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* Encoding: UTF-8.
COMMENT NEW (2018) SPSS CODE TO RUN A PCA ON WECHSLER TEST DATA.
TITLE  PCA of 12 Wechsler subtests; U.S. norms (Wechsler, 1974).

MATRIX DATA VARIABLES=ROWTYPE_  gen_know comp_feat arithmetic vocab
comprehension
   number_memry compare_pic order_pic order_cubes reforming coding mazes
 /FORMAT=FREE LOWER
 /N=60
 /CONTENTS=CORR.
BEGIN DATA
 CORR 1.0
 CORR .62 1.0
 CORR .54 .47 1.0
 CORR .69 .67 .52 1.0
 CORR .55 .59 .44 .66 1.0
 CORR .36 .34 .45 .38 .26 1.0
 CORR .40 .46 .34 .43 .41 .21 1.0
 CORR .42 .41 .30 .44 .40 .22 .40 1.0
 CORR .48 .50 .46 .48 .44 .31 .52 .46 1.0
 CORR .40 .41 .29 .39 .37 .21 .48 .42 .60 1.0
 CORR .28 .28 .32 .32 .26 .29 .19 .25 .33 .24 1.0
 CORR .27 .28 .27 .27 .29 .22 .34 .32 .44 .37 .21 1.0
END DATA.

COMMENT 2 components will be extracted by eigenvalue criterion.
FACTOR MATRIX=IN(CORR*)
  /MISSING LISTWISE
  /PRINT CORRELATION UNIVARIATE INITIAL EXTRACTION ROTATION
  /PLOT= EIGEN ROTATION(1,2)
  /CRITERIA MINEIGEN(1) ITERATE(25)
  /EXTRACTION PC
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  /ROTATION VARIMAX
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  /METHOD=CORRELATION.
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Factor Analysis

PCA of 12 Wechsler subtests; U.S. norms (Wechsler, 1974)

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
gen_know	.	.	60
comp_feat	.	.	60
arithmetic	.	.	60
vocab	.	.	60
comprehension	.	.	60
number_memry	.	.	60
compare_pic	.	.	60
order_pic	.	.	60
order_cubes	.	.	60
reforming	.	.	60
coding	.	.	60
mazes	.	.	60

Correlation Matrix

		gen_know	comp_feat	arithmetic	vocab	comprehension
Correlation	gen_know	1.000	.620	.540	.690	.550
	comp_feat	.620	1.000	.470	.670	.590
	arithmetic	.540	.470	1.000	.520	.440
	vocab	.690	.670	.520	1.000	.660
	comprehension	.550	.590	.440	.660	1.000
	number_memry	.360	.340	.450	.380	.260
	compare_pic	.400	.460	.340	.430	.410
	order_pic	.420	.410	.300	.440	.400
	order_cubes	.480	.500	.460	.480	.440
	reforming	.400	.410	.290	.390	.370
	coding	.280	.280	.320	.320	.260
	mazes	.270	.280	.270	.270	.290

PCA of 12 Wechsler subtests; U.S. norms (Wechsler, 1974)

Correlation Matrix

		number_memry	compare_pic	order_pic	order_cubes	reforming
Correlation	gen_know	.360	.400	.420	.480	.400
	comp_feat	.340	.460	.410	.500	.410
	arithmetic	.450	.340	.300	.460	.290
	vocab	.380	.430	.440	.480	.390
	comprehension	.260	.410	.400	.440	.370
	number_memry	1.000	.210	.220	.310	.210
	compare_pic	.210	1.000	.400	.520	.480
	order_pic	.220	.400	1.000	.460	.420
	order_cubes	.310	.520	.460	1.000	.600
	reforming	.210	.480	.420	.600	1.000
	coding	.290	.190	.250	.330	.240
	mazes	.220	.340	.320	.440	.370

Correlation Matrix

		coding	mazes
Correlation	gen_know	.280	.270
	comp_feat	.280	.280
	arithmetic	.320	.270
	vocab	.320	.270
	comprehension	.260	.290
	number_memry	.290	.220
	compare_pic	.190	.340
	order_pic	.250	.320
	order_cubes	.330	.440
	reforming	.240	.370
	coding	1.000	.210
	mazes	.210	1.000

PCA of 12 Wechsler subtests; U.S. norms (Wechsler, 1974)

Communalities

	Initial	Extraction
gen_know	1.000	.658
comp_feat	1.000	.630
arithmetic	1.000	.575
vocab	1.000	.720
comprehension	1.000	.553
number_memry	1.000	.419
compare_pic	1.000	.548
order_pic	1.000	.461
order_cubes	1.000	.666
reforming	1.000	.638
coding	1.000	.243
mazes	1.000	.446

Extraction Method: Principal Component Analysis.

Total Variance Explained

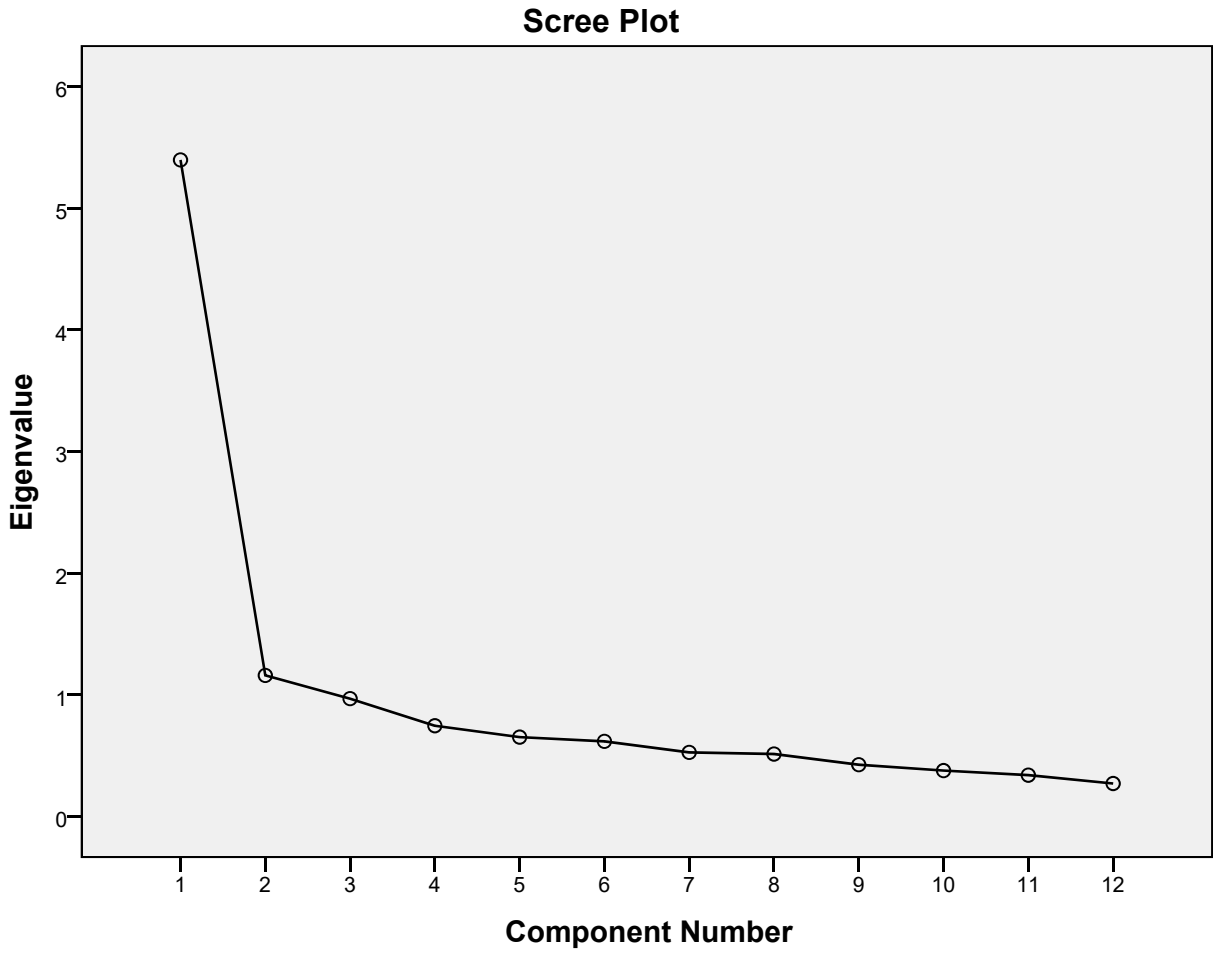
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.398	44.980	44.980	5.398	44.980	44.980
2	1.160	9.666	54.646	1.160	9.666	54.646
3	.969	8.075	62.722			
4	.746	6.220	68.942			
5	.653	5.439	74.381			
6	.618	5.150	79.531			
7	.527	4.394	83.925			
8	.514	4.282	88.207			
9	.426	3.548	91.755			
10	.378	3.148	94.903			
11	.340	2.835	97.738			
12	.271	2.262	100.000			

Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	3.572	29.768	29.768
2	2.985	24.878	54.646
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Extraction Method: Principal Component Analysis.

PCA of 12 Wechsler subtests; U.S. norms (Wechsler, 1974)



Component Matrix[a]

	Component	
	1	2
gen_know	.774	-.243
comp_feat	.777	-.160
arithmetic	.679	-.338
vocab	.806	-.267
comprehension	.730	-.143
number_memry	.509	-.400
compare_pic	.652	.350
order_pic	.629	.255
order_cubes	.758	.302
reforming	.648	.467
coding	.464	-.166
mazes	.511	.431

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
gen_know	.743	.325
comp_feat	.691	.390
arithmetic	.734	.191
vocab	.783	.328
comprehension	.644	.371
number_memry	.646	.033
compare_pic	.263	.692
order_pic	.308	.605
order_cubes	.374	.725
reforming	.182	.778
coding	.459	.180
mazes	.102	.660

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.754	.656
2	-.656	.754

Extraction Method: Principal Component Analysis.
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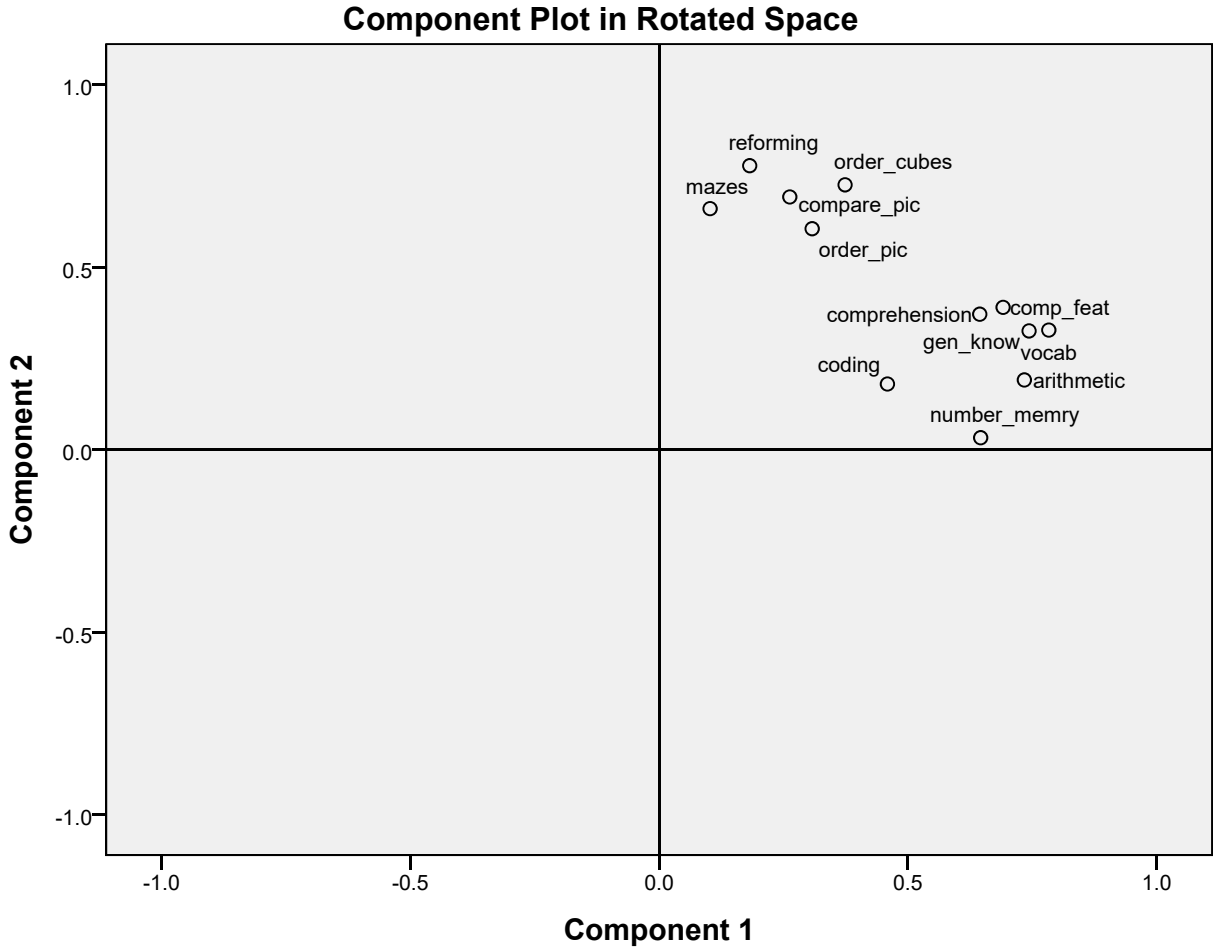
PCA of 12 Wechsler subtests; U.S. norms (Wechsler, 1974)

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	mazes	.270	.280	.270	.270	.290

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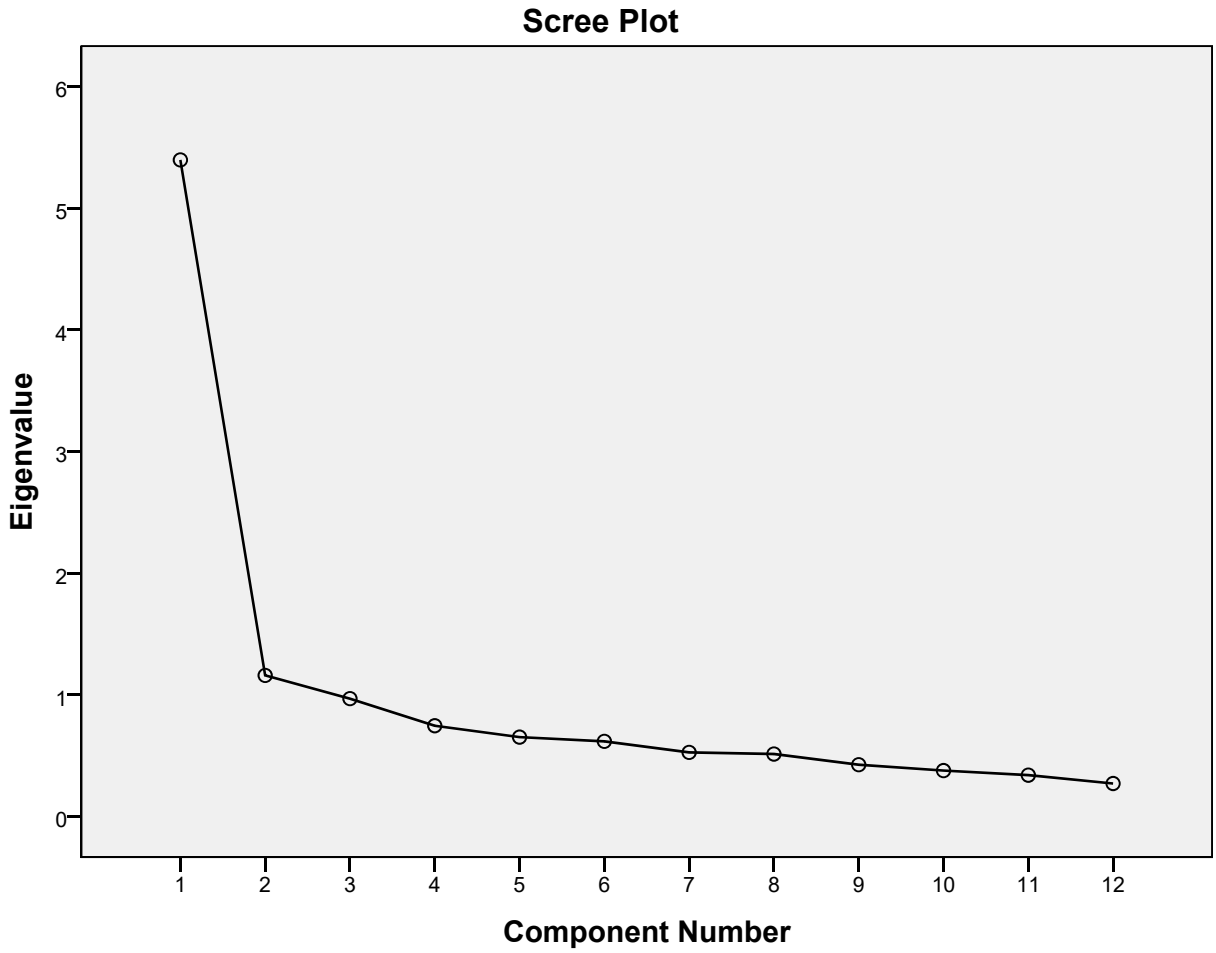

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