

ABSTRACT OF THE DOCTORAL THESIS BY Mr.
GHEORGHE DINU ONITA

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THESIS ADVISOR: PhD VIOREL COJOCARU

THESIS TITLE:

Key words: sports, integration, deficiencies, volleyball

The integration of the students with associated deficiencies by means of the adapted volleyball.

The involvement of students with deficiencies(either physical or mental) in motric activities which provide them opportunities to practise movements and obtain some sports skills in such a way that later on the formerly acquired knowledge within the training process, may well be transferred in the ordinary life. We also consider it an idea of great actuality due to the fact that both nationally and internationally the interest shown for the increase of life quality and the integration of disfavoured people in society are continuously growing.

In order to demonstrate and sustain the veracity of this idea, a still-increasing number of sports competitions are organized all over the world at a regional, national and international scale, of great amplitude , recently culminating with the Paralympic Games from Rio de Janeiro.

Besides many other goals, all these competitions have a major one, namely integrating people with deficiencies in society. This way physical education and adapted sports represent for this kind of people a way of optimizing their personal development, of reducing the negative effects reflected in the subjects` behaviour and finally, a way of converging to the unanimously accepted idea that, generally speaking, at present education constitutes one of the main levers ensuring social integration.

According to the international requirements, people with deficiencies must have a guarantee of their involvement as active as possible in the community life : to be assisted so as to lead their life independently at their own will, have the chance to eliminate the occurrence of further deficiencies, be able to avert their getting worse and at last but not least, be supported by cutting off any other form of discrimination and avoiding the appearance of social barriers.

The research hereby starts from the premise that students with a certain type of deficiency or associated deficiencies unintegrated in motric activities could be involved in a certain type of activity, and implementing adapted volleyball could be feasible for the kind of students with slight associated deficiencies.

Moreover, adapting the means and rules of volleyball, for the students with deficiencies could ease the specialists` work in the recovery intervention and get them more efficient in their activity. The subjects of the study are the students from C.S.E.I Lacrima Unirea and L.P.S. Bistrita.

Data on the subjects of the reasearch.

| CRT. NO.. | Name/Firstname | Birth date | Disorder code | Handicap code | Date of acquisition |
|-----------|----------------|------------|---------------------|---------------|---------------------|
| 1. | V.D. | 13.05.1986 | F70; F07 | 5 | birth |
| 2. | S.C. | 09.12.1987 | F70, | 5 | birth |
| 3. | A.C. | 24.10.1985 | F70, | 5 | birth |
| 4. | R.D. | 18.07.1987 | F70; G83; H91 | 5 | birth |
| 5. | H.I. | 16.11.1990 | F70, | 5 | birth |
| 6. | H.P. | 16.11.1990 | F70, | 5 | birth |
| 7. | C.I. | 14.10.1986 | F70, | 5 | birth |
| 8. | C.C. | 02.09.1985 | F70, | 5 | birth |
| 9. | T.S. | 17.03.1998 | F70, | 5 | birth |
| 10. | T.I. | 03.06.1999 | F70, | 5 | birth |
| 11. | S.A. | 13.10.2001 | - | - | healthy |
| 12. | G.D. | 11.02.2001 | - | - | healthy |
| 13. | M.I. | 04.03.2001 | - | - | healthy |
| 14. | I.C. | 09.09.2001 | - | - | healthy |

The preliminary study has been structured in three time stages:

- from September 2010 to December 2010, period in which I tried to implement the individual, technical-tactical modified actions;
- from January 2011 to May 2011, period which brought about the implementation the individual technical-tactical actions learnt in the game of adapted volleyball;
- from June 2011 to October 2011, period which meant organizing multiple games of adapted volleyball, in a competitive system. Within these games there were established the following: the efficiency of these individual technical-tactical actions and shaping of quantitative and qualitative models which, subsequently give us the opportunity to draw a few partial conclusions regarding the potential implementation of this game for disabled people.

Game record hand-outs `pencil-paper` method

| No. of play ers | SERVICE | | | | TAKE OVER | | | | PASSING THE BALL OVER THE NET | | | |
|--------------------------|-----------|-----------|---------------|-----------|-----------|---|---|---|-------------------------------------|---|---|---|
| | +(a) f | 0(b) g | - (c) h | T(d) i | + | O | - | T | + | O | - | T |
| e | | | | | | | | | | | | |

The data obtained are introduced in the calculation sheet.

Quantifying the individual, technical-tactical actions will be made on three levels, inspired from the international grid of FIVB¹. We propose the following three- levelled scale:

Calculation sheet game efficiency

| FISA EVVALUARE JOC | | | | | | | | | | | | | | | | | |
|--------------------|--------------|-----------|-----|----|-------|-------|-------------------|-----|----|-------|---------|------------------|-----|-------------------|-------|-------|-------------------|
| COMPETITIA JOC | | Lacrima 6 | | | | | | | | | | DATA REZULTAT | | iunie - octombrie | | | |
| Nr. | NUME PRENUME | SERVICIU | | | | | PRELUARE SERVICIU | | | | | TRECEREA MINGII | | | | | Eficienta jucator |
| | | 100% | 50% | 0% | Total | Ef | 100% | 50% | 0% | Total | Ef | 100% | 50% | 0% | Total | Ef | |
| | AS | 2 | 8 | 4 | 14 | 0.429 | 4 | 5 | 6 | 15 | 0.433 | 7 | 9 | 11 | 27 | 0.426 | 0.429 |
| | SD | 3 | 5 | 7 | 15 | 0.367 | 5 | 5 | 7 | 17 | 0.441 | 9 | 10 | 9 | 28 | 0.500 | 0.436 |
| | ER | 2 | 6 | 6 | 14 | 0.357 | 3 | 7 | 6 | 16 | 0.406 | 8 | 8 | 9 | 25 | 0.480 | 0.414 |
| | DF | 3 | 5 | 4 | 12 | 0.458 | 4 | 6 | 7 | 17 | 0.412 | 7 | 9 | 10 | 26 | 0.442 | 0.437 |
| | | | | | 0 | 0.000 | | | | 0 | 0.000 | | | | 0 | 0.000 | 0.000 |
| | | | | | 0 | 0.000 | | | | 0 | 0.000 | | | | 0 | 0.000 | 0.000 |
| | | | | | 0 | 0.000 | | | | 0 | 0.000 | | | | 0 | 0.000 | 0.000 |
| | | | | | 0 | 0.000 | | | | 0 | 0.000 | | | | 0 | 0.000 | 0.000 |
| | | | | | 0 | 0.000 | | | | 0 | 0.000 | | | | 0 | 0.000 | 0.000 |
| | | | | | 0 | 0.000 | | | | 0 | 0.000 | | | | 0 | 0.000 | 0.000 |
| | TOTAL | 10 | 24 | 21 | 55 | 0.400 | 16 | 23 | 26 | 65 | 0.42308 | 31 | 36 | 39 | 106 | 0.462 | 0.428 |

- 0 = error (-);
- 1 = maintaining the ball in the game;
- 2 = completion(+).

¹ Manual for FIVB Statistical Match Record (SMR)

The last level (2 = +) can be found only in decisive actions, that is the service and passing the ball over the net.

At levels 0 and 1 there are all three actions.

The Maths formula according to which we try to give mathematical value to the individual, technical-tactical actions is as follows:

The calculation formula:

$$Ef = \frac{a * 100\% + b * 50\%}{a + b + c}$$

Within which:

- a) there are successful actions;
- b) actions left within the game;
- c) wrong actions.

When elaborating the research hereby I have used a complex methodology consisting of bibliographic study, the observation method, processing and analyzing the data, the statistics and mathematical method, the graphic method and the experimental method.

Cause-effect relations

They explain the way in which several features are connected with others and try to explain the cause. The relation cause-effect is not obtained as a statistical result, but as a logical one.

Furthermore, we will try to explain the relations cause-effect between the efficiency within the games with disabled students and the efficiency of the individual technical-tactical actions with a psychologically and physically able sportsperson.

- **The service** as an individual technical-tactical action does not have a direct cause –effect relation with any of the individual technical-tactical actions of its own team. The fact demonstrates us that the service is executed under relatively independent game conditions where the focus and the motric execution of the service depends only on the player. Instead the service is a cause-effect relation with a direct effect on the game efficiency.
- A difficult service executed by a sportsperson without any deficiency (*cause*) rises difficulty for the opponents` team in making a good take over, fact which has as an indirect effect, a remote possibility of

forming the attack. A less difficult service executed by a disabled sportsperson (*cause*) gives the possibility of an excellent take over of the opponents, a much more efficient attack construction (*effect*.)

- **The take over from the service** has two cause-effect relations: on one hand with the lift, that is the quality of taking over from service gives the possibility of an excellent lift (the take over is the cause and the lift is the effect) and on the other, with the attack since it's on the lift quality that depends the efficiency of the attack hit (*the lift is the cause and the attack hit is the effect*).
- **The lift** can be interpreted as having the most cause-effect relations, this way becoming itself both *a cause* in the relation with the attack and indirectly with the take over from the attack, and *an effect* in the relation with the take over from service.
- **The attack** can also be interpreted as having postures within the cause-effect relations, namely it is the direct effect of the lift and the indirect one of the take over from the service which becomes a *cause* within the finality relation.

The established cause-effect relations suppose the evolution from cause to effect aiming at the game efficiency.

Partial conclusions

- When the teams are formed only of disabled students, the correlations between the individual technical-tactical actions and the efficiency when playing are positive, more specifically the increase in efficiency of the actions leads to an increase in the playing efficiency;
- By inserting a sportsperson without deficiencies, the correlations are positive in the case of the service and the ball passing over the net with high efficiencies, and the ball getting from the service the correlation is a negative one, probably determined by the good takeover of the player without disabilities and a much weaker one of the disabled;
- From data interpretation we can state that at the level of physical education class `the adapted volleyball` game may be

successfully implemented as a means of practising games with teams exclusively formed of disabled students.

- By inserting a psycho-motrically able student may lead to an increase in the game efficiency within sports competitions organized at the school, district or region levels.
- Such an approach (calculation- efficiency-game) constitutes a new one, that of preparing students with disabilities for their participation in competitions specially organized for them.

After having played 28 volleyball games and from data interpretation, we can acknowledge that at the level of the physical education class, the adapted volleyball game may successfully be implemented as a means of practising games with teams formed only of students with deficiencies. The extra knowledge , acquired as a result of this scientific research may be useful mainly for teachers of Physical Education who basically work with students with deficiencies.