

## DUMITRU MUSTER'S CONTRIBUTION TO ROMANIAN POSTMODERN PEDAGOGY

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### Abstract

The two orientations of psychological pedagogy launched in the interwar period, stated in the postwar era - experimental pedagogic psychology and theoretical pedagogic psychology - mingle and complement each other. The experimental research is necessary in any theoretical approach, undertaken especially in school and extracurricular environments. This calls for experimental research designs like the one proposed by Dumitru Muster, promoted during 1970-1980. Dumitru Muster coordinated the editing, for more than a decade, of a monumental work, Pedagogic Dictionary (see Pedagogic Dictionary, general coordination, Anghel Manolache, Dumitru Muster, Iulian Nica, George Văideanu, The Didactic and Pedagogic Publishing House, Bucharest, 1979), for which he elaborated an impressive number of articles (132). The most important pedagogical concepts, defined from the perspective of the postmodern evolution perspective registered in the field, are those of: pedagogical research; research method (in the field of pedagogy); experimental method (in the field of pedagogy); experimental pedagogy. Dumitru Muster's most important contribution to Romanian pedagogy, in the postmodern period, after the 1960s-1970s, is the work "The research methodology in education" published at his own initiative, at Litera Publishing House in Bucharest, in 1985. The value of the book, bearing the subtitle "A guide for the elaboration and presentation of communication and methodical-scientific works of promotion" is evident to this day, being widely used by kindergarten educators, teachers and professors, but also by assessors, who apply the conception and evaluation of methodical-scientific work for obtaining their first teaching degree in education.

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The main directions of development in Romanian postwar pedagogy are not totally different from the consecrated directions of the interwar period, as stated in the 1960s-1970s: a) social pedagogy; b) psychological pedagogy.

Social pedagogy focuses on "sociological sciences education foundation", by the special contribution of Stanciu Stoian, author of some important papers, like: "Education and Society" (1971) or "Education and Technology" (1972).

Psychological pedagogy is represented by "researches that look to ensure the scientific basis of pedagogy with the data provided by psychology - general psychology, age psychology, pedagogic psychology". Among its main representatives, worth mentioning are, as Ștefan Bârsănescu records, important personalities, already recognized in interwar period, like Alexandru Roșca and Dimitrie Tudoran, the last one being a real symbol of continuity between the interwar and postwar period (Todoran, 1934; Montessori, 1977).

Psychological pedagogy values, as early as the postwar period, the two theories stated in the interwar time: experimental psychological pedagogy, theoretical psychological pedagogy. These theories tend towards a certain unity, realized in the works of some important psychologists, who studied psychological pedagogy or pedagogical psychology: Alexandru Roșca (professor at Cluj University): "Child Psychology. Manual for teachers' institutions (1958)"; "The psychology of the preschool child" (1966) - in collaboration with A. Chircev; "Pedagogical psychology" (1967) - in collaboration with A. Chircev, V. Pavelcu, B. Zörgo; Dimitrie Tudoran: "Introduction to pedagogy" (1946), "Continuity in Educational Psychology" (1943), "that confers new research horizons to pedagogical problems" (Montessori, 1977); "Individuality and Education" (1974), a paper cantered on the problem of "the organization of programmatic formation" based on "a dual scientific vision" at a level of unit for the development of human individuality and of the orientation of the spiritual forces in a social environment" (Cristea, 2001).

In the current historical and hermeneutic analysis, we state the thesis according to which

the two orientations of psychological pedagogy developed in the interwar period – experimental psychological pedagogy and theoretical psychological pedagogy – will be synchronized, being considered as indispensable to each other, and having the tendency of completing each other. So, the experimental research is alleged as necessary in any theoretical, direct or indirect, approach, viewed as a basis for subsequent scientific investigations, most of them devoted to the scholar and extra scholar environment. This calls for the elaboration of some experimental research models as the one proposed by Dumitru Muster.

Considering these methodological aspects, the contribution of some important authors to the development of Romanian psychological pedagogy in the postmodern era, initiated in the 1970s-1980s, and developed especially after the year 2000, should be underlined.

Special mention will be made to Dumitru Muster's contribution, viewed as a successor of the interwar experimental psychology theory, and asserted in 1970, to the elaboration and analysis of an experimental pedagogic research model.

Dumitru Muster proposed an experimental pedagogic research model, promoted in the 1970s-1980s, at the "The study circle" of the Pedagogical Seminar of the University of Bucharest (1932-1938). His work was continued in the postwar era at The Institute of Pedagogical Science, where the experimental researches continue with the same "enthusiasm as in the Study Circle of 1930" (Montessori, 1977). In the book dedicated to the experimental pedagogy in Romania, Monica Moraru analyses the contribution of Dumitru Muster in chapter 5, entitled "Experimental pedagogy in postwar Romania". The author highlights that Dumitru Muster's most important contribution is "in the experimental research plan of the educational phenomenon – the elaboration of a methodology of pedagogical research, based especially on the experimental method". D. Muster is treating, as main object of research, "both the education and the educational system, in relation to whom various levels of investigation are proposed: fundamental, oriented and applied" (Montessori, 1977).

Dumitru Muster's focal point in pedagogical research is the experimental method: "The experimental method is the integral method of scientific research in pedagogy". This thesis is based on "an experimental reasoning that uses facts established by either observation or experiments" (Moraru, 2008).

Dumitru Muster's merits must be evaluated not only at national, but equally at international level. He translated "La recherche en education dans le monde" (Presses Universitaires de France, Paris, 1986), together with his daughter, Mihaela Moldoveanu, professor of pedagogy at the Polytechnic University of Bucharest (Montessori, 1977). Muster's contribution is highlighted by Landsheere in the notes marked with letters all over the work named "Universal history of experimental pedagogy" (Moraru, 2008).

The arguments brought by Dumitru Muster in favour of the experimental psychological pedagogy are historically-supported, based on the examples and contributions brought by Brandza and his collaborators, integrated in that "study circle for experimental pedagogic researchers", operating within the Pedagogical Seminar of the University in Bucharest, between 1932-1938.

Dumitru Muster's perspective on diachronic history 1973 (Moraru, 2008) highlights the subsequent contributions of "the study circle", considered, in time, from the perspective of postmodern psychological pedagogy as well:

a) Adoption of the experimental method as "a method designed to check and confirm truths that must incorporate pedagogical sciences extended to all components of the educative phenomena (not only the student, but also the professor, the lesson, the curriculum, the teaching materials, the handbooks and school furniture)" (Moraru, 2008);

b) "Participation of all pedagogical forces of the country (...) along the same scientific path (...) for improving school and pedagogic actions, in general" (Moraru, 2008);

c) The scientific-experimental orientation of pedagogical research, necessary to "update the fundamental terms of pedagogy" and its components which form "the systematics of scientific pedagogy" (Moraru, 2008);

d) Classification of "the inseparable, coexisting instruction and education processes", in the education system within the "action of the schooling institution", opening towards all "forms of pedagogic influence that have appeared throughout the whole life of man" (Moraru, 2008);

e) Development of new branches of pedagogy, integrated into a "systematic structure" centred on: pre-school pedagogy, school pedagogy, extra-school pedagogy, post-school pedagogy (Moraru, 2008);

f) Adaptation of experimental processes to the specific character of the pedagogical phenomena, which involves, on one side, their approach by experimental method, observational method, enquiring method etc., and, on the other, their centring on the pedagogic realities occurring within local, regional or national contexts (Moraru, 2008);

g) Development of researches specific to experimental psychological pedagogy in a milieu favourable to perfecting education, which targets knowledge of students (by using the school files), of schooling and professional orientation, "experimental verification and cultivation of aesthetic education" etc. (Moraru, 2008);

Dumitru Muster has coordinated the writing, for more than a decade, of a monumental work of art, *The Dictionary of Pedagogy* (see *Dictionar de pedagogie*, coordinated by Anghel Manolache, Dumitru Muster, Iulian Nica, George Vaideanu, Didactic and Pedagogic Publishing House, Bucharest, 1979), for which he wrote an impressive number of articles (132). Below we mention the most important pedagogical concepts, defined from the perspective of post-modern evolution of this field:

1) Pedagogical research - "the purpose of research is knowledge of the educational phenomena, at both theoretical and practical level, in the field of pedagogy and by interdisciplinary research teams" in order to "assist man throughout his whole life, for his harmonious realization and convenient and efficient social integration" (Moraru, 2008);

2) Research method (in pedagogy) - "methods used to obtain valid results to problems of pedagogical research, that support the

development and improvement of pedagogical science and of practical education"; it highlights the role played by "and integral research method - the experimental method, not to be confused with the experiment"; "all research methods (in pedagogy) are of major importance for developing pedagogy as a science" (Moraru, 2008);

3) The experimental method (in pedagogy) - "a method of research that uses the pedagogical experiment for finding solutions (scientific laws) to problems which are addressing school and pedagogy", in terms of the classical theory of Claude Bernard, "the experimental theory is, in pedagogy, an integrative pedagogic method, which uses all other research methods and based on experimental reasoning, according with the scheme: "observation" (for understanding phenomena) - "hypothesis" (formulated in relation with the phenomenon under analysis) - "checking of the hypothesis" (by means of experiments created by researchers or mentioned by them) - "law" (elaborated according to experimental reasoning, in the case and conditions under which the hypothesis was verified) " (Moraru, 2008);

4) Experimental pedagogy - "the pedagogy which, for the validation of its theories and data, (...) for the capitalization of teachers experience in education, uses mainly the experimental method, experimentation"; is "focused on concrete research"; "it leads to the establishment of scientific pedagogy, always restricting the empirical and theoretical-philosophical pedagogy"; it capitalizes the experimental method used in psychology "in technical papers, starting with the late XIX century in Europe (A. Binet, W. A. Lay, E. Meumann, Ed. Claparde) and also in America (G.S.Hall, E. A. Kirkpatrick, J. Dewey, E.L. Thorndike etc.)"; initially, it has as "research object the child, the student, the young" then "it was extended to issues connected with the teaching methods, school curricula, etc."; the experimental pedagogy of our country (especially Gh. Tabacaru, Em. Brandza) has the merit "of adopting a systematic perspective on the pedagogical phenomenon, submitting to pedagogical research all its components (student, professor, teaching plan and school curricula,

lesson, school book, teaching materials, school furniture and school building) and all pedagogical levels ("preschool, school, extracurricular, post scholar") (Moraru, 2008);

Dumitru Muster's most important contribution in Romanian pedagogy, in the postmodern era, after 1960-1970, is the paper entitled "The research methodology in education", published by his material contribution, at Litera Publishing House of Bucharest, in 1985. The value of the book, with the subtitle "A guide for the elaboration and presentation of communication and methodical-scientific works of promotion" is evident to this day, being widely used by kindergarten teachers, teachers and professors, and also by assessors, interested in obtaining the teaching degree I in education.

"The durability of the book is due to the experimental method on which the methodological research is based" (Moraru, 2008).

The structure of the book (eight chapters) proves Muster's conception about pedagogical research, based on "the special importance given to the experimental method" (Moraru, 2008):

- 1) The preliminaries of pedagogical research ultimately lead to "a research teaching project" and to "a system of the teaching research methods" in which the experimental method is "the integral method of scientific research in pedagogy";
- 2) The hypotheses of pedagogical research are focused on "considering the problem" which leads, by means of a methodical analysis, to "assuming the hypothesis";
- 3) Collecting the research data by several methods: observation, teaching experiment, survey school files, questionnaire survey, pedagogical file and psychological tests (applied to the specific character of pedagogy research, sociometric techniques, projective tests, students inter-evaluation, analysis of school activity products, biographical investigation, case study (by observation / individual experiment, interview, conversation), the comparative method, the complex methods (appropriate to the specific nature of certain researches), pedagogical documentation ("supporting the data collection necessary for correction");

- 4) Measurement of data research at "pedagometry"/"educometry" level, using mathematical tools, counting - (percentage, ratio, probability), evaluation stages, classification, standard scale, the standard;

- 5) Presentation of the pedagogical research data as tables, graphics (histogram, frequency polygon, frequency curve, chart, etc.); the psychogram, the biogramme psychosociogramme school psychogram evolving profession-; rule docimology;

- 6) Collective experimentation - collective control;

- 7) Mathematical and statistical processing of pedagogical research data at representative levels, distribution values, confirming the hypothesis under investigation, reclamation research, statistical and mathematical explanations comparing the representative research of the relationship between phenomenon - correlation, factor analysis;

- 8) Preparation and presentation of the scientific work, which capitalizes the pedagogical research file: pedagogical research ethics; settles pedagogy as science education: the index authors reviewed papers cited etc., general literature (Muster, 1973);

Monica Moraru highlights a number of features of Muster's conception about pedagogical research, considered in its evolution towards "the experimental pedagogy" of the postmodern era, namely in the years 1970 - 1980: a) approximation of what we call today "qualitative research", involving the role of the "teacher as researcher" of his own educational process; b) distinction between the authentic pedagogical research and the false pedagogical research (Muster, 19730); c) the distinction made between the fundamental pedagogical research, with its "priority theory objective - an important prerequisite for conducting any further experimental type research" - and applied pedagogical research, "with immediate or medium-term practical purpose", divided into: c-1) oriented pedagogical research, "distancing itself from a given situation", for example, from a pedagogical model of student knowledge; c-2) practical pedagogical research, for example, analysis and evaluation of the teaching methods etc.; c-3) research - development based on solving

a problem that "approaches the details of the education process"; c-4) operational pedagogical research, based on the action of school environment or of the classroom;

d) identification of several variants of pedagogical research "in which the experiment is a premise and a necessary purpose, see the pedagogical research: observational (descriptive); ameliorative; interdisciplinary; multidisciplinary; based on "action-research"; "undertaken by teachers in service " (Montessori, 1977).

An ideal model of experimental research, elaborated by D. Muster as a model of a pedagogical research project which teachers need for developing specific investigations, sustained on the values promoted by the pedagogy psychological paradigm (of experimental guidance) includes the following components: a) setting of the problem, according to the pedagogical reality addressed, aiming at a constant improvement of the education and teaching process; b) defining the pedagogical research theme in relation to the conceptual framework that integrates the studied problem (general didactics, particular didactics, the evaluation theory etc.); c) formulation of hypotheses as "temporary ideas in terms of "control" and "verification" of previously and subsequently collected data, using an experimental group and also a control group"; d) collection and estimation of the research data; e) data processing (statistically and mathematically, etc.) "with a double scope: verifying the hypothesis and drawing of conclusions"; f) developing scientific communication; g) the file of the pedagogical research developed and communicated; h) bibliography used in the design, construction and completion of the research (Montessori, 1977).

Starting from the principles of experimental psychological pedagogy, Dumitru Muster promotes the experimental method, as the "integral method of scientific research in pedagogy ". His statement, with normative value in the context of integration, includes in its structure several research methods: a) methods for collecting survey data (observation, experiment, biographical survey, the survey based on school documents, conversation, the psychopedagogical file, the tests etc.); b) methods for the quantification of the collected data (the

ordering method, the method of comparing pairs, the instrumental method, the anthropometric methods); c) methods for the organization of research teams (the equivalent groups method - an experimental and a control group, the group equivalent integral method, the panel method, based on repeated surveys, etc.); d) presentation and statistical and mathematical processing methods of the obtained data (the arithmetic mean, the median, the mode, the standard deviation, the graphics, the histogram, the frequency polygon, the frequency curve, the Laplace - Gauss curve etc.) (Montessori, 1977).

Among so numerous research methods, "the experimental method is better than other methods" because:

a) it "embraces not only the facts collected from observation and experimentation, "but it also considers "an experimental reasoning" which exploits these pedagogical facts; b) it involves a specific reasoning, with which we methodically compare our ideas with the experimental actions; c) it simultaneously promotes "the art of obtain accurate facts by rigorous research" and "the art to put these facts into action by experimental reasoning", apt " to realize knowledge of phenomena laws" d) it applies any technique used exclusively for "conducting experiments" in different, restricted, private, etc. contexts; e) it capitalizes "experimental reasoning, which uses the facts of observation or experiment"; f) it is applicable until "the hypothesis is confirmed, becoming a scientific truth - as an evidence that the "experimental method" scheme was entirely driven" (Muster, 1973).

Within the specific pedagogical research, focused on the psychological pedagogy experimental paradigm, "the experimental method has a wide scope" of applications. It is in fact a "verification method of the scientific laws, so that the hypothesis resulted from the observation is, in some cases, confirmed for all the other cases".

The experimental method, fully integrated into the structure of the ideal model of pedagogical research proposed by Muster is improving constantly as "an integral method of scientific research in pedagogy", its strategic value lying in its capacity to gather and to subordinate "in a functional unit the procurement and data

measurements methods, the methods of organizing collectives (researched) and the methods for (mathematical and statistical) processing of research data" (Comicescu & Ghidionescu, 1928).

The historical analysis of the theory of experimental Romanian pedagogy in postwar era – interpreted as postmodern era, after the 1970s – confirms the methodological value of experimental reasoning, actually the core of the experimental method, supporting pedagogical research by the capitalization of obtained data with all other methods and techniques, in a dynamics based on clear and deductive observational actions – formulation of hypothesis – verification of hypothesis – (confirmation – denial) – upholding scientific truth in the context of interpreting the result as a "logical truth" and as possibly as a "law in the case of hypothesis confirmation" at experimental level (Montessori, 1977).

The efficiency of the experimental method depends on the quality of the observation act through which we can observe the „factors that intervene in phenomena and the relations between them”. „The experimental idea” (a formulation adopted by Dumitru Muster from the famous Claude Bernard) is essential in constructing the situated hypothesis, in the pedagogic research „between observation and experiment”. Verification of the hypothesis requires „the control of an idea through a fact”. The object of applied pedagogic research includes facts that are observed and subjected to experimental control in two situations, precisely observed by Dumitru Muster: a) „a simple situation, in which the researcher takes on facts that have been observed naturally or by chance”; b) a more special situation, in which the observation is provoked through experiment” (Montessori, 1977).

The conclusions reached by by Monica Moraru, to which we firmly adhere, highlight the open character of the experimental research model proposed by Dumitru Muster, closely related to the paradigm of pedagogic psychology in continuous evolution in the postmodern era.

In this perspective, we can highlight the following three major contributions of the author, significant especially from a methodological point of view:

1) The special normative value conveyed to the experimental method through promotion of „experimental reasoning which doesn't necessarily imply the production of experimental actions”, yet aiming at the utilization of the facts gained through observation or experiment, but – we might add – also through other methods of pedagogic research.

2) The integrating character of the (auto) perfectible experimental method as a strategy of applicative, quantitative, but also qualitative, ascertaining (descriptive) pedagogic research, equally ameliorative, that „confers functional unity to the methods of pedagogic research (n.n. applicative) in the case of a system which we can consider as open”.

3) The openness towards „novelties of the last decades, which confirm the viability of the process of affirmation of the curriculum paradigm in all the fields of scientific education”, in general, in the psychology of education especially, by the psychological theories of learning investigated as potential models for an efficient education (Montessori, 1977).

### References

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- COMICESCU, Gh. & GHIDIONESCU, VI. (1928) *Experimente în vederea etalonării testelor de inteligență pentru copiii români*. Cluj:Cartea Românească Publishing House. p. 250.
- CRISTEA, G. (2001) *Reforma învoățăământului. O perspectivă istorică (1864-1944)*. Bucharest:EDP Publishing House. p. 352.
- MONTESSORI, M. (1977) *Descoperirea copilului. trad.* Bucharest:EDP Publishing House. p. 316.
- MORARU, M. (2008) *Pedagogia experimentală în România*. Bucharest:EDP Publishing House. p. 208.
- MUSTER, D. (1973) *Emil Brandza și curentul pedagogiei Științifico-experimntale din România interbelică în Brandza Emil. Antologie de texte pedagogice (1932-1943)*. Bucharest: EDP Publishing House. p. 252.
- TODORAN, D. (1934) *Bazele psihologiei caracterului*. Cluj:Ardealul Publishing House. p. 153 p.