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ISSUES REGARDING THE OPERATIONAL OBJECTIVES METHODOLOGY IN PSYCHICAL EDUCATION AT TECHNICAL UNIVERSITIES

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ABSTRACT: The most important operation for well thought-out projects, getting the goals, requires applying a way of thinking model by objectives able to order and rationalize deploying all teaching-learning-instruction-evaluation. It is assumed that the identification of confusions and ambiguities in the development of operational objectives will generate the correct development of their physical education at technical universities.

KEYWORDS: physical education, methodology, teaching, operational objectives, technical universities

INTRODUCTION

In essence the physical education deals training-development of human personality, which is in the process of resetting according to more intense demands of the modern society current (intellectual, ethical, philosophical, political, religious, technological, aesthetic, hygienic, sexual, etc.).

Physical education's role is to maintain the health body, but also causes „mental and moral effects which are not immediately remarkable, generating multiple social effects, reported to the world value of physical culture and sport. ” (Hubert, R., 1965)

Specifying educational objectives are achieved through logical reasoning aided by accurate and precise answers to the following four fundamental questions, as follows: What do we want to do? What he will know, what he will educate and what he will do? How long is necessary?

The answers to these questions concern two benchmarks resulting in:

- Psychomotor, cognitive and emotional skills and/or biologically, psychologically and socially capacities;
- Biologically, psychomotor, cognitive and other performances, achieved during the course of educational activity/instructional or sport activities.

It is assumed that the identification of confusions and ambiguities in the development of operational objectives will generate the correct development of those at the physical education in technical universities level.

HYPOTHESIS

Research shows the operational objectives aspects elaboration at the physical education level in technical universities. We made the following hypothesis:

- During the teaching projects stages focus the objectives can remove „the instructional ballast”;
- Physical education lessons from technical universities are lack of quality and effectiveness of instructional process because of instructional failure caused by negative trends, confusion and ambiguities in establishing operational objectives.

MATERIALS AND METHOD

The research was focused on the study of the praxiology, theory, methodology and curriculum design literature. In context, many theoretical and methodological concepts are from educational sciences. So, I consulted the work of foreign and Romanian specialists.

RESULTS AND DISCUSSION

In university physical education teaching, given the ends of microstructural hierarchical structure, we deal with the following instructional objectives categories:

- I. General objectives specific physical education (OG or rank I), derived from the ends and purpose of the educational macrostructural global system, covering the following human personality dimensions: strengthening the biological development, stimulation of mental and social resonance and social integration.
- II. Generality average objectives (OI, intermediate or rank II), established by the decomposition of objectives rank I, are: basic and motor skills (DPM), motor skills (CM), harmonious physical development, functional capacities, physical, psychomotor, social, playful behavior and social

integration, skills and technology skills-tactical sport, spirit of competition and competitive capacity and utility skills, knowledge and organizational theory.

III. Operational objectives (OP, clear or rank III), are established by deductive way through semioperational objectives division into performances observable behaviors and/or measurable.

This specific category of objectives included:

- skills and motor skills: walking, running, throwing, catching, balance, drap, climbing, lifting, carrying loads;
- driving qualities: speed, skill, strength, endurance, flexibility, agility, combined qualities;
- harmonious physical development: morphological size, body constitution, fair or poor body attitude;
- functional capabilities: psychological, social, psychomotor;
- playful behavior – teaching games with motors character: dynamic or movement games, imitation and motor creative games, symbolic games, role games, interactive games, games in preparation for various sports, etc.;
- technical sports skills and tactical knowledge and evidence from different sport branches: specific elements and techniques from athletics, gymnastics, team and individual sports, practiced under the form of play, competition or contests;
- competitive capacity, required participation in friendly, traditional, local, regional, national and international sporting competitions;
- utility skills, knowledge and organizational theory on: hygienic behavior – health, tourism and leisure, independent practice of physical exercises, self defense techniques and avoidance of accidents, first aid, knowledge about the exercises on the body or another different organic systems;

In the content of methodology to establish educational objectives – operational objectives, mistakes can cause instructional failures, through the following negative trends, confusion or ambiguity:

- keeping the instructional process in the field of general objectives;
- focusing instructional process on too many micro units;
- lack of integration of operational and intermediary objectives into well-defined finalities;
- conduct the instructional process without, „well-defined teachers targets”;
- mismatch between operational objectives (what will know and how will know the student at the end of physical education lesson?) and educational events caused by the teacher;
- differences between formative objectives and training program content;
- dysfunction between the operational objectives rank I, II and III;
- disagreements between the operational objectives and finalities or general goals of the educational system;

In the educational sciences are recording different procedures for developing operational objectives which are called by the name of the authors.

For the purpose of our research we selected two procedures applicable to build operational objectives in universities physical education, namely:

Mager’s procedure (1962) – requires that in operational objectives formulating it is needed to make three comments: expected behavior, the standard performance obtaining level and the achieve conditions.

De Landsheere ‘procedure (1979) required five specifications to develop operational objectives: subject (the one educated or instructed), behavior (through whom performances are obtained), restriction of behavior (conditions under the behavior must take place) and performance restrictions (the standard level of performance expected).

In the development of operational objectives, another concept is emerging from research „the scheme of grammatical analysis”, which state the algorithm involves questions with analyzed and combined grammar concrete answers. According to this the following questions are discussed:

- Who is trained? – Specified the training object (student, athlete, team), the teaching starting level on which the new objectives is issued;
- What teaching load had to fulfill? – Looking for the verb which means to seek objective task: learning, training, education, corrections, etc.;
- Which (what) performing behavior is concerned? The correct answer is given by the other two subordinate questions, namely:
 - What behavior? – Described by a direct complement (clear abilities, skills, knowledge, etc.);
 - What performance? - Indicated by a numeral (How much?, With how much?), attribute (How?), or a direct complement (Under what conditions?).
- How we do evaluate whether the operational objective was achieved? – using a test, a sample, a scale, a time, a number of points or items, competitions results, etc.

During the operational objectives instructional methodology is necessary to take into account two fundamental coordinates, namely:

- Teleological coordinate, which implies that all observable and measurable behaviors, plus the favorable states of them, to be aligned on the route of semioperational and final objectives;
- Praxiological coordinate which including the following requirements: identify and specify the observable behavior from start to finish, established conditions of internal training, external training setting conditions, the content of learning/training at a minimum, average, maximum expected level, stimulation through incentives or restrictions and efficient use of time and rigorous evaluation criteria, behavior, performance expected, the assessment tool at the end of lessons, number of lessons, macrocycle, mezocycle, etc.

The operational objectives must have five characteristics defined by acronym SMART, which means: (S)- Specific, (M)- Measurable, (A)- Accesible, (R)- Relevant, (T)- Time.

We systematized aspects of teaching physical education in technical universities, by extrapolating the research result on the theme of developing operational objectives.

With a permanent character and mainly formative responsibilities, university physical education, according to Education Law no.69/2000, is a process built and directed to improve to the students physical and motor skills, according to age and gender features, young people physical integration in society, students adapt to their physical and mental demands of different occupation and new trends, promotion of lifelong learning concept.

During educational process in physical education discipline in technical universities, the basic problem is how to adopt curriculum content to the individual characteristics of students by age, sex, shuttle/home, motivation, options, health and sports training level. The adaptation must be done with the biological development law, with favorable consequences in shaping personality, involving capacity building, each individual abilities, full potential and energy unlocking, aiming at a permanent and self training for future profession.

At the end of our research, using mager's procedure we develop two examples in the following branches of sport (M-F): table tennis, badminton, football-tennis and basketball, available to be applied to physical training process in technical universities.

a) branch of sport Table tennis – for example:

1. Expected behavior: development of basic technical elements.
2. Conditions that must be assured: with blows of service.
3. Standard performance expected: after four lessons, a percentage of 50% on successful service set shots.

- examples:

1. Expected behavior: strengthening individual tactical actions.
2. Conditions that must be assured: protection with forehand and lapel.
3. Standard performance expected: an increase of 10% of winning points/set, after six lessons.

b) branch of sport Badminton – for example:

1. Expected behavior: improving the technical elements.
2. Conditions that must be assured: with the right shot from overhead.
3. Standard performance expected: application in the game with 3 & more/set, after four lessons.

- examples:

1. Expected behavior: individual tactical actions correction.
2. Conditions that must be assured: by long blows, short, grazing, attack (smach)
3. Standard performance expected: application in the game with 5 & more/set, after six lessons.

c) branch of sport football-tennis – for example:

1. Expected behavior: strengthening individual tactical actions.
2. Conditions that must be assured: taking over the service.
3. Standard performance expected: a percentage of 50%/set takeovers of successful service, after six lessons.

- examples:

1. Expected behavior: knowledge of the football-tennis game rules.
2. Conditions that must be assured: judging a game by rotation.
3. Standard performance expected: eliminate 10% of arbitration errors after ten judged matches.

d) branch of sport basketball – for example:

1. Expected behavior: improvement of individual tactical actions.
2. Conditions that must be assured: counterattack conducted by principle „step side-step center”.
3. Standard performance expected: conduct a speed of 5-6 sec. after eight lessons.

- examples:

1. Expected behavior: development of technical training.

2. Conditions that must be assured: by making marks attackers without the ball and dispossessing opponents ball technique.
3. Standard performance expected: decrease the number of baskets/game (from 35 to 30), after six lessons.

CONCLUSIONS

- Operational objectives are spinal cord of the university physical education lesson, around which are grouped all other ideas. The lesson content instructional operational strategies and instructional approach orientation must be channeled to students personality development.
- The operational objectives are related to a specific teaching load, expressed by a verb (to learn, to develop, to improve, to correct, etc.), which reflects the behavior of performance training level.
- Operational objective must be expressed to provide the possibility of evaluation through a sample or a test, which makes performance behavior expected by the end of one or more learning units.
- To avoid errors and ambiguities in establishing operational objectives, solution is to know their elaboration methodology, using deductive reasoning, and also knowledge classification criteria of specific operational objectives.
- Entire content and methodology that involves university physical education program, must ensure the acquisition of knowledge, skills and abilities on every study year, through a combination of linear and concentric training, where teaching and learning of new elements would be done in parallel with resumption of previously learned items.
- Professional – applied physical training contribution of students to create a uniform formula for body strengthening and motor improvement specific life and professional activity, must have an open, adaptable and guidance, allowing continuous improvement, even if materials and methods have not a unitary character in all technical universities.

REFERENCES

- [1.] Babanschi, K.I.,(1979) – Optimizarea procesului de învățământ, Ed.Didactică și Pedagogică, București;
- [2.] Cergit, I.,(2002) – Sisteme de instruire alternative și complementare, Ed.Aramis, București;
- [3.] Cergit, I.,(2006) – Metode de învățământ, ed.Polirom, Iași;
- [4.] Colibaba, E.D.,Bota, I.,(1998) – Jocuri sportive – Teorie și Metodică, Ed.Aldin, București;
- [5.] Colibaba, E.D.,(2007) – Praxiologie și proiectare curriculară în educație fizică și sport, Ed.Universitaria, Craiova;
- [6.] Comănescu, I.,(2003) – Prelegeri de didactică școlară, Ed.Impremeria de Vest, Oradea;
- [7.] Cucuș, C.,(2002) – Pedagogie, Ed.Polirom, Iași;
- [8.] De Landsheere, G.,(1979) – Definierea obiectivelor educației, Ed.Didactică și Pedagogică București (traducere);
- [9.] Dragnea, A., Mate-Teodorescu, S.,(2002) – Teoria sportului ,Ed.FEST, București;
- [10.] Ezechil, L.,(2006) – Scopurile și obiectivele procesului de învățământ, În „Didactica-teoria instruirii”, Ed.Universitaria, paralela 45, Pitești;
- [11.] Hubert, R.,(1965) – Tratate de pedagogie generală, Presses Universitaires de France, Paris;
- [12.] Jînga, I.,Istrate, E.,(2001) – Manual de pedagogie, Ed.All Educațional, București;
- [13.] Ionescu, M.,Radu, I.,(2001) – Didactica modernă, Ed.Dacia, Cluj-Napoca,
- [14.] Mager, R.F.,(1962) – Preparing Instructional Objectives, Fearon, Palo Alta, California, SUA;
- [15.] Radu, I.T.,Ezechil, L.,(2006) – Didactica, Teoria instruirii, Ed.Universitaria, paralela 45, Pitești;
- [16.] Rață, G.,(2004) – Didactica educației fizice școlare, Ed. Alma Mater, Bacău;
- [17.] Schlaub, H.,Zenke, G.K.,(2001) – Dicționar de pedagogie, Ed.Polirom, Iași,
- [18.] Wainek, J., (1995) – Biologia sportului, Ed.CCPS, SDP, nr.365-366, București;



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