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## ORIGINAL RESEARCH

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**IN THE PROFESSIONAL-PEDAGOGICAL TRAINING OF THE STUDENTS, FUTURE TEACHERS  
OF PHYSICAL EDUCATION AND SPORT**

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**Key-words:** *professional training, specialist for physical education, environment, ecology, tourism, ecotourism, education.*

**Abstract**

This research is meant to bring experimental arguments in favor of the curriculum module for the „Ecologic tourism” subject in the physical education and sport faculties and in favor of the creation of a specific information stock regarding the ecotourism for the use of the faculties of this type.

The researches pointed out that generally the ecologic type tourism activities are not treated with the necessary attention as there is not any concrete syllabus for the ecologic tourism subject.

The performed researches outcomes have been used for the creation of the ecologic tourism experimental syllabus template. The syllabus design started from the definition of the syllabus general goal, „the natural ecosystems revaluation and protection by means of the ecologic tourism (sport) activities”; three main categories of objectives resulted from this goal, in the healthcare, pedagogical-professional training and ecology directions.

The syllabus was based on the education specific means, according to the proposed methods whose structure and contents had observed the actual demands of planning and programming in conformity with the academic curriculum theory and methodology.

The outcomes of this research can serve both as a reference point for future researches carrying out and as a practical-methodological template for the teachers and students involved in ecotourism activities.

**Introduction**

The professional-pedagogical training, achieved by ecologic tourism as a modern method of learning, became an important methodological instrument making possible the achievement of the curriculum zone objectives. By means of a multitude of concrete methods, emphasized by the theory, the student is guided to interpret and analyze the environmental processes and phenomena.

The ecologic tourism education confers an experimental aspect to the learning process because it represents a first performance in our country at the high education level.

The basic particularity of the students’ outdoors instruction is represented by the necessity to deal with the intended goals in an open ecologic environment and not in close spaces. In this sense, one can affirm that the method of outdoors education and instruction includes the conceptual, theoretical and experimental information.

The modern didactical technology in the ecologic education field motivates the environment and ecosystem study, starting from the three fundamental elements: air, earth and water. In this context, the outdoors education through tourism offers an outlook of the action focused on the biologic diversity and the effects of this one on the environment by using the collective and individual energy.

To learn without taking into consideration the physical geography, without an exchange of information based on a direct contact with the environment is an impediment to the physical education specialist's professional training oriented towards the ecologic tourism, meant to result in a well-balanced lifestyle in agreement with the environmental factors.

Taking into account the above-mentioned elements and the curriculum new orientations that try to direct the education according to the social-economic requirements, we intended to analyze the problem of the physical education and sport students' professional training through the implementation of a new subject, the „Ecologic Tourism”, which will supplement the students' knowledge and will integrate them into the actual European society.

#### *Research hypothesis*

The design of the curriculum module for the „Ecologic Tourism”(subject that contributes to the creation of a specific information stock about the ecotourism) in the physical education and sport faculties was supposed to have as result the improvement of the students' professional-pedagogical training and a positive influence upon the students' behavior concerning the environment protection.

*Research object* - the professional-pedagogical training process of the physical education and sport students within the course of ecologic tourism.

*Research subject* –the contents of the ecologic tourism curriculum module and the implementation of the ecologic tourism in the educative instructive process within the physical education and sport institutes.

*Research purpose*- the improvement of the students' professional-pedagogical training related to the ecologic tourism.

#### **Research objectives:**

1. Analysis and generalization of the data included in the specialty literature concerning the physical education and sport students' professional-pedagogical training in the ecologic tourism field.

2. Assessment of the professional training level of the physical education and sport faculty's students depending on the knowledge, skills and abilities assimilated at the “Tourism” subject during the practical-methodical process.

3. Elaboration and estimation of the curriculum module contents for the “Ecologic Tourism” subject within the curricula of the physical education and sport faculties.

4. Argumentation and experimental verification of the newly created curriculum efficiency for the improvement of the physical education and sport students' professional-pedagogical training.

*The study* consists of the elaboration and reevaluation of the curriculum module for the elective subject „Ecologic Tourism”, during the students' professional-pedagogical training within the faculties of physical education and sport. The syllabus is grounded depending on the prospects of evolution and increase of the exigencies level in conformity with the Bologna process implementation in the physical education and sport field of Romania. The professional-pedagogical model of the ecology specialist has been elaborated for the first time.

Following up an analysis of the bibliographical sources it has been found out that other attempts of introduction of this subject – as an elective one - into the curriculum had been already made, but there is no syllabus scientifically created to this effect yet.

The outcomes of the scientific researches can be useful for the initiation of a theoretical basis in the tourism field in the prospect of interpretation of the new correlations that could result from the specific contribution of the students' professional-pedagogical activities in this field.

*The practical value* of the research consists of the utility of this one for the academic and pre-academic education teachers and coaches. In this context, by means of the proposed curriculum, the study emphasizes the importance of the ecotourism based on the knowledge of the nature and traditional culture, with the object of managing the natural environment in a long-term and ecologic manner. The practical importance of this study consists also of the fact that it aims to the realization, acceptance and application of a new strategy, expressed by the level of the students' professional-pedagogical knowledge related to the ecologic tourism.

#### **CONTENTS**

Nowadays it is found out that the tourism is an important source of incomes with a considerable influence on the national economy; hence it results the necessity to train or even specialize the students of the physical education and sport faculties in all aspects of the ecologic and tourism activities starting from trips and camping organization and finishing by the extreme sports (Murphy P.E., 1985; Donoica Șt., 1989; Lupu N., 1992; Cosmescu I., 1998).

During the approach to the ecologic notions, the numerous formal dimensions interfere with the non-formal learning. The first formal interference consisted in the curriculum imposing and the opinion changing; this fact influenced on the contents, time and process of learning. The professional-pedagogical training of the specialists-to-be should identify the objectives of the learning in conformity with the strategic plan of the school and with the governmental political priorities meant to protect the environment (Stereng S.K., 1993; Rothenberg D., 1993; Repp G., 1996).

The innovations in the students' professional training field aim to the assimilation of the fundamental information and the creation of the professional competencies. The higher education institutions will have to offer models of thinking and action, techniques of intellectual labor and social interaction, subordinated to the patterns of adaptation, scientifically selected, in the structure of the curriculum modules newly created (Galperin I.P., 1975; Golu M., 1985; Epuran M., 1994; Chiş V., 2000).

The level of the society individuals' ecologic conscience and the degree of their participation in the whole range of activities meant to preserve and arrange the natural environment from whom all society members benefit unconditionally is defining for the social dimension. The continuous endeavor for the protection of the natural habitats, redoubled by the efforts aimed to reduce the pollution, have as final goal the improvement of the life conditions of all inhabitants of the planet. Thus, an analysis of the specialty literature proves the necessity of the physical education and sport students' professional-pedagogical training for the achievement of the knowledge and professional competence in the ecotourism field; this training will have an obvious applicability in the future activity of the physical education teacher.

#### Research methods and organization

*Methodology of the research:* analysis of the scientific-methodical reference material; pedagogic observation; questionnaire-type investigation; assessment of the knowledge, abilities and skills associated to the tourism activities; testing of the complementary psycho-motor training; testing of knowledge and attitudes; verification of the practical-methodical aptitudes by means of the self-assessment sheet; testing of the general physical training; pedagogic experiment; statistical-mathematical methods for data processing.

*Research test group.* The experimental actions were conducted on some groups of subjects that included:

- a group formed of university teaching staff;
- sophomores of the physical education faculties;
- an experimental group and the ascertainment group (physical education faculties sophomores);

In this experiment were involved the students of the Ecologic University of Bucharest.

*Stages of the investigation.* The research was performed in three stages, as follows:

- 1<sup>st</sup> stage ( from the 1<sup>st</sup> of January 2007 to 15<sup>th</sup> of March 2007) when were studied the specialty reference materials, that means more than 250 works concerning the subject matter of the present research.
- 2<sup>nd</sup> stage (1<sup>st</sup> of October 2007 – 1<sup>st</sup> of June 2008) - organization of the preliminary experiment.
- 3<sup>rd</sup> stage (1<sup>st</sup> of October 2008 – 1<sup>st</sup> of June 2009) – organization of the basic (formative) pedagogic experiment during the 1<sup>st</sup> and 2<sup>nd</sup> semesters period.

#### Results of the preliminary researches and projects

The subject "Tourism and Sport Orientation", included in the curriculum, is centered round the transmission of a stock of theoretical knowledge with practical applicability intended for the training of the future specialists for the physical training field. After attending the course of tourism and sport orientation, the graduates should master a series of practical skills (organization of hikes and trips, arrangement of a camp, establishment of a itinerary) besides the accumulated theoretical knowledge.

The creation of the pedagogical abilities, skills and knowledge and the shaping of the specialist's personality are performed in conformity with the contents of this curriculum module.

The freshmen's accumulated knowledge level has been assessed after the course completion (table no. 1).

Table no.1

Centralizing table of the freshmen's results at the Sport and Tourism Orientation Course

Criteria	Theoretical knowledge		Practical skills		Final assessment	
	Number	%	Number	%	Number	%
Very good, Grade 9-10	8	8,88	14	15,55	12	13,33
Good, Grade 7-8	21	23,33	22	24,44	23	25,55
Sufficient, Grade 5-6	48	53,33	51	56,66	42	46,66
Insufficient, Under grade 5	13	14,44	3	3,33	13	14,44

From the point of view of the *theoretical knowledge*, a number of 8 students, representing 8.88%, have got the grade „very good”. A number of 21 students, representing 23.33%, received the grade „good”. The great majority of the students, in number of 48, representing 53.3%, have got the grade „sufficient” and a number of 13 students (14.44%) have received the grade „insufficient”.

By an assessment of the theoretical level of knowledge, it can be found out that more than a half of the students are situated beneath the acceptable lower limit and 53.33% have received a passing grade.

This aspect makes evident the low level of the theoretical knowledge accumulated by the students after attending the tourism and sport orientation courses. We studied a series of documents including curricula and academic syllabuses in the physical education and sport field, from Romania and from the European Community as well, and we found out that in the „ecologic tourism” field these ones are differently structured and applied, depending on the country and university.

Following up the analysis of the European states curricula, we find out that in each curriculum is assigned an important number of classes dedicated to the tourism activities. Nevertheless, despite the orientation of the respective governments and the demand on the labor market, we notice that a main direction of the modern society –the ecologic tourism – is very little approached and that it is completely absent from some curricula.

The statistical evaluation of the answers to the questionnaire-questions addressed to the physical education teachers and university students proves the increased interest *for* the tourism activities (55.55% on the teachers would involve themselves in tourism competitions for the ecologization of the different natural habitats and 76.66% on the students consider that the ecologic tourism activities should be present in the university curriculum), *for* the theoretical and practical training related to tourism and ecotourism (50% on the questioned teachers consider that the ecologic tourism activities must take priority within the new education system). We found out that the majority of the teachers consider important the influence of the tourism activity on the professional and pedagogical training of the specialists-to-be (no less than 80% on the teachers consider that the eco-tourism activities contribute to the professional-pedagogical training of the physical education and sport students).

The number of hours stipulated in the curriculum for the tourism subjects is insufficient (7 theoretical courses and 28 hours of practical works approximately), making impossible the assimilation of all pedagogical and instructive-educative skills needed to the student for studying thoroughly the specific character of the tourism activity and for organizing mass sport-tourism activities in school.

The achievement of the ecotourism positive attitude becomes a necessity for the social reality of our days and involves an early training as complex as possible, well adapted to the reality, with huge implications in the future. The education at all levels wants such training but till the present moment has not been created a basic syllabus meant to lead to the fulfillment of all intended objectives.

Starting from these general assertions, our research on the creation and the development of the ecologic conscience by means of the ecotourism activities was oriented towards the assessment of the physical education and sport students’ knowledge regarding the ecology problems.

With the purpose to achieve the basic goals of the given research, it was elaborated the experimental contents of the syllabus regarding the nature and the manner of performance of the ecotourism activities, which can contribute to the professional and pedagogical training of the future specialists for physical education and sport.

*Structure and contents of the „Ecologic Tourism Activities” curriculum module for the students of the physical education and sport faculties*

In a broad sense the ecologic tourism curriculum is approached as an interconnection and interaction of the basic components that predetermine the effective operation of the education: goals, contents, technologies, time, evaluation, feedback. In other words, the optional curriculum of ecotourism represents a complex education program.

During the didactical tasks fulfillment process, a great variety of methods, means and forms have been used; they constitute the syllabus of ecotourism and the technology of instruction. In this context, the methods represent the basic element because they are “carriers” of the action, and the active methods are „carriers” of the active actions.

For the elaboration of the ecologic tourism elective curriculum have been taken into consideration three correlated concepts: the „institutional opening”, the „thematic opening” and the „methodological opening”.

*General objectives of the newly created curriculum module:*



Basic objectives: Revaluation and protection of the natural ecosystems through (sport) activities of ecologic tourism.

*The reference objectives are directed towards four main fields:* healthcare, pedagogical-professional training, ecology and recreation

1. Objectives specific to the healthcare:

- a. preservation of the health condition by means of the physical activities specific to the ecologic tourism;
- b. improvement of the motor skills needed to the ecologic tourism practice;
- c. Development of the basic motor skills.

2. Objectives specific to the professional-pedagogical field:

- a. creation of a stock of knowledge, attitudes and skills specific to the ecologic tourism;
- b. creation of the capacity to organize and run tourism and ecologic activities;
- c. creation of the capacity to make a project concerning the environment protection by means of ecologic tourism activities.

3. Objectives specific to the ecologic field:

- a. creation of an ecologic conscience;
- b. Assimilation of the fundamental notions of ecology and environment protection;
- c. formation of a conception related to the (nature of the) relationship man – environment – bio-systems.

4. Objectives specific to the recreational side:

- a. identification of trips and hikes as activities of recreation and active rest; learning of the relaxation and of the joy to rest manifested by curiosity related to the environment;
- b. knowledge and development of the interest in the existing local and national traditions and customs in order to reevaluate them;
- c. identification of the stress sources and modalities to avoid them.

Following up the research carrying out, the evaluation, analysis and assessment of the tourism-ecological activities syllabus imposed the achievement of the professional-pedagogic model of the specialist for ecologic tourism. The suggested model is based on the cognitive acquisitions from the field of terminology knowledge, data and particular facts knowledge and familiarization with the principles and laws of the ecotourism field.

These cognitive acquisitions are supplemented with the ecotourism action principles (strict and consistent observance of the wild life, providing of efficient forms of environment conservation and protection, harmonization of the development and direct investments policies), and with the indicators for the tourism resources determination (geographic area and potentialities of the zone, climatic indicators, hydrographic resources, tourism objectives). The assimilation of these information should be harmonized with the knowledge of the methods, means and conventions of development of the tourism resources from ecotourism point view.

## COGNITIVE ACQUISITIONS

### *Results of the instructive-formative experiment*

On the basis of the study previously conducted we passed to the implementation of the curriculum module and of the model of ecologic tourism specialist.

The pedagogic experiment was conducted on two groups, an experimental group formed of 25 students and a witness-group of the same number of sophomores.

During this experiment were tested the following elements:

- knowledge and attitudes regarding the ecologic tourism and the students' professional-pedagogical training, checked by means of a questionnaire;
- verification of the practical-methodical aptitudes by means of a self-assessment sheet;
- psycho-motor evaluation by means of the complementary motricity test;
- general physical training checked by means of 4 indicators.

*Assessment of the students' knowledge and attitudes regarding the tourism ecologic module and the impact of these ones on the improvement of their professional-pedagogical training.*

This study was conducted in an attempt to determine the students' cognitive and attitudinal level at the two moments of the research, the initial testing and the final testing.

The impact determined by the attendance of the ecologic tourism course on the basis of the experimental syllabus was also studied. This impact was measured by transposing the variants of answers to the questions of the questionnaire into points and percentages.

After a careful analysis of the answers to the qualitative questionnaire of attitudes and opinions, one drew the conclusion that the progress recorded by the experimental group was a major one in comparison with the control group progress that was insignificant. These elements result from the total general score realized by the two groups during the tests they were submitted to. In this sense the fact that the initial level of the two

groups was identical could be considered significant; expressed in points, this score was 572 in the case of the experiment group and 570 in the case of the control group. The final testing pointed out the major leap of 305 points recorded by the experimental group totalizing 877 points in comparison with the leap of only 24 points recorded by the control group who had got a total score of 594 points.

As a conclusion, on the basis of the questionnaire's outcomes interpretation we can say that the application of the experimental syllabus for the ecologic tourism subject was efficiently made and the suppositions from which the research has been started as much as the experiment results were correct.

*Assessment of the professional-pedagogical training of the students who successfully completed the course of ecologic tourism.*

Following up the carrying out of the students' pedagogical training, the results of this training were centralized in table 2, depending on the modules and the items had in view.

As for the counseling activity in the schools where the pedagogical training took place, it has been found out that at pupils' level and at parents' level as well was carried out an activity appreciated as a good one; this fact is confirmed by the percentages obtained (96% for pupils' counseling and 80% for parents' counseling). The pupils' counseling was the reference point performed in the highest percentage; the students carried out their activity with particular results, both individually and at the pupils' groups level.

In the case of item no. 3 (activities of school and professional orientation), the students encountered difficulties related to pupils' motivation and the creation of the thematic studying circles. This situation is also proved by the average of the scores obtained at the items included in this module. So, the average for the „information” item performance was 2.8, for the „motivation introduction” item was 2.48 and for the „creation of thematic studying circles” item was 2.2. The percentage of performance of this module was among the lowest ones, the students recording a percentage of 75.8.

An unexpected good reaction had the students within the 6<sup>th</sup> module – „network labor”. Thus, the average of fulfillment of the score at the first two items was a maximum one as the collaboration with the teachers, classmates and some establishments involved in the tourism activity was very good. Concerning the achievement of the third item of the module „enrollment in different local, district and national school associations”, the students had to cope with major difficulties.

This situation is due to the fact that the students did not identify the associations whose objective was the tourism, in general, and the ecologic tourism, specially. Another difficulty was the fact that these associations, once identified, had stipulated that the enrolment of the school circle in such associations should be done by a member of the teaching staff, employee of the respective school. In this case, the solution found by the students was the setting up of the school association „The Little Eco-Tourist” that included 5 schools of the city of Bucharest, the 6<sup>th</sup> district. The percentage of achievement of this module was 80% which could be appreciated as very good.

In conclusion, we can say that some indicators regarding the level of specialization of the teachers-to-be were obtained by means of the self-assessment sheet of the students' professional-pedagogical training.

In this sense can be invoked the percentages obtained at each one of the 8 modules and the general score as well, recorded on the 25 self-assessment sheets that total up 1604 points out of the 2000 possible points; the percentage of achievement of the proposed activities was very good (80.2%).

*Dynamics of the students' psycho-motor potentialities indices, Test of complementary motricity,*

As one can observe in the table no. 3 and 4, at the test of complementary motricity, the average values of the two groups of female students involved in the research emphasize the fact that at the initial testing these groups were equal, both recording the value of 1'46”, with a standard deviation of 6”.

*Statistical indicators for the test of complementary motricity, Experiment group; Control group*

The test value t-Student for the final testing is 6'36”, fact proving that there are significant differences of 99.9% between the two groups at the end of the basic experiment for a significance threshold of 1% ( $P < 0,001$ ).

The progress recorded by the experimental group was 23 sec.; it was found out that the female students' complementary motricity evolution improved significantly, in comparison with the evolution of the complementary motricity of the control group female students who recorded an insignificant progress of only 7 sec.

As observed from the table no. 3 and 4, at the test of complementary motricity, the average values of the two groups of students involved in the research indicate the fact that at the initial testing these ones are equal, both recording the value of 1'40”, with a standard deviation of 5” in the case of the experimental group and of 6” in the case of the control group. The coefficient of variability of the experimental group records the value of 3.68%, while the control group has the value of 4.5%. These values indicate the fact that the two groups have a

high level of homogeneity. The value of the t-Student test calculated at the initial testing is 0.01; this fact proves that there are not significant differences between the two groups ( $P > 0,05$ ).

At the final testing, the experimental group recorded an average of the values of 1'10" with a standard deviation of 4", while the average of the values recorded by the control group was 1'30" with a standard deviation of 7". The variability coefficient in the case of the final test recorded the value of 4.18% for the experimental group and 5.51% for the control group; that means that both groups remain further on at a high homogeneity level. The value of t-Student test for the final test is 9.26; this fact proves that between the two groups there are significant differences of 99.9%, at the completion of the basic experiment, for a significance threshold of 1% ( $P < 0,001$ ).

The progress obtained by the experimental group (fig.4) was 30 sec.; one has found out a significant improvement of the students' complementary motricity evolution, in comparison with the evolution of the complementary motricity of the control group students who recorded a poorly significant progress of 10 sec. only.

### CONCLUSIONS

1. The results of the specialty references analysis and of the existing practice regarding the physical education specialists' professional training for the "Tourism" subject demonstrate that a well grounded system for the physical education specialists' training exists at the present moment.

In the same time, one can mention that the problems of the future physical education specialists' professional training are insufficiently approached in the studied bibliographical sources, for the tourism subject generally and for the ecologic tourism especially.

2. Analyzing the planning documents of the training process of the physical education specialists for "tourism" it was found out that the syllabus contents do not include topics concerning the environment protection, information regarding the ecologic aspects; all these could be successfully approached within the theoretical courses and the practical lessons if a curricular module of ecologic tourism is elaborated.

3. The outcomes of the sociologic questioning of the physical education teachers and students demonstrated us that the majority of the teachers' answers regarding the influence of the eco-tourism activities on the professional training were affirmative in a proportion of 80%; also 76% of the questioned students subscribed to the idea of implementation of a new curricular module that would emphasize the problems of the ecologic tourism.

4. Following up the analysis of the training level of the physical education students who attended the "Tourism" course, we have found out that the level of theoretical knowledge, practical skills and abilities is insufficient regarding the contents of the tourism in general and of the ecologic tourism especially. Thus, 42 students representing 46.66% completed the course with difficulties, with the grade „sufficient". During this period, with the number of hours stipulated by the curriculum, it is not possible to assimilate all the pedagogical and instructive- educative skills necessary for the student allowing him to study thoroughly the specific character of the tourism activity and to organize mass tourism sport activities in school.

5. The research conducted within the proper pedagogical experiment permitted us to prove the major leap regarding the knowledge acquired about the environment protection and the ecology, applicable during the tourism practicing as well as about the change of the individual attitude in favor of the durable development of the bio-diversity.

Thus, the final testing emphasized the major progress of 305 points, recorded by the experimental group that totaled 877 points, related to the leap of only 24 points recorded by the control group that had a total score of 594 points.

6. The syllabus of eco-tourism activities applied to the students contributed not only to the improvement of the knowledge and attitudes specific to the eco-tourism activities towards whom it was directed but also to the development of the pedagogical competencies and the organizing abilities of the future specialists. The centralization of the data provided by the students' self-assessment sheets regarding the professional-pedagogical training showed the percentages obtained at each one of the 8 modules and the general score as well, recorded on the 25 self-assessment sheets that totaled up 1604 points out of the 2000 possible points; the percentage of achievement of the proposed activities was very good, 80.2%.

7. The efficiency of the experimental program was also proved within the analysis of the statistical indices for the complementary psycho-motricity test. In this sense, the components of the experimental group obtained higher indices than the components of the witness-group at the final testing at a threshold  $P < 0.001$ , with a significance of 99%.

The progress of 27 sec achieved by the experimental group in comparison with the progress of only 9 sec recorded by the control group is suggestive.

### References

1. Arsene, G.G., *Elements of general ecology*, Timișoara, University Horizons Publishing House, 2002
2. Bocoș, M., (2001), *School Curriculum. Contents of education in Pedagogy. Supports for teachers' training*, University Printing House of Cluj, Cluj-Napoca
3. Chiș, V., (2001), *Teacher's activity between curriculum and evaluation*, University Printing House of Cluj, Cluj-Napoca
4. Duțu, M., *Ecology. Natural philosophy of life*, Bucharest, Economic Publishing House, 1999
5. Ministry of National Education, National Commission for Curricula Reform, *Basic curriculum for the pre-university education*, Bucharest, 2008
6. Mohan, G., Ardealea, A., *Ecology and protection of the environment*, Bucharest, "Scaul" Publishing House, 1993
7. Pârvu, C., *General Ecology*, Bucharest, Technical Publishing House, 2001

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