	Official CLES 2015 Manuscript Control of Con																											
Idx	Rerank	Run	Official CLEF 2015 Measures							New Measures to Evaluate Understandability in Retrieval																		
			RBP	P_{bl}	P_e	Res.	uRBP	P_{bl}	P_e	Res.	RBP_u	P_{tl}	P_e	Res.	H_{rtp}	P_{bl}	P_e	Res.	Unj	RBP_r^*	P_{bl}	P_e	RBP_u^*	P_{bl}	P_e	H_{rbp}^*	P_{bl}	P_e
1 2 3	No Rerank	ECNU (Best Run) KISTI (2nd Best) Plain BM25 Baseline	51.57 36.72 31.20	:	.036 .000	8.95 8.06 8.76	50.51 35.92 30.51	:	.035 .000	8.95 7.32 7.65	59.55 64.50 67.60	-	.237 .066	10.09 11.54 12.20	46.22 37.56 35.75	:	.028 .009	8.62 7.89 8.76	.00 .03 .03	51.57 37.07 31.57	:	.049 .000	59.55 65.31 68.94	:	.156 0.021	46.22 37.96 36.42	:	.037 .015
4 5 -6 -7 -8 9 -10 11 12	SMOG Top 15	Based on ECNU Based on KISTI Based on BM25 Based on ECNU	38.16 31.28 24.39 34.88	.000 .005 .001	.000 .000 .000 .000	20.09 10.21 11.46 25.96	37.36 30.59 23.83 34.13	.000 .005 .001	.000 .000 .000 .000	8.95 7.48 7.16 8.95	55.11 67.05 67.69 34.15	.013 .260 .962 .025	.013 .126 .104 .025	22.14 13.95 17.66 27.91	37.59 34.23 28.97 35.34	.000 .132 .000	.000 .001 .000 .000	18.98 10.05 11.46 25.02	.14 .05 .10 .20	45.45 33.12 26.28 44.87	.005 .020 .005	.005 .000 .000 .004	62.58 69.10 72.82 66.20	.161 .085 .018	.161 .037 .001	43.65 36.02 31.53 44.88	.167 .337 .008 519	.167 .008 .001
	Top 20 SMOG Top 50	Based on KISTI Based on BM25 Based on ECNU Based on KISTI Based on BM25	28.01 22.83 21.83 21.00 15.20	.002 .000 .000 .000	.000 .000 .000 .000	11.05 13.48 36.63 18.67 18.73	27.39 22.31 21.34 20.53 14.86	.002 .000 .000 .000	.000 .000 .000	7.32 7.32 8.95 7.32 6.51	66.61 63.61 41.71 59.72 49.87	.356 .065 .000 .076	.170 .546 .000 .523	15.44 22.44 46.89 26.67 36.41	30.93 26.52 23.65 24.88 17.79	.009 .000 .000	.000 .000 .000	10.82 13.48 36.63 18.67	.08 .15 .45 .23	30.87 26.22 39.88 27.20 21.22	.015 .005 .000 .002	.000 .000 .000	69.99 72.72 71.61 72.47 73.17	.031 .018 .001 .004	.018 .000 .001 .004	33.81 30.87 43.86 31.90 25.78	.074 .008 .278 .041	.002 .000 .278 .000
14 15 16	XGB Top 15 XGB Top 20 XGB Top 50	Based on ECNU Based on KISTI Based on BM25 Based on ECNU	39.77 31.36 23.38 34.91	.000 .017 .001	.000	21.59 8.95 11.36 27.19	38.90 30.63 22.84 34.12	.000 .016 .001	.000	9.11 6.83 7.16	54.84 68.63 66.79 52.69	.021 .065 .700	.042 .042 .194	24.22 13.63 19.43	38.35 33.78 27.60 34.89	.000	.000 .001 .000	20.72 8.78 11.36 25.95	.15 .05 .10	47.00 32.80 26.35	.004 .043 .007	.004 .001 .000	64.28 70.87 73.48 67.26	.004 .010 .009	.004 .010 .001	45.22 35.24 31.35 45.81	.355 .144 .003	.555 .005 .000
17 - 18 - 19 		Based on KISTI Based on BM25 Based on ECNU Based on KISTI	29.04 21.83 22.75 18.69	.017 .001 .000	.000. .000. .000.	10.10 12.88 33.65 17.21	28.35 21.32 22.22 18.25	.017 .001 .000	.000 .000 .000	6.51 6.51 8.79 6.67	69.10 64.16 43.36 56.87	.073 167 000 .032	.033 .550 .000	15.86 25.29 49.18 33.37	32.00 25.47 24.90 21.82	.022 .000 .000	.000 .000 .000.	9.94 12.88 33.65 17.21	.07 .16 .45	31.82 26.56 40.69 27.69	.086 .023 .000 .007	.000 .000 .000	73.19 76.26 74.39 76.44	.000 .000 .000 .000	.001 .000 .000	34.84 31.45 44.65 44.65	.134 .026 .421	.004 .001 .421
24	RRF (XGB & Orig.) Top 15	Based on BM25 Based on ECNU Based on KISTI Based on BM25 Based on ECNU	17.47 47.81 33.78 26.85 46.49	.004 .002 .033 .000	.000 .002 .002 .000	20.95 7.71 12.13 15.16	17.00 46.78 33.02 26.23 45.48	.004 .001 .032 .000	.000 .001 .002 .000	8.95 6.83 7.48 9.11	47.21 60.04 68.57 66.64 59.95	.746 .006 .464	.746 .023 .166	15.04 12.02 15.98 17.12	19.22 44.69 35.72 31.52 43.69	.000 .198 .096 .000	.000 .198 .005 .000	2.98 12.34 7.55 12.13 14.54	.10 .03 .07	27.09 50.09 34.34 28.35 49.95	.463 .157 .038 .004	.000 .157 .004 .000	79.77 62.98 69.67 70.65 64.30	.000 .001 .002 .144	.000 .001 .011 .005	31.35 46.85 36.26 33.70 47.01	.539 .105 .007	.001 .53 .010 .002
26 . 27 . 30	Top 20 RRF (XGB & Orig.) Top 50	Based on KISTI Based on BM25 Based on ECNU Based on KISTI Based on BM25	32.72 25.64 38.97 27.78 19.28	.000 .000 .001	.000 .000 .000 .000	8.45 12.51 21.40 11.24 17.11	31.97 25.05 38.08 27.13 18.86	.000 .000 .001	.000 .000 .000 .000	7.00 7.16 8.79 6.83 7.00	69.06 66.55 57.37 67.83 57.40	.007 .434 .272 .188 .001	.020 .174 .272 .089 .169	12.77 17.31 25.44 16.75 27.02	35.14 30.14 39.54 31.07 22.78	.070 .000 .002 .006	.003 .000 .002 .000	8.28 12.51 19.83 11.24 17.11	.04 .09 .24 .09	33.83 27.64 47.00 31.33 25.06	.028 .002 .010 .007 .000	.002 .000 .010 .000	70.83 71.79 67.95 73.06 71.56	.001 .017 .000 .000	.005 .002 .000 .001	36.29 32.96 47.12 34.85 30.26	.173 .011 .715 .089 .003	.011 .002 .715 .003 .000
31 32 33 34 35	XGB LeToR	LTR 1 on BM25 LTR 2 on BM25 LTR 3 on BM25 LTR 4 on BM25 LTR 5 on BM25	24.86 30.72 28.92 25.65 30.21	.003 .880 .186 .004 .554	.000 .000 .000 .000	17.39 21.25 24.35 25.72 20.79	24.32 30.08 28.32 25.09 29.59	.003 .868 .190 .004	.000 .000 .000 .000	7.81 8.46 8.46 8.30 8.62	55.60 48.87 49.02 49.00 48.47	.000 .000 .000 .000	.048 .000 .000 .001	24.11 28.82 32.11 33.39 27.88	28.89 31.76 30.14 27.45 30.95	.002 .096 .033 .000	.000 .000 .000 .000	17.39 18.99 23.83 24.40 19.99	.22 .26 .31 .33 .25	29.67 37.09 37.32 35.82 37.11	.247 .065 .199 .190	.000 .000 .000 .000	66.41 61.89 63.86 66.14 61.25	.332 .004 .015 .313 .006	.155 .824 .576 .163	34.76 39.17 39.84 38.21 39.15	.316 .265 .234 .577 .169	.001 .023 .039 .011