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Scientific survey

Synthetic approach to games teaching in physical education and sport training of youth

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Introduction

The globalization era is characterized by whole the world sportization, and sporting games hold a most significant place in this process. Soccer, basketball, cricket and other sporting games became cultural signs and business-field of thousands of people rolling billions of dollars each year. Hence most popular competitive sports enter to all the matter of social existence as well as to different frames of physical education (PE) and color it in new tints (Grant, 1992; Naul, 2003).

The system of PE adapts these wings through a number of channels: cultural, general educational, and professional-methodological. The last one stands before physical educators a big challenge in last twenty years: "What one can answer to new students' expectations, which no more enclose skills learning for themselves but aspire to amusing playing and sport specialization?" The question is actually especially in the modern time that is characterized by humanistic approach to education standing a pupil and his motivation in the center of learning process (Mosston and Ashworth, 1994).

Hundreds of researches are done in the field of games teaching in during 40 last years when then sport has penetrated to the physical education. But the sportization phenomenon causes a search of

new approaches and ways of teaching. One can mark four of them. which became most significant during the end of the XX – beginning of the XXI centuries:

1. Teaching styles of physical education by Moston (1966); (Mosston and Ashworth. 1986. 1994);

2. Social learning or self-efficacy theory (Bandura. 1977. 2001)

3. "Sport Education" (Siedentop. 1980. 1983. 1994, 1998);

4. Teaching games for understanding approach (Bunker and Thorpe, 1983. 1986).

The understanding of these cardinal directions of research aiming a synthetic approach for modern games teaching became **the purpose** of done theoretical study.

This purpose has moved forward **the main question** of the study: Whether a common scholar basis exists, which can help to construct a synthetic approach to games teaching. The attempt to answer this question is done consecutive by three following stages: (1) a retrospective view of games teaching; (2) an analysis of above mentioned main directions of physical education and games teaching approaches among them at the end of XX – beginning of XXI centuries; (3) a suggestion of new synthetic approach to games teaching absorbed main previous ideas and based on Lebed's (2002) **working hypothesis** about essential dependence of teaching means on a depth of student's motivation to learn. According to this the survey is separated to three parts.

1. A retrospective view of games within the XXth century physical education systems until the 1970s

When Wellington was asked where he had learned the art of co-operation in battle, which contributed to organizing the efforts of two armies and defeating Napoleon in the decisive battle, he purportedly replied: "On football grounds of Eton"....

Games of movement have been a substantial part of educational systems since the Enlightenment, which based its idea of the harmonious development of personality upon Greco-Roman and Revival cultures. Since the XIXth century, games have been considered pedagogically and socially useful tools in the educational process, and especially in physical education. However, most of the games were intended for the military and civic education of boys and men.

By the end of the XIXth century, the development of sports and the winds of emancipation compelled teachers of females in colleges and high schools to devise indoor ball games developed emotional and aesthetic character but had nothing in common with "rough masculine" games like football and rugby. In Massachusetts, two enlightened inventors devised games that conquered the world in the XXth century: in 1891, Dr. James Naismith invented basketball (Naismith, 1941), and in 1895, William Morgan invented volleyball. Similarly in 1898[1] Danish teacher Holger Nielsen invented "haand-boald" – team handball (Latyshkevitch, et al, 1988). In 1905 it became a game for girls too. At approximately the same time period, netball a purely female game, also became widely popular in north Europe.

Thus, from the XXth century, the European and North American systems of physical education actively offered not only traditional games and outdoors competitions but also "gymnastic" indoor

games especially designed or adapted for girls. These games quickly became universal game sports and independent means of physical education after basketball, volleyball and team handball (in Europe) went "out" into the playgrounds.

Up to the end of the 1950s, these games in physical education maintained a "gymnastic", i.e. physically universal and multi-directional, character. School programs of that time envisaged sporting games as means for acquiring different motor skills for the purpose of harmonious physical development, but not just for learning a game *per se* and developing skills and a desire to play for the sake of the game.

In this connection one should consider the traditional approaches to the structure of physical education in such leading sports countries as the USSR, the USA and Canada as they evolved in the second half of the XXth century. For example, in a publication mainly reflecting the Soviet approach of that time to physical education of primary school pupils, Kuznetsova (1961) suggested devoting two thirds of teaching time to mastering basic gymnastics (fundamental movements), athletics, and swimming (skiing) and one third of the time to teaching different games including games "with elements" of basketball.

A similar tendency can be observed in the American school programs for first to third grade students. William La-Porte's program (Seidel and Resick, 1972, p. 45) devotes 30% of learning time to chasing games like "cat and mouse", 40% to basic and rhythmic gymnastics and 30% to developing co-ordination and equilibrium. There is, however, some difference between the Soviet and American approaches: first graders in America were not actually initiated into sporting games, as were their Soviet counterparts.

Such initiation (and on a much wider scale than in the USSR) starts in the USA only in grades 4-6. At that time 50% of teaching time is devoted to teaching "athletic" games like basketball. American football, softball and volleyball (Seidel & Resick, 1972, p. 46). The fact that Seidel and Resick cited La-Porte's program which originally appeared in 1937 and again in the re-edited version by John Cooper in 1968 is evidence that for more than thirty years the main conception of the role of sports and games in physical education remained practically unchanged.

Each of the above examples demonstrates that sports education in primary and secondary schools always implies the presence of a more global general purpose, the achievement of which calls for a wide spectrum of sports and motor activities that happens to include games as well. It is appropriate even for educational systems, which was characterized by extreme adherence to games teaching.

An example would be the Canadian system of physical education of the 1940-50s, which used six objectives to evaluate the stage-by-stage mastering of game elements (West, 1973; Sawula, 1977): developing of fundamental skills of movement; athletic and game skills; knowledge and attitudes of game strategies and rules; social abilities through group interaction, team work, and learning to accept responsibilities; emotional stability and control. The only points of view considered are pupils' motor, mental, and social development. Salient by its absence is the fact that not even one of the six points includes actual games teaching for the purpose of enthusiastic participation in games and deriving pleasure.

This is no less true for high schools. Thus, in the La-Porte's high school tutorial program mentioned above (Seidel and Resick, 1972, p. 47) games are presented as a means for teaching individual, pair and team kinds of sport. About half of teaching time is given to this, both for girls and boys. In this program one can find mention of such sports such as volleyball, softball, basketball, American football, field hockey, tennis, badminton, American handball, and golf. But in this case, all of them

are merely means to the end of pupils' all-round harmonious development. The main issue here remains the formation of various skills. "self-confidence" – "evaluation"- "actualization", and "habits of thought", which, according to Allenbaugh (as cited in Seidel and Resick, 1972, p. 49, 50) become more and more specialized and complicated as students grow up and advance from grade to grade. The tendency towards the various skills formation is reflected even broadly in Soviet high school physical education. Only 21% of the teaching time was given to teaching games such as volleyball and team handball in the early 1970s (Kuznetsova, 1973), and the rest of the time was dedicated to gymnastics, athletics, and swimming (skiing).

Only the wide public popularity of European football. basketball. volleyball and team handball that spilled over the boundaries of the European educational system and attained its "critical point" in the 1960s diverted the motivation first of students and then of teachers to serious study of games *per se.* It can be regarded from information concerning the Soviet system of physical education along the period of 1950 –1990s approximately (Table 1). Since the end of the 1960s games as an independent type of activity (first only in basketball, and later en masse) have become firmly entrenched not only in high school (similar to the American program), but also in fifth to eighth grade programs. Their circle has become broader. In the 1990s Liach's program (Liach, et al, 1992) simply requires that students of grades 5-8 master the four most popular in Europe games and devotes half of the teaching time for this objective.

But this process looks simple and smooth only from the historical point of view. By the end of the 1960s the methodological and methodical level of games teaching entered a protracted crisis the results of which, to my mind, have not been overcome in the world to this day. The essence of this crisis consists in contradictions between the old, traditional means and the new aims and objectives of games teaching.

Traditional educational means refers to the predominant orientation of teaching to master game

techniques and basic methods without any special necessity to understand the essence of the game

Table 1.

Games in Soviet secondary schools curriculum in 1950 – 1990s

	Rudick, *et al.,* (1951)	Charabuga, *et al.,* (1967)	Liach, *et al.,* (1992)
Class lessons curriculum	**13%** from total teaching time (68-70 hours per one year)	**37%** from total teaching time (68-70 hours per one year)	**54%** from total teaching time (68-70 hours per one year)
	Outdoors games; Russian "Lapta" Elements of basketball; Elements of volleyball	Outdoors games; Basketball	Basketball; Volleyball; European football; Team handball
Out of class lessons. Training and competing within the school frame	Basketball; Volleyball	Basketball; Volleyball	Basketball; Volleyball; European football; Team handball; Badminton; Ice hockey; Table tennis

conflict and its tactical details. As has been already mentioned, teaching the "elements of game" was

justified in the traditional physical education point of view of the first half of the XXth century as a

means of harmonic physical development, but the game was in no way the objective of teaching.

Such a system considered the ability to play of secondary importance and for long years it remained

the prerogative of the most gifted teenagers. For the majority of students, teaching separate techniques was the main form of initiation into the world of sporting games.

According to the new objectives in games teaching within the framework of school physical education, as I see them, the game should allow participants to feel good about their performance and to derive enjoyment from the game process. The aspiration of children and teenagers to draw from games what they should give them – a feeling of satisfaction from playing itself – is not always realized.

In the 1960-70s world culture became more sport-oriented (Maguir, 1999) and formulated new objectives for the contents of physical education in general, and even more specifically regarding everything connected with games teaching. The rapid development of school sports occurred during this period (Naul, 2003), but teaching methodology and terminology have failed to keep pace with the new requirements, even today.

As an extreme retrograde example one can analyze a physical education curriculum issued by the Ministry of Education of modern post-Soviet Russia (Parshikov, et. al., 2000). It is intended to instill in high school students a deep specialization in physical education (5 hours per week; 340 hours during two last grades in school). The program devotes 102 hours to selected sports (given examples are European football, basketball, volleyball, and athletics). Two main objectives are stated: (a) "The mastering of basic program dimensions of the Federal Program for Physical Culture"; (b) The mastering of *fundamental skills* of the chosen sport" (Parshikov, et. al., 2000, p. 9).

One can examine how the second objective is realized by means of the detailed program for teaching *basketball*. From the outset, the authors break a narrow frame of *fundamental skills*: 12 hours for

"general physical preparation" (drills, acrobatics, gymnastics, moving games and athletics); 16 hours for "special preparation" (fundamental skills of ball handling and other manipulations); 32 hours for "technical preparation"; 20 hours for "tactical preparation"; 12 hours for "control games and competitions" and 10 hours for "instructor's training and exams" (Parshikov, et. al., 2000, p.13-19).

What is evident here is an obvious mix of approaches on the main principles forming this program. On the one hand, there is an atavistic traditional "cliché" for mastering fundamental techniques of the game together drills, acrobatics, gymnastics, moving games and athletics. On the other hand, the authors use clear coaching science terminology, such as "technical preparation", "tactical preparation", and so on. This terminology turns the physical education program into a sport-training plan, which quite naturally contains important elements of basketball tactics, special fitness, and teaching games. But all this is disguised by old-fashioned declarations about the harmonious influences of physical education and general pedagogical methods.

Summarizing, one can note much of the XXth century games were considered only as a means of harmonious physical education, overcoming this limitation only in the 1970s. Sport orientation of physical education, which began at the end of the 1960s, changed this situation because of changes in the motivation of those cooperating pedagogically: students, their parents and teachers. Following these changes in students' motivation, the objectives of the educational process changed as well. Victory achievement – by knowing the game *per se* and deriving satisfaction from the game, thanks to mastery of necessary skills - became the primary objective of games learning by school students. Contradictions between this purpose and traditional approaches to teaching methods were reflected in a methodological crisis, abrupt deterioration in quality of teaching and, as a result, in falling attractiveness of school physical education in general. Judging from what appears above, these contradictions

between the aims and means of games teaching at school have not been definitively settled

yet.

2. Concepts of physical education and approaches to games teaching since 1980s

2.1. General tendencies

In the 1980s specialists were sensitive enough to react to changes in games teaching, which required changes in approach as was expected by society. They began searching for scientific grounding for the new approaches in sports oriented school pedagogy. Rising standards of living and increasing lack of motor activity among the population in developed industrial countries created the opportunity for greater competitive abilities of among select individuals, but with this came problems of obesity, cardio-vascular diseases, nervous stress and the many other ills typical of modern sedentary societies.

New tendencies can be traced for changes in determining the primary objectives and standards of physical education in the USA (*Moving into the future...*, 1995). Thus, in 1995 the five answers given to the question: "What should physically educated pupils know and be able to do?"- were adopted as the baseline standards. A physically educated person, according to these standards:

- *has learned skills necessary to perform a variety of physical activities,*
- *is physically fit,*
- *participates regularly in physical activity,*
- *knows the implications of and the benefits from involvement in physical activities,*
- *values physical activity and its contribution to a healthful lifestyle (p. 2).*

In this document teaching motor abilities and skills honorably occupies first place. Yet, neither the necessity to master these abilities at a level that can give performers pleasure, nor the necessity to understand the principles and strategies in applying the learned skills is in any way reflected in this document.

Almost 10 years later the NASPE issued a new edition of the document reflecting contemporary national standards of physical education in the USA (Moving into the future..., 2004). This document, like its predecessor, contains an answer to the same question, which in this case now contains six standards of physical education. The first two are of particular interest to us in connection with the theme of this article:

> *Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities*
> *Standard 2: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities (p.3).*

In 2004, the key phrase *"learned skills"* introduced in the 1995 edition of the first standard was exchanged for *"competence in motor skills and movement patterns"*. The change of semantics demonstrated new requirements: formation of actively used forms of physical activity, rather than just learned locomotion. The second standard is of particular interest, since it is directly related to the new tendencies in physical education. It calls for an "…understanding of movement concepts, principles, strategies, and tactics". It already has a direct relation to games teaching.

However, the changes touched not only on the emphases and standards of physical education, they also changed general conceptions at such a degree, that in some cases even the basic term "physical education" has lost its initial content.

> *Physical education (P.E.)… stands in contrast to the traditional gymnastics program, which aimed mainly at the acquisition of skills. The objectives of P.E. in schools are defined as movement education, health education, play education (Haag, 1999, p.66).*

If Haag separates three quoted "educations" as parts of physical education. Naul goes even further and considers them as four independent directions (Naul. 2003. p. 48): "Physical Education", "Health Education", "Movement Education", and "Sport Education". These new directions as an answer to society's increasing demands in physical standards for youth increased the number of possible positive roles played by physical education. But they also increased entropy by deepening the crisis of games teaching that began for this school discipline in the 1970s.

2.2. Sport Education by Daryl Siedentop

The first direction is "Sport (Play) Education", an approach that is both well known and amply described in the professional literature. I suggest considering it from the point of view of its relation to the above-mentioned contradictions between the old means and new objectives in games teaching at school, as created in the 1980-90s by Daryl Siedentop (Siedentop, 1983, 1994).

The most substantial issue is that a school group, having made its choice of game at the beginning of the school year, is transformed into a team. This team gets ready to participate in competitions between classes and between schools that are planned to take place at the end of learning year. In the course of a pre-competition period a team is divided according to different functions. The best players comprise the group to participate in competitions. Others distribute between them the functions of coach assistants, managers, judges, masseurs, sport observers and school journalists, etc. Thus. the whole group takes active part in the educational process (Grant, 1992). Everybody knows that he or she is of use in his own place. The development of the group and interpersonal relations proceeds against a background of joint activity. which is, by all means, of major educational importance (Hastic. 1996, 1998).

At the same time this approach removes two problems that so strongly impede the traditional educational process. First, formation of a conditional sport team immediately satisfies the sports motivation for the majority of students. Traditional methods of teaching face much more difficulty in overcoming the barrier of trying to satisfy this motivation. Second, the students are not identically apt at practical mastering of the game. This is the main stumbling block in traditional teaching. Traditional teaching, being oriented to average students, is boring for the most capable pupils and inaccessible for the less gifted. Siedentop's approach eliminates this contradiction. The less gifted students find their place "in" the team, executing various functions related to the players' functions and thus preserving their feeling of involvement in the process. Undoubtedly, the proposed system of games teaching to a great extent eliminates the contradictions between the objectives and means of games teaching, and this I see as its main merit.

The most substantial characteristic of Siedentop's approach is the elimination of direct opposition to the problem of game teaching in regular lessons within the ordinary organizational structure of school teaching. The process of choosing a favorite kind of sport always precedes announcing that a school group is transformed into a sport team. Such a process is impossible without breaking the bounders between different parallel groups and creating a timetable with a special structure. In addition, we may assert with sufficient confidence that the initial positive motivation to learn the chosen game supposes a necessary initial understanding of the game and some knowledge of tactical rules in constructing its basic playing clashes. The concept of "Sport (Play) Education" suggested by Siedentop in the 1980s presents an original attempt to overcome these contradictions. This conception envisages the transformation of a school group into a sport team and thus allows all students to assume roles in the sports process: players, coaches, managers, judges, reporters, etc. This solves the major teaching problem of involving the group in the process of teaching and co-

operating, and also promotes motivation to learn. Such motivation ceases to depend only upon pupils' motor and coordinative skills and it does not threaten the less capable pupils with failure.

2.3. Mosston's teaching types

Mosston's spectrum of teaching types (Mosston,1966; Mosston and Ashworth, 1986, 1994) consists of eleven different approaches to teaching:

1. The command style (A);

2. The practice style (B);

3. The reciprocal style (C);

4. The self-check style (D);

5. The inclusion style (E);

6. The guided discovery style (F);

7. The convergent discovery style (G);

8. The divergent discovery style (H);

9. The individual program -- learner design style (I);

10. The learner initiated style (J);

11. The self-teaching style (K)

Every one of these styles reflects distinguished positions of: a teacher and a learner positions one toward another, processes and results of learning. Hence the positions are based on four interacting concepts: "objective" (the taught material), "teaching", "learning", and "outcome" (Franks, 1992). Each of the types is a unique configuration of these four variables.
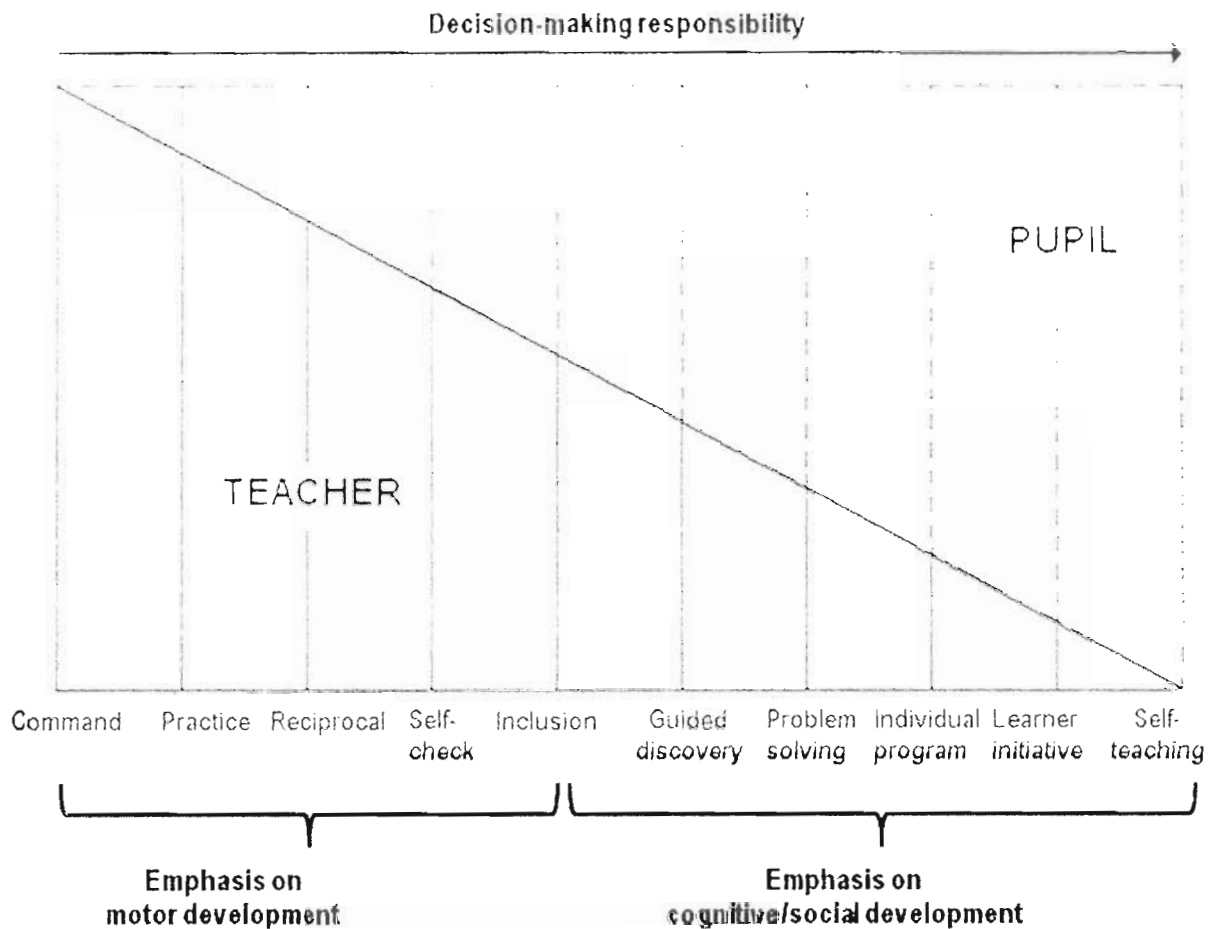
Decision-making responsibility

Fig.1. Styles of teaching physical education (Macfadyen, 2000: 39)

Macfadyin (2000, Fig. 1) emphasizes the slow (from Command Style toward Self-Teaching Style[1]) change of teacher's and pupil's roles by step by step removing of decision-making responsibility. According to the schema the Franks's (1992) "objective" is changed too: whether four first types emphasize mainly a motor development, the resr beginning from the Inclusive style emphasize cognitive and social development (Fig. 1.).

The spectrum of styles is a theoretical concept, which was widely accepted in the end of XX-century (Metzler, 1983, 2000; Franks, 1992; Mellor, 1992; Mueller, R. and Mueller, S., 1992;

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[1] In this the author translates the Mosston's "convergent discovery" style (G) and "divergent discovery" (H) style as a united "problem solving style", as it is accepted in the last time.

Goldberg. 1992; Byra and Jenkins. 1998). During a long period it is in the center of methodological discussion (Goldberg and Howarth. 1993; Byra. 2000; McCullick and Byra. 2002). Generally speaking. all types are separated to three main groups (Curtner-Smith, et al.. 2001): reproduction styles (five styles from A to E, where Command and Practice Styles are main), production styles (three styles from F to H), and management style that unites last three Mosston's types from I to K. From these three type-groups point of view Curtner-Smith and coauthors (Curtner-Smith, et al., 2001: 185) demonstrate differences between practical experience of urbane vs. rural teachers of PE (Table 2) as well as differences between three kinds of lessons: games, track and field, and tennis (Table 3).

Table 1   Percentage of IFITS intervals for each teaching style and management in the present urban study and in the Curtner-Smith and Hasty (1997) rural study

Teaching style	Urban setting (N = 36)		Rural setting (N = 40)	
	M	SD	M	SD
Reproductive styles				
Style A (Command)	4.28	6.33	5.98	6.39
Style B (Practice)	72.94	12.54	50.35	15.60
Style C (Reciprocal)	0.64	1.40	2.72	6.74
Style D (Self-Check)	0.39	0.75	0.73	4.60
Style E (Inclusion)	0.06	0.22	1.08	4.52
Productive styles				
Style F (Guided Discovery)	4.01	3.49	4.74	4.91
Style G (Divergent)	0.98	5.42	3.12	9.19
Style H (Going Beyond)	0.00	0.00	0.00	0.00
Management	16.82	8.17	30.94	9.82

Table 2. The advantage of reproductive styles in a practical work of urbane vs. rural teachers of PE, (Curtner-Smith, et al., 2001: 185)

The connection of teaching styles usage with culturally dependent teachers' beliefs was studied by a wide international group of scholars (Cothran, *et al.,* 2005). The finally noted that "reproduction styles were much more commonly used and viewed more positively than the

reproduction styles seemed to dominate in physical education around the world" (Cothran, et al., 2005: 199). One can recognize visible advantage of reproduction styles, even in rural regions teacher use the management style more. The same state is in the analyzed kinds of lesson content.

Teaching style	Striking/fielding (N = 20)		Track and field (N = 13)		Tennis (N = 3)	
	M	SD	M	SD	M	SD
Reproductive styles						
Style A (Command)	2.85	5.81	4.38	6.90	13.33	11.59
Style B (Practice)	73.45	12.20	74.08	12.27	64.00	19.00
Style C (Reciprocal)	0.25	0.64	1.23	2.09	0.37	1.15
Style D (Self-Check)	0.40	0.88	0.46	0.66	0.00	0.00
Style E (Inclusion)	0.10	0.31	0.00	0.00	0.00	0.00
Productive styles						
Style F (Guided Discovery)	4.32	4.19	3.00	2.24	6.33	2.52
Style G (Divergent)	1.65	7.38	0.15	0.37	0.33	0.58
Style H (Going Beyond)	0.00	0.00	0.00	0.00	0.00	0.00
Management	17.12	7.99	16.69	9.25	15.33	8.74

Table 2 Percentage of IFITS intervals for each teaching style and management during lessons on striking/fielding games, track and field events, and tennis

Table 3. The advantage of reproductive styles in a practical work of teachers of PE in three kinds of lessons (Curtner-Smith, et al., 2001: 185)

One of the most visible tendencies in this discussion is a sharp contradiction between wide use of reproductive types, on the one hand, and their negation on the ideological level of discussion. So it is noted about the need to reduce the Command and Practice Styles from the leading positions in teaching process. Such views undoubtedly are the reflection of the Humanistic approach to teaching PE in general and a pupil with his personal needs to the center of pedagogical process (Darom, 2002). The connecting to this paradigm last time critical analysis

discovery" (H) style as a united "problem solving style", as it is accepted in the last time.

places the Mosston's theory between 'scientific' models of pedagogy that have found renewed vigour in an increasingly neo-liberal, ends-led, performativity culture in Western education systems (Sicilia-Camacho and Brown, 2008). On the other hand, there are a lot of empirical researches dedicated to comparison of efficacy of different Spectrum Styles. This scholarly experience shows the styles are not only chosen educational ideology but practically working approaches to teaching.

In this way a number of researches experimentally proved an advantage the Inclusion style vs. Practice style (Jenkins and Todorovich, 2002; Darom, 2002; Chatoupis and Emmanuel, 2003) In different learning frames Mueller, and Mueller (1992) checked and compared three styles: (1) the Inclusion style, (2) the Guided discovery (production) style, and (3) Self-check style. They found all of them good working frame demanding different models and teacher- pupil roles of participants in educational process. The last period research by Patinanoglou, et al., (2008) compares Command style vs. Self-check one and finds the last more effective.

Summarizing one can develop some general view of Mosston's Spectrum of Styles in dynamics of "unclenching fist". This image helps to see an absolutely closed fist as a representation of the "Command" style and an opened one as an illustration of "Self-teaching" one. On the one hand, every one of empirical studies demonstrates certain advantage of approach based on "a fist opened more". Among such general tendency the "Inclusion" style can be considered as a main one in beginners teaching. There are some variations and advantages in use of freer styles named "Problem solution" and joining three "discovery" styles: the "Guided discovery" style (G), the "Convergent discovery" style (G), and the "Divergent discovery" style (H).

On the other hand, any one from the studies did not exam most opened (from the "fist" point of view) styles – the "Individual program" – learner design style (I), the "Learner initiated" style

(J). and the "Self-teaching" style (K). This makes to one a possibility to remain the last three styles under consideration of ideologically grounded approaches than methodologically adjusted ways of teaching. At the end one can classify all eleven styles to three main groups: reproductive styles with different degree of pupils' freedom (A. B. C .D types); begun from Inclusion style productive styles with different degree of pupils' freedom (E. F. G. H). and "self-productive" ideologically styles (I, J, K). These three groups will use in this study for general teaching model suggested.

2.4. Teaching games for understanding approach by Bunker and Thorpe

David Bunker and Rode Thorpe's (Bunker and Thorpe, 1983; Thorpe and Bunker, 1989) plan envisaged a much more intricate task: to change the essence of games teaching at school within the framework of the existing organizational structure. In their work, which has become a classic, they attacked the traditional approach to game teaching calling it the "skill approach" and pointed out its five most substantial drawbacks. In these authors' opinion,

> *...that these approaches have led to:*
> *a) a large percentage of children achieving little success due to the emphasis on performance, i.e. "doing"*
> *b) the majority of school leavers "knowing" very little about games*
> *c) the production of supposedly "skillful" players who in fact possess inflexible techniques and poor decision making capacity*
> *d) the dependent of teacher/coach dependent performers*
> *e) the failure to develop "thinking" spectators and "knowing" administrators at a time when games (and sport) are an important form of entertainment in the leisure industry (Bunker and Thorpe, 1983, p.5).*

The structural basis of Bunker and Thorpe's theory consists of the assertion that learning the techniques of any game must be preceded by a few stages of learning the essential characteristics

and tactical peculiarities of game activity in general and especially of the specific game being learned.

The basic emphasis in Bunker and Thorpe's theory is on the opposition between the so-called "technical" and "tactical" approaches. The tactical or understanding approach, which in time was called the "Teaching games for understanding" approach (TGfU), was not based exclusively on the dismissal of the traditional approach as ineffective. Declaring the priority of understanding the essence of an activity over its functional constituent is the constructive part of TGfU. As is widely known today, the authors considered the process of teaching as a closed ring of stages of mastering the school program (Bunker and Thorpe, 1983; Thorpe, Bunker, and Almond, 1986; Thorpe and Bunker, 1989; Alison and Thorpe, 1997). In this way, technique training is preceded by a succession of steps aimed at learning the essences of the game. The main means of such informative teaching are preparatory games reflecting the seed of the game (or the so-called "primary" rules of game) that oblige pupils to seek ways of counteracting competitors during the sporting meet . Thus, the young player is forced by game circumstances to realize the necessity of learning special motions. Now comes the turn to teach the technique.

Bunker and Thorpe's theory published at the beginning of the 1980s evoked strong reactions in the professional literature (Spackman, 1983; Booth, 1983; Almond, 1986 etc.). On the whole, extensive experimental data from that period and later from the 90s and 2000s (Griffin, *et al.*, 2005), allow us to conclude that the new method seems to be the right one for teaching a new previously unknown game. Thus, application of small preparatory games (1x1; 2x2; 3x3, etc.) positively affected junior school students' mastery of field hockey tactics at the initial stages (Turner and Martinec, 1992, 1999). Specifically, pupils moved correctly without a ball, and participated more correctly in bilateral (two-team) games. Similar results were obtained by Grifin, Oslin, and Mitchell (1995) in volleyball (6th grade); Mitchell, Grifin, and Oslin (1995) in football (6th grade); French et al., (1996)

in badminton (8th grade): Alison and Thorpe (1997) in basketball and badminton (junior school): Gabriel and Maxwell (1995) in teaching squash to college students. It's worth noting that deferred results (comparisons to test groups trained according to the traditional "technical" approach) appear specifically in a more profound understanding of the essence of the game.

The 2000s years are characterized by wide spreading of the approach over the word[2] (McNeill, et al., 2004; Griffin and Butler, 2005: Pope, 2005). One of the notable attempts to demonstrate the general character of TGfU is Light and Fawns' (2003) declaration that TGfU is an excellent holistic learning approach. These authors added the social-psychological aspect to the traditional procedures of game's tactical awareness and a conversation "through and about embodied knowledge" (Light and Fawns, 2003, p. 174).

New questions were stood before researchers. While an improvement of TGfUA efficacy was a task of majority of studies in 1980-90s (see above), these days one can recognize new directions: (1) an intensive introduction of TGfUA in physical education teachers preparation (Hopper, 2002; Butler, 2005, 2006. Howarth, 2005; Light and Butler, 2005; Wright, et al., 2005), (2) a mixed use of TGfUA together other well known approaches as sport education (Collier, 2005; Hastie, and Curtner-Smith, 2006) and action research (Gubacs-Collins, 2007), (3) attempts of use of TGfUA in teaching of combats (Kozub, M. and Kozub, M. L., 2004).

Philosophical root analysis demonstrates that the pedagogical views of Bunker, Thorpe, and their followers can be compared with an issue of human delights, because it is addressed to motivation of amusement following children's playing (Kretchmar, 2005). At the same time, from epistemiological point of view the analyzed approach can be compared to the well known Aristotelian schema: "first experience – analysis – new experience on higher level". One can also mention "experience" as the

most substantial category that explains Bunker and Thorpe's views through the prism of philosophy of cognition. In fact, their pedagogical views proclaim that: first comes experience, integrated practical cognition of the studied object (small teaching games according to primary rules); then – analysis, dismantling of the object into parts and their study within the context of the acquired experience (speech and dialogs between teacher and students, learning techniques of the game in the context of tactical understanding). Finally, at the third stage comes synthesis and transition to a new experience at a higher level (intact game activity and performance by means of synthesizing the learnt basic notions of techniques and tactics). Obviously, we can see here the three stages of transition from one quality into another quality, so well known in dialectically built philosophic views. Moyles' (1989) work is worth mentioning in this context because she has interpreted the evolution of game development as a *dialectical spiral* uncoiling up and out. Beginning from participation in a free game, the process of development rises on a spiral arc, always passing to the stage of directed and formalized games. This stage is characterized by mastery, practice, and revision. Upon reaching some deadlock limit in its formalized development, the game coils, scatters and transforms into a free game once again. These characteristics can easily explain the Bunker and Thorpe approach through the idea of the first coil: from a free game to a formalized game.

The authors' views can be related to Vygotsky and Leontiev's Activity Theory too. Actually, the simplified small games bearing the seed of a big real game can be compared to the active "sensing" of a cognizable object. Vygotsky called this sensing "an instrumental activity" and the image of the object a "mediator" (or "toll"), which determines the behavioral response. This created the main schema of the Activity Theory: "$S \rightarrow T \rightarrow R$" (Stimulus $\rightarrow$ Toll $\rightarrow$ Response).

Generally speaking, active cognition through initiation to a "provocative" contact with an unknown object is a basic notion in Vygotsky's ideas (Vygotsky, 1978).

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[2] The first publication of TGfUA in Hebrew is done by Geva (1997).

Thus. a comprehension of the well-known XXth century methodological roots of the approach to initial games teaching under discussion raises doubts about its novelty and revolutionary character. which were so resolutely accepted by the followers of authors.

At the same time, a few rare publications containing criticism of particular points in the theory also appear (Kirk and MacPhail, 2002; Lebed, 2002-a).

As is clear from the analysis given in the first part of the article. the "technical approach" in physical education is nothing but a conscious conceptual limitation of teaching to the boundaries of technique, since it's not the game as such that is the objective of teaching, but general physical education for individuals by means of mastering game skills. In their first work on TGfU. Bunker and Thorpe (1983) did not mention this essential detail. They considered "skill-drill" to be old-fashioned and wrong, but this declaration was done from a new point of view and new tasks in games teaching at school, which they tried to construct in 1983.

A second criticism noted by a number of authors (Rink, 2001; Holt, et al., 2002) pointed out that TGfU approach did not account for the motivational, cultural and emotional background of games teaching within the suggested framework of discussion. Meanwhile, modern scientific professional literature has lately turned its attention to problems of creating schoolchildren's motivation so that they can enjoy their physical education (Parish & Treasure, 2003; Xiang *et al.*, 2003, 2004). This is all the more striking in light of Siedentop's elegant solution to the motivation problem.

In 1980- 2000s years Bunker and Thorpe's theory of game teaching "through understanding" became the trigger that rocked the system "at the right time and in the right place" and for twenty long years defined the basic direction of discussion in the area of games teaching.

This approach was based on pre-conditions well grounded in the philosophy of cognition ("experience precedes understanding", "understanding precedes execution of a task"; "game imitating reality precedes direct participation in real game"). But it was too emphatically declared and strove to bear an absolutely unjustified universal character. Within the existing significant limitations mentioned above, this approach appears to be very productive in teaching games that are unpopular or little known in society (Kirk, 2005).

3. Synthetic approach to games teaching: a new complex model

3.1. Theoretical basis of the synthetic approach to games teaching

The performed analysis of mainstream approaches to games teaching stands an interesting task before scholar. This is a construction of some approach. which can synthesize better sides of mentioned pedagogical schools. Such attempts of different approaches' synthesis are done in during last years. For instance, in early introduction to his views Mosston (1966) sow his Spectrum of Styles as so synthetic approach to teaching in physical education. The other example is attempts of collaboration of TGfUA with other schools. The approach itself has been widely described and supported in dozens of books. articles, scientific conferences, and Internet sites. It had become so popular that even Siedentop (Siedentop, 1998) was influenced by this theory and searched ways of integration between TGfUA and Sport Education. Alexander and Penney (2005) and Collier (2005) have continued these attempts. The another instance is a process of certain "coming back" to the traditional "technical approach", which was so critiqued by Bunker and Thorpe (1983) at the beginning. On the way of synthetic approach seeking Lidor (1998), Lidor and Yanovitch (2001), and Lebed (2002-c) suggested combining of TGfUA with traditional technical one. One of the later experiences in the way of synthesis is the joining of "Sport Education" (SE) approach with three Mosston's styles ("Problem solving", "Guided discovery" and "Command"), and with TGfUA approach (Hastie and Curtner -Smith , 2006). They aimed "*to provide descriptive, detailed information about researcher's experience's and the students' reactions to a unite designed following the structure of SE (Seasons, formal competition, and student roles), but with the skills and tactics taught using problem solving and guided discovery approaches rather than a more command style, ... The organizational structure of the unit was pure SE, however the main pedagogical style employed was pure TGfUA*" (Hastie and Curtner -Smith , 2006: 1). The results of the study demonstrate students

became more competent. literalized. and enthusiastic in their relation to taught game (Ibid., p. 21).

The synthetic approach suggested in this work is based on the Lebed's (2002- b,c) note about importance of students' starting motivation to learn certain game. which is formed by social environment in its relation to sport culture in general ant to a chosen game in particular. The importance of motivation taken into account in given game learning lies in its influence upon the process of primary understanding of the essence of the game and formation of its tactical awareness. Here it is offered to observation the following links: a game that is popular in society generates millions of fans thus creating a "culture medium" in which thousands of girls and boys are willing to play, make a career, "earn millions" and gain national or even international popularity by means of professional specialization in the chosen game. For years, a culture's popular game appears on TV and Internet, is analyzed in the mass media, discussed with parents at home and with friends in school -- in other words, it takes root in the consciousness of millions (Lebed, 2002-b).

The theoretical and methodical basis for such "native" games learning is certainly Bandura's theory of social learning through imitation and mimicry. Bandura (1977, 2001) proposed a social learning theoretical framework that viewed humans as capable of self-direction and self regulation. It stands (after Vygotsky's Activity theory) strong against behaviouristic external determinism and gives initiative role to one's learning (Bird and Cripe, 1986). Bandura's "self-efficacy" is the conviction one needs to successfully execute the behaviour necessary to produce a certain out-come. Thus it can be describe as self-confidence in specific situation (Weinberg and Gould, 1995).

According to Bandura's theory one can claim that Brazilian teenagers never learn soccer (or American boys - baseball) from zero level. The first two stages of "game appreciation" and "tactical awareness", which Bunker and Thorpe strongly recommend learning through small games and primary rules (Almond. 1986. Werner. et al.. 1996. Hopper. 1998). have already been mastered in courtyards, the street and at week-end games of a favorite hometown team. A pupil is mentally and cognitively ready for practical mastering of the game. which. however hard you might try to find something revolutionary in it. is based upon the formation of motor abilities and skills.

Thus, low popularity of a game and insufficient pupil motivation stemming from this lack of popularity can be successfully compensated for within the framework of the TGfU approach. But high popularity of a game and/or high levels of student motivation provide (as one can see in the process of players' sport training) the basis for successful initial teaching within the traditional approach, the essence of which consists of first teaching game techniques so that pupils can tactically apply the skills learned and develop spatial orientation and operational thinking.

One can use the results of the researches already mentioned, which, in the course of comparative pedagogical experiments proved the efficiency of the "tactical" approach, as an indirect (taken from the reverse) confirmation of the suggestions stated above. Positive results were obtained in such unpopular and relatively unknown (to the public) kinds of sports as volleyball, basketball and badminton in Britain, and field hockey, badminton, squash, and European football in the USA. In other words, where there is no place for unconscious learning of a game as a cultural component in society, there arises the necessity to resort to methodical means, which are recommended by the "tactical approach".

In this way it is noted that TGfUA and preparative games at the beginning of teaching, which increase motivation and enthusiasm of students are best way in the process of non-popular

games teaching. Oppositely very popular games as they are in the social consciousness influence a deep interest and strong motivation in youth and thus demand other approaches to teaching: ways, styles, and means. This approach is expressed by three levels model (Fig. 2) named "play level", "game level", and "sport level".

Following pieces of this part of the work include step by step constructing of a new synthetic model of games teaching which: is (1) based on a common axis that is Lebed's three levels ("play", "game", and "sport") mentioned above; (2) envelops general approaches to physical education, uses TGfUA and Mosston's Spectrum of Styles.
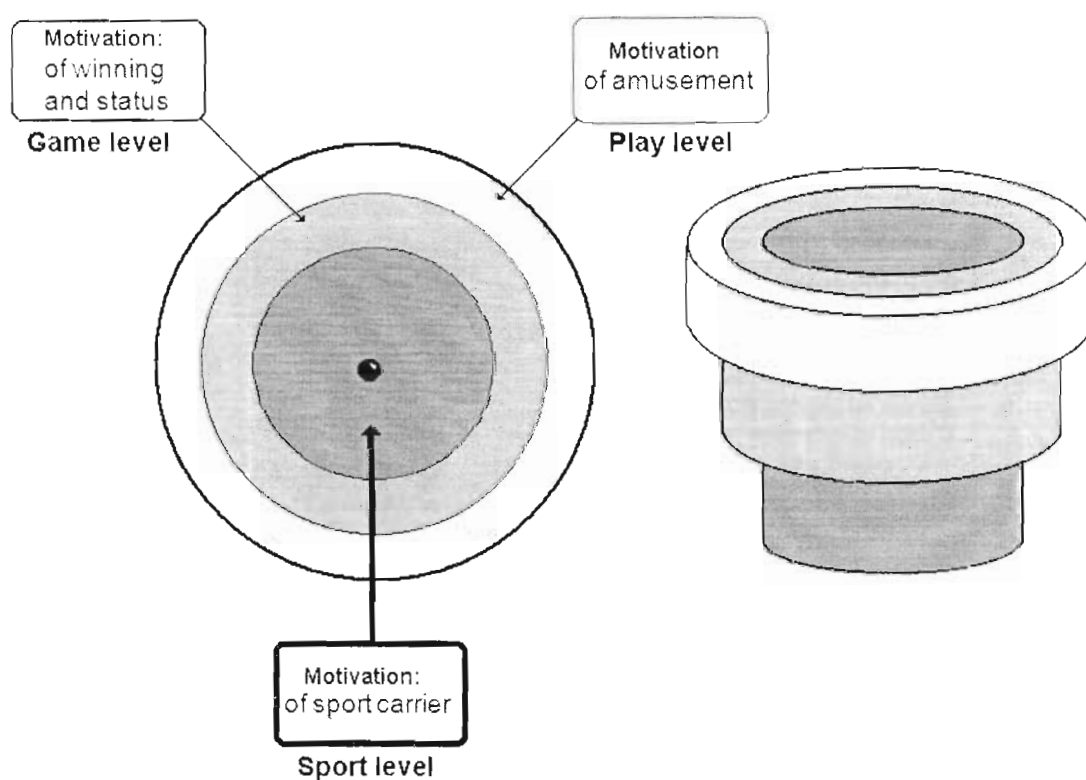
Motivation:
of winning
and status

Motivation
of amusement

Game level

Play level

Motivation:
of sport carrier

Sport level

Fig. 2. Three levels model of games teaching in accordance to a kind and power of student's motivation (Lebed 2002- c)

separate to tree types (Lebed, 2002-c). They are: general movement and mental development games, "branch" preparatory games, and specific "chosen game" preparatory games.

The general games (for 1-3rd grade pupils) are dedicated for movement and mental development. They envelop free play with and without play-article (the ball), agility development, and games generally orientated to prepare them for sport games physically, cognitively and ethically.

The "Branch" preparatory games (for 3-4th grade pupils) are connected to different abilities needed for successful playing of whole group of sporting games (Fig. 4). There are five groups of such "branch" games (Lebed, 2005: 281):

(1) Basketball family where striking a goal is made by throwing toward high and horizontally placed goal;

(2-3) Football and handball families where striking a goal is made by shooting toward vertically placed and defended goal;

(4) Volleyball family (or net-games) where a scoring is mainly implemented by landing a ball on a ground behind a flatness totally separating playing opponents;

(5) Baseball family where ball manipulations are executed by defending side.

The first three "branch" groups of games can be too called "soccer-like" games characterized by taking positions, direct contact between opponents, and "step by step" attacking (Lebed, 2007).

The third type of specific "chosen game" preparatory games are dedicated to for 4-5th grade pupils: target shooting games, "mini- game" on little court, and Banker & Thorpe's tactically orientated preparatory "games for understanding".
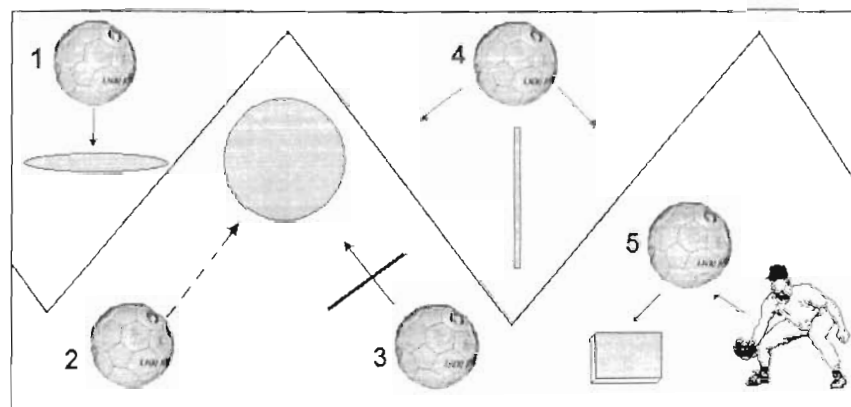

Fig. 4. Five groups of "branch" preparative games (by Lebed, 2005)

The transfer of games teaching to a level of a basic learning at secondary school is followed first of all by adolescent mentality, an essential part of which is competiveness and connected to it seeking for high social status among classmates. This is a time and an educational frame for the "game level" teaching that characterized by: teaching games (different versions of full game but with easier rules and partial roles and positions), main skills learning and first competitions in school tournaments.

The profound learning at high school is conditioned by pupils' successful advancement during previous stages. Thus a strong motivation of sport carrier is a desirable but not obligatory background of teaching. At same time, such motivation only brings a teaching process nearer to the main for high school target that is pupil's ability of successful competitive playing, which will consolidate their longing to play given game during long

pedagogical approach to games teaching. By this logical way the suggested model does not include games teaching during four grades at the beginning. The Movement Education as a general approach to physical education in this level is a best solution for forming of main movement skill, which will become a good basis for games playing and learning. Through preparative games (general and "branch" games only – see p. 31) this stage must connect to future process of aimed teaching since 5th grade.

As it is followed from the model (Fig. 5) next five years of games teaching (5-9 grades) have to be dedicated to basic learning of chosen game. The magority of sourses stress the need to use TGfU'A. This demantion is, first of all, related to it tactical or, at least, combined technical-tactical approach (Lidor, 1998; Lidor and Yanovich, 2001; Lebed, 2002-c). The last one can be exspressed by a wide use of preparative games (include TGfU) in primary school before skills teaching and skills teaching itself into the frame of trditional technical approach (Lebed, 2002-c; 2005). One has to remember the "game" level of teaching is a background for the approach choice in this stage. According to this the pupils' motivation to learn chosen game is stronger and longer. This makes possible use of trditional technical approach.

Undoubtedly the traditional technical approach is a main way, if one teaches students of high school or coaches young sportsmen. This can be followed by Siedentop's approach of Sport Education, where a class of pupils becomes a sport team preparing to competition at the end of year.

3.4. The third step of a new model constructing: Three levels of games teaching, formal frames (stages) of physical education, and general approaches to physical education and TGfAU in concordance with Mosston's Spectrum of Styles

The last step in the suggested model elaboration is an including of Moston's styles of teaching to the done synthetic construction (Fig. 6). The sources analysis shows (part 2.3, pp.15-20)
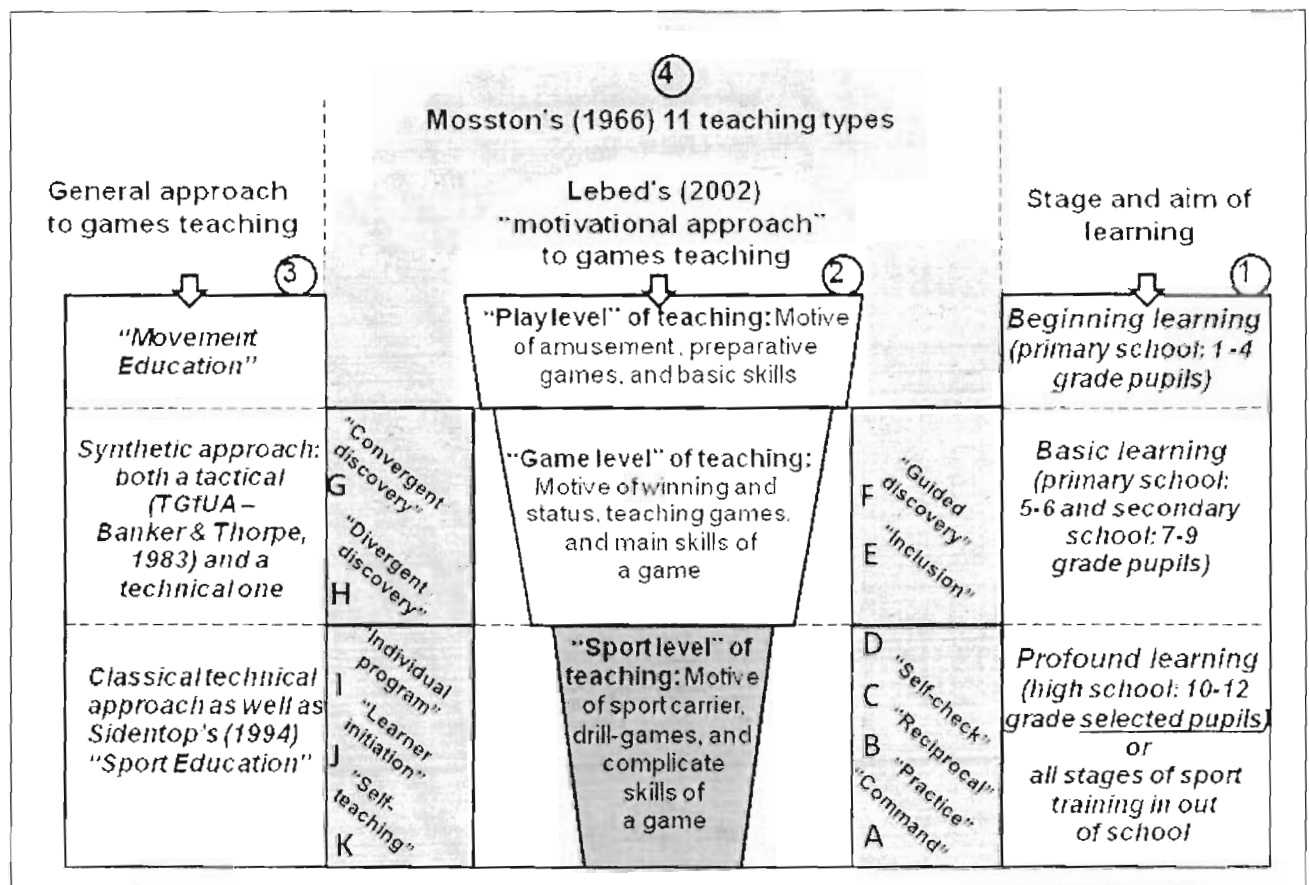

Fig. 6. Three levels of games teaching, formal frames (stages) of physical education, and general approaches to physical education in concordance with Mosston's Spectrum of Styles (suggested at the first time)

that really one can separate all eleven type to three groups: (1) four reproductive styles – A–D –, were a teacher leads and moves forward the pedagogical process ; (2) four productive styles – E– H –, where a teacher moves forward the pedagogical process, but does not lead it. The leadership is passed to discovering pupil; and (3) three independent self-productive styles – I, J, K –, where a pupil himself leads and moves forward the pedagogical process. The last group (and this is rather important) is not examined enough in empirical research. Another studies call them ideologically constructed types (Sicilia-Camacho and Brown, 2008).

The classified by this way three groups of Spectrum of Styles could be entered among the constructing here model by the following ways:

1. As it is proved in research, the productive styles (Inclusion and three "Discoveries") are best for beginning learning at the stage of two last grades of primary and three first grades of secondary school.

2. The reproductive styles (Command, Practice, Reciprocal, and Self-check) are better for a "sport" level of games teaching that is concerted to a strong motivation of success, disciplined learning and improving of skills and knowledge, and deep specialization of pupils (sportsmen).

3. If there is some place for the "self-productive" styles (Individual program, Learner initiation, Self-teaching), it can be on the stage of high school only. This because an independence of thinking and self-control of discipline and performance can grow till such age of youth having a highest level of consciousness.

These three basic points make possible add teaching types and finish the suggested synthetic model (Fig. 6). The types are divided by the following manner:

These three basic points make possible add teaching types and finish the suggested synthetic model (Fig. 6). The types are divided by the following manner:

- the second stage of games teaching enveloping five years has to be realized by use of productive styles only;

- the third stage (a high school) can ground on reproductive types of teaching and (in rare cases of a higher degree of pupils' collective development) - on self-productive types

Summary

The grounded on dozens of sources and author's original approach to games teaching (Lebed, 2002-a,b,c; 2005, 2007) synthetic model makes possible to see the games teaching as a complex process that has to have into account at least **four main components** simultaneously:

1) **The stage** of pupils' learning dependent of formal frame of teaching. There were separated three such stages:

    - The First (Beginning) stage - 1-4 grades of primary school;

    - The Second (Basic) stage - 5-6 grades of primary school together 7-9;

    - The Third (Specialized) stage – 10-12 grades of high school.

2) **The level** of teaching considered by the depth and power of pupils' motivation to learn given sportive game and dependent of stage. It is considered three such levels (Lebed, 2002 b, c): "play" level, "game" level, and "sport" level.

3) **The general approach** to games teaching dependent of stage and level as well as of teacher's personal position toward the issue. There are a number of approaches that can be used together or separately: Movement Education,

Sport Education, Physical Education by teaching games for understanding (TGfUA) or traditional skill teaching.

4) **The type of teaching** that indicates teacher- pupil relations in the issue of leading and decision making in during school or training lesson.

The Beginning stage of primary school does not include sportive games teaching per se. It includes using preparative games only (the "play" level of teaching) and basic skills learning by Movement Education approach.

The Basic stage includes a "game" level of teaching, exercise TGfUA or traditional skill teaching in dependence from popularity of chosen game, and uses productive types of teaching.

The Specialized stage includes a "sport" level of teaching, exercise traditional skill teaching (the option is a parallel application of Sport Education approach), and uses reproductive types of teaching (the option is application of self-productive types, and this is dependent of the level of pupils collective development).

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