

**Appendix 3\_9d Extended Assessment Writing Elementary Factor Analysis**

Oregon 2008 Extended Assessment

Elementary Grade Band WRITING Task Factor Analysis

**Math Items Across all Tasks**

N of Cases = 746

N of Items = 50

**Inter-item Correlations**

**Summary Item Statistics**

	Mean	Min	Max	Range	Maxi / Min	Var	N Items
Item Means	1.169	.527	1.771	1.244	3.361	.127	50
Item Variances	.589	.343	.941	.598	2.741	.023	50
Inter-Item Correlations	.380	.072	.819	.747	11.359	.016	50

Alpha = .966

Standardized item alpha = .968

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.972
Bartlett's Test of Sphericity	Approx. Chi-Square	25402.291
	df	1225
	Sig.	.000

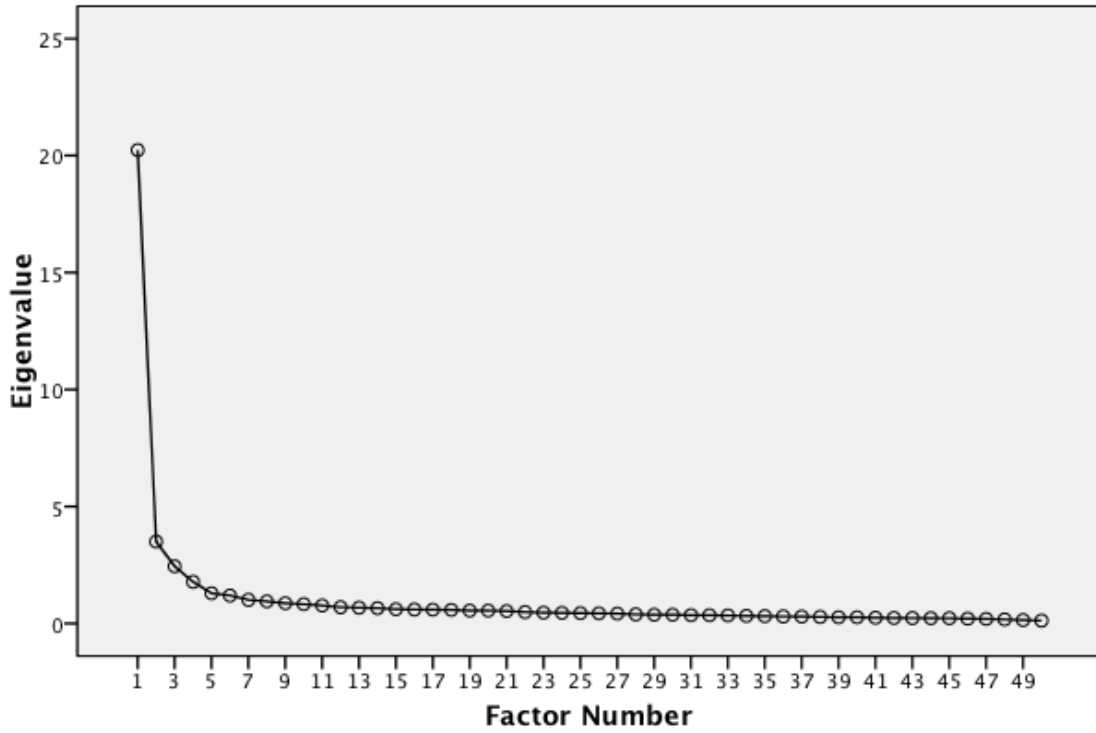
**Factor Analysis**

**Total Variance Explained**

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	20.236	40.473	40.473	19.755	39.510	39.510	20.236	40.473
2	3.502	7.004	47.477	3.158	6.317	45.827	3.502	7.004	47.477
3	2.448	4.897	52.374	2.027	4.054	49.882	2.448	4.897	52.374
4	1.784	3.568	55.942	1.190	2.380	52.262	1.784	3.568	55.942
5	1.294	2.589	58.531	.931	1.861	54.123	1.294	2.589	58.531
6	1.199	2.398	60.929	.717	1.435	55.558	1.199	2.398	60.929
7	1.015	2.030	62.959	.634	1.268	56.826	1.015	2.030	62.959

Extraction Method: Maximum Likelihood.

**Scree Plot**



**Goodness-of-fit Test**

Chi-Square	df	Sig.
1939.035	896	.000

**Difference Between Model Fit for 1 Factor and Multiple Factor Models**

chisq1	chisq2	chidiff	df1	df2	dfdifff	prob
8840.22	1939.04	6901.19	1175	896	279	.00

**Rotated Factor Matrix<sup>a</sup>**

	Factor						
	1	2	3	4	5	6	7
t2r01	.681	.542	.055	.081	.063	.049	.085
t2r02	.717	.431	.063	.083	.064	.048	.074
t2r03	.701	.368	.101	.079	.140	.134	.090
t2r04	.653	.151	.064	.043	.142	.160	.060
t2r05	.701	.208	.079	.187	.189	.184	.095
t3r01	.688	.486	.134	.144	.069	.084	.168
t3r02	.735	.256	.151	.237	.108	.123	.088
t3r03	.742	.218	.186	.248	.169	.169	.112
t3r04	.753	.141	.138	.222	.141	.164	.092
t3r05	.745	.237	.179	.222	.153	.121	.135
t4r01	.704	.251	.045	.086	.097	.178	.139
t4r02	.746	.165	.134	.131	.180	.199	.143
t4r03	.286	.125	.047	.022	.058	.066	.010
t4r04	.252	.584	.127	.185	.194	.214	.112
t4r05	.246	.428	.226	.144	.167	.224	.099
t5r01	.217	.519	-.005	.090	.033	.104	.195
t5r02	.238	.648	.100	.094	.111	.208	.138
t5r03	.275	.669	.076	.101	.129	.157	.086
t5r04	.298	.638	.123	.134	.102	.145	.140
t5r05	.205	.547	.093	.078	.103	.228	.008
t6r01	.112	.344	.146	.083	.095	.059	-.014
t6r02	.234	.503	.137	.149	.074	.187	.127
t6r03	.227	.474	.188	.095	.084	.133	.077
t6r04	.236	.665	.214	.172	.055	.182	.095
t6r05	.163	.548	.163	.093	.083	.148	.058
t7r01	.231	.160	.118	.047	.100	.610	.077
t7r02	.136	.203	.155	.052	.082	.466	.013
t7r03	.137	.158	.128	.096	.020	.484	.083
t7r04	.142	.233	.112	.055	.147	.555	.022
t7r05	.132	.217	.163	.118	.082	.587	.029

t8r01	.257	.297	.188	.625	.280	.149	.172
t8r02	.235	.235	.216	.652	.247	.085	.116
t8r03	.223	.182	.259	.619	.244	.121	.117
t8r04	.255	.206	.227	.595	.355	.139	.146
t8r05	.232	.195	.234	.617	.342	.140	.134
t9r01	.267	.245	.289	.342	.436	.116	.104
t9r02	.262	.151	.252	.282	.668	.102	.118
t9r03	.202	.120	.233	.214	.718	.096	.082
t9r04	.172	.147	.222	.218	.655	.133	.101
t9r05	.183	.168	.203	.233	.560	.170	.099
t10r01	.131	.185	.505	.242	.243	.141	.096
t10r02	.134	.202	.727	.163	.159	.194	.098
t10r03	.144	.239	.753	.155	.196	.158	.112
t10r04	.126	.232	.618	.182	.235	.222	.105
t10r05	.121	.119	.602	.157	.212	.225	.091
t11r01	.286	.358	.184	.290	.168	.109	.445
t11r02	.339	.285	.211	.224	.174	.091	.482
t11r03	.250	.320	.247	.203	.259	.155	.492
t11r04	.285	.323	.250	.263	.196	.100	.560
t11r05	.392	.502	.122	.150	.123	.084	.437

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

**Task Level Factor Analysis****Descriptive Statistics**

	Mean	Std. Deviation	Analysis N
t2tot	7.76	2.982	767
t3tot	7.37	3.119	767
t4tot	6.43	2.748	767
t5tot	7.37	2.866	767
t6tot	6.09	2.931	767
t7tot	5.02	3.467	767
t8tot	4.62	3.343	767
t9tot	3.42	3.044	767
t10tot	2.99	2.900	767
t11tot	6.52	3.361	767

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	5634.379
	df	45
	Sig.	.000

**Communalities**

	Initial	Extraction
t2tot	.755	.688
t3tot	.782	.751
t4tot	.711	.734
t5tot	.624	.576
t6tot	.592	.547
t7tot	.358	.331
t8tot	.655	.551
t9tot	.616	.481

t10tot	.533	.406
t11tot	.661	.672

Extraction Method:  
Maximum Likelihood.

**Total Variance Explained**

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.172	61.717	61.717	5.737	57.370	57.370
2	.973	9.726	71.443			
3	.721	7.208	78.651			
4	.562	5.625	84.275			
5	.366	3.660	87.936			
6	.322	3.223	91.159			
7	.270	2.705	93.864			
8	.246	2.456	96.319			
9	.225	2.250	98.570			
10	.143	1.430	100.000			

Extraction Method: Maximum Likelihood.

**Factor Matrix<sup>a</sup>**

	Factor
	1
t2tot	.830
t3tot	.867
t4tot	.857
t5tot	.759
t6tot	.739
t7tot	.575
t8tot	.742
t9tot	.693
t10tot	.637

t11tot	.820
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Extraction Method:

Maximum

Likelihood.

a. 1 factors

extracted. 4

iterations required.

#### Goodness-of-fit Test

Chi-Square	df	Sig.
914.426	35	.000