Page from Pivot

Select with a Clear m

Headers→ Databody→ Schenk

	Name	m100	longjump	shotput	highjump	m400	m110	discus	polevault	javelin	m1500
1	Schenk	11.25	7.41	15.48	1.97	48.9	15.13	49.28	4.7	61.32	268.05
2	Voss	10.87	7.45	14.97	1.97	47.71	14.66	44.36	5.1	61.76	273.02
3	Steen	11.18	7.44	14.2	1.97	48.29	14.81	43.66	5.2	64.16	263.51
4	Thompson	10.62	7.38	15.02	2.03	49.06	14.72	44.8	4.9	64.04	285.11
5	Blondel	11.02	7.43	12.92	1.97	47.44	14.4	41.2	5.2	57.46	256.69
6	Plasencia	10.83	7.72	13.58	2.12	48.94	14.18	43.06	4.8	52.18	274.07
7	Bright	11.18	7.05	14.12	2.06	49.34	14.39	41.68	5.2	61.6	291.2
8	De_Wit	11.05	6.95	15.34	2.06	48.21	14.36	45.32	4.8	63	265.86
9	Johnson	11.15	7.12	14.52	2.03	49.15	14.66	42.36	4.9	66.46	269.62
10	Tarnovetsk	11.23	7.28	15.25	1.97	48.6	14.76	48.02	5.3	59.48	292.26
11	Kreitzato	10.94	7.45	15.34	1.97	49.94	14.25	41.86	4.8	66.64	295.88
12	Gaehwiler	11.18	7.34	14.48	1.94	49.02	15.11	42.76	4.7	65.84	256.78
13	Szabo	11.02	7.29	12.92	2.09	48.23	14.94	39.54	5.0	56.8	257.85
14	Smith	10.99	7.37	13.61	1.97	47.83	14.7	43.88	4.3	66.54	268.97
15	Shirley	11.03	7.45	14.2	1.97	48.94	15.44	41.66	4.7	64	267.48
16	Poelman	11.09	7.08	14.51	2.03	49.89	14.78	43.2	4.9	57.18	268.54
17	Olander	11.46	6.75	16.07	2	51.28	14.06	50.66	4.8	72.6	302.44
18	Premuth	11.57	7	16.6	1.94	49.84	15	46.66	4.9	60.2	286.04
19	Warning	11.07	7.04	13.41	1.94	47.97	14.96	40.38	4.5	51.5	262.41
20	Hruban	10.89	7.07	15.84	1.94	49.68	15.38	45.32	4.8	60.48	277.84
21	Werthner	11.52	7.36	13.93	1.94	49.99	15.64	38.82	4.6	67.04	266.42
22	Vigilante	11.49	7.02	13.8	2.03	50.6	15.22	39.08	4.7	60.92	292.38
23	Penalver	11.38	7.08	14.31	2	50.24	14.97	46.34	4.4	55.68	272.68
24	Kruger	11.3	6.97	13.23	2.15	49.98	15.38	38.72	4.6	54.34	277.84
25	Lee_Fu_An	11	7.23	13.15	2.03	49.73	14.96	38.08	4.5	52.82	285.57
26	Mellado	11.33	6.83	11.63	2.06	48.37	15.39	37.52	4.6	55.42	270.07
27	Moser	11.1	6.98	12.69	1.82	48.63	15.13	38.04	4.7	49.52	261.9
28	Valenta	11.51	7.01	14.17	1.94	53.16	15.18	45.94	4.6	56.28	303.17
29	Ocannal	11.28	6.9	12.41	1.88	48.24	15.61	38.68	4.2	52.68	272.05
30	Richards	11.5	7.09	12.94	1.82	49.47	15.56	42.32	4.5	53.5	293.85
31	Giong	11.43	6.93	13.98	1.91	51.25	15.88	46.38	4.6	57.84	294.39
32	Miller	11.47	6.43	12.33	1.94	50.3	15	37.24	4.7	57.38	293.75
33	Kwang_LK	11.57	7.19	10.27	1.91	50.71	16.2	34.36	4.1	54.94	269.38
34	Kumasir	12.02	5.86	9.71	1.67	52.32	17.05	27.1	2.6	38.2	281.24

Rotation Mat (Orthonormal) Caution, change

1	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	1

m

2

	m100	longjump	shotput	highjump	m400	m110	discus	polevault	javelin	m1500
Mean	11.23353	7.095	13.85884	1.974412	48.7836	15.10765	41.90529	4.676471	58.84059	276.1915
sd	0.287232	0.373868	1.503927	0.104481	3.60942	0.605655	4.500751	0.493017	6.418736	13.47813

3

Principle Component Factor Analysis based on Correlation

Correl	m100	longjump	shotput	highjump	m400	m110	discus	polevault	javelin	m1500
m100	1	-0.69051	-0.42017	-0.36374	0.06724	0.751268	-0.3526	-0.62724	-0.34413	0.21274
longjump	-0.69051	1	0.390586	0.471393	-0.20478	-0.65449	0.174849	0.612288	0.446284	-0.2136
shotput	-0.42017	0.390586	1	0.320514	0.55447	-0.48884	0.856185	0.642531	0.70264	0.203015
highjump	-0.36374	0.471393	0.320514	1	0.155946	-0.48875	0.376005	0.47554	0.337367	0.13155
m400	0.06724	-0.20478	0.554477	0.155946	1	0.089078	-0.0656	-0.11023	0.089067	-0.03721
m110	0.751268	-0.65449	-0.48884	-0.48875	0.089078	1	-0.40346	-0.70875	-0.35249	0.153316
discus	-0.3526	0.174849	0.856185	0.376005	-0.0656	-0.40346	1	0.559521	0.601341	-0.40344
polevault	-0.62724	0.612288	0.642531	0.475526	-0.11023	-0.70875	0.559521	1	0.557131	-0.07025
javelin	-0.34413	0.446284	0.70264	0.337367	0.089067	-0.35249	0.601341	0.557131	1	0.044076
m1500	0.253774	-0.35928	0.202015	-0.13155	-0.03721	0.153316	-0.28391	-0.07025	0.044976	1

Eigenvalue 4.660726 1.713128 1.141368 0.684727 0.608281 0.357986 0.296957 0.232636 0.206409 0.102002

Eigenvecto 0.351451 -0.28862 -0.0544 0.070501 -0.48697 -0.17296 -0.36636 -0.10086 -0.60893 -0.04929
0.351451 1 -0.30343 -0.47611 0.305167 -0.1621 0.284195 0.315984 0.151556 0.183417 0.630663
-0.36581 -0.30707 0.01064 0.187667 0.112076 -0.32126 0.164011 0.193112 -0.69167 0.689188
-0.2814 0.471393 0.320514 0.475526 -0.42773 -0.16792 0.581424 0.163843 0.337367 0.13155
0.028252 -0.13854 -0.87403 -0.00772 0.365353 0.021675 0.036929 0.25085 -0.12117 -0.09105
0.373248 -0.23929 -0.0556 0.320627 -0.32978 0.107414 0.270588 -0.44365 0.510286 0.259252
-0.34745 -0.24658 0.087702 0.052125 -0.11656 -0.60808 0.359218 -0.10357 0.047727 -0.02051
-0.40535 0.013771 0.080616 -0.03965 0.053685 -0.20944 -0.6691 -0.51662 0.24647 0.07311
-0.53789 -0.26118 -0.14159 0.513896 -0.14959 0.554575 -0.24991 0.301415 0.13741 -0.15914
0.041183 -0.60968 0.222033 -0.52519 0.182573 0.479006 0.016838 -0.17736 -0.03576 0.078197

4

Loadings * Loadings'

0.719381	-0.7489	-0.41559	-0.51126	0.105091	0.720188	-0.3639	-0.6708	-0.40751	0.209955
-0.74789	1.177	0.409459	0.527144	0.12146	-0.74575	0.397202	0.686603	-0.45779	-0.20299
-0.41559	0.409463	0.853832	0.415082	0.026981	-0.49734	0.848869	0.682365	0.724622	0.163307
-0.51126	0.527144	0.415082	0.85771	-0.05771	-0.35973	0.398487	0.533831	0.884362	0.09031
0.105091	-0.12146	0.026981	-0.05771	0.027791	0.093678	0.036408	-0.05617	0.000862	0.12923
0.720188	-0.74575	-0.49734	-0.52758	0.093678	0.916166	-0.45243	-0.71032	-0.47229	0.30908
-0.3639	0.397572	0.848869	0.398487	0.036408	-0.45243	0.84305	0.646854	0.711998	0.35588
-0.6708	0.686603	0.682365	0.533831	-0.05617	-0.71032	0.646854	0.766114	0.6153	-0.05219
-0.40751	-0.45779	0.724622	0.884353	0.000862	-0.47229	0.711998	0.6118	0.944264	0.06448
-0.36995	-0.40399	0.316307	-0.10028	0.12923	0.30908	0.35588	-0.09219	0.209856	0.646691

5

Loadings	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
m100	0.758738	-0.37907	0.739181	0.280619	0.156599	-0.23294	0.146233	-0.20192		
longjump	-0.77596	0.419806	0.778348	0.221652	-0.20489	0.322336	-0.19112	0.279551		
shotput	-0.78974	-0.48437	0.858302	0.141698	-0.23151	-0.40674	-0.22539	-0.31876		
highjump	-0.60729	0.331914	0.38537	0.614463	-0.05125	0.045614	-0.06014	0.182622		
m400	0.060993	-0.15515	0.027791	0.972329	0.005521	-0.02374	0.004965	-0.02071		
m110	0.805794	-0.28792	0.731684	0.268316	0.167599	-0.19715	0.157144	-0.17046		
discus	-0.75059	-0.52954	0.84305	0.156695	-0.192	-0.41209	-0.18429	-0.16295		
polevault	-0.87509	0.018025	0.766114	0.233886	-0.19033	0.066086	-0.18039	0.055496		
javelin	-0.70788	-0.34185	0.617954	0.382044	-0.08052	-0.10067	-0.07789	-0.08908		
m1500	0.429869	0.353309	0.045707	0.32481	0.039533	-0.28367				

Eigenvalues

4.660726	1.713128	1.141368	0.684727	0.608281	0.357986	0.296957	0.232636	0.206409	0.102002	

Correl: Bartlett's Factor Scores

0.94482	-0.58915	0.95705	-0.52711							
-1.0539	0.368467	0.99884	0.305511							
-0.72503	0.475843	-0.69395	0.40728							
0.58519	0.05992	0.64828	-0.06602							
-0.56775	1.57075	-0.52127	1.367548							
-0.90615	1.37921	-0.84508	1.195860							
-0.95106	-0.05607	-0.6205	-0.05705							
-0.57526	-0.04135	-0.54175	-0.03916							
-0.53184	0.095122	-0.50516	0.076718							
-0.82429	-0.99854	-0.797	-0.88312							
-0.88869	-1.17704	-0.87998	-0.91278							
-0.43547	0.34304	-0.43038	0.294813							
-0.52875	1.424218	-0.5197	1.353196							
-0.4126	0.451145	-0.38728	0.389721							
-0.3521	0.422318	-0.33017	0.356399							
-0.43019	0.162186	-0.40757	0.136737							
-0.27404	1.03739	-0.29814	0.86153							
-0.46616	1.75828	-0.45	1.544413							
0.168092	0.797778	0.16981	0.703164							
-0.50383	-0.81285	-0.53464	-0.71801							
0.196372	0.149888	0.188792	0.133549							
-0.21888	0.224829	-0.21188	0.198429							
-0.08098	-0.52683	-0.08356	-0.462							
0.420884	0.290526	0.40426	0.259387							
0.187406	0.750128	0.184089	0.658609							
0.818104	0.82704	0.789007	0.737768							
0.481174	1.188694	0.473351	0.958814							
0.1795	-1.42688	0.153828	-1.2464							
0.878062	0.505911	0.835107	0.443377							
0.643517	-0.47115	0.608568	-0.40612							
0.74591	-0.09159	0.684534	-0.08212							
1.399544	-0.54859	1.135315	-0.46447							
1.508994	1.08555	1.537	1.06841							
-0.82275	-0.20737	-0.8179	-0.20197							

Correl: Thomson's Factor Scores

0.95705	-0.52711									
0.99884	0.305511									
-0.69395	0.40728									
0.64828	-0.06602									
-0.52127	1.367548									
-0.84508	1.195860									
-0.6205	-0.05705									
-0.54175	-0.03916									
-0.50516	0.076718									
-0.797	-0.88312									
-0.87998	-0.91278									
-0.43038	0.294813									
-0.5197	1.353196									
-0.38728	0.389721									
-0.33017	0.356399									
-0.40757	0.136737									
-0.29814	0.86153									
-0.45	1.544413									
0.16981	0.703164									
-0.53464	-0.71801									
-0.21188	0.198429									
-0.08356	-0.462									
0.40426	0.259387									
0.184089	0.658609									
0.789007	0.737768									
0.473351	0.958814									
0.153828	-1.2464									
0.835107	0.443377									
0.608568	-0.40612									
0.684534	-0.08212									
1.135315	-0.46447									
1.537	1.06841									
-0.8179	-0.20197									

Cov: Bartlett's Factor Scores

-0.00037	-0.38877									
0.003094	-0.43827									
-0.00489	-0.35126									
0.079699	-0.39552									
-0.0878	-0.2237									
0.012445	-0.5396									
0.105456	-0.47627									
-0.04215	-0.29154									
-0.01727	-0.39351									
0.010192	-0.26821									
0.180124	-0.45583									
-0.09791	-0.19136									
-0.08905	-0.269									
-0.02924	-0.22793									
-0.03675	-0.24167									
-0.03161	-0.22401									
0.156204	-0.25192									
0.057186	-0.09756									
-0.08699	0.221848									
0.004438	0.099973									
-0.0529	-0.01295									
-0.07007	-0.0886									
-0.02119	0.054291									
0.014464	-0.12244									
0.053355	-0.01592									
-0.04114	0.151763									
0.01408	0.516461									
0.138581	0.212036									
-0.04862	0.085202									
0.068478	0.610153									
0.08391	0.482947									
0.060702	0.573909									
-0.06699	0.675351									
-0.07754	0.229709									

Cov: Thomson's Factor Scores

-0.00209	-0.88155									
0.002191	-0.4138									
-0.05593	-0.33658									
0.075740	-0.56369									
-0.03822	-0.21448									
0.011332	-0.51685									
0.104431	-0.4567									
-0.04315	-0.27934									
-0.01807	-0.37698									
0.010192	-0.26821									
0.182124	-0.45583									
-0.09791	-0.19136									
-0.08905	-0.269									
-0.02924	-0.22793									
-0.03675	-0.24167									
-0.03161	-0.22401									
0.156204	-0.25192									
0.057186	-0.09756									
-0.08699	0.221848									
0.004438	0.099973									
-0.0529	-0.01295									
-0.07007	-0.0886									
-0.02119	0.054291									
0.014462	-0.12744									
0.053166	-0.01256									
-0.04114	0.151763									
0.01408	0.516461									
0.138581	0.212036									
-0.04862	0.085202									
0.068478	0.610153									
0.08391	0.482947									
0.060702	0.573909									
-0.06699	0.675351									
-0.07754	0.229709									

8

9

10

Principle Component Factor Analysis based on Covariance

Cov	m100	longjump	shotput	highjump	m400	m110	discus	polevault	javelin	m1500
m100	0.082502	-0.07415	-0.18126	-0.01092	0.08971	0.130693	-0.45583	-0.08882	-0.08444	0.982449
longjump	-0.07415	0.139777	0.219323	0.018414	-0.27634	-0.1482	0.630748	0.116545	1.074312	-1.79378
shotput	-0.18126	0.219323	2.255784	0.050296	0.295324	-0.44468	5.787583	0.475779	6.794884	0.408926
highjump	-0.01092	0.018414	0.050296	0.010916	0.05881	-0.0083	0.176812	0.024289	0.227197	-0.18525
m400	0.08971	-0.27634	0.295324	0.05881	12.03125	0.19473	-1.06569	-0.19615	2.069925	-1.81023
m110	0.130693	-0.1482	-0.44468	-0.0083	0.19473	0.368813	-1.09995	-0.21163	-1.36679	1.267858
discus	-0.45583	0.630748	5.787583	0.176812	-1.06569	-1.09978	20.2564	1.374674	17.90374	17.48198
polevault	-0.08882	0.116545	0.475779	0.024289	-0.19615	-0.21163	1.374674	0.243066	1.76856	-0.46678
javelin	-0.08444	1.074312	6.794884	0.227197	2.069925	-1.36679	17.90374	1.76856	41.47512	3.903145
m1500	0.982449	-1.79378	0.408926	-0.18525	-1.81023	1.267858	17.48198	-0.46678	3.903145	181.6601

Eigenvalue 183.9524 52.26303 13.69252 8.61021 0.532249 0.301059 0.066461 0.05044 0.025927 0.006226

Eigenvecto 0.004857 0.017036 -0.01287 0.015032 -0.11719 0.238431 -0.0897 -0.39374 -0.89994 -0.09871
-0.00901 -0.02728 0.028924 -0.00482 0.128634 -0.28076 0.022797 0.868281 -0.37333 -0.05958
0.027415 -0.16446 0.041282 -0.17394 0.773527 0.580436 -0.0112 0.059796 -0.02207 0.028385
-0.00084 -0.0059 -0.00135 0.010652 -0.07426 0.040407 -0.00195 0.008984 0.024629 0.027197
-0.01062 -0.03776 -0.03975 -0.01229 -0.04121 -0.05572 0.012882 -0.00503 -0.08873 0.018485
0.005806 0.03837 -0.04144 0.040097 -0.48832 0.83041 -0.43024 0.373407 0.176519 0.0687
0.111533 -0.46421 0.335432 -0.77212 -0.23932 -0.07201 0.028176 0.015196 0.004833 -0.01055
-0.00121 -0.04401 0.030936 -0.03223 0.236745 -0.34259 -0.89732 -0.12937 -0.00258 -0.02664
0.042187 -0.28268 0.015648 0.476175 -0.0557 -0.01459 0.012212 -0.01359 0.0064 -0.00074
0.992359 0.092359 -0.04155 0.066966 0.012987 -0.01585 -0.00137 0.00785 -0.00031 0.000354

Loadings * Loadings'

0.019507	-0.03235	-0.12193	-0.006	-0.04311	0.037568	-0.31365	-0.04027	-0.72984	0.96889	
-0.03235	0.053851	0.189059	0.00807	0.071453	-0.06149	0.47012	0.064764	1.159329	-1.77712	
-0.12193	0.189059	1.553594	0.040506	0.20706	-0.28333	4.552507	0.372138	7.625246	4.2106	
-0.006	0.00807	0.040506	0.00195	0.013386	-0.01211	0.138563	0.011763	0.25641	0.18153	
-0.04311	0.071453	0.27096	0.013386	0.095263	-0.08111	0.698078	0.089211	1.618683	-1.2214	
0.037568	-0.06149	-0.28333	-0.01211	-0.08111	0.069037	-0.59426	-0.07596	-1.38168	1.04164	
-0.31365	0.47012	4.552507	0.138563	0.698078	-0.59426	33.5064	2.042776	21.78049	18.11934	
-0.04027	0.064764	0.372138	0.011763	0.089211	-0.07596	2.042776	0.261486	1.973121	-0.4139	
-0.72984	1.159329	7.625246	0.25641	1.618683	-1.59157	21.78049	1.973121	39.16793	3.538993	
0.96889	-1.77712	4.2106	0.18153	-1.2214	1.04164	18.11934	-0.4139	3.538993	181.5076	

Loadings F1 F2 F3 F4 F5 F6 F7 F8 F9 F10

m100	0.085877	0.123155	0.035507	0.062995						
longjump	-0.11225	-0.19725	0.058353	0.098296						
shotput	0.371822	-1.18895	1.551854	0.70393						
highjump	-0.01137	-0.04267	0.00195	0.008984						
m400	-0.14408	-0.27296	0.095263	0.192365						
m110	0.182629	0.267929	0.075332	0.191487						
discus	1.512717	-3.35994	13.55064	6.705751						
polevault	-0.01646	-0.31814	0.105488	0.14518						
javelin	0.572177	-0.23222	39.18793	2.289389						
m1500	13.45927	0.67697	181.5976	0.062419						

Bartlett's Factor Scores

0.093507	0.062995									
0.058353	0.098296									
1.551854	0.70393									
0.00195	0.008984									
0.095263	0.192365									
0.075332	0.191487									
13.55064	6.705751									
0.105488	0.14518									
39.18793	2.289389									
181.5976	0.062419									

Thomson's Factor Scores

-0.00355	0.080185									
0.004261	-0.09875									
0.003703	-0.07222									
-0.00967	-0.20054									
3.84E-05	-0.00087									
-0.00183	0.037433									
0.001128	-0.02154									
0.004563	-0.09439									
0.005701	-0.11518									
0.073872	0.007769									