

ACADEMIC RESEARCH FOR YOUNG TEACHERS (ARFYT)

“Educated people lacking personal talent (...) I imagine them like an obscure room, with one entrance and one exit. Alien ideas enter through one door, cross the darkness of this room and leave through the other – so indifferent, lonely and cold. The head of a talented man is like a bright room, with walls and mirrors. Ideas come from outside – indeed, so cold and indifferent – but what a society, what a party they come across here.”

Mihai Eminescu

A great number of scientific factors indicate that traditional methods of acquiring knowledge and search solutions for solving scientific problems are inadequate for modern research. Different disciplines require different amounts of time to complete research (e.g. the natural resource and environmental sciences, data-gathering and investigation, etc.), spatial and temporal factors may be crucial for successful research projects, programmes and partnerships. In the early stages of a research team formation, it is critical to develop a team timeline and establish a research framework that outlines the responsibilities and deadlines of each research team member, from the time necessary to develop a common language, to the time needed for activities that build trust and relationships, from the time to construct a mutual understanding of the research problems to the time for complex study of the conceptual model, etc. The research timeline should focus on the sequencing and responsibilities for research activities so that data synthesis, analysis, and the results writing may occur in a coordinated, spatially and temporally optimized manner. These factors, once included in the accountability strategy, can, and really expand the costs of integrative research, and all the researcher recognize that, as teachers move from doing disciplinary research to *inter-, trans-, multi-, and cross-disciplinary* research, the research process may take a longer time, and cost more money than originally planned.

The applications of research theory in any academic educational process, in conjunction with applied or exemplified research – mainly with regard to new technologies and the original systems of information – start from the BA stage or from the BA students, and continue with MA students and PhD students, and finish with teachers, according to which scheme the complex academic research and education means first of all *inter-, trans-, multi- and cross-disciplinary* domains and activities.

Academic research *par excellence* must act as a research problem-oriented field rather than in a purely unique discipline manner. *Interdisciplinary* research in academic education incorporates a greater degree of integration. *Transdisciplinary* research in academic education transcends embedded concepts and categories to formulate and solve problems in original ways. *Multidisciplinary* research means the maximum of possible integration. The *cross-disciplinary* research defines a permanent change in concepts, methods and models from a discipline to another. In all *inter-, trans-, multi-, and cross-disciplinary* researches, the original conceptions, even the theory or method to develop this new conception of the area of reality or system of inquiry, are rarely connected, associated and even shared simultaneously by the entire scientific community. This aspect could have a lot of real explanations, from classical research barriers like

idiosyncrasies (language ambivalence and paradigms multi-significances), spatial and temporal scales, covering data and adequate units, innovative methods, emergent techniques, to the depth and the breadth of the models, etc.

The modern *inter-, trans-, multi-, and cross-disciplinary* models do not mean a mental object of inquiry, that is often defined by one discipline, but rather a multitude of complex models realized in a lot of knowing or understanding ways adequate to the complexity of the world. The modern research moves towards integrated research in any possible manner, but differentiates the previous *four major types of integration* across another ten important research concepts: (1) the coverage of the spectrum of investigation; (2) the mixture of the basic concepts, methods and models in the research investigation cycle; (3) level of association and interaction among members of the scientific team; (4) the definition of the problem, hypothesis, test and validation; (5) epistemology and final scientific attitude; (6) research questions, theoretical and experimental answers; (7) the specificity of the knowledge generation; (8) academic workshops, conferences, etc; (9) papers, journals, books, projects, patents, etc., as the final research products; (10) competitive hierarchy criteria inside the team of researchers [1].

On one hand, the most important research product or result remains the scientific team and its visibility, structured as a functional network of students and professors, in a complete interaction process, developing a common research problem and mutually defining a conceptual language consistent with the multiple epistemologies and variable methods and models potentially or really applied within the team research's acts and actions, coordinating research specific way to answer the major questions, evaluating and scaling, structuring and restructuring the complex research process, synchronizing and territorialising the concrete answers as research outcomes, expected to anticipate the impact of the final data of the synthetic final product: papers, books, journals, projects and patents [2].

On the other hand, the diversity and the similitude as the fundamental characteristic of the modern scientific research indicate: (1) there are different and multiple ways knowing past and present in a given research context that may be equally valuable as well as similar projections for the future or valid prognosis and simulations; (2) there is an integration process of this diversities or plurality in options resulting from a concentrate understanding of the systems complexity; (3) there is also an adaptive cycle to reality and improvement of reality and knowledge about it: and (4) there is a valuable process of validation for this entire research action and the models intended for its application in reality.

The young scientists, researchers or teachers who are genuinely *inter-, trans-, multi-, and cross-disciplinary* may have difficulties finding employment, and current academic reward systems do not cope well with individual contributions to team efforts, while the idea of a specialized way of presenting their complex capacities and various abilities using scientific instruments, from CV to profiles, could be more useful and enlarge their visibility.

Some conclusions of the international workshops conducted and realized by the author of this paper in the University of Pitesti, over the last two years, entitled *Academic Research for Young Teachers* (AЯFYT I and II in 2012 and 2013), are pragmatically the main motivations of this introductory article, and of this entire special number 1 (volume 3, 2013) of our *ESMS Journal* (available on-line at <http://www.esmsj.upit.ro/>). The special issue structures aims at a useful presentation of a number of scientific research and derived scientological aspects, intending to give a motivated impulse by sound reasons for the young teachers and researchers in front of the ever more significant part played by *inter-, trans-, multi-, and cross-disciplinary* approaches in the collaboration between Engineering, Physics, Sociology, Mathematics, Statistics, Econometrics, Business education, Philology, etc. in modern academic research team.

The degree of reality coverage possible by using *inter-, trans-, multi-, and cross-disciplinary* methods and models increases significantly in contemporary academic research and education, connected with a number of interdependences between science and culture, underlying the classical and obsolete tendency of isolation in mono- or unique discipline methods and models. Thence, the new culture of *inter-, trans-, multi-, and cross-disciplinary* research remains a practical issue, not certainly in as far as that culture is regarded only as a product of academic life, *but life* (academic research and education) *having become, in that sense, a consequence or an imprint of research and education culture at the same time* [3].

Many of the academic institutions address critical topic areas such as Biodiversity conservation and sustainable development, Human ecology, etc. or complex domains like Econophysics and Sociophysics, Biophysics technologies, Quantum economics, etc., through education & research bound approaches. Also, this special issue tries to describe and overcome some of the barriers to expanding beyond traditional disciplinary research structures, including lack of funding for *inter-, trans-, multi-, and cross-disciplinary* research, lack of historical institutional, interdepartmental or cross-disciplinary cooperation (ranging from time requirements, differences in methodologies and disciplinary norms, to research team problems, research team leaders and egos, etc.), and thus it can generate inadequacy, mismatch, and finally even trained incapacities in understanding the real dimensions of the modern scientific research, and lacking the capacity to address increasingly complex scientific dilemmas of contemporary trends and realities.

Based on the recent experiences of our international workshop AЯFYT and related literature on *inter-, trans-, multi-, and cross-disciplinary* research, the next twelve principles describe the liaisons and bridges to overcome the difficulties and even more the barriers to research integration for young teachers:

a) the principle of diversity in selecting and developing the research team, based on young teachers as futures members of a new academic research community;

b) the principle of clearly defining a *inter-, trans-, multi-, and cross-disciplinary* problem, by addressing temporal and spatial scale issues;

c) the principle of redefining the common research team vision, through describing not only the research problem, but also emphasizing research questions jointly and clearly, and thus underlining the focal theme with the necessary topical and analytic subthemes, and desired research products;

d) the principle of the formal communication based on generating, recording, storing, processing, analysis, interpretation, use and dissemination of relevant information, redefined in strategies focused on the visibility of the results;

e) the principle of programming communication activities in search team (when and how, what and who support information or need information) to avoid the NETMA concept (“Nobody Ever Tells Me Anything”) to the end or reporting the research information (using formal and even informal interaction to develop the real team results/products, from the individual to the team levels);

f) the principle of common scope, range, activities, finalized with the delimitation of the research area and its cost, time and quality optimization;

g) the principle of defining the logical precedence relations in the research activities, from scheduling research activities, to identifying their dependence and interdependence;

h) the principle of adjudication and implementation of the research risk management, by reducing the impact of risk matrix of the research, and monitoring results and coordinated control activities;

i) the principle of a continuous team building process (recruiting new young teachers as actors in the research play, and assigning roles);

j) the principle of harmonizing activities and partial or complete integration of the research management;

k) the principle of recognizing the research team as a psychological autonomous group inside the academic environment, challenges encountered having to do with personal attributes such as trust, communication, space–time vision, and commitment, and attitude like finding a common theoretical and experimental perspective;

l) the principle of multiplied acquisitions needed for the research achievement, from scheduling, to selection and purchasing tenders, from initiating to monitoring and finalizing research, from achieving high performance, to strong relationships with suppliers.

One young teacher can easily identify at least ten reasons for using the team experience similar to AЯFYT experience to find and accomplish successfully *inter-, trans-, multi-, and cross-disciplinary* researches:

I) all the research team members can promote an organization structure similar to a modern young research team;

II) all the research team members can participate in all activities, from common papers and books, to workshop and conference, from projects to partnerships;

III) all the research team members contribute to establishing major activities;

IV) all the research team members can be consulted in setting the budget;

V) all the research team members can use time management techniques and will not allow the projects to fail;

VI) all the research team members can formulate the research tasks specifically and clearly detailed, but only the manager or the leader of the research team, in his/her real and formal quality as research network node, can approve the final objective of common research;

VII) all the research team members do not use bureaucracy, policies and procedures which can backlash against them as a team structure;

VIII) all the research team members agree on realistic goals and specific *inter-, trans-, multi-, and cross-disciplinary* research;

IX) all the research team members can foster team right from the first research phase or activity, but only the team manager can declare a final rule included in the research;

X) all stakeholders (partners, donors, customers or target audience) are involved early in the *inter-, trans-, multi-, and cross-disciplinary* research.

Instability is a pervasive phenomenon that has deep implications for virtually all complex research teams and research systems. In the research activities, the identification and mitigation of various types of instabilities is a well developed practice and a key focus, for example, of prevention of potentially destabilizing team trends or the elimination of potentially destabilizing activities in a research project or program.

The modern research team and research project have become working instruments necessary for the development of academic education and research activities, in almost every university, faculty, department, etc., starting with the basic individual research, going to the functioning of institutional research, being more and more *inter-, trans-, multi-, and cross-disciplinary*, from health to finance and insurance, from culture to agriculture, from road building to commerce, from industry to IT services, etc.

This special issue represents the natural sequence of these concepts reflected in the university or academic field, and of the wish of forming the modern research team, described as heterogeneous as far as the structure of scientists or teachers and training is concerned, but homogeneous in defining own project and its intelligence, from an emotional and partnering intelligence point of view, to adapt to the fast changes which occur all over the academic and educational world, within the European Union and, hopefully, even in our country, during the last decade. When one says changes, they mean the abandonment of activities deployed in the strictly institutional structured system as research institute, and their replacement with the young teachers forming research teams as a modern, effective and original solution to the new problems that education, economy and even the entire society in general are confronted with...

But the *inter-, trans-, multi-, and cross-disciplinary* research has its own rules and principles, not so restrictive and, apparently, not as bureaucratic as the externally-funded and classical research projects are [4]. This modern approach intends to facilitate the prompt comprehension of few mechanisms governing the existing and apparently

complicated connections between the sciences, disciplines, education and research in general, by turning to the friendly interface of academic research of young teachers, in the contemporary European and global context. In order to do this, this special number 1 of ESMSJ is divided into five papers, the authors being integrated in small or large teams, following a common pattern: from concept to language, from method to model, from simple to complex. Therefore, the beginning is notional, defining today's trends and presenting some of the usual concepts used in modern team research, from the necessity of the holistic approach and classical steps in modern research, which is intended to be completed by publishing articles, to the importance of a relevant profile on internet for the scientific research visibility, from the relevance and impact of a paper's title, abstract and key words for citations and data bases, to the scientific research visibility in 2014 and beyond, from translation, translators and academic writing, to the specificity of *inter-, trans-, multi-, and cross-disciplinary* research literature in academic interlibrary exchange...

Through its innovative and research teams and projects, the principles and the structural fields of the management in the contemporary and future research, a modern university emphasizes the importance of team principles. Thus, the monitoring of modern *inter-, trans-, multi-, and cross-disciplinary* research means not only the risks that can appear in the research regardless the integration of the different fields, problems, themes, but even the quality of team and partnership in research on which this special number is based upon.

In conclusion, the demands of strong disciplinary knowledge within *inter-, trans-, multi-, and cross-disciplinary* research remain substantial, and it is up to the research team members to link their specializations to the team research work, projects, programme, etc. The different degrees of integration in *inter-, trans-, multi-, and cross-disciplinary* research, offer different advantages, and to avoid the disadvantages for academic general research it is important to identify and validate the type(s) of membership and sciences integration inside the research team, type(s) all members and sciences implied will pursue, and clearly understand the challenges to the research team, project, partnership, inherent in each of them. The *inter-, trans-, multi-, and cross-disciplinary* research can be enabled by individual researchers and teachers, disciplinary distinctions, and programmatic design, but they need visibility, rigour, integration, proactive planning and continued reflection on the research process...

Thus, it is more than necessary today to develop reproducible principle and reliable criteria for identifying the distinctive qualities of *inter-, trans-, multi-, and cross-disciplinary* research for the next decades and search for the best answer to the question – how the structure of young teachers, innovation and education of a group of young teachers succeed in forming a modern and successful research team, in which the structure could be defined and understood as a set of interacting components of a competitive system, and when the functions of the entire research team change from being valuable resources the team converts into an adaptive complex system, or else it simply just disappears.

Also, academic *inter-, trans-, multi-, and cross-disciplinary* research is characterized by an explicit engagement with university and society. The future means a new and more richly integrative academic research, and in the next decades universities as well as the entire society must renounce the inadequate and isolated disciplines and researches and embrace the new manner of *inter-, trans-, multi-, and cross-disciplinary* research, but in a more integrated system of research, publishing, experimenting and theorizing specific types of activities, commonly described as a process of collaborative and combined investigations and inquiries into a complex problem with sharing, creation, and synthesis of knowledge among sciences, disciplines and researchers. Anticipating the future research in academic education as something much more complex than the mere intersection of any other fields of education process, and something broader than a mere sub-field of education, helps *inter-, trans-, multi-, and cross-disciplinary* researchers make good use of an exceptionally fertile networking of scientific knowledge, theories and methods coming from a larger and larger group of domains and disciplines, and the role of ARFYT could be that of a very small part or piece in a huge puzzle of global research.

There exists, in the space and time of Romanian academic research and education, an inimitable example, a mentor-disciple relationship, absolute and mystical through his approach and consequences, who was described by one of the two individuals involved, namely Mircea Vulcănescu, concerning Nae Ionescu, as simply the "Professor." During an examination, the "Professor" (i.e. Nae Ionescu) had given Mircea Vulcănescu, then a student, a white ball without asking him virtually anything, so the latter insisted on being given a subject, so as to be judged classically, through the usual "viva voce examination", and so the much needed dialogue could be achieved...

"But why should I examine you viva voce?," the teacher asked him.

"So that I could realize what I know", Mircea Vulcănescu replied.

"This is precisely why I do not examine you, so you'll think you know something", the Professor's reply came.

The final consequence would be a normal one, hardly unexpected, if not a chained one, in the cobweb of a spiritual

attachment bonding mentor and disciple (and revealing the interdependencies between research and education), never permanently closed in a full dialogue. The Professor's work would be published only thanks to the notes taken down by his best students, and none other than Mircea Vulcănescu made this exceptional effort of recovery of an educational document using research methods.

"Beware of the man who keeps telling you the same thing for twenty years", was the still valid formulation of the Professor, whose course was considered among his students a wellspring of living water and fresh thoughts. This is why publishing his course of logic or metaphysics was impossible and also other courses during his lifetime. Mircea Vulcănescu's thoughts regarding his mentor are fully suggestive through their undisguised though critical admiration. "*You can only capture the Professor's shadow, for he carries the mystery unsolved after himself, tricking you into thinking there is nothing unsolvable about it. He fears he may be "fixed", and consequently you will find that there is a way to sum him up in a mere formula.*" Ethical elements and the trainer will be essential. "*It is he who, out of all my teachers, had the greatest influence on my mind,*" Mircea Vulcănescu finally confessed. The educational, cultural, ethical and formative acts reunited in education need continued rigour and creativity, and this could also define the research process, and, especially, the young teachers' team created for future research.

We would like to give our thanks to all those wonderful authors whom we have quoted throughout this issue, for their effort as "pioneers" in the individual fields approached. We remain deeply grateful to all our readers, whether they are undergraduate students or MA students, teachers or researchers, or just simply... readers, and we also thank especially those who have the kindness of submitting to us their suggestions and those who will take the time to point out eventual errors or ambiguities encountered in the text of this special number 1 of ESMSJ, which of course remains open for further improvement.

Editor in chief,
Gheorghe Săvoiu

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AFYT I 2012
ACADEMIC RESEARCH FOR YOUNG TEACHERS
INTERNATIONAL WORKSHOP PROGRAMME
THE 13th OF NOVEMBER 2012

	9h00 – 14h00 MORNING SESSION	15h30 – 19h00 AFTERNOON SESSION	
9h00	OFFICIAL RECEIVING GUESTS		
9h30	Opening speech Rector of the University of Pitesti	Gheorghe SĂVOIU, Mladen ČUDANOV, Ondrej JAŠKO <i>The Specific Thinking, Working and Publishing in the International Academic Research Team</i>	15h30
10h00	Gheorghe SĂVOIU & Ion IORGA SIMAN <i>Concepts, Variables, Methods and Models in the Academic Multidisciplinary Research</i>	Maria Camelia MANEA & Constantin MANEA <i>Academic and Non-Academic Translation in Academic Research</i>	16h30
11h00	Vasile DINU & Laurențiu TĂCHICIU <i>Amfiteatru Economic an Economic and Business Research Academic Journal</i>	Dana STANA <i>The importance of Interlibrary Exchange for Academic Research</i>	17h30
12h00	Coffee break	Coffee break	18h30
12h30	Dana PIRVU & Amalia PANDELICĂ <i>Academic Realities for Students and MBA Research and Mixed Research Team</i>	Moderators: Gheorghe SAVOIU, Ion IORGA SIMAN	
13h30	Moderators: Gheorghe SAVOIU & Ion IORGA SIMAN	Final discussions	19h00
14h00	Lunch break	Workshop closing	19h30

AFYT II 2013
ACADEMIC RESEARCH FOR YOUNG TEACHERS
INTERNATIONAL WORKSHOP PROGRAMME
THE 14th OF DECEMBER, 2013

	9h00 – 14h00 MORNING SESSION	15h30 – 19h30 AFTERNOON SESSION	
9h00	OFFICIAL RECEIVING GUESTS		
9h30	Opening speech Rector of the University of Pitesti	Gheorghe SĂVOIU, Marian ŢAICU, Slađana BARJAKTAROVIĆ RAKOČEVIĆ, Siniša MALI <i>The Relevance and Impact of Paper's Title, Abstract and Key Words for Citations and Data Bases</i>	15h30
10h00	Gheorghe SĂVOIU, Ion IORGA SIMAN, Mladen ČUDANOV, Adam SOFRONIJEVIC Ondrej JAŠKO, Jelena MINOVIĆ <i>The importance of a relevant profile on Internet for the scientific research visibility</i>	Constantin MANEA & Andreea Silvana MANEA <i>Translation, Translators and Academic Research Writing</i>	16h30
11h00	Gheorghe SĂVOIU & Vasile DINU <i>Some characteristic tendencies for internationalization of the Romanian economic research</i>	Adam SOFRONIJEVIC, Mladen ČUDANOV, Gheorghe SĂVOIU, <i>Ever to Excel: Scientific Research Visibility 2014 and Beyond</i>	17h30
12h00	Coffee break	Coffee break	18h30
12h30	Dana STANA <i>The specificity of transdisciplinary research literature for academic interlibrary exchange</i>	Moderator: Gheorghe SAVOIU	
13h30	Moderator: Gheorghe SAVOIU	Final discussions	19h00
14h00	Lunch break	Workshop closing	19h30