

Besim Halilaj,

Ilir Gllareva, University of Montenegro,

Shemsedin Vehapi, University of Prishtina,

REPETITIVE STRENGTH AMONG STUDENTS OF AGE 14

Introduction

The main goal of this study was to verify the actual motor status, respectively the component of the repetitive strength among students of age 14 of masculine gender of an area with specific geographic characteristics, and almost not developed at all from the sports perspective. In addition, the scale of relationship between variables which measured the repetitive strength, verifying latent structures of the repetitive strength dimension in the sense of its topologic hierarchy were analyzed. Known that repetitive strength is human ability to execute motor movements unlimited duration or until rejection, also genetic coefficient of repetitive strength is 50%. This research was focused mainly in verifying the actual motor status, respectively the repetitive strength among students of age 14. In addition to verifying the actual motor status, another objective was to verify the relationship between the variables employed. It was expected to obtain significant correlations among movement variables, and the repetitive strength was expected to concentrate in one single factor.

Material and methods

The study involved 82 male students of the primary school “Qamil Ilazi” in Kačanik-Kosovo. All those tested enjoyed good health. Measurements were conducted in the morning during regular physical education classes in this school in the period September – October (2002).

Four movement tests, which test the repetitive strength, were conducted: 1. Pull-up, 2. Sit-Up, 3. Back extension, 4. Push-up. The methods used to analyze the data are standard methods using SPSS, correlation method and factorial analysis method.

Results and discussion

Basic statistical parameters show a distribution which is not significantly different from the normal distribution. This enabled us to continue using the deductive statistical methods, which yielded highly correlative values among the repetitive strength tests, while in the latent space of this dimension; two latent motor factors were obtained. Based on the actual motor status, respectively on the repetitive strength of this sample according to MAX D values, it is found that the distribution is not significantly different from the normal distribution, since the variable values are lower than the values of the test, which is $TEST = .180$.

Table 1. Basic statistical parameters

Variable	N	Min	Max	Mean	Std.Dev.	Skew	Kurt	KV%	MaxD
Pull-up	82	0	11	3.9	2.61	0.469	-0.23	67.08	0.11
Sit-Up	82	10	196	51.31	26.44	2.642	11.06	51.52	0.155
Back extension	82	8	110	48.98	19.77	0.469	1.08	40.36	0.082
Push-up	82	0	53	18.69	10.25	0.469	0.8	54.84	0.128

TEST= .180.

The scale of relationship between repetitive strength variables was partial since not all correlation test values were statistically significant.

Table 2. Correlations between variables

Variable	Pull-up	Sit-Up	Back extension	Push-up
Pull-up	1			
Sit-Up	0.069	1		
Back extension	0.179	.223*	1	
Push-up	.482**	0.177	.244**	1

Legend: * & ** Significant for the 0.05 & 0.01

Space factorization results in extracting two latent squares, so that according to parallel projections, the first factor which carries most of information is the repetitive strength of arms factor, which resulted in high values of correlation with Pull-up test values of .892 and Push-up value of .807, while the second factor is the repetitive strength of body factor, which has high correlation with Sit-Up test values of .872 and Back extension value of .665.

Table 3. Characteristic roots and parts of the common variance explained

Variable	Lambda	Variance%	Cum %
1	1.718	42.956	42.956
2	1.016*	25.409	68.365**
3	0.761	19.018	87.383
4	0.505	12.617	100

Table 4. Amaze of the parallel projection

Number	Variable	Factor 1	Factor 2
1	Pull-up	0.892	-0.097
2	Sit-Up	-0.133	0.872
3	Back extension	0.18	0.665
4	Push-up	0.807	0.129

Conclusion

The study concludes that the distribution is mainly normal, because the MAX D variable values are lower than the values of the test, which is TEST= .180. The scale of relationship between repetitive strength variable was partial since not all correlations were statistically significant. Space factorization resulted in extracting two latent squares defined as repetitive strength of arms factor which resulted in high values of correlation with Pull-up test values of .892 and Push-up value of .807, and repetitive strength of body factor which has high correlation with Sit-Up test values of .872 and Back extension value of .665. Despite the young age of the students involved in this research and despite that the sample was selected from of an area with specific geographic characteristics, and almost not developed at all from the sports perspective. Research shows that current physical condition and health of the students is good, enough space to move, and to make motor activity was also in their favor, although the repetitive strength was expected to concentrate in one single factor.

References

1. Metikoš D., F. Prot, E. Hofman, Ž. Pintar, G. Oreb; *Mjerenje bazičnih motoričkih dimenzija sportaša*. Zagreb, Komisija za udžbenike i skripta Fakulteta za fizicku kulturu Sveučilišta u Zagrebu, 1989.
2. Pišot R., J. Planinšec; *Struktura motorike v zgodnjem otroštvu*. Koper, Univerzitet in Primorskem, Institut za kineziološke raziskave, 2005.
3. Šturm J., J. Strel; *Primerjava nekaterih motoričnih parametrov mladine v osnovnih šolah SR Slovenije v obdobju 1970/1971 – 1973*. Ljubljana, FTK, 1984.
4. Rajtmajer, D. Komparativna analiza psihomotorične strukture dečkov i deklíč, starih 5 – 5,5 let. Šport, 41, (1-2), 36 – 40, 1993.
5. Šturm, J., J. Strel. Primerjava nekaterih motoričnih parametrov mladine v osnovnih šolah SR Slovenije v obdobju 1970/1971 – 1973. Ljubljana: FTK, 1984.
6. By: Teo, Tilda W. L.; Mong, Yiqin; Ng, Shamay S. M. The repetitive Five-Times-Sit- To-Stand test: its reliability in older adults, *International Journal of Therapy & Rehabilitation*. Mar2013, Vol. 20 Issue 3, p122-130. 9p. 1 Diagram, 7 Charts. , Database: Academic Search Premier.
7. By: Farooq, Mohd; Ali Khan, Abid. Effect of shoulder rotation, upper arm rotation and elbow flexion in a repetitive gripping task. *Work*. 2012, Vol. 43 Issue 3, p263-278. 16p. 3 Color Photographs, 3 Diagrams, 8 Charts, 13 Graphs. , Database: Business Source Premier.
8. By: Emeljanovas, Arunas; Venskaityte, Eureka; Mišigoj-Duraković, Marjeta; Poderys, Jonas. Utjecaj bavljenja sportskim igrima i cikličkim sportovima na mišićnu snagu i određene pokazatelje funkcije srčanožilnog sustava u dječaka dobi od 11 do 14 godina -- longitudinalno istraživanje *Kinesiology*. Dec2012, Vol. 44 Issue 2, p182-190. 9p. 1 Chart, 7 Graphs., Database: Academic Search Premier.

REPETITIVE STRENGTH AMONG STUDENTS OF AGE 14

The study involved 82 male students of the primary school “Qamil Ilazi” in Kaçanik-Kosovo. Four movement tests, which test the repetitive strength, were conducted: 1. Pull-up, 2. Sit-Up, 3. Back extension, 4. Push-up. The main goal of this study was to verify the actual motor status, respectively the component of the repetitive strength among students of age 14 of masculine gender. In addition to verifying the actual motor status, another objective was to verify the relationship between the variables employed. Basic statistical parameters show a distribution which is not significantly different from the normal distribution, yielded highly correlative values among the repetitive strength tests. Space factorization resulted in extracting two latent squares defined as repetitive strength of arms factor, and repetitive strength of body factor.

Key Words: repetitive strength, motor status, factor, male.

“Dan”, 1. februar 2014.

У СУСРЕТ 11. МЕЂУНАРОДНОЈ КОНФЕРЕНЦИЈИ И
10. КОНГРЕСУ ЦРНОГОРСКЕ СПОРТСКЕ АКАДЕМИЈЕ

Све спремно за почетак

Пријава радова за излагање на 11. међународној научној конференцији о трансформационим процесима у спорту „Спортска достигнућа“ и учешће на 10. Конгресу Црногорске спортске академије је окончана 15. јануара. Поред великог броја пристиглих радова, рецензенти су прихватили и одабрали 102 адекватно припремљена рада чији аутори су се строго држали прецизно формулисаних пропозиција за припрему истих. Поред 102 регистрована учесника који ће презентovati своје радове, пријављено је још и 13 учесника који ће пратити конференцију без пријављеног рада.

— Овогодишњу конференцију краси чињеница да је национална структура аутора веома шаролика, тј. аутори су са свих страна свијета, из 25 земаља, рекао је проф. др Душко Бјелица, председник припремачког одбора Конгреса. — Наведени научни радови су пријављивани по понуђеним секцијама, тако да би врло једно било истаћи да су аутори препознали секције у оквиру конференције ко-



Душко Бјелица

ју организује Црногорска спортска академија као референтно мјесто за излагање својих научних достигнућа, рекао је Бјелица.

Организатори су саопштили да се аутори пријављених радова обавјештавају о њиховом прихватању до 1. фебруара.

— Врло брзо ће бити припремљен програм рада, гдје ће бити детаљно израђен распоред излагања који ће се одвијати паралелно на

два језика, нашем и енглеском. Уводна предавања су до сада потврђена од стране проф. др Зорана Милошевића са Факултета спорта и физичког васпитања Универзитета у Новом Саду и доц. др Селчука Акшинара са Департамента за спорт Невшехир Хачи Бекташ Вели Универзитета из Анкаре, рекао је члан Организационог одбора доц. др Стево Поновић.

Т.Б.