SATISFYING INTERESTS IN MOBILE ACTIVITY OF HANDICAPPED STUDENTS IN THE PROCESS OF UPBRINGING AND PHYSICAL EDUCATION

ЗАДОВОЛЕННЯ ПОТРЕБИ В РУХОВІЙ АКТИВНОСТІ НЕПОВНОСПРАВНИХ СТУДЕНТІВ В ПРОЦЕСІ ВИХОВАННЯ ТА ЗАНЯТЬ ФІЗИЧНОЮ КУЛЬТУРОЮ

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One of the basic tasks set before physical education is to instil fondness and habits of active relaxation in intensive physical activity into children and young people. Physical education ought to take care not only of bodily development but also of ethical and intellectual growth. Enclosed here is also the notion of special physical education. As a matter of fact, it is necessary to stimulate in the handicapped child psycho-mobile needs which lie dormant, give them mature expression and proceed in the atmosphere of satisfaction, joy and serenity. It seems that this should be done with a broad view of the matter. What specifies the personal development of the child is not only his physical development and competence connected with it but also mental development and the ability to adapt to the changing living conditions. It is known that the child regulates his relationship with the environment in a variety of ways. The main emphasis is put on satisfying the child's needs. Among them are needs connected to broadly understood physical culture (Brzeziski , J druch 1999). Why, in the light of the above statement, the interests in mobile activity of handicapped persons are not diagnosed? Why aren't there any physical education classes conducted for handicapped people with the division into specific malfunctions? Why aren't the specific interests in mobile activity of handicapped students satisfied in the process of upbringing and physical education?

The goal of the present article is to show the interests in mobile activity of handicapped students and the presentation of one of the methods – the objective one – of planning the budget of hours devoted to physical education which would satisfy the students' interests.

According to the results of research conducted by Fromel (1996), Rokita (1997; 1998; 1999; 2000) with regard to interests in mobile activity of secondary school students, we have assumed that the interests of boys and girls are different. In order to verify this hypothesis, we have decided to address the following research issues:

1. What forms of mobile activity are handicapped students interested in?
2. What forms of mobile activity are handicapped female students interested in?
3. What forms of mobile activity are handicapped male students interested in?
4. Are the interests in mobile activity of handicapped students conditioned by the sex?
5. Are the interests in mobile activity of handicapped students conditioned by their malfunctions?

The solving of the research issue was done in two stages. The aim of the first stage was to recognise the range of interests in mobile activity of handicapped students.

The method employed was a diagnostic survey done by means of survey-questionnaire. The survey was completed during the first class of physical education in September 2000 in a centre for the handicapped in Wrocaw. The interests of 103 secondary school students were diagnosed (62 female students – 10 of them suffered from MPD: infantile cerebral palsy, and 41 boys – 10 of them with MPD).

Interests in mobile activity of handicapped students

The greatest interest among the examined students was directed towards swimming (69%). It seems that the popularity of swimming has a connection with utilitarian values associated with this form of mobile activity. Also very popular were table tennis (35%) and volleyball (34%). With a degree of caution, we can assume that the popularity of table tennis stems from the availability of

this game (equipment for table tennis is often found in school corridors, in clubs, etc.). The lowest interest among the examined was in skiing and cycling (both of the forms had 6% each) and other not mentioned in the questionnaire forms of mobile activity (7%), skating and athletics (8% each) (table 1).

Table 1. Interests in mobile activity of handicapped students (in %) and the number of hours of physical education classes which would satisfy these interests

Forms of mobile activity	girls		Girls with MPD		boys		boys with MPD		p–valu value	p–value
activity	Interests	No of hours	Interests	No of hours	Interests	No of hours	Interests	No of hours	(sex)	(MPD)
Football	2	0	0	0	29	4	20	4	**0,0001**	0,6942
Basketball	8	1	10	2	34	5	20	4	**0,0009**	0,6581
Volleyball	31	4	20	4	41	6	40	7	0,2597	0,605
Handball	8	1	0	0	10	1	10	2	0,7661	0,5097
Swimming	76	10	80	14	61	9	70	13	0,1083	0,5799
Ice-skating	23	3	0	0	5	1	0	0	**0,0152**	**0,0326**
Gymnastics	27	4	20	4	12	2	10	2	0,065	0,4395
Athletics	10	1	10	2	5	1	10	2	0,3731	0,6777
Skiing	6	1	0	0	5	1	0	0	0,7387	0,2153
Table tennis	39	5	70	13	32	5	30	6	0,4685	0,1438
Ground tennis	24	3	0	0	17	3	10	2	0,3881	**0,0467**
Horse-riding	42	5	40	7	10	1	10	2	**0,0005**	0,6509
Badminton	8	1	0	0	10	1	10	2	0,7661	0,5096
Ringo	21	3	10	2	12	2	10	2	0,2512	0,3267
Skating	10	1	0	0	5	1	0	0	0,3731	0,1482
Dancing	45	6	30	5	10	1	0	0	**0,0002**	0,0836
Bodybuilding	3	0	10	2	20	3	10	2	**0,0063**	0,9609
Judo – karate	21	3	0	0	17	3	0	0	0,6248	**0,0144**
Cycling	5	1	0	0	7	1	0	0	0,5992	0,2153
Archery	11	1	0	0	12	2	10	2	0,8887	0,3017
Others	2	0	0	0	15	1	20	4	**0,0102**	0,5259

By means of chi-square Pearson test we have verified the hypothesis of the independence of interests in mobile activity of the sex of the examined. It turned out that on the level of significance $\alpha = 0.05$ the sex of the examined students influenced the choice of 7 forms of mobile activity (football, basketball, ice-skating, horse-riding, dancing, body-building and others not mentioned in the survey forms of mobile activity), whereas it did not influence the choice of the remaining 14 (table 1). Therefore, the further analysis was conducted with the division into the group of boys and the group of girls.

Interests in mobile activity of handicapped female students

The greater interest among the examined female students was directed towards swimming (76%) and dancing (45%), horse-riding (42%), table tennis (39%) and volleyball (31%). Also very popular were gymnastics (27%), ground tennis (24%), ice-skating (23%), ringo and judo-karate (21% each). The lowest interest among the examined was in football and other not mentioned in the questionnaire forms of mobile activity (table 1).

Interests in mobile activity of handicapped male students

Among the boys the most popular was swimming (61%) – similarly to the girls. A little lower interest was in volleyball (41%) and basketball (34%) – with the girls the situation was different. Another form of mobile activity in the ranking of popularity was table tennis (32%) and football (29%). Other not mentioned in the survey forms of mobile activity had 20% and less in popularity (table 1).

By means of chi-square Pearson test, we have verified the hypothesis of the independence of interests in mobile activity of the brain malfunction (infantile cerebral palsy) of the examined. It turned out that on the level of significance $\alpha = 0.05$ the illness of the examined handicapped students influenced the choice of 3 forms of mobile activity (ice-skating, table tennis and judo-karate), whereas it did not influence the choice of the remaining 18 (table 1). Therefore, the further analysis was conducted with the division into the group of students affected by cerebral palsy and the other group of the examined students.

The greater interest among the students with cerebral palsy was directed towards swimming. 80% of girls and 61% of boys would like to realise swimming during their PE classes. Also very popular was table tennis (70% of girls and 32% of boys would like to play this sport during physical education classes). Among the girls affected by palsy 40% opted for horse-riding (table 1). Generally, students with cerebral palsy chose fewer various forms of mobile activity than the students with other malfunctions of organs of motion. It seems to be caused by greater availability of various forms of mobile activity for persons with malfunctions of motion organs than for people with infantile cerebral palsy. Therefore, with a degree of caution we can conclude that interests in mobile activity of students with infantile cerebral palsy are influenced by malfunction and morpho-functional abilities of the organism.

Planning of the budget of physical education classes

Taking into account the results of the survey conducted by Rokita (1998, 1999), it seems that the results obtained after conducting the analysis of surveys (in % form) can be employed to elaborate the objective planning of budget of hours devoted to PE classes which would satisfy the interests in mobile activity of handicapped students. Semester I in school usually lasts 20 weeks. Taking into account the weekly number of hours in the first year of secondary school devoted to PE (3h), we can calculate the maximum number of hours per semester (20 x 3h = 60h). It is commonly known that when calculating the number of hours devoted to any school subject during the semester, given weeks are taken into consideration excluding holidays (church holidays, state and school holidays, planned school trips). In this way, the number of hours devoted for the realisation of a given subject can worked out. We can assume that we do not commit a big error by excluding 10%, which is 6h, from the maximum number of hours for the situations mentioned above and an unexpected teacher's illness.

Taking into consideration the assumptions outlined above, the number of hours of PE classes remaining at the teacher's and students' disposal is 54. According to the author's experience

(Rokita, 1998, 1999; Rokita, Chavrát 2000), it seems necessary that they are planned for each class separately, having analysed, by means of a diagnosis, the interests in mobile activity of young people. In order to conduct such an analysis, the research method can be a diagnostic survey, while the technique a questionnaire entitled: 'My favourite forms of mobile activity which I would like to learn during PE classes' (Rokita 1997), or it is possible to use another type of a survey taking into account the existing conditions for the realisation of the process of education and physical education in a school situation. In semester I, the survey mentioned above should be conducted during the first PE class (as no school conditions affect the students' choice yet). Subsequent diagnoses of the state of interests in mobile activity ought to be made during the first lessons at the beginning of each semester, as the interests may change. The results obtained must be presented so that the students knew them. Next, the students should be informed which of the forms of mobile activity mentioned are possible to be realised in the school conditions. Let us suppose that in a school where the diagnosis was conducted all forms of mobile activity (21) are possible to be realised. Then, the number of hours devoted for the realisation of particular 21 forms of mobile activity – separately for male and separately for female students – is worked out on the basis of the formula (created and altered by the author) (Rokita 1998; 1999).

Having analysed the calculations above, it is apparent that if we want to satisfy the interests of handicapped boys in basketball, we should devote 5 hours of classes for this sport. Taking into consideration the interests of boys affected with infantile cerebral palsy it turns out that not 5, but 4 hours should be devoted to basketball. The remaining number of hours devoted to particular forms of mobile activity chosen by the students is calculated in the same way – separately for girls and separately for boys, taking into account all the malfunctions. From the results obtained in this way, a detailed programme of physical education classes cam be elaborated, the programme which takes care of students' interests.

At the time of the discussion as to the shape of the Polish education system, including the shape of physical education in school, it is worth getting to know the needs and expectations of the young people, handicapped young people as well as the rest of young population, with regard to this (Grabowski 2000). Constructing the modernised version of the school system of physical education, it seems necessary to know those values of physical culture which are the most important for children and young people and with which they identify themselves.

In the light of the above statement, it seems especially advisable and even necessary, at the time when the reforms of the education system are being introduced, to create in the objective way the budget of hours devoted to physical education in secondary schools (also for the handicapped students) and thus satisfying the students' interests in forms of mobile activity.

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Attention: values of $p < 0,05$ (that is, from the accepted level of significance) were indicated in bold.

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В статті розкриваються основні проблеми організації занять з фізичного виховання з неповносправними студентами.

АКСЕЛЕРАЦІЯ І ПИТАННЯ ЗАТРИМКИ РОСТУ ДІТЕЙ СТАРШОГО ШКІЛЬНОГО ВІКУ

ОЛЕГ РУЖИЛО

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Оцінюючи зміни фізичного розвитку і зрушення антропометричних показників дітей в останні десятиріччя XX століття, слід відзначити, що в багатьох економічно розвинутих країнах, у тому числі в СНД, спостерігається значне прискорення фізичного розвитку дітей. Діти народжуються більшими, швидше розвиваються і досягають високого рівня за більшістю своїх антропометричних показників, що характеризують остаточні розміри тіла. Названий акселерацією, цей процес спостерігається в усьому світі, серед різних етнічних груп населення [2, 3, 5].

Акселерація росту і розвитку підростаючого покоління відзначається ще в антенатальному періоді життя. Встановлено, що сучасні немовлята мають значно більшу масу тіла, ніж немовлята минулих десятиріч. Так, порівняння немовлят Москви виявило приріст довжини тіла в середньому на 2,7%, обхвату голови на 6,3%, маси на 8,4 % (Ю. А. Ямпольская, 1996).

Швидкість лінійного росту тіла в будь-якій популяції - величина досить стійка і легко передбачувана. Національним Центром статистики охорони здоров'я США [6] зібрані показники швидкості росту великої популяції американських дітей (рис. 1). На підставі графіків можна було б припустити, що будь-яка дитина, ріст якої менший, ніж у 95% однолітків - карлик. Насправді, у більшості цих дітей ріст обмежується визначеними спадкоємними чинниками і це уповільнення не можна вважати патологічним. Розглядаються тільки випадки, коли карликовість є наслідком патологічного процесу, що сповільнює нормальний лінійний ріст тіла.

При динаміці росту типу А ріст починається від нижньої межі норми, а потім прогресивно відстає від норми (важкі генетичні захворювання конституційна затримка росту). При динаміці типу Б ріст дитини від початку нижче норми, але швидкість росту згодом зберігається щодо постійної (сімейна карликовість). При динаміці типу В ріст дитини спочатку перевищує верхню межу норми, а потім припиняється (передчасне статеве дозрівання). При динаміці типу Г нормальний ріст раптово припиняється (придбана патологія, наприклад, пухлина гіпофіза). (Hamill P. V.V Dnzd T. A., Johnson C. L. et al. Physical growth: National Center for Health Statistics Percentiles. — Am. J. CIln. Nutr., 1989, 32 : 607—629).