

Supplemental Files

Table S1. Goodness of fit statistics for each distribution and link tested for all MSSG variables with PNBIs.

Distribution + Link	Pearson χ^2/df	Log Likelihood	Akaike Information Criteria (AIC)
MC Composite			
Normal + Identity	225.783	-452	914
Tweedie + Identity	0.516	-461	933
Poisson + Identity	3.897	-549	1106
Sequencing			
Normal + Identity	234.956	-454	918
Tweedie + Identity	0.516	-464	938
Poisson + Identity	3.949	-554	1116
MC + Sequencing			
Normal + Identity	914.142	-529	1068
Tweedie + Identity	0.724	-538	1087
Poisson + Identity	7.787	-813	1634
Essential Story Grammar			
Normal + Identity	27.32	-335	681
Tweedie + Identity	0.299	-344	698
Poisson + Identity	1.340	-343	695
Total Episodic Components			
Normal + Identity	4.566	-237	485
Tweedie + Identity	0.124	-247	504
Poisson + Identity	0.412	-259	526
Episodic Complexity			
Normal + Identity	0.857	-145	301
Tweedie + Identity	0.222	-191	391
Multinomial + Cumulative logit	0.915	-123	261

Table S2. Goodness of fit statistics for each distribution and link tested for all MSSG variables with PWAs.

Distribution + Link	Pearson χ^2/df	Log Likelihood	Akaike Information Criteria (AIC)
MC Composite			
Normal + Identity	325.181	-1368	2747
Gamma + Identity	0.597	-1182	2375
Tweedie + Identity	3.431	-1278	2566
Poisson + Identity	15.399	-3150	6308
Sequencing			
Normal + Identity	395.887	-1400	2810
Gamma + Identity	0.476	-1228	2467
Tweedie + Identity	3.139	-1328	2667
Poisson + Identity	15.568	-3332	6672
MC + Sequencing			
Normal + Identity	1424.485	-1603	3217
Gamma + Identity	0.522	-1407	2824
Tweedie + Identity	4.566	-1504	3019
Poisson + Identity	30.562	-5847	11703
Essential Story Grammar			
Normal + Identity	46.664	-1060	2130
Gamma + Identity	0.466	-921	1852
Tweedie + Identity	1.813	-1021	2052
Poisson + Identity	5.291	-1453	2915
Total Episodic Components			
Normal + Identity	15.639	-886	1782
Gamma + Identity	0.366	-729	1469
Tweedie + Identity	1.371	-873	1757
Poisson + Identity	3.054	-1032	2073
Episodic Complexity			
Normal + Identity	2.408	-588	1187
Gamma + Identity	0.212	-323	657
Tweedie + Identity	1.198	-595	1201
Poisson + Identity	1.487	-563	1135
Multinomial + Cumulative logit	0.997	-499	1014