTIFIC RESEARCH BY THE INTERVIEW METHOD

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### ***Abstract***

*The current medical practice is no longer limited as in the past strictly to the application of curative treatment. It focuses on the information provided by the patient, the way s/he describes the symptoms, as well as the patient's wishes regarding the results of the treatment to be applied. The patient's perception of the medical record is especially important because it guides the doctor in choosing an appropriate treatment plan, but it also helps him/her adopt a behaviour that is shaped by the patient's temperament and personality. Establishing the medical history is the first step to be taken during the first visit to the medical centre, it is necessary to be renewed yearly, because changes can occur both in the systemic health plan and at the psycho-socio-behavioral level. Achieving this through the interview is an effective method of psychoanalysis, having a number of advantages, including: the analysis of the verbal and non-verbal communication of the patient, the strengthening of the doctor-patient relationship through the active exchange of information, flexibility. However, for a good accuracy of the information collected after the interview it is recommended to combine it with the questionnaire method. The combination of the two methods has the role of eliminating the subjectivism that can arise during the discussions and has the advantage of giving the clinician the possibility to build a database that can be accessed by both the medical staff and the patient.*

***Key words:*** *Psychoanalysis, Interview method, Psychotherapy, History, Clinical research.*

### **Collecting patient data in a medical centre**

A phenomenon that occurs frequently in the case of beginner doctors, who do not have extensive clinical experience, is the omission of the patient's history (Popescu, 2013, p. 11). They consider it essential to apply the treatment, thus minimizing the importance of the information that can be collected through the observation sheet. At the same time, they overlook the fact that anamnesis is the medical-legal document (Nanu, 2011), which mentions the patient's acceptance or

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refusal regarding the procedures performed by the attending physician. The patient record is complex and covers a number of fields:

The personal details of the patient (name, surname, age, sex, address, telephone, occupation, family background, GP to which s/he is registered).

Heredocolateral history: it refers to the systemic disorders suffered by the close family members and which present the risk of genetic transmission. The most common hereditary diseases are represented by diabetes, heart disease, mental disorders such as schizophrenia and cancers whose incidence is increasing in Romania.

The personal physiological and pathological antecedents bring to the foreground both the minor diseases of the patient, as well as the major ones such as surgical interventions or the corneal diseases that require a long-term or permanent treatment. Often, patients with chronic illnesses may develop psychological disorders such as depression or anxiety over time. The appearance of these disorders is also triggered by the lack of involvement of the clinician, alongside the absence of the psychotherapy program (David, 2006, p. 128).

Living and working conditions: it is a point of the anamnesis that is not given due importance, being treated superficially. Often, a physician at the beginning of his career fails to make a correlation between the patient's lifestyle and the actual condition of the person (Popescu, 2013, p. 27). The profession of an individual suggests the risks to which s/he is exposed both from the point of view of systemic diseases that can appear, as well as regarding the psychological aspect of stress.

Also, lifestyle can have a major impact on the health of the individual. If an unsuitable lifestyle is detected, it is advisable for the doctor to collaborate with a psychotherapist in order to follow some sessions of cognitive psychotherapy (Iorgulescu, 2017). Subsequently, after the anamnesis has been completed, the objective clinical examination is mentioned, in which the doctor mentions all the changes that have occurred at the physical level and at the behavioral level. For the clinical examination to be complete it is recommended that anamnesis should be accompanied by paraclinical investigations such as blood tests, radiographs, CT, MRI. In the end, the patient will receive a document in which s/he will have to express his/her acceptance or refusal of the treatment proposed by the doctor.

### **Design of medical research in the contemporary society**

Scientific research in the medical field is of particular importance, being the one through which treatment solutions can be found in the case of incurable diseases, as well as in the discovery of behaviors, genes or microorganisms that can trigger the disease state.

The objectives of medical research are represented by: exploration, description of phenomena and explanation (Babbie, 2010, p. 135). The exploration of a pathological phenomenon or of a patient begins by establishing an optimal doctor-patient relationship, being necessary to familiarize the researcher with either the patient under observation or the phenomenon s/he is investigating. Also, this stage of exploration is important in the case of persistent or recurrent situations.

It is important that a particular case should be investigated from multiple perspectives. For example: in the case of the increased incidence of cardiovascular disease, it is advisable to seek opinions from both physicians regarding the determinants and risk factors that led to the spread of the disease in a certain period of time, and from the patients regarding to the adopted lifestyle, vicious habits. It is often the case that the results of scientific research do not provide the desired answers to the research questions, and they are often more suggestive than definitive (Babbie, 2010, p. 139). This situation can be generated by the representativeness of the group or phenomenon studied. The concept of *representativeness* implies the existence of a sample of persons or of a number of cases having common characteristics. For example: if in the case of a study on the incidence of tooth decay among adolescents there is a sample of over 90% of adolescents, it may be considered to be correct, but if the sample of patients examined has a higher share of adults it is wrong, and the results will not be conclusive and will not bring any benefits.

The second objective of health research is the description of the case. Of course, this situation is based on a scientific observation of the subject, being objective, clear and correct, leaving no room for interpretation. The interview method also proves to be useful in this case, thus carrying out a qualitative evaluation (David, 2006, p. 103). Using the interview allows both people (clinician, patient) to develop an active conversation that allows the doctor to observe the patient's verbal and non-verbal behaviour, and gives the patient the opportunity to express himself/herself freely.

The issue of research organizing is often more complicated than we initially expect. In order to carry out the research process, the following aspects must be considered:

- Establishing a concrete date for starting and completing the research;
- Costs;
- Human resources involved in the research process;
- Providing the necessary tools;
- Selection and training of the medical staff involved in the process (Rotariu, 2006, p. 232).

### **The ethics of scientific research**

Ethical issues must be considered from the early stages of the medical research process. Participants in the research carried out must be informed of its advantages and disadvantages and the potential risks to which they can be exposed (McQueen, 2006, p. 258). One aspect that needs special attention is the preparation of the documents to obtain the informed consent of the patient, in which s/he expresses his/her agreement or refusal on the research. One of the most well-known initiators of the interview method is Jean Piaget, who used this technique, calling on the subject to be exposed to a particular problem, the difficulty being to find his/her perception of the exposed problem (Moscovici, 2007, p. 204). To this end, the seriousness of the exposed problem was not important, but the way in which the patient approached it and his/her vision of life. At this stage, the manner in which

the questions are addressed is very important (Moscovici, 2007, p. 204). The questions addressed to the subject must have a certain logical chronology, in order to highlight all the important details.

Among the characteristics of the interview, we mention:

- Obtaining clear, objective answers;
- The possibility of being able to analyze the subject in full progress and his/her mode of action and thought;
- Flexibility through dialogue; using a technique based on the monologue can lead to the omission of vital information;
- Opportunity to collect both quantitative and qualitative information;
- The clinician is the one who has the control regarding the order of the questions, which leads to an increase in the accuracy of the information collected;
- The recording of interview dates is important, as comparisons can be made and the degree of evolution or involution can be assessed.

There are also several types of interviews:

- Structured interview: this type of interview is characterized by a minimal intervention of the clinician. The interview implies that there is a list of exact questions, yet it is quite rigid (Moscovici, 2007, p. 211). Inflexibility is a disadvantage of the interview which causes it to disregard important aspects of the patient, which can be exploited to a great extent in order to establish an adequate diagnosis and treatment plan. Frequently, this type of interview is used by clinicians who do not have much experience.
- The semi-structured interview: it is the type of interview used most frequently, being very flexible. In this type of interview a list of precise questions is used, not being altogether devoid of structure. Practically, precise questions have a role in guiding the practitioner, allowing the patient not to answer them in a strict order, but according to the conduct of the conversation (Moscovici, 2007, p. 213).
- Free interview: this technique does not have a list of questions. It is based on the dynamics of the conversational flow (Moscovici, 2007, p. 213), having as main disadvantage the omission of elements of vital importance due to the lack of organization. However, this method maintains a relaxed climate for both the doctor and the patient. The absence of a rigorous organization can lead to the application of an incorrect treatment, because sufficient data have not been collected to allow for a good diagnosis. Another problem that may arise in this case is the approach of the medical staff to the patient who may be misunderstood, because, on the one hand, the clinician will not show appropriate involvement, and the patient will feel very relaxed and thus may not specify important aspects.

**The stages of interview design are:**

- Choosing the technique

The choice of the observation technique for the medical subject or phenomenon is influenced by a number of factors such as: material resources, time, human resources. The method of dialogue is predominantly chosen, being easy to implement, while also offering the possibility to collect multiple data. However, the technique of dialogue requires a good methodological training of the clinician and extensive professional experience in order to be able to achieve the objectives proposed through the questions provided. Other methods include recalling unpleasant past experiences or investigating how the subject responds to a particular situation (Quivy, 1988).

- Structuring the interview

The interview is structured in three parts: the introductory part, the descriptive part and the interview itself, which consists in applying the questions (Moscovici, 2007, pp. 217-218). The introductory part is essential, as it is that part that contributes to motivating the subject to accept the dialogue and establish a good doctor-patient interaction. It is very important to gain the confidence of the subject so that s/he can provide the doctor with useful information about his/her health. In order to gain the patient's confidence, it is necessary: to obtain the informed consent regarding the medical act to be applied, to respect confidentiality, to offer the patient the opportunity to obtain a second medical opinion on the case or if s/he is not satisfied with the proposed treatment plan. Also, the doctor must also consider the patient's expectations regarding the results of the treatment requested. Often, if after a medical intervention the functionality of an organ is restored, but the aesthetic aspect is not to the level of the patient's expectations, it will consider the entire treatment a failure.

The descriptive part of the interview is the one that guides the clinician from the beginning phase if the subject is in the focused research group, practically to fulfill the characteristics of the sample of individuals in which s/he will be included. The interview itself consists of a series of questions whose chronology is established by the doctor depending on the purpose of the study and the aspects of the case.

The development of questions is an important element, as they play a role in guiding the physician and achieving the proposed research objective. It is advisable to avoid questions that may be ambiguous or which may give rise to erroneous interpretations by the patient. The questions must be clear, concise in order to be able to objectively analyze the problem. In the dialogue, it is recommended to eliminate the language commonly used for written questions (Moscovici, 2007, p. 218). Also, language containing words or expressions from slang / jargon or mismatch should be avoided.

The questions can be addressed by means of the "split question" technique, which is characterized by an initial question in the general way, and depending on the subject's answer to the initial question, the following questions will be derived from it. Also, the general initial question should be simple, so it can be quickly

answered. Questions with a high degree of difficulty or sensitive nature can only be asked after a doctor-patient relationship based on mutual trust has been established.

Exposure of an interview model performed in a dental practice, combined with the questionnaire method:

***Patient history:***

The 52-year-old patient accuses physiognomic disorders of the presence of dark colored tartar of a nicotinic nature, as the patient smokes about two packs of cigarettes a day. Another problem reported by the patient is the shortening of the teeth due to abrasion caused by bruxism.

***Question number 1:***

How often do you go to the dentist and when was your last visit?

A: I used to go every year, but due to my health, my last visit was three years ago.

***Question number 2:***

Apart from the problems related to denture, what other problems of the state of general health do you face?

A: I am undergoing a psychiatric treatment and I also have cardiovascular diseases.

***Question number 3:***

Have you experienced any discomfort or have had previous unpleasant experiences in the dental practice?

A: Frequently, because most doctors are reluctant to give me dental care when they find out I am under psychiatric treatment. They probably think we have unexpected reactions.

***Question number 4:***

Do you follow strict psychiatric treatment?

A: Yes. Daily.

***Question number 5:***

What are your aesthetic expectations for dental treatment?

A: First of all, I want teeth whitening and removal of tartar. And I do not know how the size of the teeth can be adjusted, because they have reduced their height.

Doctor: The height of teeth is reduced due to bruxism. Bruxism is also a psychological condition caused by intense stress. Therefore, in this situation I will refer to a specialist doctor for prescribing miorelaxative medication that will eliminate the grinding of the teeth during sleep. Dental scaling and bleaching are procedures that can easily be performed in two sessions.

Conclusion of the presented case: a very high percentage of physicians refuse to provide care to patients diagnosed with psychological disorders, because they do not possess good knowledge of the psychological techniques needed, and they consider it a risk because the patient can have unpredictable reactions they can't handle properly.

### **Interpretation of the interview**

The interpretation of the interview is a post-interview stage and comprises two phases:

*1. Transcription*

*2. Interpreting the interview according to the proposed purpose.*

The first phase, the transcript, consists in the existence of a tape on which the entire interview is recorded. This idea may initially seem pointless, but in the end it will prove to be of great significance, because as time passes, an amount of information is lost. By re-listening to the dialogue the collected data is updated and a more detailed analysis of the problem exposed by the patient can be done. The transcript also aims to eliminate unnecessary elements and focus on the major issues that play a role in diagnosing the condition (Atkinson, 2006, pp. 95-99).

In the second phase, the interpretation of the interview according to the proposed purpose is much more complex and involves establishing the meaning and validity of the statements reported by the subject. For this stage a good professional training of the clinician is necessary, so as to avoid subjectivism. The ability of the physician to establish the meaning of the patient's statements is influenced by a number of factors such as: the degree of trust of the doctor-patient relationship, the theoretical perspective chosen by the doctor for interpretation, the psychic and emotional structure of the doctor may have an impact on the interpretation mode, because it reflects his/her personal experience of certain aspects of life and the way in which s/he has approached them (Atkinson, 2006, p. 102).

### **The quality of the interviews recorded with the help of a recorder**

The quality of the interviews recorded with the help of a recorder depends on a number of indications:

- Use of a recorder that is not in the patient's visual area, as it can bring important changes in the answers;
- The recording must include the interview in its entirety, without missing paragraphs. Gaps occurring during a recording can distort the reported situation;
- The patient will be informed that the interview is recorded and s/he will be explained the purpose of the recording;
- The patient must be assured of the confidentiality of the therapeutic act, and the information cannot be used without expressing his/her consentment;
- The patient has the right to interrupt the recording at any time;
- The existence of a record player does not mean that notes may not be taken; these are necessary in order to outline the condition and to orientate it towards a correct intervention plan;
- We should be prepared to understand that there are subjects on whom the recording of the interview may have an opposite effect than the expected one, because it may produce an internalization of the interview, a certain fear in the expression of symptoms or the reporting of experiences;

- In general, this record has a beneficial effect on most individuals, considering that the doctor will attach greater importance to the ones reported by the patient and will not omit useful information;
- It is important for the notes to describe the elements of the non-verbal language.

#### **Advantages of recording:**

- The notes cannot fully cover the interview data, and by comparing the notes with the recording one can obtain a useful set of information;
- Writing a research paper is considered more credible if quotations of the subjects are inserted in its content;
- The subject is encouraged to listen carefully to the clinician's advice and to respond broadly;
- The recording makes it possible to listen to it also by the other members of the research team;
- It increases the quality of eye contact between doctor and patient;
- By using the notes, the visual contact is lost, which can lead to the loss of the conversational ideas (Agabrian, 2004, p. 95).

#### **Disadvantages of recording:**

- Existence of a category of individuals who become suspicious about how the recording of the interview may be used;
- In some cases it may happen that the doctor's attention is reduced, because s/he already knows that the information is stored in the recorder (Agabrian, 2004, p. 95).

#### **Recommendations for an optimal interview:**

- Use of communication techniques that do not worry the patient in the case of questions regarding intimate or unpleasant aspects;
- Encouraging the patient to communicate freely with the doctor, without feeling constrained;
- The doctor should share his/her personal experience when the situation is appropriate;
- There should be both closed and open-ended questions that allow for a greater flow of information;
- The doctor should ask additional questions to clarify an aspect that s/he did not understand or which was not properly reported;
- The doctor should aim at a higher rate of responses, even from people who cannot read or write or who feel safer when they talk instead of writing;
- Opportunity of direct contact with the subjects, with the possibility of "recording" behavioral reactions and approaches (both on the part of the patient and of the persons with whom they interact);

- The interview is a constructive experience from which both the patient and the doctor can learn;
- Finding out the factors that influence the opinions, behaviour or motivation of the subject;
- Testing new ideas or new strategies that reveal how the patient reacts when faced with a new, unmanageable situation;
- Offer the patient the opportunity to describe in his/her own words the experience;
- The clinician must have a good training in relation to the accomplishment and implementation of an interview, regardless of its nature: quantitative or qualitative;
- The interview should consist of several types of questions: general questions, specific questions, but also transition questions;
- Studying problems in depth by asking additional questions;
- Systematizing the data obtained and storing them in a database of the medical centre;
- The use of scientific observation (Agabrian, 2004, p. 56).

### **Interpretation of results**

The results of the interview can be presented in several forms. The data processed by various quantitative / statistical or purely qualitative methods must be analyzed, i.e., it goes beyond tables, graphs, schemata, etc., to find the significance of the results of the processing.

It should be noted that there is no method superior to another, good or bad, but only methods that are used correctly or incorrectly, appropriate or inappropriate to the domain, research intentions, assumptions / hypotheses to be verified, questions to be answered (the method is selected according to the the questions seeking answers).

Before publishing the results of the study , it is important to check whether the following aspects have been achieved:

- Existence of objective statistics that correctly describe the collected data;
- Presenting the results properly, without leaving room for misinterpretations;
- All inserted figures and tables are appropriately titled;
- In the case of a complex research in which the results are multiple, it is important to choose a schematic presentation mode that will draw attention to the main idea.

### **Evaluation of results:**

- The researcher must evaluate correctly, in a strictly rational manner, without any subjectivity, all the results obtained from the scientific research of the studied object;
- The results have to be compared with the existing data in mainstream literature;

- Checking the accuracy of the data obtained is preferable to be done independently by another team of researchers.

### **Conclusions**

Medical scientific research through the use of the interview proves to be an efficient method, being easy to implement by the clinician. At the same time, this technique manages to include a number of important details that guide the physician in order to establish a correct diagnosis and to devise an optimal therapeutic plan. The choice of the interview type and how to interpret the results obtained differs depending on the professional experience of the doctor, as well as according to the complexity of the medical case addressed. It is important to note that there is no ideal method of diagnosing the patient, but it is essential to find a technique appropriate to the condition we are facing.

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## SCIENTIFIC RESEARCH FROM THE PERSPECTIVE OF FUNCTIONAL STYLISTICS

**Viorelia LUNGU<sup>1</sup>, Silvia GOLUBIȚCI<sup>2</sup>, Laura BOBESCU<sup>3</sup>**

### ***Abstract***

*We highlight the importance of the editing of scientific paperwork as the correct drafting of the scientific papers is very important, because the way the findings of scientific research are transmitted and their practical use lead to fast and efficient communication between specialists.*

*The quality and accuracy of language, the lack of grammatical errors, following the norms of the scientific style, is imperatively imposed.*

*Moreover, it is about complying with the copyright, highlighting the scientific values in the field, in the sense of promoting the norms of stylistic language of research as a new set of values.*

**Key words:** Science, Research, Style, Errors, The functions of language.

### **1. Introduction**

Due to the accelerated pace of change which makes the world evolve so fast, we understand that the driving force is science, and implicitly, scientific research.

Starting with the definition of *science*, which implies the systematically study of all works and phenomena that can be investigated, tested and verified, outlining the way people understand universe, humanity and themselves. Science evolves through objective analyses, and knowledge is accumulated in time. The, “scientific” attribute characterizes that form of knowledge that satisfies a number of requirements and general and particular methodological criteria (Patrășcu, 2003, p. 17).

Scientific research is explained as the activity of fundamental, applied and experimental developing research (*Codul cu privire la știință și inovare al Republicii Moldova /Code no. 259 regarding science and innovation of RM, 2004, art. 4 – our translation*).

Research is recognized as an integral part of university education. It is essential for students, because they can develop critical thinking and can think independently, also they can appreciate the importance of scientific research for the purpose of economic growth of the country. The students’ involvement in research requires time, preparation and effort to have the results published.

The direct involvement in research during university studies may considerably contribute to the way in which the education beneficiaries will perceive the scientific

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act and its impact upon society. That is why nowadays the need to develop responsibility is increasingly important.

Dorogan and Todos (2008, p. 11) consider that the main obligation of society towards the young generation is to map education to the rigors of time.

Universities prepare students by the related disciplines in the curricula and project work, in order to carry out research that meets such rigors.

“The writing of methodological-scientific papers is a test meant to highlight the candidate’s capacity to evaluate and use the accumulated experience, to investigate by using the methodology of pedagogical research, educational phenomena, and to identify factors, meanings and ways to improve/ innovate/ develop the educational process. The writing of papers must show the candidate’s concern with systematically updating their specialised and psycho-pedagogical knowledge, to analyse and critically evaluate various approaches to the teaching methodology” (*Metodologia formării continue a personalului didactic din învățământul preuniversitar /Methodology of continuing training of teaching staff in pre-university education*, 2009, art. 67 (1) – our translation).

Writing a scientific text is a complex process that requires specific knowledge and skills. The expository form of the paper and the internal clarity of the text are important aspects that must observe the scientific style of writing.

We live in a world that deals with serious moral dilemmas, where superficial approaches are increasingly preferred and the scientific style loses its value.

## **2. Scientific style**

The way an individual arranges words, the way of speech, the way of expression form a style. Style has its roots in the linguistics manifestation of the modern human being, having in this meaning the premise of originality (Buffon, 2011).

The norms and principles of writing a scientific text require that research should be more objective and better documented, every sentence being required to face the trade-offs between clarity, concision, tone, cadence, accuracy and other values.

Scientific style is the expression of language usage in order to know the world scientifically. The correct writing of scientific papers is important, for several reasons:

- the way the results of scientific research are transmitted depends on the practical use of these results;
- writing a paper according to rigorous norms leads to fast communication between specialists, which is imperative in our age, dominated by the Internet;
- the scientific works that are impeccably written are more likely to be accepted for publishing in journals or specialised volumes than negligent works, many editors imposing a set of standardized norms to their collaborators;
- finally, “the correct writing of presentations and scientific articles contributes to the development of the scientific style, techniques and art of

scientific writing, also to the development of the art of speaking as well as the perfection of moral and ethic features of scientists, researches and specialists" (Rad, 2008, p. 27 – our translation).

Georges Louis Leclerc, count of Buffon (1707–1788), in one of his speeches said: "Writing well is at one and the same time good thinking, good feeling, and good expression; it is having wit, soul, and taste, all together..." "The style is the man himself" (...) The components of a writing plan: the rhetorical situation and the organisation of material must also be taken in account. The rhetorical situation is shaped by the following elements: the author's intention, the personality of the author, the potential readers, the content of communication and appropriate language (Chelcea, 2003 – our translation).

In a paper about the functional styles of the Romanian language, Irimia (1999) draws on the classification of the functions of language proposed by Jakobson:

a) *the referential function*, also called cognitive or denotative, which takes into account the objective extralinguistic reality towards which the transmitter manifests an objective, neutral attitude;

b) *the expressive function* or emotive that is manifested by an effective attitude towards the extralinguistic reality;

c) *the conative function* that is similar to *the expressive function*, being different in the sense that the transmitter wishes to involve the receiver in the linguistic performance; and that the transmitters show a specific attitude towards the receiver;

d) *the metalinguistic function* operates in the sense of introducing linguistic elements for defining some components of the language code used within the text.

e) *the phatic function* is language for the sake of interaction between *the addressee* and *the addresser*, being the opposite of the referential function, referring to the intrinsic organization of the text and to the poetic knowledge of the world, too (Rad, p. 32 – our translation).

Following the classification proposed by Irimia, we shall examine the scientific style, based on several levels:

*Morphematic level:*

a. frequency of nouns and pronouns, as a result of dominance of the referential function;

b. frequency of proper and abstract nouns (especially in Philology);

c. the lack of interjections, which can be present in the didactic variant of the scientific style;

d. the predominance of the 3<sup>rd</sup> person. The 1<sup>st</sup> person plural indicates the plurality of authority or modesty.

Concerning the adjectives, we note no degrees of comparison, or just the positive degree of comparison (Rad, 2008, pp. 34-35).

e.g. *People have started to live in big cities over time.*

*The verb phrase:*

a) the intensive use of the Indicative, the Infinitive and the Conditional, and the absence of the Imperative (although it may be present in the didactic variant, in such expressions: *to underline, to be solved, to be, to show etc.*);

- b) the use of the presumptive, often found in historical texts (*I would have, it should have been*);
- c) the use of the atemporal Present (mostly in historical texts).

*Lexical level:*

Words must be used without any expressive function, having denotative meaning.

Other features of the scientific style:

**Fairness means observing the norms of the literary language. Frequent deviations: anacoluthon** (lexical-syntactic discontinuity within a sentence or phrase) and solecism (syntactic error).

*Logic* implies the correct ordering of ideas, passages etc. The transfer from one idea to another, from one passage to another is done by the proper numbering of these divisions of scientific texts (Rad, 2008, p. 37).

**Preciseness expresses the ability to use just words required for communication, to find words which best reflect the idea. Antonyms of preciseness: prolixity, digression, formal rhetoric, preciousness** (the excess of neologisms in a text).

*Unity*: it can be obtained by using specialized terminology established in this field. This terminology will be used throughout the paper (Rad, 2008, p. 38).

*Clarity*: implies the clear, logical, coherent formulation of ideas, so that the receiver fully understands the message. It is recommended to avoid too specialized terminology, pleonastic constructions and contradictions.

The antonyms of *clarity* are: *obscurity, nonsense, evocation, pleonasm, tautology, paradox, gibberish* (confused or meaningless words).

### **3. The role of literature review during research**

A great importance in research is held by specialized literature analysis relevant for the topic theoretical foundations.

The review of specialized literature helps to:

- solid knowledge in the field: concepts that operate within the topic, theories, investigated domains, used methods, data sources, difficulties, results and conclusions;
- identify the current stage of development in domain, the context where the research will be placed, and to develop your own research topic (the feasibility of the topic);
- understand how to connect ideas in the literature, between the literature and your own ones; the basis is the material (which was critically but objectively analysed, by comparison and formulating remarks and conclusions) to develop knowledge;
- develop the skills of interpreting, to clearly formulate points of view, and, eventually, achieve new interpretations;
- allow the formulation of criteria for evaluation and argumentation of one's own research (whether the opinions of others have been confirmed or denied, if knowledge has been fully rounded with new meanings - from the methodological

point of view there are some controversial issues in previous research, the current research represents a plus brought to knowledge);

• acquire knowledge about the way how to elaborate a Master's or PhD thesis as a proof of the capacity to understand the academic requirements (Bîrsan, n.d., p. 10).

Synthesis is the most important in reading specialized literature; also the sources must be updated, depending on domain/ topic (in exact sciences that are dealing with fundamental and/or experimental research, especially in "top" domains). Updated means announced, communicated, published and latest discoveries (that appear in abstracts). Thus, in socio-humanities the history of opinions, methods, debates, etc. are recommended.

The novelty of research does not appear in books but in articles, studies, conference presentations; starting with the latest publications and those edited earlier in order to follow the development in the field. Literature filing is a main research activity and the following types of files underpin the writing elaboration of a paper:

a) Bibliographical/ reference file that is drawn up from the beginning, from the first reading. All the data will be noted down, according to the academic norms, regarding the list of references (see, bibliographical norms) (author, year, title, the publishing house, etc.) in alphabetical order. This file is not omitted, because it is necessary both for the preparation and verification of the final list of references, as well as for avoiding the loss of data/information.

b) Thematic files. There are as many files as concepts, opinions, ideas, key terms, etc. present in the studied works; there are comments, comparisons, evaluations and points of view. The exact data of the paper are written down.

c) Quote files (optional); quotes that refer to the subtopics from the thematic files can be placed in this field. A quotation is the short form of the reference, inserted in the text in round brackets or added in the text as a footnote, at the end of the chapter or of the entire text. The citation allows to identify the publication from which the quoted or the commented idea was extracted and to indicate the location within the source publication (Chelcea, 2016).

The method of reviewing literature is established: chronologically or thematically. It is NOT acceptable to have summaries - article after article, author after author, etc. in order of appearance and evolution of these works, chronologically, especially when it comes to certain trends, schools of thought, etc., or linking the main concepts / ideas through the works in which they appeared.

The same concept / idea is developed in different authors' works. There are the same approaches, but somehow different from one author to another; an evolution can be observed over time, combining the thematic and chronological approach (Bîrsan, n.d., p. 11).

In this sense, Chelcea (2016) analyses the citation styles, mentioning the existence of different styles of presentation of the bibliographic references used in research. They have been elaborated by scientific associations, editors, etc., used according to the organization/writing where the manuscript is submitted. Style refers

both to the mode and to format in which the source is mentioned in the text, and to the list of references: the order and the format.

Chelcea provides different examples of them, after numbering the citation styles. For example, the APA style: Summary references, usually in the form (author-year), are inserted into the text, exactly where they are needed.

- It's an Author style, Year. The text references are presented as follows: (Neașcu, 2015);

- The final bibliography is alphabetically arranged;
- It is a style of quotation used in the social sciences (ex. Psychology, Sociology, Political Science), as well as in related fields;
- APA style does not use, footnotes, Latinisms (idem, ibidem, op. cit.).

E.g.: "Language is the main code through which the informational content and action programs of the individual psychic system are transmitted and learned ..." (Buzdugan, 2008, p. 73 – our translation).

The APA style reference list is presented as:

Buzdugan, Tiberiu (2008). *Psihologia pe înțelesul tuturor*. București: Editura Didactică și Pedagogică, p. 73. ISBN 978-973-30-2355-5.

Vancouver Style is another type of citation style (the numerical system). The numbers are presented in round brackets (4), square brackets [4], or in the form of exponents <sup>4</sup>inserted in the text, refer to the information resources in the order in which they are first cited. Subsequent citations of the information resource receive the same number as the first citation. If only certain parts of the information resource are cited, the respective number can indicate the page (Chelcea, 2016).

E.g.: "Nowadays, scientific research, on the other hand, cannot be imagined without an intense, ordered, directed, opened and underlined information transfer" (4); or:

"Nowadays, scientific research, on the other hand, cannot be imagined without a transfer of information: intense, orderly, directed, open and nuanced." [4, p. 25] or (4, p. 25).

The Vancouver style reference list is as follows:

Cerghit, Ion. *Metode de învățământ*. Iași: Polirom, 2006. 315 p. ISBN 973-46-0175-X.

If we use the quotation without quotation marks, without the author's indication or without the correct indication of the source, it becomes plagiarized - full takeover and appropriation as its own text (DEX online.ro).

In this context, it is beneficial to combat the unethical behaviour used in research, in order to observe the copyright, but also to defend scientific values.

By reviewing specialized literature, one can follow the topic with its issues and the methods that have been used in relation to various aspects of the topic:

a) arranging the ideas from the literature around concepts, ideas, not the person of the authors, who is in the subsidiary. So no simple summaries...

b) showing the connection with one's own research; the review of literature is not an goal' itself', something taken out of context.

It is advisable to start with articles that refer to the literature overview, which refer to what exists in the literature on the topic (it makes reading literature much easier), then to the basic works (reference books), articles, conferences presentations, in order to become familiar with the issues in the field, see the evolution of ideas, make comparisons.

A synoptic picture of these concepts, opinions, sources, own comments, etc., facilitates the literature review process. It shows the results in the literature on the topic (Bîrsan, n.d.p. 12).

#### 4. Errors in research

In every scientific study, regardless of the type and level of evidence, there is a risk of making various errors at every stage of research. As a result, without the author's awareness, false indicators and conclusions can often be obtained.

The most common grammar errors in scientific works are:

1. Confusing the plural designation "-uri" with "- e" and vice versa, the designation "- e" with "-uri".

The conservative and innovative tendency of the plural spelling of some neutral nouns is disposed to write the "-uri" designation instead of the "- e" designation.

E.g. *Chiar entitățile fruntașe se situează sub nivelul celor mai slab dezvoltate state europene – ba chiar și sub baremurile din unele țări africane...* the correct version: *Chiar entitățile fruntașe se situează sub nivelul celor mai slab dezvoltate state europene – ba chiar și sub baremele din unele țări afri*" (Rădulescu, 2015, p. 24).

*s-au luat pe toate aeropoartele din lume*, the correct version: *-au luat pe toate aeroporturile din lume* (Rădulescu, 2015, p. 21).

The author underlines the fact that the hesitations between the two designations could be stopped, if an orthographic dictionary is consulted:

3. Confusing the sequences „-ează” with „-ază”.

One of the most common writing mistakes that both adults and children make is to conjugate the verb "to create"(*a crea*). E.g.: *Crează blogul tău gratuit*, the correct variant is *Creează blogul tău gratuit, ne creem o părere ...*, the correct variant is *ne creăm o părere, voi creiați viitorul...*, the corect variant is *voi creați viitorul....*

3. The wrong agreement in gender and number, both of the relative pronoun "which" (connector of an Attributive Clause) with the noun that follows it, as well as of the genitive morpheme "al"/"a" with the noun which precedes it in the Main Clause. E.g.: *A luat măsuri extrem de dure, al cărui rezultat se va vedea peste timp*, the correct variant would be: *A luat măsuri extrem de dure, al căror rezultat se va vedea peste timp* (Rădulescu, 2015, p. 24).

It is a violation of the rule of "cross agreement" ... the possessive article agrees with the noun in the Attributive Clause (not with the preceding noun or with the immediately following pronoun), and the relative pronoun, with the replaced noun in the Main Clause (not with the following noun whose attribute it is) (Avram, 1986).

4. Confusing the designation of the third person of the present Indicative and of the infinitive ending of some verbs with the infinitive ending in "- a" "with those

of the verb with the infinitive in " - ea "," - e " or "-i". E.g.: *Evenimentele se succed cu rapiditate în Grecia*, the correct variant is *Evenimentele se succedă cu rapiditate în Grecia* (Radulescu, 2015, p. 59).

The verbs "a precedă" and "a succeda", whose present Indicative in the third person singular and the third plural receives the ending "-ă" not "-e" in the singular and plural.

5. The phenomenon of "hyper-correctness" can also become a source of writing or pronouncing mistakes. It is a special type of linguistic deviation and it even manifests with some cultivated speakers who, by trying to avoid mistakes, apply, through a false analogy, grammatical rules that they do not fully master. Thus, out of fear of disagreement, we may deviate from the rule. E.g.: "ei or să aștepte", instead of "ei vor aștepta". Hypercorrect are spellings such as: *bleumaren, saten, spicher; Alfred Nóbá*l (for *Alfred Nobel*), *Cicago* (for *Chicago*), *Riceard Wagner* (for *Richard Wagner*), *Rio de Haneiro* (for *Rio de Janeiro*), *Uaterlu* (for *Waterloo*) în loc de *bleumarin, satin, spicher; Alfred Nobél, Sicago, Rihard Wagner, Riu de Janeiru, Vaterlo* (Silvestru, 2016).

6. The mistaken usage in invariable form (regardless of context) of the noun phrase *din punct de vedere*, ignoring the literary variant *din punctual de vedere (al)*. E.g.: *Din punct de vedere al legislației...*, the correct variant: *Din punctul de vedere al legislației* (Rădulescu, 2015).

7. Other difficulties are related to the usage of words recently borrowed. Some words have adapted to the Romanian spelling: *abțibild, angro, henț, ofsaid, scadență, stecăr, vizavi*. Other words have kept their original form: *allegro, ausländer, business, café-concert, copyright, en détail, müsli, paparazzo, science-fiction*. There are also situations when both forms, the original variant as well as the variants adapted to the Romanian spelling are present: *bodyguard / bodigard, boss / bos, cocktail / cocteil, derby / derbi, ghem / game (tennis game), pickhammer / picamar, pizza / pizza*. Neologisms whose meaning is not so well known are often used inappropriately, distorted or confused. Formal resemblance often leads to semantic confusion: *a investi, licențios, lucrativ, profuziune, investing*. There are cases when a word can be part of a pleonastic construction: *a-și aduce aportul, cazul în speță, mijloace mass-media, oprobriu public, scurtă alocuțiune* (Silvestru, 2016). E.g.: *A implementa (implement)* does not mean *a introduce*, but *a pune în funcțiune, a realiza, a îndeplini; a integra* does not have the meaning of *integrating* (some mistaken expressions are: *integrare în muncă, integrare în grup, integrare europeană*, etc.), it means the action of *formare a unui întreg din mai multe părți componente* (for example, *integrarea României cu structurile europene*) (Chelcea, 2003, p. 55).

8. The Romanian spelling and writing sometimes tends, incorrectly, to turn the voiceless consonant "s" into the voiced consonant "z", which runs against the current spelling norm. The choice between "s" and "z" is one of the most difficult problems of the Romanian spelling, both due to the complexity and diversity of the rules, as well as their oscillating solutions and some controversial aspects (Avram,

1990). E.g.: *Premizele sunt asemănătoare*, the correct variant being *Premisele sunt asemănătoare*.

9. The spelling of a large number of words is faulty in different forms: how to correctly write the demonstrative pronoun, *aceeași* or *aceași*. Both forms that derive from the demonstrative pronoun *același* are correct, with the mention that *every* is used for a certain gender and number. The confusion between the two forms is the fact, they have the same spelling.

We do not write *aceași regulă*, but *aceeași regulă*, *aceași politicieni stabilesc limitele acestor donații...*

10. The faulty spelling of some verbs whose phonetic structure is suppressed, in an unjustified manner, a vowel or consonant, becomes a common tendency of the spoken style. E.g.: *omul este capabil de a transcede natura...*, the correct variant is: *omul este capabil de a transcendea natura....*

11. The preposition *pe* is used instead of the prepositions *cu*, *după*, *la*. Eg: ... depinde **pe** ce nivel de decizie se situează, the correct variant is: ... depinde **la** ce nivel de decizie se situează (Rădulescu 2015, p. 216).

12. Disagreements are at the top of grammatical errors, **decât being used instead of numai or doar**. E.g. Nu erați decât doar doi, the correct variant is: *nu erați decât doi/ erați doar doi*.

13. *Pleonasm* can be defined as "an error of expression that consists in the usage of words, expressions, sentences that unnecessarily repeat the same idea", according to the Romanian Explanatory Dictionary (DEX). Often, pleonasm, including those accepted, come from the incorrect adaptation of the neologisms, as the linguists Dragomirescu and Nicolae explain (2011). E.g.: *ortografie corectă, asigurarea securității, muncă laborioasă, perspectivă de viitor*.

14. The wrong usage of the verb *a trebui*, the present Indicative form, 1<sup>st</sup> person *trebuiește* and the third person plural *trebuiesc*. The correct present Indicative form (unique for all persons and numbers) is *trebuie*. E.g.: *lucruri care nu ne trebuiește neapărat*, the correct variant is: *lucruri care nu ne trebuie neapărat* (Bahnaru, Druță, Verebceanu, 2014).

15. Of the most frequent errors of expression is the non-use of the preposition *pe* before the relative pronoun *care* with syntactic function of direct object. The norm of the Romanian language requires that the relative pronoun *care*, with a direct object function should be preceded by the preposition *pe*. Eg: *asigurările astăzi care le plătesc pentru pensii angajații*, the correct variant is: *asigurările astăzi pe care le plătesc pentru pensii angajații*.

In order to determine the errors of expression (a practical activity in the discipline Methodology and ethics of research in the social and behavioural sciences) several scientific articles published C- and B-ranked journals were analysed.

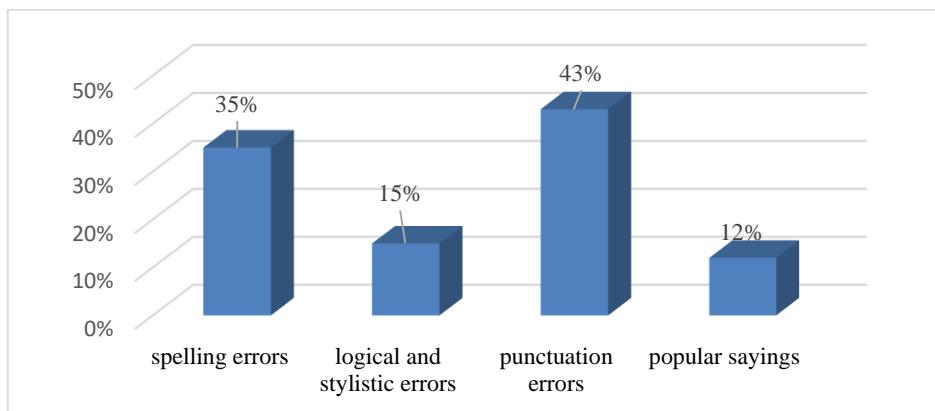
As a result, it was established that most errors appear in the conference proceedings. This fact can be explained by:

- the participation of many young researchers (Master's students, PhD students);

- these articles are not always reviewed;

- there are no financial sources to pay for editing;
- high expectations of written communication skills with researchers;
- tight deadlines for editing and the large number of articles.

After the analysis of 35 articles, different spelling, punctuation, logic and stylistic errors were found - see the figure below:



**Figure no. 1. Types of errors in scientific articles (authors)**

It can be noticed that the most frequent mistakes are related to punctuation (43%), especially the usage of the hyphen and the inaccurate use of commas. E.g: the conjunctions *așadar* and *prin urmare* used are isolated by a comma (*Istoria limbii române literare este, așadar, o disciplină recentă...*); the coordinated sentence parts introduced by the conjunctive prepositions, *atât...cât și, nu numai...ci și, nu atât ...cât* are separated by a comma.

Other errors found after analyzing the articles are:

- punctuation errors in the parts of the sentence that represent enumerations, examples, specifications,

- the use of phrases belonging to regional dialects,
- sentences are sometimes distorted and ambiguous,
- semantic errors: pleonasm, tautology, patronymic confusion,
- morphologic-syntactic errors (anacoluthon),
- repetition of words,
- the use of the adverb **decât** instead of **doar** or vice versa,
- the wrong agreement of the possessive article: a, al, ai, ale,
- confusion of terms **datorită** and **din cauza**.

The analysis of the types of errors helps the Master's students draw up their own article according to the scientific style.

## 5. Conclusion

Research is an integral part of education regarding the presumed relationships between certain phenomena: an activity for discovering the truth.

The correct drafting of the scientific papers is very important, because the way the findings of scientific research are transmitted and their practical use lead to fast and efficient communication between specialists.

Scientific research must be of quality, not only with respect to the ideas expressed, but also concerning the accuracy of the language, appropriate to the situation. The problem of the correctness of the spoken and written language has been and remains a topical issue. What seemed to be the norm yesterday, today is no longer the norm. Under the circumstances, the propagation of the norms of the literary language is imperatively imposed.

When reviewing mainstream literature it is important to abide by the citation rules in order not to be accused of plagiarism. We must comply with copyright and highlight the scientific values in the field.

It is important that every scientific study should be error free at all stages of the research in order not to obtain false indicators and conclusions.

In order to perceive the importance of errors in scientific works, 35 articles from different types of journal categories were analyzed, identifying 43% punctuation errors, followed by 31% grammatical errors, and the usage of colloquial phrases is observed (12%).

Essentially, it is important to promote the four pillars of society - education, research, development and innovation. It means first of all a new set of values and the immediate support of these social activities.

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# RESEARCH LABORATORY/ LABORATOIRE DE RECHERCHE

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## REQUIREMENTS FOR THE WRITING AND EDITING OF SCIENTIFIC PAPERS - AN INVESTIGATIVE APPROACH

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### ***Abstract***

*Pedagogical research is an action underpinning observation and investigation that allows for the awareness, improvement or innovation of the educational phenomena. The educational research methodology is one of the subjects in the curriculum of the teacher training programme - Level II, provided by Departments of Teacher Training. The aim is to develop the competence of pre-service teachers regarding the design, planning and conducting of research in the educational field, and capitalizing on their results.*

*Based on the assumption that a scientific paper following a research process is the proof of the level and quality of professional training, highlighting a synthetic correlation between basic knowledge and the practical-methodological skills that the Master's students have acquired during the initial training programme (Level I), the current paper represents an investigative approach meant to provide data regarding the Master's students' perception of the requirements for the writing and editing of scientific papers.*

***Key words:*** Pedagogical research, Scientific paper, Writing requirements, Academic style.

### **1. Introduction**

When writing a scientific paper, the basic requirement is that it should meet the standards of rigorous research, i.e. the requirements for quality assurance with respect to both form and content. The scientific approach must demonstrate the scientific knowledge of the field concerned, contain elements of originality in the development of or solution to the research topic, as well as ways of scientific validation.

The scientific paper is the result of a precise, argumentative approach, underlying clearly formulated hypotheses and aiming to validate them from an

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original perspective, the emphasis being placed on the rigour of the theoretical framework, showing a critical attitude, and/or on the design and development, on the practical actions, on the logic and validity of the arguments, on the coherent actin at all the writing stages.

Choosing the topic represents the first step in the writing of a scientific paper. When addressing the selected topic, it is advisable to take into consideration the following requirements (*Ghid pentru scrierea academică /Guide for academic writing*, 2016):

- the paper should tackle a topic which is relevant to knowledge advancement, raising scientific interest in the field, being updated and innovative;
- the paper should underpin a clear and rigorous framework, which will prove the author's scientific thinking by revealing the formulated ideas, the scientific research methods used and the coherence of the research findings;
- the text should have fluency and cohesion, to express the logical flow of ideas, following "a red thread" in strict accordance with the object of the research;
- the paper should be written in the academic style appropriate to the research field addressed;
- the paper should meet the criteria of originality;
- the data and information, as well as the terms used, the notions applied and the concepts discussed, no matter if they have been borrowed in Romanian or translated from another language, must be used accurately, according to their definition or destination and the purpose of the research;
- the technical terms of foreign origin, pertaining to the field of analysis, enshrined in the mainstream literature, may be used in the international language of origin, but a translation of new terms may be provided, on condition that the original term is also present.

In the mainstream literature various suggestions are made regarding the selection of the topic. It is recommended, among other things, to avoid (Joița, 2003; Bocoș, 2003):

- focusing on aspects / topics that are too broad, too complex or too demanding, which cannot be operationalized and addressed effectively;
- repeating research that has been already completed and that has clarified the issues addressed;
- formulating research topics such as truisms, trivia, statements to which the status of problem is assigned, but which lack the amount of uncertainty absolutely necessary for a topic to secure the beginning of the research;
- not ensuring the correlation between the topic, the title of the research, the titles of the chapters and their content; it is worth emphasising the importance of the research hypothesis and the correspondences to be established between the topic / title of the research and the research aim, hypothesis, the content / essence of the investigations and the research findings and the conclusions drawn (i.e., correspondences between any two elements of the presented ones and their global correspondence).

Among the characteristics of a scientific paper, we can mention (Radu, f.d): *it displays the essential qualities of a text: fluency, cohesion, eloquence; it has one or more well-specified authors; it is original*; two aspects need to be discussed here:

a) Originality does not necessarily mean addressing a topic that has not been tackled before. In fact, such an intention would be unattainable. A paper is original if : it assimilates, presents existing scientific information in a personal and nuanced manner; it orders, explains and / or comments on existing theoretical data (compilations, anthologies, stories); it interprets concepts or theories in the field; it corrects or counterargues one or more theoretical perspectives previously presented by other authors; it promotes and maintains its author's own perspective on a theoretical issue in the field.

b) On the other hand, originality presupposes intellectual honesty. Originality involves that the text is entirely the product of one's own efforts.

A scientific paper should capitalize on the researcher's knowledge, vision, critical thinking, skills and abilities. In order to achieve this goal, the writing of the research paper should meet the following requirements: the major criterion in selecting the topic must be the advantage that it can offer for further training and professional development; the subject area and the researched topic must be correlated with the academic specialization; the topic of the paper will ensure the possibility of researching at the most general as well as most specialized knowledge level of interest.

- *It is subordinated to a scientific field or it has an interdisciplinary nature;*
- *It shows relevant (interesting), likely and clearly formulated hypotheses;*
- *The hypotheses are consistently supported both by prior documentation and by the rigor of the theoretical framework presented in the paper;*
- *It fully complies with the linguistic norms in force;*
- *It follows the conventions of the academic style.*

## **2. The structure of scientific papers**

The drawing up of a scientific paper should be based on the following structure (Mogonea, Mogonea, Popescu, Stefan, 2012, pp. 37-39):

a) *Introduction* (which, in general, comprises the rationale, the importance and the relevance of the theme, the structure of the paper; also in the *Introduction*, the author can briefly present the structure of the work, divided by chapters and subchapters, bibliography and annexes);

b) *The theoretical part* (the foundation on which the practical, experimental part is built; the essential theoretical aspects regarding the topic that constitute the object of the paper are presented, explained);

c) *The applied, experimental part* (presenting the research, as designed, planned, conducted, completed).

The *Introduction* of a scientific paper should convince the readership, through relevant information and explanations, that there is an important and up-to-date scientific and / or technological issue, for which the paper in question offers reasonable solutions. More specifically, the *Introduction* must meet basic

requirements such as (Dragomir, f.d.): it sets out the issue addressed in the paper; it describes, based on bibliographic references, the evolution and current state of research in the field; it supports and describes the need for developing new research; it defines the main aims of the research presented in the paper within the new research identified above as necessary; it reviews the methods and means of investigation that will be used to achieve these objectives, using, as appropriate, bibliographic references; it informally predicts the research outcomes.

The *Conclusions* synthesize both the theoretical and the practical-experimental aspects. Usually, the conclusions highlight aspects related to the testing of the research hypotheses, their validity; whether the aims were achieved or not; the difficulties encountered; original contributions, methodical contributions; solutions to solve the problem; opening up of other research directions; proposals to optimize the topic in other circumstances, etc.

More specifically, the *Conclusions* of a paper: briefly present the main outcomes of the research carried out; highlight and advocate the novelty, value and applicability of the obtained results; indicate the future directions of action necessary to strengthen, supplement, generalize the relevant outcomes of the research carried out.

### **3. Academic style – a prerequisite for writing and editing scientific papers**

Writing a scientific paper is a complex process, which underpins specific knowledge and skills. A scientific paper must comply with academic norms, it should not be a mere compilation of information taken from various sources; it should also include its own, original, interesting points of view, which can be scientifically proven. There is also need for a critical attitude towards the sources consulted. In addition, it is recommended to have logical and coherent cross-sections between the chapters, sub-chapters and paragraphs of the paper. The terms and concepts should be defined and used correctly. References should be made based on well known works, avoiding the excessive use of web resources. The use of quotations should be justified and balanced (*Metodologie pentru alcătuirea lucrărilor științifice elaborate în cadrul Departamentului-Catedra UNESCO pentru schimburi interculturale și interreligioase / Methodology for the writing of scientific papers within the Department-UNESCO Chair for intercultural and interreligious exchanges*, pp. 8-9).

More precisely, the scientific style implies: a) **coherence and cohesion**: logical flow of the text sequences, the reader-oriented principle, the graphic and linguistic substantiation of the logical connections; b) **objectivity** - involving the selection and honest presentation of the theoretical opinions and facts discussed, avoidance of deliberate distortions and decontextualisation; c) **ownership and precision** in the use of the appropriate scientific terminology - the author has the obligation to understand the concepts and notions that s/he uses, to opt for a certain interpretation of them if there are more available, and, eventually, to define his/her own proposed concepts; d) **consistency** - it concerns the adopted style (personal / impersonal), i.e., the degree of involvement, deliberate and assumed subjectivity in

the authored text; e) **clarity** - it aims at need for the optimal form of the linguistic expression, avoiding ambiguities, confusions, etc.;

f) **concision and simplicity** - plain and economical expressions are the most elegant and effective solution.

Any scientific paper is accompanied by bibliographical references, which is, in fact, one of the specific traits of the academic style. Any scientific paper is accompanied by bibliographical references, which is, in fact, one of the specific traits of the academic style.

Quotations are mere reproductions of fragments of a work, of the words or ideas belonging to another person, usually with the exact indication of the source, in order to reinforce or illustrate ideas or arguments (Mogonea, Mogonea, Popescu, Stefan, 2013, p. 24). "Quotations should not exceed 28 lines of text, and no more than two or three short quotations should appear on a manuscript page" (Chelcea, p. 83 - our translation). In addition, quotations must be faithful, in other words, any quotation must indicate the source, and the text must be transcribed with maximum fidelity - if we remove parts of the quotation we must warn the reader "by inserting gaps for the part left behind "(Eco, 2000, p. 174 - our translation). We summarize below some of the basic requirements for writing a scientific paper (adapted from Bocoş, Jucan, 2008; Ionescu 2007):

**Table no. 1. Requirements for writing scientific papers  
(adapted from Bocoş, Jucan, 2008; Ionescu 2007)**

<b>Academic writing</b>
<ul style="list-style-type: none"> <li>• The content of the paper should be organized logically according to a (semi) algorithm: introduction (rationale); body, organized into chapters and sub-chapters, structured on two parts (theoretical and applied); conclusions; bibliography, annexes;</li> <li>• The chapters should be balanced in length, style of writing and editing;</li> <li>• The development of the chapters should be relevant for the topic addressed;</li> <li>• The introduction should clearly show the importance and motivation of choosing the topic, as well as the structure and organisation of the chapters;</li> <li>• The content should be clear and detailed enough to support the reader's orientation; <ul style="list-style-type: none"> <li>• The conclusions should be clear, concise, essentialized and clarifying;</li> <li>• The text comprehension should be enhanced;</li> <li>• The accuracy of the writing style (no exaggerated listings, inaccuracies, redundancies, language deficiencies);</li> <li>• The language - in compliance with the field specificity, the lexical choices should pertain to the scientific style; <ul style="list-style-type: none"> <li>• Observance of punctuation rules;</li> <li>• The diagrams, figures, graphs, tables should be correlated with the content of the chapters;</li> <li>• The information transmitted by the illustrations, diagrams, figures, graphs, tables should be suggestive, clarifying and interesting for the prospective readers;</li> <li>• The illustrations should be correctly placed on the page in relation to the written text, and correctly numbered;</li> </ul> </li> </ul> </li> </ul>

- • There should be consistency in point of formatting (types of letters, font size, margins, page layout, numbering of chapters, sub-chapters, figures, tables, etc.) and so on.
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A scientific paper should reflect knowledge acquisition, from the theoretical and applied point of view, more precisely, the level of acquired knowledge and competences, in accordance with the European standards imposed (Păișă Lăzărescu, Tudor, Stan, 2011, pp. 8-9):

- *general knowledge; specialized knowledge; general competences* (referring to: the collection, analysis and interpretation of data and information from a quantitative and qualitative point of view, from various alternative sources; the use of different modes of written and oral communication, including communication in a foreign language; use of information technologies ; assuming responsibility for an individual development plan; designing and conducting field-specific processes);

- *specific cognitive skills* (applying the key concepts, theories and methods of investigation in the field, for the design of projects and professional approaches; the ability to synthesize and interpret a set of data, to solve basic problems and to evaluate the possible conclusions; the independent analysis of some problems and the ability to communicate and support the chosen solutions; the ability to evaluate complex problems and to demonstrate the results of their own evaluation; showing initiative in analysis and problem solving).

#### **4. Information mining. Avoiding plagiarism**

In the drafting and writing up of a scientific paper, the following can be listed as types of sources of documentation (Dumitrache, 2009):

• *primary sources* - original scientific papers in print or online (ex: original results of doctoral theses, published as primary sources; scientific papers published in peer-reviewed journals represent mainstream literature);

• *secondary sources* - scientific texts - summaries, compilations of several papers, field-relevant information, reviews, books, monographs (e.g., the introductory part of the doctoral thesis, published as a review);

• *tertiary sources* - encyclopedias, similar works with a high degree of generality (addressing a wider audience, familiarization with the field, their citation in the bibliography is not recommended).

We emphasize some requirements that must be respected in the bibliographic documentation (Mogonea, Mogonea, Popescu, Ștefan, 2013):

- the authors selected must be specialists in the field or topic addressed;
- the works should be relevant, illustrative for the topic addressed;
- the sources should be updated and original.

Bibliographic documentation involves consulting, reading specialized works that address the topic, the corresponding problem, either in an exhaustive or tangential manner. Documentation is required for:

- • clarification and definition of the basic, key concepts;

- • clarification of the main theoretical aspects of the topic;
- • awareness of the research carried out on the topic, in order to avoid repetition;
- • compilation of the thematic bibliography, by categories of sources;
- • establishing, intuiting the possibilities of finding solutions for unresolved issues;
- • drawing up a preliminary plan for improved research.

The data obtained from such ordered, structured documentation will then be critically analyzed, commented on, interpreted in an adequate way.

For documentation purposes, the possibilities offered by the Internet can also be exploited. However, the requirements are higher than in the case of bibliographic sources, given the large number of sources and materials that can be accessed, and their quality. Thus, the researcher must make a more rigorous selection of the data, choosing those that:

- are scientifically correct;
- have a solid theoretical foundation;
- belong to well-known authors in the field;
- are updated;
- are tested or validated in/by the educational practice.

Irrspective of their type, the researcher has the obligation to use and cite the sources correctly. Plagiarism (Lat. *plagio*, *plagiarius*) in any form is not acceptable in a scientific work. It can manifest in the following forms (Radu, f.d.):

- the exact reproduction of texts or fragments that belong to other authors, without putting them between quotation marks and without specifying the source in a footnote or text note. (texts or fragments of any size, written on any type of media or made public by oral presentation);
- own translation of a text or fragment written in a foreign language by another author, if the translation is not put between quotation marks and the source is not indicated;
- tacit summarizing or restatement (not stated as such) of ideas in a text that belongs to another author.

Plagiarism can be deliberate (also called proper plagiarism) or accidental (happening when the citation system is misused or the source is not indicated). The following are cases of plagiarism (*Metodologie pentru alcătuirea lucrărilor științifice elaborate în cadrul Departamentului-Catedra UNESCO pentru schimburi interculturale și interreligioase / Methodology for the writing of scientific papers within the Department-UNESCO Chair for intercultural and interreligious exchanges*, p. 9):

- retrieving a text from another author, regardless of the medium used for publication (book, journal, web pages, etc.), without the use of quotation marks and bibliographic references;
- presenting a quotation from a text by another author as a paraphrase (restating an author's idea or argument), without using conventional citation signs (quotation marks and bibliographic references);

- taking over a text without clear references, altering word order, some wordings its content and / or reversing paragraphs, chapters, etc;

- compilation of fragments from several sources, without clear bibliographic references to the source texts; excessive use of other sources, to the detriment of one's own contribution.

In order to identify and use bibliographic references, it is recommended (*Ghid privind elaborarea și prezentarea lucrării de finalizare a studiilor universitare ciclurile de studii universitare de licență și master / Guide of the writing and presentation of graduation papers and dissertations*, p. 7):

- to use authentic documentation sources;

- to assign a significant weight to scientific papers from mainstream literature in the bibliographic references;

- to completely retrieve in the body of the text the references presented at the end of the paper;

- to use the following types of bibliographic references:

✓ papers published in national and / or international journals;

✓ books published in the country and abroad;

✓ papers published in conference proceedings;

✓ unpublished materials (conference speeches, doctoral theses, court decisions, etc.).

When it is not possible to access an authentic reference work and information from the original work is found in another work of another author (in the form of a citation), we must acknowledge that we use "second hand" data and quote both authors, mentioning the author's name: "quoted by", "in" or "apud" and specifying from which work we have taken the quotation.

Accidental plagiarism is defined as "misuse of the citation system, or failure to indicate the source", as a result of not knowing the citation techniques, of not identifying the source of the fragment used or of not knowing that the information is not part of the common knowledge fund or "as result of lack of information on practices that violate scientific ethics "(*Ghid Anti-plagiat / Anti-plagiarism Guide*, 2015, p. 5).

## **5. The investigative approach**

### **5.1. Aim**

The investigative research carried out had the purpose of finding out the opinion of prospective teachers, in relation with the norms of writing and editing scientific papers.

### **5.2. Sampling and methodology**

In order to carry out our investigation, we used a sample of subjects consisting of 52 Master's students at the Faculty of Social Sciences, University of Craiova, also enrolled in the Teacher training programme in order to certify the competences for the teaching profession, Level II, 1<sup>st</sup> year.

As a research method, we selected the questionnaire-based survey, which was accompanied by the appropriate tool. The questionnaire administered to the Master's students comprised 10 different items, both closed (most of them) and open-ended.

From the point of view of the structure of the questionnaire, some of the items are of a dichotomous type, others ask the subjects to hierarchize various aspects, and the third category of items uses the Likert scale, the students being asked to express their opinion on an abstract, scale with numerical values ranging from 1 to 5 (the lexical meaning attributed to the items being "Not at all", "To a very small extent", "To a small extent", "To a large extent", "To a very large extent". These answer variants have been supplemented by two others: "I don't know", "I don't answer" to detect the students' hesitation or unwillingness to provide an answer.

From the point of view of the content, the questionnaire followed the collection of data on the requirements / standards that the prospective teachers know and observe in the writing and editing of a scientific research paper. We mention that the subjects in the sample participated in the *Educational Research Methodology* course.

## **6. Presenting and interpreting findings**

We selectively present the answers offered by the interviewed subjects to the items of the questionnaire.

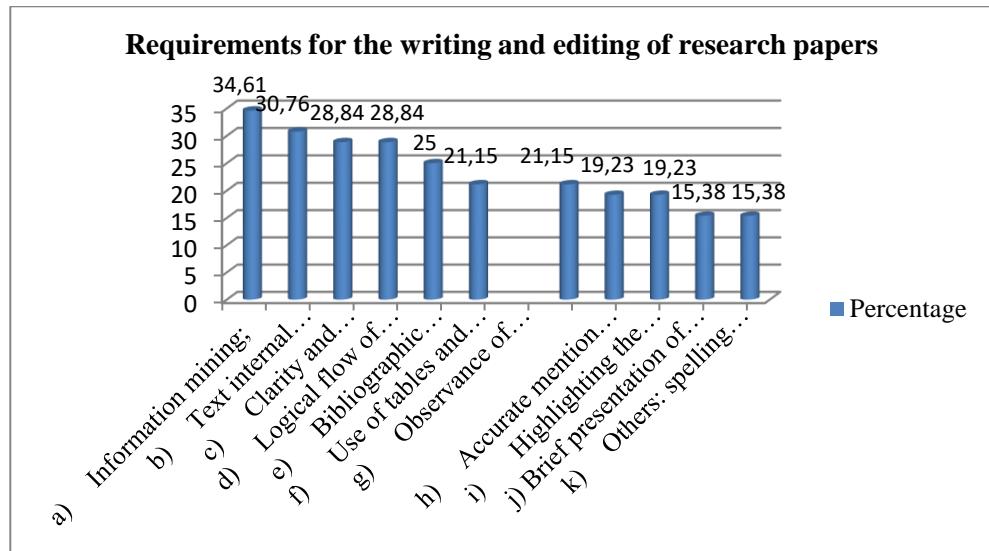
To the question *Do you consider that the drafting of a research project should comply with a series of writing and editing requirements?*, the answers were encouraging. Most subjects (30 subjects) chose the variant "To a large extent"; "To a small extent" - 11 subjects. A number of 7 subjects opted for "I don't know". "I don't answer" was chosen by 4 subjects. The last result was disappointing. Even if, overall, the results show the efficiency of the course (*Educational Research Methodology*), it is surprising to find out that 4 subjects, although they attended the 1<sup>st</sup> semester activities centered on pedagogical research, consider that a scientific work should not meet any criteria or formal requirements. We explain these results on account of the exclusively passive participation of the subjects (probably they were only physically attending, they were not actively involved during the course and seminar activities).

Regarding the *requirements / standards that must be observed in the writing and editing of a scientific paper*, the subjects achieved the following hierarchy (Table 2, Figure 1):

**Table no. 2. Subjects' opinion on the requirements for writing and editing of scientific papers**

Requirements for the writing and editing of research papers	Frequency	Percentage
a) Information mining;	18	34.61
b) Text internal coherence;	16	30.76
c) Clarity and precision of language;	15	28.84

d) Logical flow of ideas;	15	28.84
e) Bibliographic references;	13	25
f) Use of tables and graphic representations;	11	21.15
g) Observance of publication requirements: format, margins, spacing, page numbering, chapters and sub-chapters numbering;	11	21.15
h) Accurate mention of sources, in compliance with the norms in force;	10	19.23
i) Highlighting the originality and value of the paper, and the applicability of the research findings;	10	19.23
j) Brief presentation of the main conclusions;	8	15.38
k) Others: spelling and punctuation.	8	15.38



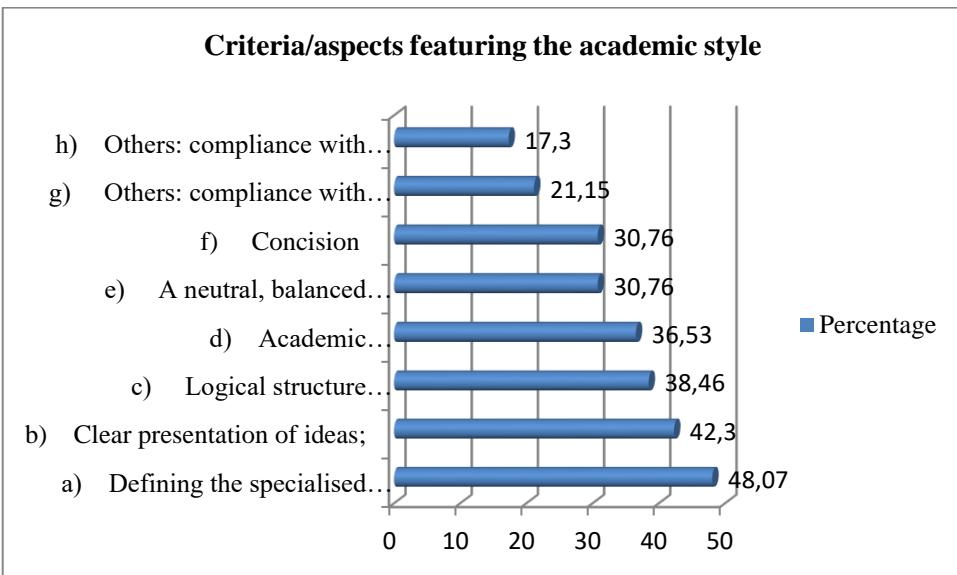
**Figure no. 1. Subjects' opinion on the requirements for writing and editing of scientific papers**

According to the data obtained, *the academic style of the paper*, in the students' perception, is given especially by (Table 3, Figure 2):

**Table no. 3. Subjects' opinion on criteria of academic style**

Criteria/aspects featuring the academic style	Frequency	Percentage
a) Defining the specialised terms;	25	48.07
b) Clear presentation of ideas;	22	42.30
c) Logical structure (sections, sub-sections and paragraphs) of the topic addressed;	20	38.46
d) Academic language/discourse;	19	36.53

e) A neutral, balanced perspective on the content of the scientific paper (balance of content and form, ideas and evidence);	16	30.76
f) Concision	16	30.76
g) Others: compliance with citation norms	11	21.15
h) Others: compliance with the rules concerning the use of tables and graphic representations alongside the text	9	17.30



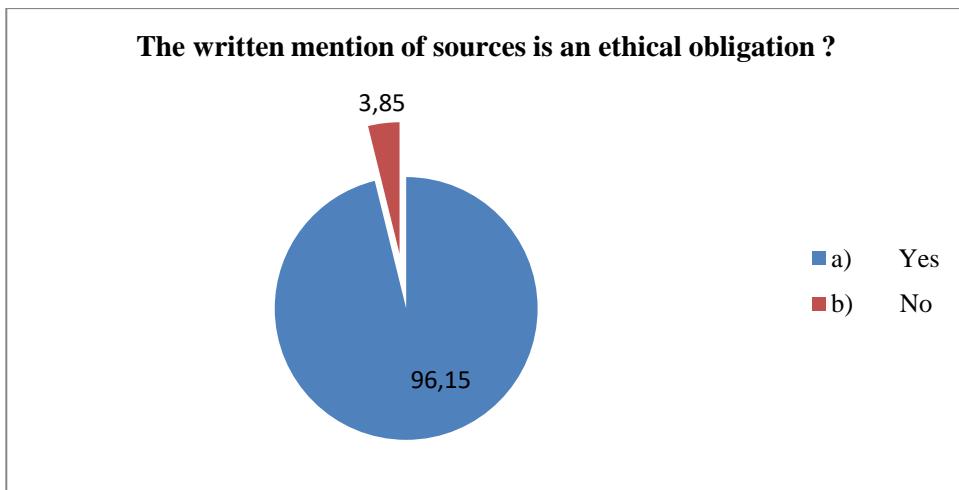
**Figure no. 2. Subjects' opinion on criteria of academic style**

The data in the table above show that the subjects rank the *definition of the specialized terms* topmost, as an indicator of the academic style (48.07%), on the second place - *the clear presentation of ideas* (42.30%), and on the third place - *the logical flow of ideas*. The subjects mentioned that *the compliance with the citation norms* (21.15%), and *compliance with the rules concerning the use of tables and graphic representations alongside the text* (17.30%) are other criteria that feature the academic style.

Another item of the questionnaire asked the subjects to answer the following question: *Do you consider that the written mention of the sources is an ethical obligation and, implicitly, a proof of personal honesty in the writing and drafting of a scientific paper?* Most of the answers recorded were affirmative (Table 4, Figure 3):

**Table no. 4. Subjects' opinion on the necessity of mentioning the sources, as ethical conduct**

The written mention of sources is an ethical obligation ?	Frequency	Percentage
a) Yes	50	96.15
b) No	2	3.85

**Figure no. 3. Subjects' opinion on the necessity of mentioning the sources, as ethical conduct**

Only 2 subjects answered negatively, probably belonging to the group of the 4 students who were not attentive during the courses / seminars of *Educational Research Methodology* which they attended (those who also stated that the drafting of a research project should not meet any writing and editing requirements).

The final editing of a scientific paper must take into account some aspects that are not to be neglected: the spaces before or after the punctuation marks must be standardized; also, in the final phase of a paper, the text must be fully printed with diacritical signs specific to the Romanian alphabet (*Metodologie pentru alcătuirea lucrărilor științifice elaborate în cadrul Departamentului-Catedra UNESCO pentru schimburi interculturale și interreligioase / Methodology for the writing of scientific papers within the Department-UNESCO Chair for intercultural and interreligious exchanges*, p. 6).

In this context, the subjects consider that, after completing the initial drafting, it is useful:

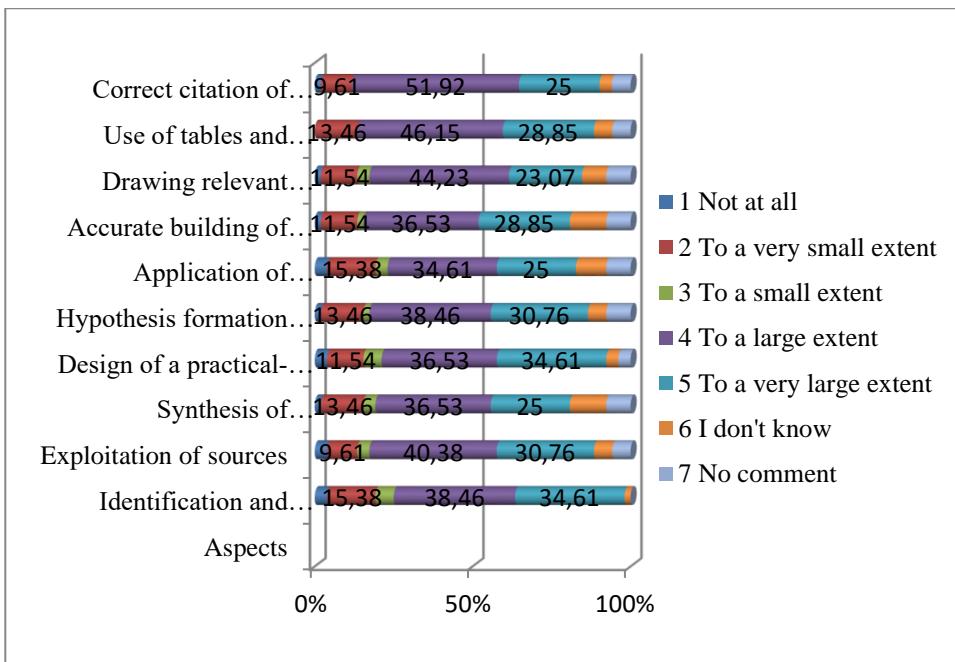
- a) to go back shortly for additions, clarifications and explanations;
- b) to read the entire work, to verify the coherence of the existing sections and paragraphs;
- c) to sending the paper to peers for a critical, constructive examination;

d) to return to the original text, after "disconnecting" for several days, carrying out successive revisions until reaching an acceptable level of the primary writing of the paper.

The answers to the question *To what extent do you consider that you have developed the skills of writing and editing scientific papers?, upon the completion of the Educational Research Methodology course*, were recorded below (Table 5, Figure 4):

**Table no. 5. Self-evaluation of the skills of writing and editing a scientific paper, upon the completion of the *Educational research methodology* course**

Aspects	1 Not at all	2 To a very small extent	3 To a small extent	4 To a large extent	5 To a very large extent	6 I don't know	7 No comment
Identification and selection of sources	3.84	15.38	5.80	38.46	34.61	1.92	0
Exploitation of sources	3.84	9.61	3.85	40.38	30.76	5.80	5.80
Synthesis of theoretical aspects	1.92	13.46	3.84	36.53	25	11.54	7.69
Design of a practical-experimental approach	3.84	11.54	5.80	36.53	34.61	3.84	3.85
Hypothesis formation and statement of aims	1.92	13.46	1.92	38.46	30.76	5.80	7.69
Application of research methods and tools	3.84	15.38	3.84	34.61	25	9.61	7.69
Accurate building of the research toolkit	1.92	11.54	1.92	36.53	28.85	11.54	7.69
Drawing relevant conclusions	1.92	11.54	3.84	44.23	23.07	7.69	7.69
Use of tables and graphic representations alongside the text	0	13.46	0	46.15	28.85	5.80	5.80
Correct citation of bibliography, in accordance wth the norms	1.92	9.61	0	51.92	25	3.84	5.80



**Figure no. 4. Self-evaluation of the skills of writing and editing a scientific paper, upon the completion of the *Educational research methodology* course**

## 7. Conclusions

The data collected showed that the *Educational research methodology* course has succeeded in developing the competences of the prospective teachers in designing, planning and conducting research in the educational field and capitalizing on their results.

On the one hand, the findings show that the subjects in the sample have acquired knowledge about the methodology of conducting educational research, the about the requirements for writing and editing scientific papers; on the other hand, the subjects are aware of their writing and editing abilities, upon the completion of the *Educational research methodology* course.

The students have also developed a positive attitude towards teacher professionalization, in general, and with regard to the specific field, in particular. The answers provided are an indicator of the responsible approach to the issues of educational research.

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## **INFORMATION MINING –AN ESSENTIAL STAGE IN THE PEDAGOGICAL RESEARCH DESIGN**

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### **Abstract**

*The research design and conducting underpins a complex approach, which involves a series of stages, each based on specific actions. The quality of the investigation carried out also depends on solid scientific information mining, which should capitalize on different categories of sources, comply with rigorous criteria and requirements regarding selection, exploitation and citation.*

*The present paper addresses the issue of information mining - an important stage in the pedagogical research, as envisaged from the perspective of the prospective (pre-service) teachers, who are developing research skills. The sample was made up of 80 Master's students at the Faculty of Letters, University of Craiova, who are in the first year of teacher training, Level II.*

*The research methods used were the questionnaire-based survey and the focus-group interview. We administered a survey to the subjects in the sample, and we also conducted a focus-group interview with 20 Master's students.*

*The research findings confirmed the relevance of this stage for the rigorous research design.*

**Key words:** *Information mining, Pedagogical research, Research design, Bibliography, Webography.*

### **1. Introduction**

The approach to pedagogical research design involves several stages, each based on specific actions, with different degrees of complexity and difficulty. The quasi-algorithmic structure makes each of the stages of particular importance, the success of the whole activity depending on the rigour and precision of the stepwise task completion.

The present paper addresses the issue of information mining, as an important step in the theoretical foundation, as well as in the general approach to pedagogical research design (Mogonea, 2016).

Information mining is considered an "active and critical approach to accessing and exploiting the means and sources of pedagogical information (...) in order to

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collect state-of-the-art topic-related data and findings, and to evaluate the stage of development of the previous research, with reference to the field and issues concerned, the scientific content of the research design "(Bocoş, coord, 2016, p. 356 – our translation).

The importance of information mining is justified and materialized by several important aspects.

First of all, it facilitates theoretical clarification, important conceptual delimitations, a detail-oriented approach to sub-topics, from the perspective of new theories, paradigms, which are relevant to the educational field.

Secondly, consulting the sources allows the researcher to investigate and list the research on the corresponding topic / issue conducted up to that moment.

In other words, the information mining stage bears consequences and implications both on the theoretical level and on the applied, experimental level of research. It allows for diagnosis regarding the level, stage of the investigation of the topic in the mainstream literature, as well as for prognosis concerning the opportunities available to the researcher to develop, continue or approach other aspects of the investigated topic.

The magnitude and duration of this stage depends on the complexity of the topic, its degree of novelty, the researcher's aims, his/her theoretical and practical experience, the resources available and many other conditions or criteria that may differ from one topic to another.

The quality of information mining is dependent on closely meeting the conditions and requirements regarding the identification, selection of the sources, their review, the references and citations, both in the content of the paper and in the general bibliography section.

All these demands may represent challenges, stumbling blocks for the researcher, even for the experienced one. The difficulty is even higher when a young researcher is involved, such as prospective (pre-service) teachers, who are developing the teaching and related research skills.

## **2. Sources of documentation and ways to use them**

The use of the sources acquires specificity also depending on the type of research, qualitative or quantitative (Friedhoff, zuVerl, Pietsch, Meyer, Vompras, Liebig, 2013).

The sources for carrying out research in the educational field can be classified into three main categories (Bocoş, 2003):

- **Bibliography;**
- **Webography;**
- **Official curriculum-related documents.**

The reading of bibliography involves consulting papers and books, which deal with the topic under investigation, either directly or indirectly, within a chapter / sub-chapter.

New communication technologies offer the possibility to consult webography (papers, conference proceedings, e-books, etc.). There are virtual libraries, open source software libraries (Stuart Geiger, Varoquau, Mazel-Cabass, Holdgraf, 2018) available.

The examination of the curriculum-related documents is required in the case of certain topics, and these documents include either the main, official ones, issued by the Ministry (Framework plan, curricula, syllabi, text books) or the auxiliary ones (curriculum auxiliaries, teacher's guides, student tutorials, educational software, etc.) or materials designed by the teacher (lesson planning, learning units plans, lesson plans).

Each of the three categories of sources presents benefits, but also costs and risks. A comparative analysis of the three categories of sources, from the perspective of the two mentioned aspects, is provided below:

**Table no. 1. A comparative analysis of the three categories of sources, based on strategic costs and benefits**

Category	Advantages, opportunities	Limitations, risks
<b>Bibliography</b>	<ul style="list-style-type: none"> <li>- consulting verified sources</li> <li>- access to reliable sources</li> <li>- access to programmatic studies of well-known scholars</li> </ul>	<ul style="list-style-type: none"> <li>- access to some sources may be limited</li> <li>- the difficulty of identifying previous research on the topic</li> <li>- consulting the sources can cause inconvenience due to space and time limitations (reading room, the library office hours)</li> </ul>
<b>Webography</b>	<ul style="list-style-type: none"> <li>- fast and convenient access to different sources</li> <li>- possibility to access certain materials free of charge</li> <li>- consulting updated sources</li> <li>- multiple possibilities to access the sources (phone, tablet, laptop)</li> </ul>	<ul style="list-style-type: none"> <li>- a more rigorous selection of sources</li> <li>- a more rigorous review of the materials</li> <li>- risk of consulting irrelevant or scientifically inaccurate sources</li> <li>- limited free access for certain papers, books</li> <li>- the access conditioned by a certain period of time</li> <li>- conditioned by access to the Internet</li> </ul>
<b>Curriculum-related documents</b>	<ul style="list-style-type: none"> <li>- access to official documents</li> <li>- fast access of documents on the official websites of the Ministry</li> </ul>	<ul style="list-style-type: none"> <li>- reference to documents in force</li> <li>- difficulty of identifying/selecting relevant official documents</li> </ul>

Some authors (notably, Mogonea, 2011) insists on the review of the sources as a pre-requisite of the quality of information mining, and at the same time, of ensuring the originality of the approach.

Citing sources is an important aspect of research ethics, mentioned by several authors (Frăsineanu, 2014). This must be done rigorously, in compliance with the citation rules in force. Citation refers both to the indication of the sources consulted throughout the paper and in the general bibliography section at the end of the paper.

As far as Education sciences are concerned, currently the APA (American Psychologists Association) citation rules are used.

According to principle of extensive information mining, numerous guides can be used online (Backhaus, Tuor, Flitter, 2018) or in printed format (Rădulescu, 2011; Mogonea, Mogonea, Popescu, Ștefan, 2012, 2013; Neacșu, Manasia, Chicioreanu, 2016), for the design / conduct of a research, as well as for the information mining itself.

### **3. Conditions for accurate information mining**

The purpose of information mining, regardless of the type of sources (Mogonea, Mogonea, Popescu, Ștefan, 2012) is indicated by:

- clarification and definition of the basic, key concepts;
- clarification of the main theoretical aspects of the topic;
- knowledge of the research carried out on the topic, in order to avoid repetition;
- compilation of the thematic bibliography, by categories of sources;
- established and intuition-driven solutions for unresolved issues;
- drawing up a preliminary plan for improving research.

*The requirements* of the accurate and efficient / quality information mining are mainly the following (Bocoș, 2003, in Stefan, 2013, p. 57) – the research should:

- be selective, in the sense of using reference works, relevant and valuable, as important contributions to the development of educational theory and practice: encyclopedias, treatises, doctoral theses, monographs, books, papers, etc. (printed or in electronic form); theoretical works, which refer to the scientific - psychological, pedagogical and methodical foundation of educational processes, as well as works based on research and experimental investigations in different areas of understanding will be considered.
- be based, as far as possible, on first-hand, primary, authentic sources to ensure the correct understanding of the terms and meanings (for example, reference to a work based on reading a review of that work, in which the text could be distorted by infiltrating the reviewer's subjectivity, opinion, attitude, etc.
- be carried out in an active way, encourage participatory research, and the active and interactive attitude of the researcher towards the text and information: knowledge thirst, desire to know and discover by exploiting his/her own potential, engaging in information mining, adopting an active and interactive behaviour in search of the new, problem solving, imagination, creativity, etc.
- encourage a reflective approach, self-reflection, the researcher's inquisitive attitude, his/her mental alertness in relation to the data that s/he collects through information mining: interest in the topic addressed, permanent (self-) reflective attitude regarding the new ideas and experiences, internal dialogue, self-questioning, practicing one's reflective thinking, thanks to filtering everything during the information mining process, etc.

• foster the adoption of a critical attitude by the researcher when reading the material, showing critical thinking, filtering, not accepting an opinion without

reflecting on it and without asking himself/herself about its value, putting into good use initiative and reasoning.

- make the researcher adopt an impersonal and objective attitude, not show bias or prejudice, cultivate the respect for scientific data, and for the scientific - theoretical and methodological foundation of innovative approaches, etc.

- use the results driven by information mining in as many directions as possible: restatement of the topic, clarification of some aspects and content, emergence of new ideas and suggestions, arguing for ideas and experiences, remedial work, completions, outlining new openings and developments, etc.

- be based on constant information mining, to represent a systematic approach throughout the research design, organization, development, completion and exploitation, in order for the researcher to be updated with the advances in the field, as well as with the new provisions laid down in the curriculum-related documents and be able to list the issues that have been solved and those that have not been satisfactorily solved yet.

We consider that the value of information mining is secured not only by rigour, careful use of the sources, faithfulness in their citation, but also by the ability to detach from them, through a critical and creative approach.

#### **4. Research methodology**

The empirical research that we carried out aimed to establish the importance and the requirements of information mining, as a stage of research preparation and design by pre-service teachers.

The **objectives** of the research were:

1. Identification of the students' opinion regarding the specificity of information mining in the research carried out in the educational field;

2. Identification of their preferences regarding the sources, based on review, from the perspective of the advantages and disadvantages of each category;

3. Awareness of the difficulties that the students face in information mining.

The whole process underpinned the identification of the truth value of two hypotheses:

1. *The application of rigorous selection criteria for sources, regardless of their type, is essential for the information mining quality.*

2. *Performing the review of the sources underlies original research.*

We used two **research methods** in order to achieve the above mentioned objectives and validate the two hypotheses. These were the questionnaire-based survey and the focus-group interview, the appropriate instruments being the survey and the interview guide.

##### *Tool overview*

The opinion questionnaire aimed to investigate the opinion of the subjects on the essential aspects of information mining, addressed in the broader context of research preparation and designing in the educational field.

In terms of structure, it included, in addition to the factual data, 10 items, which fall in both the category of closed questions, but also semi-open or open ones. Students were asked to choose a variant, considered to be the closest to their opinion, but they also had multiple choice items. Also, some items allowed the students to express their opinion freely, wording their answer.

From the point of view of the content, the items of the questionnaire were concerned mainly with aspects related to the preferences of the students for certain categories of sources, the application of the selection criteria, the difficulties encountered in this case, the necessity of undertaking the review of the sources or of their citation, in accordance with the rules in force.

The interview guide included 7 questions oriented, in particular, to the ethical issue of selecting and indicating the sources, and to the obligation of not copying certain ideas, concepts instead of analysing and filtering them, based on the student's reasoning and subjectivity.

The sample consisted of 80 Master's students in the first year at the Faculty of Letters, University of Craiova, who filled in the opinion questionnaire. Out of the 80 students, 20 also participated in the interview.

## 5. Results and discussions

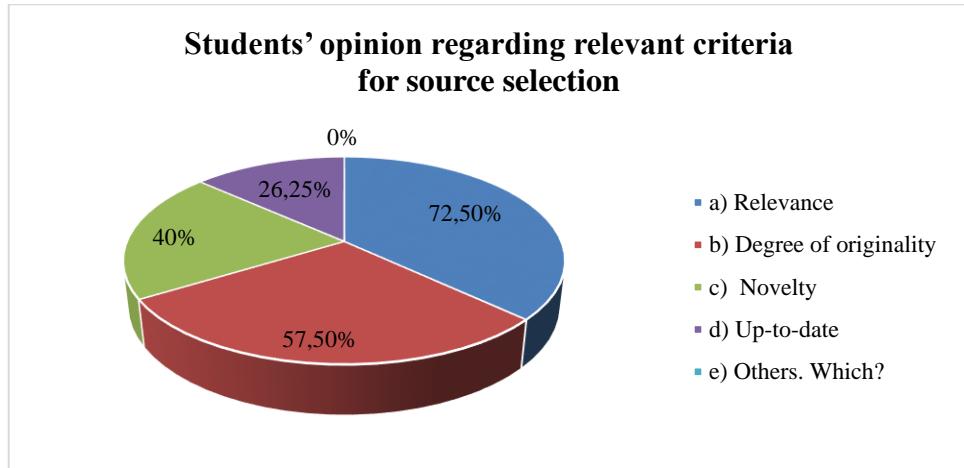
The research methods and tools were fully exploited in our investigation to ensure the achievement of the purpose and objectives and establish the truth value of the hypotheses.

Thus, for the first of the hypotheses already mentioned (*The application of rigorous selection criteria for sources, regardless of their type, is essential for the information mining quality*), we used the data collected from the answers to some of the items of the administered opinion questionnaire (respectively items 1, 2, 3, 4, 5, 10), and for the second hypothesis (*Performing the review of the sources underlies original research*) - the answers recorded for the other items of the questionnaire (6, 7, 8, 9), as well as those recorded during the focus group interview.

We present, for a start, the results that allowed the validation of the first hypothesis.

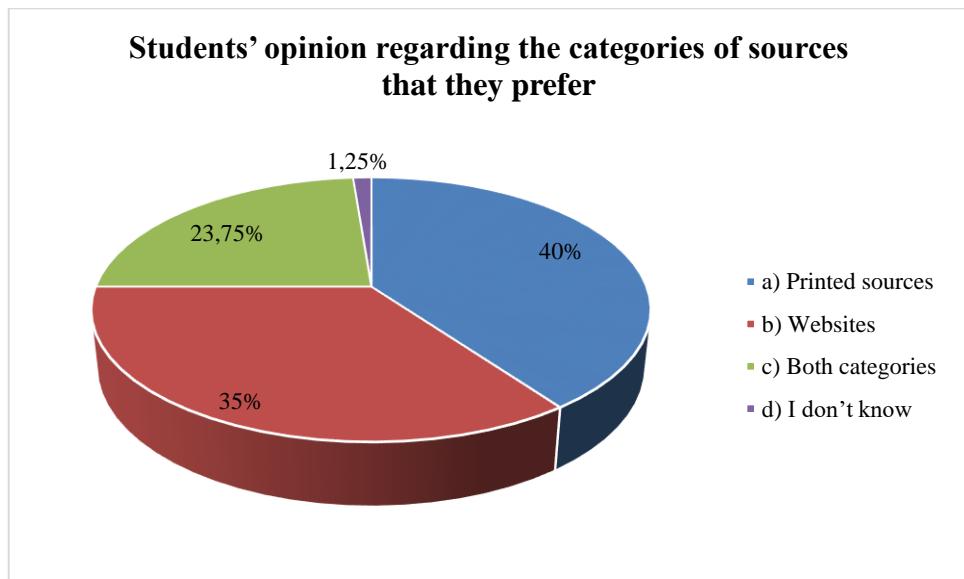
Thus, regarding the students' opinion on the importance of information, in the general context of designing pedagogical research (item 1), they unanimously considered that this is very important.

Chart 1 shows the results recorded in item 2 of the questionnaire (with multiple choice), regarding the criteria that students consider important in selecting the sources.



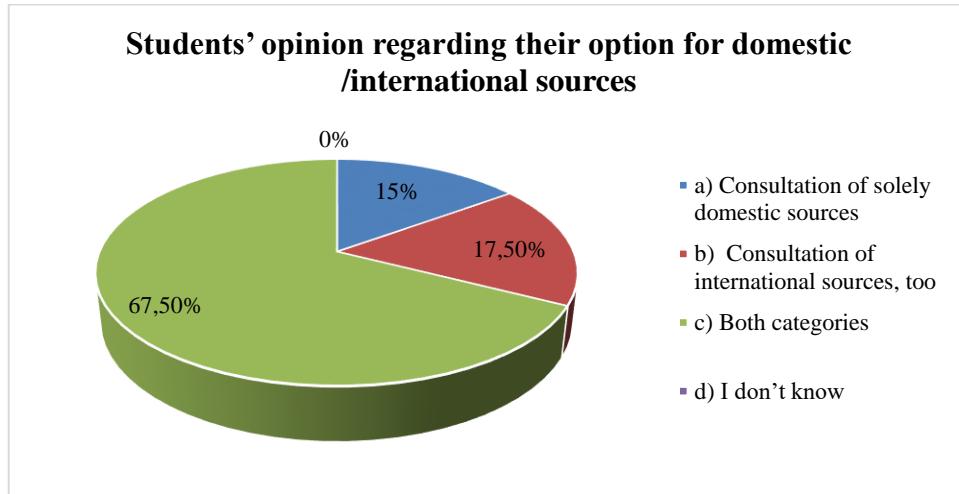
**Figure no. 1. Students' opinion regarding relevant criteria for source selection**

As far as the categories of sources are concerned, the answers of the students show that the balance inclines towards the printed sources, although a significant percentage was recorded for the variants regarding the electronic sources or both categories (see Chart 2).



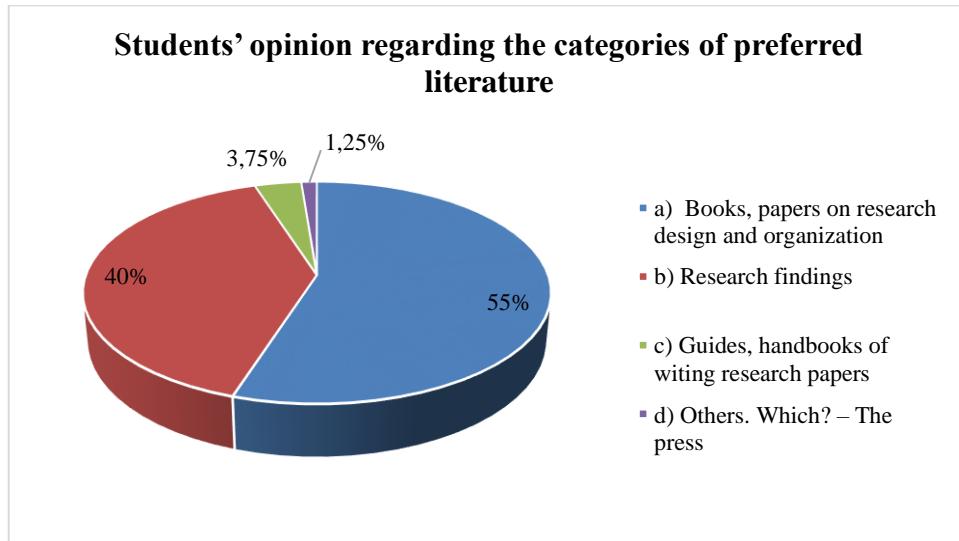
**Figure no. 2. Students' opinion regarding the categories of sources that they prefer**

The majority of the students believe that both domestic and international sources should be consulted in order to design and conduct research (see Chart 3).



**Figure no. 3. Students' opinion regarding their option for domestic /international sources**

Furthermore, in relation to the types of sources that students consider important in the information mining process, they preferred the variant regarding books, theoretical studies regarding the design and organization of a research, although close percentages also recorded for the other answer variants (see Chart 4).



**Figure no. 4. Students' opinion regarding the categories of preferred literature**

In order to establish the truth value of the second hypothesis, we validated, as mentioned above, the answers of items 6, 7, 8, 9, as well as those given in the group interview.

Items 6 and 7 were with open answers, aiming to spot the difficulties and advantages of using the sources.

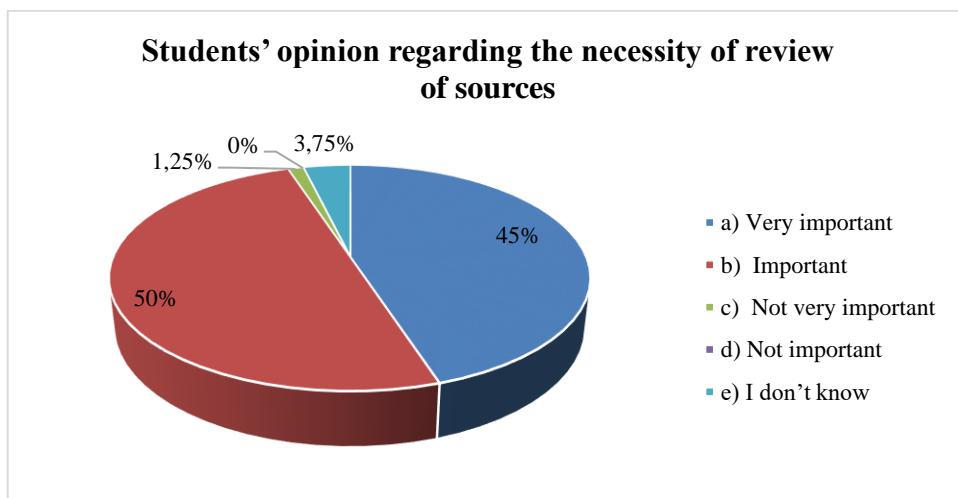
Among the difficulties identified by the students, we mention:

- Shortage of sources on certain topics of interest;
- Checking the reliability of the sources;
- The amount of time required for consultation;
- The inconvenience of consulting some sources in printed format;
- Limited access to certain electronic sources (requiring passwords or paying access fees);
- Viability, sometimes short-term, of electronic sources;
- The need for Internet access in the case of electronic sources.

The Master's students also mentioned the advantages of rigorous information mining:

- The correct design of the research;
- The multitude of perspectives for interpreting the accessed information;
- Research rigour;
- Research consistency;
- The accuracy of the knowledge used;
- Opens up new horizons;
- The originality of research.

Regarding the need for the review of the sources (item 8), the students' opinions were divided on the first two answer variants, as it can be seen in Chart 5.



**Figure no. 5. Students' opinion regarding the necessity of review of sources**

Also, most of the students surveyed consider that citing the sources is very important.

The focus-group interview was also oriented towards gathering information about the students' opinion regarding the specificity of information mining, the principles, criteria, conditions of its performance, and the ethics of research to be complied with.

The answers given by the 20 participants in the interview, generally validated the conclusions drawn by administering the questionnaire, and pointed out to highly specific aspects regarding this essential stage of pedagogical research.

We were particularly interested in the opinions related to adapting the criteria for the selection of sources to the specific field / specialization to which the students from the target group belong, as well as their use and citation.

Above all, as it turned out from the questionnaire, students prefer printed sources, as opposed to electronic ones, although they recognize the convenience of accessing electronic materials.

Also, differences in the way of citing the sources appear, students applying in a less rigorous way the criterion of correspondence between the sources cited in the paper and those mentioned in the bibliography section.

Last but not least, the students mentioned the need to approach the topic in an original way, not only in terms of content, but also with reference to the structure and layout of educational research design and carrying out. All these aspects can be explained by the specific training of students (in the fields of philology, music, acting).

## **6. Conclusions**

The results of our investigation validate the working hypotheses regarding the importance of information mining in the general context of pedagogical research design. The Master's students are familiar with the criteria of selection and accurate use of the sources, being able to identify, at the same time, the advantages and the limitations of each category. The tools applied showed a slight preference for the printed sources, which can be explained by the specificity of the field and the specializations of the students included in the sample.

To our mind, the difficulties that the students encounter in carrying out rigorous information mining, are due, in particular, to the lack of experience in the field of theoretical and applied educational research. The empirical, simplistic approach, sometimes, the difficulty in achieving generalizations, of going beyond concrete situations and particular cases, but also of substantiating, exemplifying ideas, theories with a high degree of generalization and abstraction can be possible causes of the barriers that the Master's students experience when thinking critically and anticipating.

With strict reference to the information mining activity, we noticed, in particular, the students' fears regarding the relevance of the selection criteria for the sources, which must be applied for accurate and rigorous information mining, as well as the difficulty (in some cases, even the impossibility) of the review of the sources,

of carrying out analyses that would allow them to identify successful and less successful aspects of approaching the topic, insufficiently clarified, explained, developed issues that could be the starting point of their own scientific investigation.

Despite these reported difficulties, we believe that exposure to research and concrete situations of research projects design can contribute to the development of the specific competences of the prospective (pre-service) teachers so as to achieve solid, relevant, rigorous information mining.

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## CRITICAL ANALYSIS OF DOCUMENTATION SOURCES – A CHALLENGE FOR TEACHERS?

Florentin – Remus MOGONEA<sup>1</sup>

### **Abstract**

*The consultation of the sources with a view to writing a scientific paper and carrying out research represents an essential condition and stage, securing a successful activity, which meets the rigour and requirements of such an endeavour.*

*Information mining or documentation itself is subject to requirements and rigour which must, on the one hand, ensure an adequate selection of the sources and, on the other hand, an appropriate use of them. Lately, the volume, but also the diversity of these sources, have made this approach difficult. The difficulty is also increased by the need to carry out critical analyzes of the consulted works, which identify the successful and less successful aspects, resolved ones, or of the previous experiences.*

*For teachers conducting research and writing scientific papers, this can be a serious challenge. The present study aims to investigate the necessity and possibility of a critical analysis of the bibliographic sources by the teachers who undertake investigative approaches.*

*The sample of subjects on which the investigation was carried out consisted of 120 school-based teachers, of different specializations, in pre-university education, who sat in for the examination for the first teaching degree at the University of Craiova in the session of February 2019.*

*The research method used was the questionnaire-based survey, the research tool being an opinion questionnaire.*

*The results of the investigation highlighted the importance of the critical analysis of the documentation sources by the teachers who carry out theoretical or experimental research.*

**Key words:** Critical analysis, Documentation sources, Webography, Bibliography, Plagiarism.

### **1. Introduction**

Documentation is an essential stage of any research activity, regardless of its specificity or the method of substantiation, be it in a paper or book.

The complexity of the documentation activity is given by the diversity and the multitude of sources, which requires careful selection, according to criteria that must also concern their relevance, importance, topicality.

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In addition to sorting out the sources, based on the above mentioned criteria, reading the guidelines that allow for analysis, comments, interpretation, leading to the second stage of information selection, is involved.

In this context, the need for critical analysis is related to rigorous, serious, fact-based documentation, which, in turn, must be the starting point of carrying out scientific research that meets the quality criteria in force.

Both the possibility of selecting the sources, as well as their critical analysis, obviously depend on the experience of the researcher, his/her level of training, and his/her personality. In the case of teachers, we complement these conditions with others related to their professional training and to the experience in carrying out scientific investigations.

The present study aims to examine the opinion of an important number of teachers, who sat in for the examination for the first teaching degree, regarding the importance of the critical analysis of the documentation sources, as well as the modalities for its accomplishment, in order to draw up a methodological-scientific paper.

The competence of critical analysis can be successfully practised in this context, and at this essential stage of the writing of the paper. It should take into account the possibility of teachers to capture the successful and less successful aspects of the sources consulted, the topics or sub-topics sufficiently explained or those that require more details, revisiting, further development.

## **2. Critical analysis – a need for the teacher - researcher**

Any type of research must be based on a thorough documentation process conducted by the teacher - researcher. S/he should critically analyze the information from the sources, that is, establish/verify the exact degree of truthfulness or falsity.

This situation is a good example to highlight the importance of critical thinking, not only in the initial training of pre-service teachers, but also in continuous training. Moreover, this competence is considered by many to be an attribute of the modern man, of the professional, regardless of field, specialization, which is why it must be practised with all the students (Halpern, 1999; Thomas, 2011; Grosser, Nel, 2013; Davies, 2015; Willingham, 2019).

Individuals having developed critical thinking skills are people who research, ask questions, discard information on the face value, are active, think analytically and synthesize, evaluate information and explain truthfully, are open-minded and aware of cognitive processes (Karakoç, 2016, p. 82).

Information involves interaction, real or virtual, of communicative nature, between a sender and a receiver. The information is presented in the form of a text, image or sound (audio materials), through different channels / media and it is transmitted according to its own schema (Repanovici, <http://webbut.unitbv.ro/Carti%20on-line/Repanovici/TDRC.pdf>).

The author classifies sources as follows: primary sources, secondary sources and tertiary sources. Primary sources are non-periodical and periodical. The non-periodical ones are traditional (brochures, books, treatises, monographs, text books,

course books, glossaries, official publications, repertoires, calendars, dictionaries, maps, atlases, albums, homage volumes) and special ones (patents, research reports, PhD theses, scientific papers, projects, journals, articles, editorial series, newspapers, yearbooks, technical and commercial guides, technical and commercial catalogues). Secondary sources run as follows: annotations, bibliography, catalogues, compendia, encyclopedias, guidebooks, indexes, lexicons, reviews, reports, reference journal, summaries, documentation synthesis. Tertiary sources include: lists of bibliographies, collections of translations, catalogues of bibliographic research.

Bibliographic search involves consulting/reading specialized papers that address the topic, either in an exhaustive or tangential manner. Documentation is required for (Bocoş, 2003, pp. 22-28):

- clarification and definition of the basic, key concepts;
- clarification of the main theoretical aspects of the topic;
- awareness of the topic-related research already carried out in order to avoid repetition;
- compilation of the thematic bibliography, by categories of sources;
- establishing, anticipating the possibilities of finding solutions for unresolved issues;
- drawing up a preliminary plan to improve research.

The information obtained through documentation is ordered, structured and will then be critically analyzed, commented on, interpreted in an adequate way.

We mention some requirements that must be met in bibliographic documentation:

- the authors selected will be belong to the category of specialists in the field or issue addressed;
- the scientific works should be representative, illustrative for the topic addressed;
- the sources must be updated and original.

A modern source of documentation/investigation is represented by the Internet, through the so-called search engines. However, the requirements are higher than in the case of bibliographic sources, given the large number of sources of documentation and materials that can be accessed, and on account of their quality. Thus, the teacher - researcher should make a more rigorous selection of this information, choosing those that:

- are scientifically accurate;
- have a solid theoretical foundation;
- belong to well-known authors in the field;
- are updated;
- are tested or validated in/by educational practice.

Without a shadow of doubt, the researcher has the obligation to use and cite the sources correctly.

Another source of documentation is represented by the study of official curriculum-related documents: curricula, syllabi, textbooks, teaching aids.

Irrespective of the source type, an active, participatory, conscious, reflective-inquisitive reading is required, which involves discriminating and adopting ideas, statements, theories, examples, generalizations, etc.

Another step in the critical analysis of documents is their evaluation from the point of view of relevance and importance for the chosen/investigated topic. The teacher - researcher should carry out a global, synthetic reading of the bibliography and, possibly, make a hierarchy according to the impression about all the materials and documents that are available. Thus, this step proves to be useful for detecting what materials are missing or what would be the ones that would be needed to widely cover the the topic addressed.

Adapting the advantages of performing a critical analysis, presented by Thomas (2001, p. 28), for the situation of the teacher in need to select the documentation sources, we can list:

- Considering and evaluating the different points of view;
- Developing a logical argument, with adequate evidence;
- Identification of flaws, strengths and weaknesses of an argument, point of view, theory;
- Identification of possible prejudices of the approach to a problem or situation;
- Analysis of the quality of the sources;
- Making syntheses of various, varied sources;
- Application of the evaluation criteria;
- Evaluating one's own decisions.

The problem of plagiarism in documentation should not be neglected. The teacher must choose the sources of documentation and cite them properly, irrespective of the fact that they are bibliographic or webographic. Plagiarism represents the appropriation of ideas, methods, procedures, technologies, results or texts of another person, regardless of the way in which they were obtained, presenting them as their own creation. Nowadays, plagiarism is accentuated by the internet and the ease of taking over online doctoral, research, scientific papers, ideas, images. Web-based plagiarism is called *online plagiarism* (Mogonea, Mogonea, Popescu, 2013a; 2013b).

### **3. Research methodology**

**The aim** of our investigation was to know the opinion of the teachers in relation to the role and importance of the critical analysis of the documentation sources, in order to carry out scientific research.

**The objectives** we had in mind were the following:

1. To know the opinion of the teachers on the importance of using reading guidelines in relation to the sources consulted.
2. Investigating the possibilities of teachers to critically analyze the sources consulted, depending on their specificity.
3. Identification of the difficulties encountered by the teachers in carrying out critical analyzes on the sources consulted.

The research directions of action were aimed at validating two **hypotheses**:

1. *Through documentation can be ensured by performing a critical analysis of the sources.*

2. *The critical analysis of the sources consulted is a condition and an effect of the originality of the research and of drawing up the methodological-scientific paper.*

#### ***Overview of research method and tools***

The research method used was the questionnaire-based survey, the instrument applied being an opinion questionnaire, which comprised 12 items of different categories (with closed, semi-closed, open-ended; in the category of closed items, we used simple choice items, as well as multiple choice, which involved the choice out of several variants, in accordance with the opinion of the subjects).

In point of content, the items of the questionnaire covered the aspects specified in the research objectives, namely, those regarding the importance of the critical analysis of the sources consulted, the possibility of achieving it, the difficulties that the teachers encounter when undertaking this task.

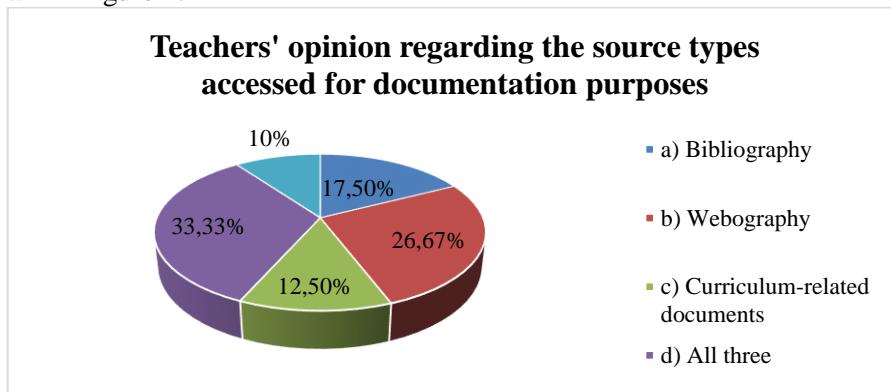
The sample of subjects was made up of 120 teachers, of different specializations, who sat in for the examination for the first teaching degree in the session of February 2019.

#### **4. Results and discussions**

We present the results obtained by administering the opinion questionnaire to the teachers. Their answers can be structured according to how they can contribute to the validation of the two research hypotheses.

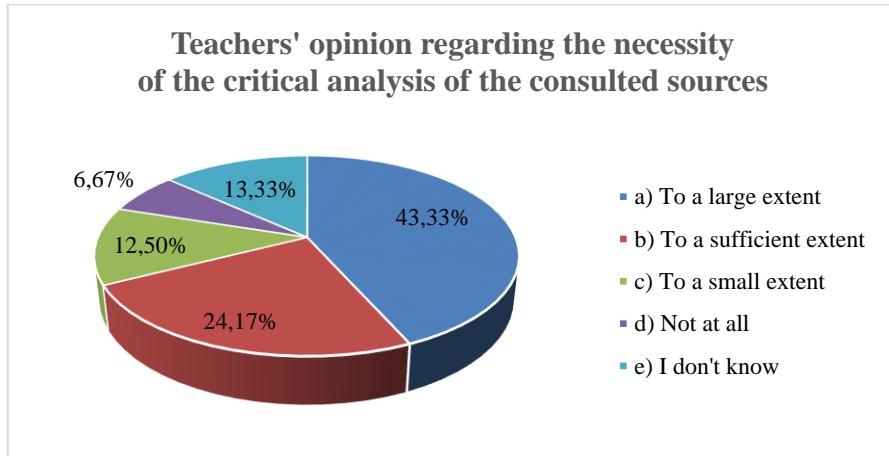
Thus, for the first hypothesis, which contains the premise that *Rigorous documentation can be ensured by performing a critical analysis of the sources*, we validated the answers to the items 1-7.

In this respect, we note the teachers' options regarding the categories of sources that they access when documenting for a scientific paper or research, as shown in Figure 1.

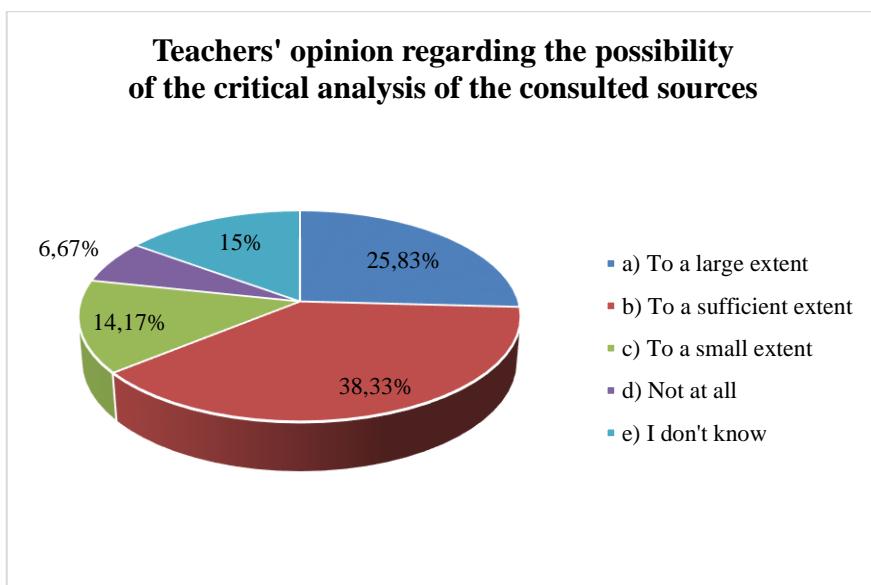


**Figure no. 1. Teachers' opinion regarding the source types accessed for documentation purposes**

Most respondents believe that critical analysis is necessary to a great extent, but that it is possible (so it is achievable) to an appropriate extent, as it can be seen from Figures 2 and 3.

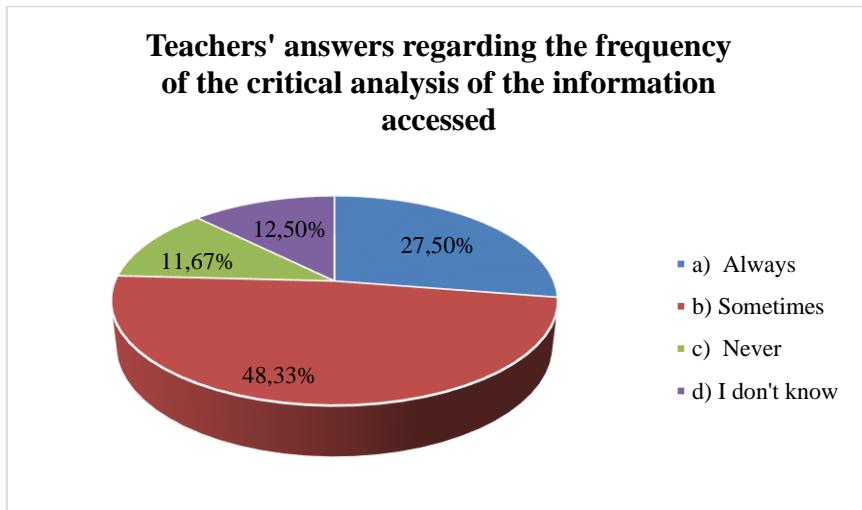


**Figure no. 2. Teachers' opinion regarding the necessity of the critical analysis of the consulted sources**



**Figure no. 3. Teachers' opinion regarding the possibility of the critical analysis of the consulted sources**

While acknowledging the importance of the critical analysis of the information accessed, teachers confess that they are not able to do this on all occasions (see Figure 4).



**Figure no. 4. Teachers' answers regarding the frequency of the critical analysis of the information accessed**

Items 5 and 6 of the questionnaire contained open-ended questions, asking the respondents to specify some advantages of the critical analysis as applied to the sources consulted, and to signpost difficulties or hindrances.

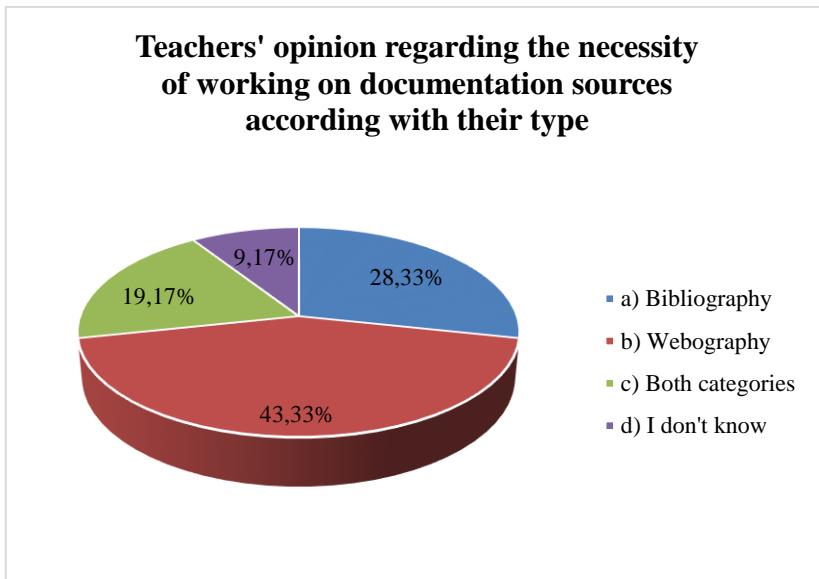
We present some of the most significant advantages mentioned by the teachers:

- A better understanding of the texts;
- The possibility of identifying lesser known or less researched aspects, or of others that are not envisaged by the author in question;
- Practising critical thinking, analysis, interpretation skills;
- Practising persuasion skills, exemplification, substantiation.

As difficulties or hindrances, they mentioned:

- Insufficient experience or lack of it regarding such an approach;
- The diversity of documentation sources, their variety and complexity;
- Difficulty in approaching well-established topics, but also less explored ones;
- The nature, often too theoretical of the sources consulted, containing very few examples or practical aspects;
- The too weak link, sometimes, between theory and educational reality.

Based on the idea that the way of reading and selecting, of analyzing the documentation sources is different, depending on their category and the possibilities of access, the following item polled the teachers' opinion about the need to select information. We present, in Figure 5, the answers provided.

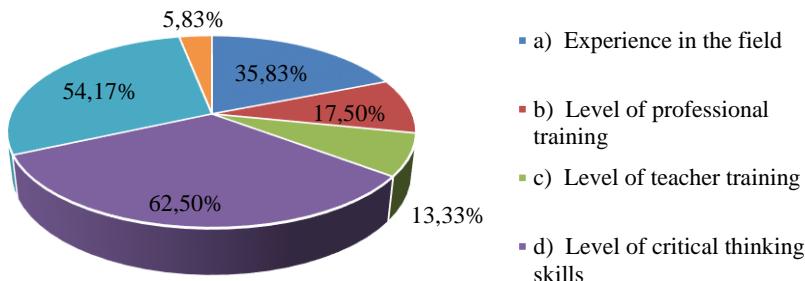


**Figure no. 5. Teachers' opinion regarding the necessity of working on documentation sources according with their type**

In order to validate the truth value of hypothesis 2, *The critical analysis of the sources consulted is a condition and an effect of the originality of the research and of drawing up the methodological-scientific paper*, we used the subjects' answers to items 8-12.

Since the possibility of interpreting in a proper way a study, a paper or a book depends on a number of factors and conditions, we were interested in finding out the opinion of the subjects in this regard. Figure 6 shows the subjects' answers. We mention that the item was a multiple choice one.

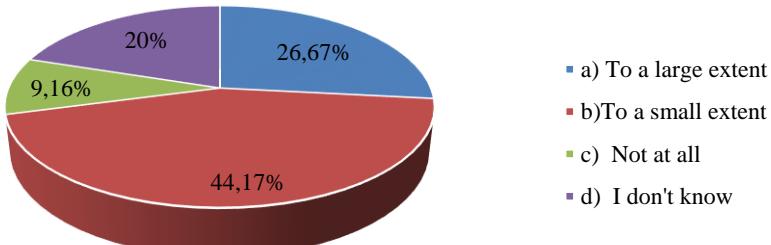
**Teachers' opinion regarding the factors  
that influence the possibility and quality  
of the interpretation of the consulted sources**



**Figure no. 6. Teachers' opinion regarding the factors that influence the possibility and quality of the interpretation of the consulted sources**

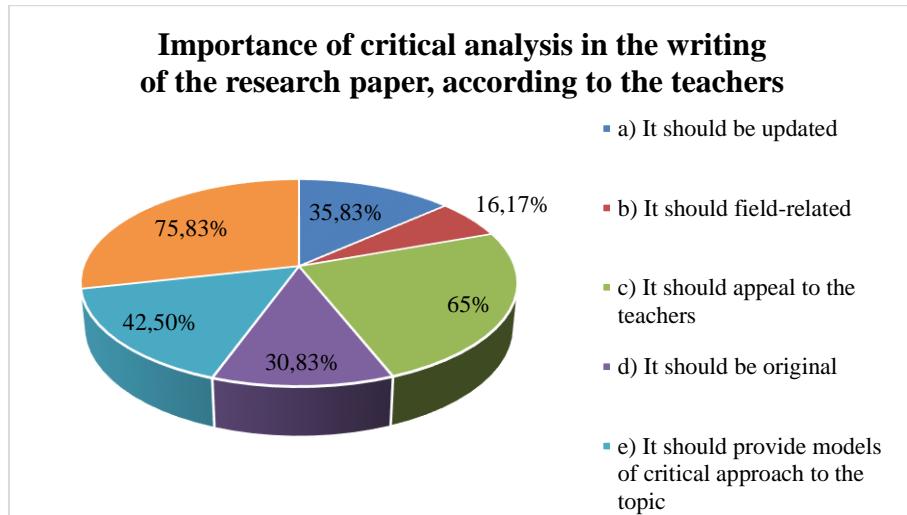
As far as the the opinion of the teachers on the role of critical analysis in carrying out the methodological-scientific work is concerned, the opinions are divided: some of the teachers think that this is useful to a large extent, whereas others appreciate it to a small extent (Figure 7). The explanation of the option for the second variant lies in the difficulty that the teachers experience in accomplishing such a task, more particularly because they are aware that they do not have the opportunity to research too often.

**Teachers' opinion regarding the importance  
of critical analysis in the writing of the research  
paper**



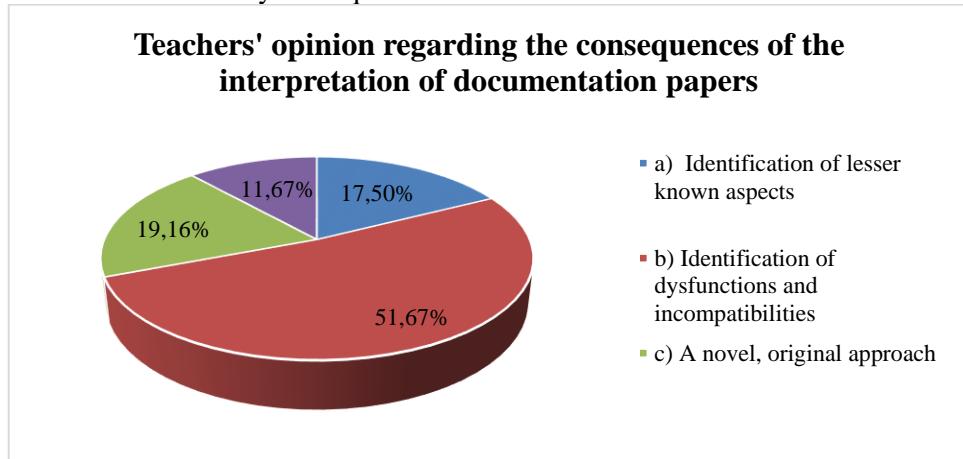
**Figure no. 7. Teachers' opinion regarding the importance of critical analysis in the writing of the research paper**

Updated, relevant, original information is thought to be important from a methodological-scientific point of view. Figure 8 presents teachers' options for this item (multiple choice).



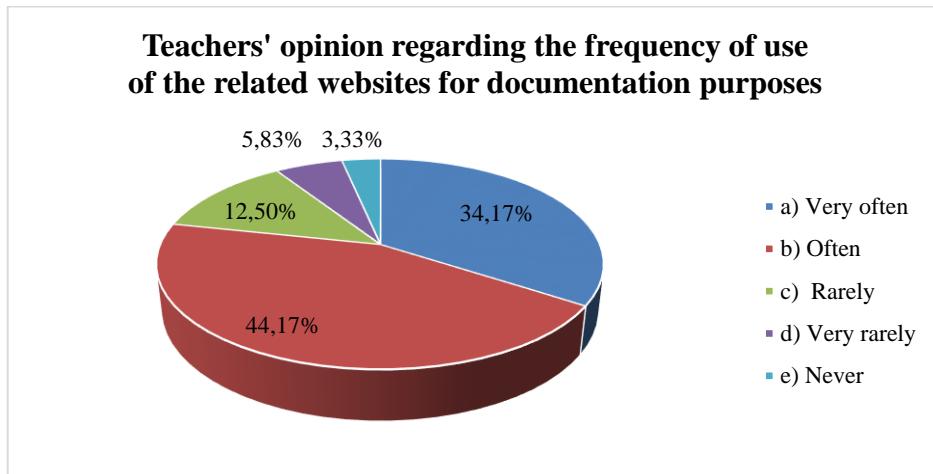
**Figure no. 8. Importance of critical analysis in the writing of the research paper, according to the teachers**

The most important effect of interpreting the documentation sources is, in the opinion of the teachers, the one related to the identification of some dysfunctions, which can be solved by subsequent remedial work.



**Figure no. 9. Teachers' opinion regarding the consequences of the interpretation of documentation papers**

Teachers recognize that they often resort to the help of specific websites for documentation purposes (see Figure 10).



**Figure no. 10. Teachers' opinion regarding the frequency of use of the related websites for documentation purposes**

The results obtained by administering the opinion questionnaire validate, as it can be seen, the research hypotheses.

## 5. Conclusions

The present study aimed to investigate the problem of interpreting the sources consulted by the teachers when carrying out scientific research. The importance of this approach is obvious, especially to ensure the originality of the research work or activities performed. The question arises if such an approach is possible, if the teachers have an adequate level of development of critical analysis and interpreting skills.

It is true that they are not involved in such situations too often, i.e. they do not face the need to carry out work that require a wide and complex documentation, which partly justifies the difficulty they find in this case.

Nevertheless, we consider that critical, reflective thinking should represent an important dimensions of the modern man, of the contemporary teacher in order to ensure the success of the activity carried out.

Thus, we emphasize the importance of practising these competences in any contexts that offer this possibility, including the daily practice, the classroom activity. The ability to issue value judgments, to make decisions, to justify an opinion, to identify ways in which we can substantiate a theory, to make generalizations, based on concrete educational situations are, implicitly, linked to that of critical analysis, selection, sorting.

We consider that the process of writing a paper that combines a theoretical, scientific dimension with an applied, experimental, methodological one, underpinning extensive, rigorous documentation, is an approach allowing for the practice of the above mentioned skills and contributing to downsizing the difficulties that the teachers mentioned.

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## **BOOKS, IDEAS, INTERVIEWS/LIVRES, IDÉES, INTERVIEWS**

### ***EVALUAREA ÎN EDUCAȚIE. MERITOCRAȚIE ȘI MEDIOCRIȚATE. BOOK REVIEW***

**Alexandrina Mihaela POPESCU<sup>1</sup>**

#### **1. Identification data**

Marin Manolescu (2019). *Evaluarea în educație. Meritocrație și mediocritate*. București: Editura Universitară.

The paper, counting 416 pages, was published in the collection *Ştiințe ale Educației*, the author being Professor at the University of Bucharest, Faculty of Psychology and Education Sciences, Department for Teacher Training, and Doctoral supervisor in Education Sciences. The career of Professor Manolescu is outstanding, participating in the establishment or consolidation of reference structures in the field of initial and continuing education of teachers.

In the last 15 years we have witnessed evaluation as a constant of Professor Manolescu's writings: *Evaluarea școlară - un contract pedagogic/Testing and evaluation - a pedagogical contract* (2003), *Activitatea evaluativă între cunoaștere și metacunoaștere/The evaluation activity between cognition and metacognition* (2005), *Teoria și practica evaluării/Theory and practice of evaluation* (2010), *Perspective inovative ale evaluării. Evaluarea digitală/Innovative perspectives of evaluation. Digital assessment* (2016), *Referențialul în evaluarea școlară/Reference-based evaluation* (2015).

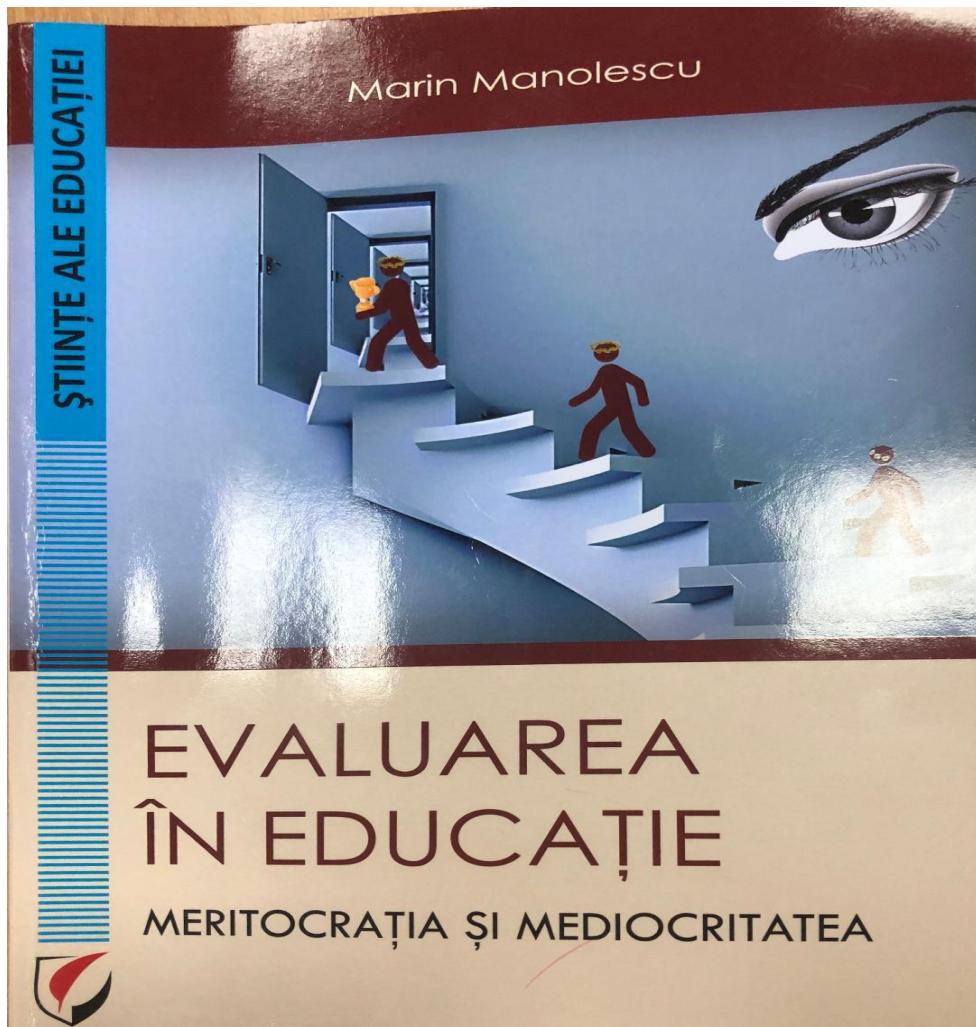
#### **2. Structure and content of the book**

The book *Evaluarea în educație. Meritocrație și mediocritate/Evaluation in education. Meritocracy and mediocrity* deserves attention due to the answers it formulates regarding the role of evaluation in education in formal, non-formal and informal contexts, in direct relation with the concepts of meritocracy and mediocrity.

The author carries out longitudinal research of the educational phenomenon in Romania, continuing the historiography of the development of the Romanian school put forward by the great Romanian educator Stanciu Stoian, pointing out its features and the contributions to the development of the evaluation as a source of meritocracy and mediocrity.

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The work, structured in three parts and thirteen chapters, begins with *Introduction*, advocating meritocratic values and defining key concepts: *high achievers, meritocracy, mediocrity* in relation to school evaluation.



Part I, *Problematica evaluării școlare în societatea contemporană. Funcții, disfuncții, evoluții/The issue of evaluation in the contemporary society. Functions, dysfunctions, evolutions* is structured in three chapters: *Școala și societatea. Necesitatea reconstrucției școlii/School and society. The need for school reconstruction; Evaluarea în educație – funcții, disfuncții, evoluții/Assessment in education - functions, dysfunctions, evolutions; Titluri și diplome. Existența celor două atitudini polarizante: devalorizarea școlii versus supravalorizarea școlii/Titles and degrees. The existence of two polarizing attitudes: devaluation of the school versus overvaluation of the school.*

In the first chapter of the paper, the author proposes the reconstruction of the compulsory school by strengthening the educational capacity of the school, by enhancing the family cultural capital, in the context of competition as a social state of affairs, so that we move from the elitist school to the democratic mass education.

The second chapter *Evaluarea în educație – funcții, disfuncții, evoluții/Assessment in education - functions, dysfunctions, evolutions* addresses the problem of evaluation between theory and practice, reviewing the paradigms of interpretation of this phenomenon in the context of conceptual and typological diversity at the national and international levels.

Chapter Three, *Titluri și diplome. Existența celor două atitudini polarizante: devalorizarea școlii versus supravalorizarea școlii/Titles and degrees. The existence of two polarizing attitudes: devaluation of the school versus overvaluation of the school* analyzes the status of degrees in the Romanian society: warrants of school-based and professional competence in the paradoxical context of the current situation of the degrees undergoing an inflationary process, while emphasizing the idea that they are becoming increasingly indispensable.

The second part of the book, *Evaluarea în educație și meritocrația/Evaluation in education and meritocracy* is structured in seven chapters: *Meritocrația – model de justiție socială prin educație/Meritocracy - a model of social justice through education; Este legitimă legitimarea meritocrației/Is the legitimacy of meritocracy legitimate?; Meritocrația socială – recompensa meritului școlar/Social meritocracy - the reward of academic achievement; Meritul școlar și meritul social: determinări și interdependențe/Academic merit and social merit: determinations and interdependencies; Vocația meritocratică a școlii/The meritocratic vocation of the school; Examinarea – condiție obligatorie a promovării elevilor. Repere istorice evolutive/Examinations - a mandatory condition of the promotion of students. Evolutionary historical landmarks; Exigențe meritocratice în formarea cadrelor didactice. O perspectivă istoric/Meritocratic requirements in teacher training. A historical perspective.*

The author, by grounding his work into American and European mainstream literature, illustrates the complexity of the notions of *merit* and *meritocracy*, in the context of the consensual and divergent elements regarding trust in meritocracy within two versions of merit and meritocracy: the social version, developed by theorists, and the folk version, as present in the collective mind.

The following approach equally pertains to the area of questions and dilemmas concerning the meaning of *merit*, but this time of academic merit: the significance of academic merit, the extent to which academic merit determines social merit, the social value of degrees and diplomas.

Through the evaluative function the school plays an essential role in promoting meritocracy. How this role materializes in the past and present of the Romanian school is discussed in the chapter *Vocația meritocratică a școlii/The meritocratic vocation of the school*. The exploration of the history of Romanian education is continued in the chapter *Examinarea – condiție obligatorie a*

*promovării elevilor. Repere istorice evolutive/Examinations - a mandatory condition of the promotion of students. Evolutionary historical landmarks.*

In the book architecture the author allocates a considerable number of pages (almost 100 pages) to the *meritocratic requirements of teacher training, historical landmarks*, starting from the teaching profession to vocationally-oriented teaching, from the evaluation of teachers through the related exams (*Definitivat* and *grade* in the Romanian system of education) to the allegory of mediocre success, while identifying shortcomings in teacher training and in school evaluation, spotting the elements of continuity and change in the training and development of teachers.

The last part of the paper *Evaluarea și mediocritatea/Evaluation and mediocrity* addresses the reference framework of mediocrity, its typology, causes and pedagogical remedial work. Academic achievement enshrined in evaluation fall into the sphere of meritocracy or mediocrity.

The essentialization of the problem of meritocracy and mediocrity in the school framework, the historical view, the inquisitive style invites professional teachers, experts in education, educational policy makers and pre-service teachers to reflection.

## REFERENCES

- Manolescu Marin (2019). *Evaluarea în educație. Meritocrația și mediocritatea*. București: Editura Universitară.

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