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DEVELOPMENT AND EVALUATION OF THE PUPILS' PERSONALITY TRAITS, IN THE PHYSICAL-EDUCATION LESSON

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Abstract

This research, by its methodology, designed for and implemented at upper secondary-education level, offers new variants of learning contents, meant to ensure an efficient action, oriented not only towards human biology, but also towards the aspects related to the formation of behaviour adequate to contemporary Romanian society's expectations. The study was conducted over two school years, at the level of the 9th and 10th grades, resorting to both an experimental and a control class; in the control class, the physical-education classes covered a traditional methodology, focused on the pupils' motor-actuating performance. The teaching methodology consisted in six categories of motor-actuating games, taken from non-formal education, amounting to 112 games / activities. With a view to assessing the specific skills enunciated by the specialized curriculum, at the content "Development of Personality Traits", within the same methodology, we resorted to the process of their operationalization, which materialized in the elaboration of several skills to assess, for each learning unit allotted to the relevant thematic category. After going through the testing stages, calculating the average scores for each skill to assess within the four personality-development units, the obtained and statistically processed data highlighted that, in the experimental class, in terms of targeted skill acquisition, a significantly higher evolution to that of the control class, was registered.

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Keywords: Physical-education class; non-formal motor-actuating games; development of the pupils' personality traits.

1. Introduction

In-depth learning, based on the learner's action and empowerment, skill formation, knowledge integration in applicative structures, interactive teaching, inter- and trans-disciplinary curriculum, etc., are a few ideas promoted by contemporary pedagogy, being generated by the European societies' tendency



towards globalization and a knowledge-based society, as well as by the necessity of synchronizing the development of society and education.

The main strategic documents of educational policy in Romania, which harmonize the national priorities with the European priorities, are: Post-Accession Strategy 2007-2013 (Ministry of Education and Research, January 2007), National Development Plan 2007-2013 (the Government of Romania, December 2005) and Pre-University Education Development Strategy, in the period 2001-2010 (Ministry of Education and Research, 2002). In this normative context, the new approach to the National Curriculum, has generated another type of curricular culture, characterized by: focus of the educational process on skill- and aptitude-formation objectives; transformation of the teacher-centered school into a pupil-centered school, by promoting the interactive learning methods; cultivation of the pupils' creative skills and creation of varied learning situations (the teacher is responsible for the method of organizing the teaching approach, both in the pre-impact stage, and in the impact and post-impact stages); inter- and trans-disciplinary approach to the school curriculum; approach to the curriculum in correlation with the issue of the school-performance evaluation and of the teaching staff's initial and ongoing training (Korka, 2000).

2. Problem Statement

The new basic skills, set out in the conclusions of the Lisbon European Council (materialized in a list of widely defined knowledge and skill fields, interdisciplinary in their nature), are also found at compulsory-education level in Romania, being included in the provisions of the National Development Plan 2007 – 2013.

Given the impact of compulsory education on the youth's subsequent evolution, and also on society's development, we dare say the development and implementation of educational policies in the field, must be carried out with the utmost attention, involvement and responsibility, regardless of the study discipline addressed in the formal training.

The discipline *Physical Education*, for the $9^{th}-12^{th}$ grades, is stipulated, according to the educational plan, in the curricular area *Physical Education and Sport*, and aims at contributing to the achievement of the *complex development of the pupils' autonomous and creative personality* – a purpose set out in the Education Law. The curriculum stipulates that "the general objective of the discipline *Physical Education* is the development of the bio-psycho-motor skills, and the formation of the pupils' capacity to act thereon, with a view to permanently maintaining their optimal health status, ensuring a harmonious physical development and manifesting a motor-actuating capacity favorable to professional and social insertion (employability and sociability)".

In terms of content categories which ensure the convergent actuating fields for achieving one's skills, values and attitudes, the curriculum stipulates, along with the specific directions to the motor-actuating field, those afferent to the development of the personality traits (2009).

Most specific skill defining situations, at content level, which deals with the development of the pupils' personality traits (by practicing physical exercises), are subordinate to the general competence marked no. 4, namely: "Applying the system of rules specific to the organization and practice of physical education and sports activities, and adoption of an appropriate behaviour within interpersonal and group

relations". Of course, the authors of the curriculum – in this case – have considered the achievement of the aforementioned, through the basic means of the field, taken in a more or less adapted manner, from sports education. This can be easily noticed, both in the wording of the specific skills, and in the contents suggested by curricula in this training direction. We agree that sports education conducted in physical education classes may contribute to the formation of the respective skills; although, if we are objective, the practice in the field demonstrates the teaching staff's prevalent concern/action on the aspects of teaching (in terms of initiating, consolidating, fixing, accomplishing) and evaluating the motor skills specific to various sports branches, and less those afferent to the pupils' personality development. This unbalances, on one hand, the educational value of the motor-actuating activities in the formal training environment, depriving the pupils of their integrative benefits, and, on the other hand, deprives the theoretical-methodical side of the field, of newly-emerging scientific and investigation-development potentialities.

3. Research Questions

Ever more contemporary orientations, largely derived from the non-formal educational environment, converge towards the idea of diminishing the tendency to sports-tint the lesson, considering this is a narrow pedagogical approach to the teaching lesson, which negatively influences the experiential path covered by the beneficiary of the educational act. Several theories developed by Derlogea (2006), Roşu (2008), Neuman (2004), Redmond, Foran & Dwyer (2010), and so forth, claim the necessity of enhancing, within the curricular and extracurricular activities, some motor-expression fields, which, alongside the predominantly biological contributions of physical education, should determine, at least to the same extent, the simultaneous enrichment of the pupil's psychic sphere, his/her increased awareness on the contextual-creativity plane, and, withal, should support him/her in terms of social integration. In order to achieve these desiderata, the aforementioned authors' teaching methodologies resort to a diversified range of non-formal motor-actuating activities, adapted and developed from the need to discover more attractive educational alternatives, with a global effect on the youth's personality. Young people, by these novel motor-expression means, cover their own formal-education experiences, of a more or less holistic character.

4. Purpose of the Study

In line with the contemporary perspectives of non-formal motor activity-enhancement, within a formal training environment, the research we have conducted, aims, based on experimentally validated good practices, at offering to Romanian physical education, new content variants for the physical-education lesson, which would ensure an efficient teaching action, also in terms of the requirement of the general skill no. 4, to be achieved at the closing of the secondary cycle. In general, we have proposed an experiential learning route for pupils (15 - 17 years), achieved through games requiring increased awareness, cooperation and collaboration, tolerance and understanding, confidence in oneself and in others, etc., amid varied motor-actuating manifestations, emulative and/or non-competitive in nature.

5. Research Methods

The methodology applied in this study was achieved by implementing, in the physical-education classes, at various points, several means consisting of an array of games, grouped according to some well-defined educational objectives, generating values and attitudes.

The research was conducted at the National College "Dr. Ioan Meşotă" in Brașov.

Horizontally, as tuition benchmark, we opted for implementing the conceived methodology, at the level of the 9th grades (age of the subjects, 15-16), selected in the school year 2011-2012, and for continuing the approach at the same classes, respectively subjects, who covered the school year 2012-2013, in the 10th grades (16-17 years). The experiment is longitudinal, of the invoked type.

In order to orient the experimental teaching act, we took the specific skills nominated in the curriculum, for the development of the personality traits, as well as the 5 directions/potential units of action, recommended as a model for the annual chart scaling the learning units, issued at a national level (2011). These directions are: 1. Practical activities with leadership, subordination, collaboration specificity; 2. Conflicting situations that may arise within practical activities; 3. Modes of preventing / settling / solving the conflicting situations; 4. Behaviours integrated in the notion of fair-play; 5. Regulations of sports disciplines. As follows, the specific skills underwent a process of operationalization, so as to acquire the attribute of *skills to assess*. Tables 1; 2; 3; 4 show the skills to assess used in the research for the 5 learning units of the annual thematic chart. In the case of our study, we have considered that units 2 and 3 address the same educational field of interest; therefore they have been jointly built in the operationalization and assessment process (table 1).

 Table 1. Operationalization of the specific skills, in skills to assess, at the learning unit Practical activities with leadership, subordination, collaboration specificity

	pecific to the organization and practice of the appropriate behaviour within interpersonal an			
Learning unit: Practical	activities with leadership, subordination, con	llaboration specificity**		
Specific skills	Specific skills	Specific skills		
4.1. Optimal networking / socialization in different groups, either pre-constituted or spontaneously constituted*	4.2. Implementing the regulatory provisions of the practiced sports activities, in forms adapted to competition / contest*	framework of the tactical attack and		
	Skills to assess			
 The leader treats the other group members with respect and rationally, fairly distributes the game tasks The pupil makes decisions and acts in collaboration with the others, in order to achieve methodical and organizational measures necessary for the smooth, proper development of the motor-actuating activities 	- the pupil understands exactly and applies justly the preset rules of the activity (s)he participates in, along with his/her teammates and/or opponents.	 The pupil actively involves him/herself in the group, with a view to solving its problems, and helps the group to make correct decisions. The pupil, within the group, attentively listens to the others' opinions, and contributes with ideas and motor-actuating solutions, in order to solve the activity task. 		

* Excerpt from the applicable Physical-Education Curriculum 9th-12th grades, 2009 **Excerpt from the model planning documents recommended by the Ministry of Education, 2011

 Table 2. Operationalization of the specific skills, in skills to assess, at the learning units Conflicting situations that may arise within practical activities and Modes of preventing / settling / solving the conflicting situations

4. "Application of the system of rules specific to the organization and practice of the physical education and sports					
activities, and adoption of an appropriate behavior within interpersonal and group relations"*					
Learning units: Conflicting situations that may arise within practical activities and Modes of preventing / settling / solving					
the conflicting situations**					
Specific skills	Specific skills	Specific skills			

4.1. Optimal networking / socialization in different groups, either pre-constituted or spontaneously constituted *	4.2. Implementing the regulatory provisions of the practiced sports activities, in forms adapted to competition / contest *	4.3. Solving various tasks in the framework of the tactical attack and defense actions *
	Skills to assess	
- The pupil understands and accepts that, only by combining the group members' efforts, can be efficiently solved the motor-actuating task imposed on the working team.	- The pupil has the ability to understand that, in order to settle a conflict, each party has the right to express its position and to formulate a solution; and, once the common solution has been established, all parties adopt it in their practical activity, even if there is no full agreement thereon.	- The pupil admits the usefulness of coordinating the viewpoints formulated by all group members or of centering the initially opposed solutions.
- The pupil accepts that the best conflict-prevention solution is to share common interests and goals.		- The pupil accepts to confront his/her ideas with those of his/her teammates and then to participate in the elaboration of the collective motor-actuating action.

009 **Excerpt from the model planning documents recommended by the Ministry of Education, 2011

Table 3. Operationalization of the specific skills, in skills to assess, at the learning unit Behaviours integrated in the notion of fairplay

Learning	unit: Behaviours integrated in the notion of fa	uir-play**		
Specific skills	Specific skills	Specific skills		
4.1. Optimal networking / socialization in different groups, either pre-constituted or spontaneously constituted *	4.2. Implementing the regulatory provisions of the practiced sports activities, in forms adapted to competition / contest *	4.3. Solving various tasks in the framework of the tactical attack and defence actions *		
	Skills to assess			
- The pupil manifests a behaviour denoting the ability to lose and empathy.	- The pupil manifests preventive behaviour, (s)he does not accept iniquitously obtained advantages, (s)he respects his/her opponents and pleads for equal opportunities.	 The pupil manifests a behaviour by which (s)he demonstrates that the join play, the game experience and quality as well as the inner feelings are the purpose of the activity, and not the victory in itself. 		
The pupil shows consideration to oneself, to his/her competitors, and also to the environment.		 The pupil adopts a constructive behaviour, openness, modesty and comprehension towards the others. 		

**Excerpt from the model planning documents recommended by the Ministry of Education, 2011

Table 4. Operationalization of the specific skills, in skills to assess, at the learning unit Regulations of sports disciplines

adoption of an ap	cific to the organization and practice of the ph popopriate behaviour within interpersonal and carning unit; <i>Regulations of sports disciplines</i>	group relations"*
	8 8 71 1	
Specific skills	Specific skills	Specific skills
4.1. Optimal networking / socialization in different groups, either pre-constituted or spontaneously constituted *	4.2. Implementing the regulatory provisions of the practiced sports activities, in forms adapted to competition / contest *	4.3. Solving various tasks in the framework of the tactical attack and defence actions *
	Skills to assess	
- The pupil accepts the ranking in a form of competition, only if the preset regulations have been observed by all those involved, and the teacher has neither favoured nor disfavoured one of the parties.	- The pupil fully accepts and applies the rules governing the development of the motor activity (s)he participates in.	- The pupil constructively contributes to the observance of the regulations by the other participants in the ongoing motor activity.
- The pupil fully applies the behavioural rules regarding the protection and respect towards the environment.	- The pupil applies a firm yet principled attitude on noticing that the preset activity rules were infringed on, and not signalled by the one acting as referee.	

*Excerpt from the applicable Physical-Education Curriculum 9⁻⁻-12⁻⁻ grades, 2009

Once the skills to assess were defined for each learning unit (see the 5 units in tables 1-4), we acted at the experimental-class level, according to the following methodology: in each physical-education

class (2/week), depending on the attributed/consumed time and on the targeted point of the lesson, we applied actuators consisting of non-formal motor-actuating games, oriented in the direction of forming the specific skills, falling under the category "Development of the Personality Traits"; 6 categories of games were applied (group-member knowledge games, physical-contact games, confidence games, teambuilding games, communication and cooperation games and environmental-protection games), totalling 112 games, with one or more implementation variants, which were distributed in experiential learning structures/ systems, scaled as experiential units, at the level of the 9th experimental grade (2nd semester, 2011/2012) and for the same class, yet 10th grade (fully, throughout the school year 2012/2013). In the same period, at the control-class level (9th-10th grades), the teaching-learning-assessment activities were made in the same college, by the same tenured teacher, but the learning and assessments contents were, on a permanent basis, only those traditionally used in the physical-education classes, in Romania.

The evaluation of the skills specific to the development of the personality traits, both in the experimental and in the control classes, was carried out as moments: initial (Ti, 1^{st} semester, 2011), intermediary 1 (TI₁, late 2^{nd} semester – 9^{th} grade, 2012), intermediary 2 (TI₂, late 1^{st} semester – 10^{th} grade, 2013) and final (Tf, 2^{nd} semester, 10^{th} grade, 2013). The procedures and the collected data through systematic observation method (Epuran, 2005) at the criterion assessments (initial, intermediary 1-2, final), were made per/for every pupil, by means of individual assessment sheets, which refer to the subjects' traits – behavioural tendencies, through the skills to assess that we conceived. For each skill, we took over from the investigation method, the procedure of assessment based on the scale of "type Lickert", with five value ranges, respectively: 1. The trait appears to a very small extent; 2. The trait is present to a small extent; 3. The trait exists to a certain extent; 4. The trait is present to a large extent; 5. The trait appears to a very large extent.

On the same pattern of sheets, we centralized the data averages/classes/targeted learning unit/skill to assess. Processing of these data was performed by statistical and mathematical method, respectively Student test, one which emphasizes the significance of differences between averages, correlated samples.

I mention that, throughout the experiment, during the learning, the pupils in the experimental class were subjected – except the independent variable (motor-actuating games) – only to constant teaching factors, exercised by the categories of traditional motor activities (sports activities), currently conducted in physical-education classes, so as to make sure, as far as possible, that there are no other influences exercised on the dependent variable (the pupils' modified behaviour), than through the independent variable, which was pre-impact established.

6. Findings

The average scores obtained for each skill to assess, in all evaluation stages within the 4 learning units dedicated the development of personality, are shown in a centralized form, in table 5, for the experimental class, respectively table 6, for the control class, as well as in a graphical form, in figures 1;2.

 Table 5. Average scores cumulated for all learning units set out in the content "Development of the Personality Traits", in the experimental class, within "Dr. Ioan Meşotă" National College

DEVELOPMENT OF	1 ST – 2 ND STAGES – 9 TH GRADE D - (Experimental class) - Dr. Ioan MEŞOTĂ National
PERSONALITY	College 2 ND SEMESTER; SCHOOL YEAR 2011 - 2012
TRAITS	

LEARNING UNITS SET OUT IN THE ANNUAL SCALING CHART	Practical activities with leadership, subordination, collaboration specificity		that may practical a Modes of settling /	g situations Behaviours Regulations of prise within integrated in the sports discipline ctivities and notion of fair- preventing / play solving the g situation		integrated in the notion of fair-		
ASSESSMENT	Ti	TI_1	Ti	TI_1	Ti	TI_1	Ti	TI_1
MOMENTS								
CLASS-AVERAGE	1,92	2,49	1,59	2,68	1,5	2,47	2,10	3,04
SCORE								
	$3^{RD} - 4^{TH} S$	TAGES – 1	O th GRADE I	D - (Experime	ntal class) ·	- Dr. Ioan I	MEŞOTĂ	National
		College	$1^{ST} - 2^{ND}$ SEM	IESTERS; SC	HOOL YE	CAR 2012 -	2013	
ASSESSMENT	TI ₂	Tf	TI ₂	Tf	TI ₂	Tf	TI_2	Tf
MOMENTS								
CLASS-AVERAGE	3,29	4,10	3,36	4,58	3,00	4,11	3,62	4,54
SCORE	-							
Ti – initial testing								

initial testing

 TI_1 – intermediary testing 1

TI₂-intermediary testing 2

 $\mathbf{T}\mathbf{f}$ – final testing

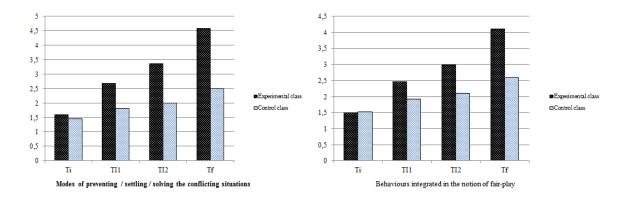
Table 6. Average scores cumulated for all learning units set out in the content "Development of the Personality Traits", in the control class, within "Dr. Ioan Meşotă" National College

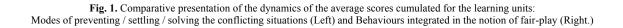
DEVELOPMENT OF PERSONALITY TRAITS	1 ST – 2 ND STAGES – 9 TH GRADE B - (Control class) - Dr. Ioan MEŞ 2 ND SEMESTER; SCHOOL YEAR 2011 - 2012					n MEŞOT 11 - 2012	⁻ Ă Nationa	l College
LEARNING UNITS SET OUT IN THE ANNUAL SCALING CHART	Practical activities with leadership, subordination, collaboration specificity		Conflicting situations that may arise within practical activities and Modes of preventing / settling / solving the conflicting situation		Behaviours integrated in the notion of fair- play		Regulations of sports disciplines	
ASSESSMENT MOMENTS	Ti	ΤI ₁	Ti	TI ₁	Ti	ΤI ₁	Ti	ΤI ₁
CLASS-AVERAGE SCORE	1,89	2,13	1,46	1,82	1,52	1,92	2,04	2,11
	$3^{RD}-4^{TL}$			E B - (Control ESTERS; SC				tional
ASSESSMENT MOMENTS	TI ₂	Tf	TI ₂	Tf	TI ₂	Tf	TI ₂	Tf
CLASS-AVERAGE SCORE	2,24	2,53	2,00	2,51	2,10	2,59	2,20	2,38

Ti – initial testing TI_1 – intermediary testing 1

 TI_2 – intermediary testing 2

Tf – final testing





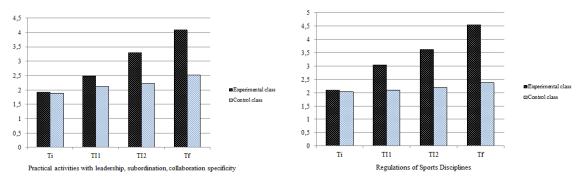


Fig. 2. Comparative presentation of the average scores cumulated for the learning units: Practical activities with leadership, subordination, collaboration specificity (Left) and Regulations of Sports Disciplines (Right)

Taking – at the experimental class – the initial and final average scores, for all skills assessed within the 4 personality-development units - UDP (table 7), we have applied the significance test t (Student), of the difference between averages, for the correlated samplings (Opariuc–Dan, 2011) and we have established the materiality threshold of the differences between these averages.

Table 7. Values of the average scores obtained in the initial and final testing, at the experimental class -9^{th} -10th gradesD – within "Dr. Ioan Meşotă" National College

Personality development units – experimental class (UDP)	Ti	$T_{\rm f}$
UDP_1	1,92	4,10
UDP_2	1,59	4,58
UDP ₃	1,50	4,11
UDP_4	2,10	4,54

For f = n-1 = 4 - 1 = 3 freedom degrees and a probability of 0,99 (threshold of 0,01), there corresponds a t = 5,841 (Table of Fischer – Novac, 1995); hence the difference between the value of the calculated t (7,5368) and the tabular one, is significant. This shows that, with a probability of 99%, the independent variable has determined the development of the personality traits.

Also for the control class 9^{th} grade B – 10^{th} grade B we have applied the statistical-mathematical method for establishing the difference between averages (correlated samplings); the average scores obtained for each skill to assess, within the 4 personality-development units, being shown in table 8.

 Table 8. Values of the average scores obtained in the initial and final testing, at the control class – 9th -10th grades B – within "Dr. Ioan Meşotă" National College

within Di tour neçou Turtona Conege		
Personality-development units – control class (UDP c)	Ti	T _f
UDP _{1c}	1,89	2,53
UDP_{2c}	1,46	2,51
UDP_{3c}	1,52	2,59
$\mathrm{UDP}_{4\mathrm{c}}$	2,04	2,38

We have calculated t, by applying the calculation formula (Opariuc–Dan, 2011) and, according to the table of Fischer (Novac, 1995), for f = n-1 = 4 - 1 = 3 freedom degrees and a probability of 0,99 (threshold of 0,01), there corresponds a t = 5,841; hence the difference between the two values, calculated t (2,21) and tabular t, is insignificant.

As one can see from comparing the categories of obtained data, the experimental class had, from the standpoint of the skill acquisition in terms of personality-trait development, a significantly higher evolution to the control class; a fact due – with a probability of 99% - to the experimentally induced independent variable (applied didactic methodology).

7. Discussions

In the current context, physical education can no longer be identified only as a predominantly practical activity, constrained in rigid patterns, which answer neither the options formulated by practitioners, nor the contemporary requirements imposed by the field of motor-actuating education. The evolution of formal motor activities must correlate with the existence of natural and social factors, exercising varied influences on the human body, which has to be regarded as a complex bio-psychical-social system. This type of approach requires designing an appropriate instructional demarche, focused on the individual and his/her needs of full, integral development. In this methodological manner, school physical education can manifest itself as a coherent system with distinct identity, which acts on personality-development, improving human being, in the sense of empowering him/her to fully express both the physical and the spiritual sphere, in a balanced and harmonious relation with the natural and social environment.

The climate generated by the development of the games we applied, was intended to be one of social experimentation, in which the relations, both with oneself, and the interpersonal ones, of an unusual intensity, might be explored under controllable conditions. They have given us the possibility of manifesting different social behaviours, of experiencing roles; opportunities to capture the impact they have on each other.

In order to reassure the specialists who are still militating in a one-dimensional direction, of the acquisitions related to the sports motor skills, in the physical-education class, as well as of obtaining sports performance, at this level of instruction, we have realized for the classes involved in the study, the differences of teaching time resulted after having implemented our experimental methodology. Thus, of all physical-education classes, during three semesters (100%), for the experimental class, a duration, expressed as percentage value, of 23,85%, was consumed, with the new learning contents we proposed (see the categories of motor-actuating games), others than those set out in the curriculum. Yet, this did not significantly affect the general averages in physical education of the pupils in the experimental classes, they being very close to those of the pupils in the control classes, who covered, within the time allotted to the physical-education lessons, only traditional learning contents.

8. Conclusions

Unlike the current school physical education in Romania, obviously based on coordinates - mostly - practical and methodological, which promote, across the entire field of manifestation (between the stages pre-impact – post-impact), the sides regarding the sports-tinting of the educational activities, by the current research, we have tried to bring to the fore the potential of other motor-expression means, taken from non-formal education, which exercise a holistic influence upon the individual. Unlike competitive/sports games, which are well-known and widespread in the Romanian education system, and whose main aim is the manifestation of the specific motor behaviour (as highly performing as possible), the games proposed in our methodological approach aim at raising the individual-participation level, at forming the collective problem-solving capacity, at increasing the players' self-confidence, the psychical

and somatic-functional tonicity, the physical and mental condition, as well as the solidarity and civic responsibility.

The methodology we have experimentally implemented, is built on the following benchmarks: focusing the learning on each participant, the teacher's role being to share his/her experiences with the pupils; the essential teaching strategy must be the maintenance of the educational values (respect towards the others; tolerance, collaboration, protection of the participants' safety; permanent readiness to lead and to create positive learning moments etc.).

As regards the games we selected and adapted, both to the subjects and to the current teaching situation, we have only considered them as tools that the teacher uses, and, implicitly, presents. Although, in terms of status, (s)he remains an official in formal education, (s)he is withal a reference point – most of the time – a coordinator – but, sometimes, a player – she may be an animator, trainer or counsellor. Usually, his/her role does not change along the successive events throughout his/her activity; in the beginning (s)he leads, later on (s)he leaves much more space and initiative to the pupils and thereby only supports and encourages the group members, and finally controls and guides the revision moment. At the end of an activity, the teacher must not necessarily have all the answers to the problems occurred during the exercise, but – rather – (s)he must identify the answers by exploration, together with his/her pupils.

Although, in terms of lesson duration, there was extracted, for the implementation of the new contents, over 20% of the total time allotted to the physical-education discipline, considered as being necessary for covering the learning contents set out in the curriculum, in the case of our research, there were not signalled, for the students in the two classes (both the experimental and the control ones), more significant progress or regress aspects, as regards the components of the general and specific motor capacity, assessed at a national level, which might have been attributable to the experimental factor.

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