

Georgi Georgiev, Univerzitet „Sv. Kiril i Metodij“, Fakultet za fizičku kulturu, Skopje, R. Makedonija

Viktor Mitrevski, SOU “Krste Petkov Misirkov”, Demir Hisar, Republika Makedonija

Žarko Kostovski, Univerzitet „Sv. Kiril i Metodij“, Fakultet za fizičku kulturu, Skopje, R. Makedonija

QUANTITATIVE DIFFERENCES IN ASSESSMENT OF HIGH SCHOOL FEMALE STUDENTS

INTRODUCTION

The organization and implementation of the teaching planes and programs in the course, sport and sport activities and physical and health education, in general and in the secondary and primary education, we are quite low [3, 4, 7]. Gaps that are evident in the implementation of the programs have a certain influence in the measurement and evaluation of achievements and knowledge of the students which as part of the overall educational process is facing perhaps with the greatest number of ambiguities. In order to resolve these problems, it is necessary to consider all causes and consequences of this situation in the educational process and to propose concrete actions in the future [6, 11]. This research is also an attempt from, professional point of view, to indicate the current problems encountered facing the assessment and evaluation of achievements among students [2, 12].

The subject of our research have been pupils of the secondary education who regularly attended the course sport and sport activities. The aim was to establish whether there are differences between the grades received in the teaching and grades received during the research on the subject sport and sport activities.

METHODS

The survey was implemented on 89 female students, age 15 years (+/- 6 months). The survey was conducted at schools in several cities in Macedonia (Bitola, Resen and Krusevo) in the 2007/08 academic year.

Indicators for assessing the knowledge on the subject sport and sport activities which were used during the assessment and during the research were: athletics (high start), gymnastics (roll forward), from the sport games, basketball (leading the ball and placing it to the basket) and test-polygon to assess motor skills and habits. In each discipline, individually, was done evaluating of the technique's performance of the elements while the evaluating at the test polygon to assess motor skills and habits was carried out with scale of percentile values. At the end from all extracted grades was extracted one summative assessment [8, 9, 10].

For indicator of the assessment from the log into account was taken, the fixed semi-annual grade, as a result of evaluations performed during the first semester of teaching.

The basic descriptive statistical parameters were processed upon the obtained indicators, the sum, minimum and maximum score, arithmetic mean, range, variance

and standard deviation and kurtosis. The determination of the significance of differences between the grades obtained from the survey and received grades in the teaching of female pupils, were carried out with the t-test for dependent samples [1].

RESULTS AND DISCUSSION

Table 1, shows the basic descriptive parameters of the obtained scores from the research of motor skills and habits (test-polygon) and the assessment made on the technical performance in sport disciplines: athletics (high start), gymnastics (roll forward), sport games-basketball (running ball and jump shot at the basket). Given is summative assessment from audits during the research, and also are shown the obtained parameters from the semiannual assessment of the register, i.e. assessment done during the school year for pupils. Taken on the mind that the assessment of the students was done with numeric scale of 1 to 5 may be noted that the assessment of motor skills and habits (test-polygon), sport disciplines athletics (High start) and gymnastics (roll forward) was from 1 to 5. In disciplines of the sport game -basketball (leading the ball and jump shot at the basket), extracted grades or the summarized grades from the research and the evaluation at the end of first semester (evaluation during the school year) or a score from the log was ranged from 2 to 5.

The obtained values of kurtosis, from the indicators, at gained score from the sport discipline - athletics and the evaluation of the log (evaluation during the school year) show mesokurtic, while the remaining values are obtained under the limit value of 3.00 and are considered platykurtic.

Table 1. The basic statistical parameters obtained from the survey scores and grades received during the school year for first-year female pupils at the secondary education

	Mean	StdDv	Median	Min	Max	Range	Kurtosis
Test-polygon	2.97	0.93	3	1	5	4	-0.55
Athletics	4.34	1.10	5	1	5	4	3.06
Gymnastics	4.03	1.02	4	1	5	4	1.51
Basketball	4.13	0.76	4	2	5	3	-0.64
Summative assessment	4.07	0.79	4	2	5	3	-0.16
Semiannual assessment	4.65	0.68	5	2	5	3	3.02

To see exactly whether there are differences between the scores obtained in the survey and obtained estimates during the school year (semi-annual assessment), were made t-tests for establishing the differences in the arithmetic means for each indicator separately.

From inspection in the table 2, 3, 4 and 5 may be noted that between the executed assessment in the research and grades received during the school year, semiannual evaluations (evaluation of the register) observed were statistically significant differences in all variables. Specifically were noted statistically significant differences between the obtained scores between the motor skills and habits assessed

by test-polygon with the evaluation performed in the log, resulting grade from the technical performance of the elements of athletics (a high start) with the evaluation performed in the log, the resulting assessment of the technical performance of gymnastics (roll forward) with the assessment performed in the log and the resulting score of sport games-basketball (running the ball with a jump shot) with the score concluded in the log, where Q or P showed values of 0.00 to 0,02 suggesting the fact that exists statistically significant difference between the obtained grades. Also extracted was one summative grade from the research and the scores obtained in the log Table 6 where is recorded statistically significant difference in obtained scores on the level of Q or P = 0.00.

Table 2. t-test

Variables	Mean	StdDv	Diff	t	df	p
Test-polygon	2.97	0.10	-1.69	-15.45	88	0.00
Semiannual assessment	4.65	0.68				

Table 3. t-test

Variables	Mean	StdDv	Diff	t	df	p
Athletics	4.34	1.10	-0.31	1.29	-2.29	0.02
Semiannual assessment	4.65	0.68				

Table 4. t-test

Variables	Mean	StdDv	Diff	t	df	p
Gymnastics	4.03	1.02	-0.62	-5.29	88	0.00
Semiannual assessment	4.65	0.68				

Table 5. t-test

Variables	Mean	StdDv	Diff	t	df	p
Basketball	4.13	0.76	-0.52	-5.04	88	0.00
Semiannual assessment	4.65	0.68				

Table 6. t-test

Variables	Mean	StdDv	Diff	t	df	p
Summative assessment	4.07	0.79	-0.58	-5.72	88	0.00
Semiannual assessment	4.65	0.68				

CONCLUSIONS

The results may be adopted the following conclusions:

* There are statistically significant differences between a summative performed grade in the research and the semiannual assessment gained from the school year for female pupils in secondary education.

* Individually, statistically significant differences in obtained scores were noted in all sport disciplines: athletics (high start), gymnastics (roll forward); sport games-basketball (running ball and jump shot) and a test-polygon for checking the motor skills and habits, with obtained semi-annual evaluations from the school year among students at the secondary education.

* Best scores among students were noted in the sport discipline, athletics (high start), while the lowest scores were noted at motor skills and habits, test- polygon.

Literature

1. Bala, G. (1986). *Logicke osnove metoda za analizu podataka iz istrazivanja u Fizickoj kulturi*. Novi Sad: Sava Muncan.
2. Бабијак, Ј. (1986). Оцењивање моторних способности деце. *Физичка култура*, (Титоград), (1), 59.
3. Клиначаров, И. (2001). *Оптимална поставеност на наставата по физичко и здравствено воспитување во основното образование во Република Македонија*. Докторска дисертација, Скопје: Универзитет „Св.Кирил и Методиј“, Факултет за физичка култура.
4. Клиначаров, И. и Туфекчиевски, А. (2005). Просторните капацитети за реализација на училишни спортски активности во основните училишта во Република Македонија. *Физичка култура* (Скопје), (2), 161-163.
5. Majeric, M. (2004). *Analiza modelov ocenivanja sportnih znanj pri sportni vzgoji*. Doktorska disertacija, Ljubljana: Univerza v Ljubljani, Fakulteta za sport.
6. Малцев, М. и Георгиев, Г. (2005). Мислењата на наставниците од ОУ и ДСУ за наставата по физичко образование спорт и спортски активности. *Физичка култура* (Скопје), (2), 73-74.
7. Поповски, К. (1996). *Современи сфаќања за проверувањето и оценувањето на постигнатите резултати*. Скопје: Мис.
8. Митевски, О. и Георгиев, Г. (2002). Активноста на наставникот по физичко воспитување во воспитно-образовниот процес во различни услови на работа, *Физичка култура* (Скопје), (1-2), 36-37.
9. Митревски, В. (2009). *Критериуми за оценување во наставата по спорт и спортски активности*. Магистерски труд, Скопје: Универзитет „Св. Кирил и Методиј“, Факултет за физичка култура.
10. Mitrevski, V., Georgiev, G. i Petrov, L. (2010). Quantitative differences between schoolgirls at high school regarding the level of their

- achievements classes in physical education. **Vo** zbornik na trudovi Inovacii v obrazovaniето (str. 994-997). Sumen: Sumenski univerzitet „Episkop Konstantin Preslavski“, Pedagogiceski fakultet.
11. Rokita, A. (2001). Interes za sportske aktivnosti učenika prvih razreda srednje škole u razdoblju od 1995. do 2001. godine, *Kineziologija*, 37, (1), 99-105.
 12. Саити, Б. (2007). *Оценувањето на моторичките способности како прилог на опитата оценка по физичко и здравствено образование за учениците од I-IV одделение во РМ. Докторска дисертација*, Скопје: Универзитет „Св.Кирил и Методиј“, Факултет за физичка култура.

SUMMARY

The research was carried out on 89 female students at first-year who regularly attended the course sport and sport activities. The aim was to see whether there are differences between the grades gained during the teaching and assessments received during the survey. As indicators in the evaluation of assessment during the research into account were taken techniques of performance of several sport disciplines: athletics (high start) and gymnastics (rolling forward), from the sport games , basketball (leading the ball with a jump shot towards the basket) and test - polygon for checking of the motor skills and habits of the female pupils. The determination of the significance of the differences was performed by t-test. After receiving the survey results, were identified statistically significant differences in the assessment of pupils.

Key words: indicators, assessment, evaluation, teaching, differences.