

Effective Written Communication Assessment
Spring 2016
Stats of the Week – Level 2 Analyses

Introduction

This week's report will focus on the data that were collected from the randomly selected sections across campus this spring. As you recall, the sections and students were given an objective measure of 25 multiple-choice questions that assessed their writing across three different domains. These included development, organization and mechanics.

These areas of domain knowledge can be defined as follows:

1. Organization is using appropriate introductory techniques to grab the reader's attention, writing a thesis that provides unity and coherence throughout the essay, using clear topic sentences that support the thesis and provide the main idea of the body paragraph, and using appropriate conclusion techniques that provide skillful closure without excessive reliance on summary.
2. Development is the creation of a well-presented paper in accordance with the objectives of the assignment using detailed ideas, specific examples, and utilizing research to effectively support ideas.
3. Mechanics is the correct utilization of spelling, punctuation, and grammar.

The questions on the measure addressed one or more of these areas. A composite score was calculated that describes the students' knowledge and writing across all three domains. The sub-scores describe the writing of the students as it pertains to each of the separate domains.

You should remember that these scores were derived from students across the campus in a wide variety of classes – history, business, math, etc. Students may or may not have had an English Composition course recently, or at all. Further, we must remember that these students had little incentive to do their best work and exert maximum effort other than the intrinsic, or personal, valuation of doing their best. I have done considerable research in the attempt to determine some methodology to correct for this, but have found that there is little research on the topic, and that any adjustment is imprecise. My thought...why adjust a value that we know is imprecise with an adjustment factor that we know is imprecise. Our decision was to analyze the data as collected, understand its shortcomings, and utilize the information to improve student writing in the future.

As before, we must remember that it is not the sole responsibility the English faculty to improve our student's writing ability. We must ALL focus on ensuring and requiring that our students understand the importance of quality writing. If they are constantly reminded, the personal valuation of their writing will increase and they will begin to pay closer attention to what and how they write – one of the goals of this assessment.

Effective Written Communication -- Scores

Report

	OrgScore	OrgDevScore	DevScore	MechScore	Composite
Mean	62.3433	71.3896	50.9537	47.47	55.5967
N	367	367	367	367	367
Std. Deviation	23.70036	27.07717	38.13143	19.409	16.62873

Comments: On the measure, there were five questions that addressed organization, three that were a combination of organization and development, two that measured development, and thirteen measuring mechanics. The first set of questions required the students to identify the components and/or the best phrasing for various statements. The mechanics questions required them to select the most grammatically correct sentence from a list of four options. As you can tell, some domains were measured with far less items. This does diminish the quality of information that can be garnered regarding the domain knowledge, but since it is a subscore, its importance as part of the composite score is most important. The small number of items for the subscore measures explains the very large standard deviations.

As noted, the scores on organization, development, and mechanics were far ranging. I will leave the interpretation of this to those more familiar with composition. The composite score, 55.60, while unimpressive initially, should be reviewed more closely. As stated earlier, the students who completed the measure had no incentive to exhibit their best effort, may have been far removed from some of the information they were being asked to analyze, and were responding to questions that required considerable prior knowledge. The composite score did exceed the one from 2013, but more on that, later.

Scores by Age

		OrgScore	OrgDevScore	DevScore	MechScore	Composite * Age
Age						
19 or younger	Mean	69.6296	70.1389	47.2222	44.73	55.0741
	N	108	108	108	108	108
	Std. Deviation	23.75600	27.22748	40.34508	17.883	16.83438
20-24	Mean	62.5600	72.8000	47.6000	45.48	54.5920
	N	125	125	125	125	125
	Std. Deviation	21.99355	27.49927	37.48978	18.767	16.17849
25-29	Mean	63.4146	69.5122	54.8780	48.41	56.1951
	N	41	41	41	41	41
	Std. Deviation	24.45504	25.92790	38.41367	20.514	17.61706
30-34	Mean	55.7895	76.3158	56.5789	50.40	57.1579
	N	38	38	38	38	38
	Std. Deviation	21.38850	26.60228	40.55536	19.891	17.74066
35-39	Mean	57.3913	72.8261	69.5652	60.87	63.3043
	N	23	23	23	23	23
	Std. Deviation	18.39402	24.90099	29.15137	21.372	14.60521
40+	Mean	46.8750	65.6250	51.5625	50.24	53.1250
	N	32	32	32	32	32
	Std. Deviation	26.20484	28.92566	32.33987	20.019	15.91054
Total	Mean	62.3433	71.3896	50.9537	47.47	55.5967
	N	367	367	367	367	367
	Std. Deviation	23.70036	27.07717	38.13143	19.409	16.62873

Comments: First, analyzing the composite score, we should notice that the scores do not change much as the age of the students change, with the exception being the 35-39 category. Scores increase slightly for each age group from 20-24, which mirrors the general trend for students – learning/knowledge is higher for older students. The drop in scores for the 40+ age group is a common anomaly that I cannot explain. For the subscores, there are few trends that are noteworthy. Much of this is attributable to the number of items measuring the domain.

Scores by Gender

		OrgScore	OrgDevScore	DevScore	MechScore	Composite	* Gender
Male	Mean	60.0000	72.0472	49.6063	46.15	54.3622	
	N	127	127	127	127	127	
	Std. Deviation	24.94438	28.97285	39.08480	18.991	17.38713	
Female	Mean	63.6820	71.1297	51.6736	48.12	56.2510	
	N	239	239	239	239	239	
	Std. Deviation	22.96872	26.09332	37.75922	19.652	16.24613	
Total	Mean	62.4044	71.4481	50.9563	47.44	55.5956	
	N	366	366	366	366	366	
	Std. Deviation	23.70389	27.09104	38.18360	19.422	16.65148	

Comments: Not surprisingly, females scored higher fairly consistently across the various scores. While the differences were not very large, and were not statistically different, they are worth noting. Females tend to score higher in these areas.

Scores by Race

		OrgScore	OrgDevScore	DevScore	MechScore	Composite * Race
Race		OrgScore	OrgDevScore	DevScore	MechScore	Composite
White	Mean	63.2039	74.6359	56.0680	49.85	58.0971
	N	206	206	206	206	206
	Std. Deviation	25.51761	25.11900	36.62034	19.794	16.84912
African American	Mean	59.6491	57.4561	37.7193	41.84	48.4211
	N	57	57	57	57	57
	Std. Deviation	19.81746	32.37783	36.93709	17.865	15.94068
Hispanic	Mean	63.8095	77.3810	35.7143	41.39	52.3810
	N	21	21	21	21	21
	Std. Deviation	23.34014	19.21061	39.18819	16.761	13.73491
Asian	Mean	57.1429	69.6429	32.1429	47.80	52.8571
	N	14	14	14	14	14
	Std. Deviation	20.54210	22.31456	37.24732	16.847	13.23665
Native American	Mean	65.0000	71.8750	56.2500	47.44	56.6667
	N	24	24	24	24	24
	Std. Deviation	21.46787	25.86808	42.50959	19.068	16.02896
Multi/Other	Mean	60.5000	71.2500	55.0000	46.73	54.9000
	N	40	40	40	40	40
	Std. Deviation	22.41222	29.71553	38.89499	20.194	16.82459
Total	Mean	62.2652	71.3398	50.9669	47.51	55.5912
	N	362	362	362	362	362
	Std. Deviation	23.73343	27.13336	38.21363	19.377	16.64519

Comments: Again, the composite score is the most telling. There were far more subjects in the white category which does create some concern regarding the generalizability of the data. As noted, whites scored the highest, followed by Native Americans, multi/other, Asian, Hispanic, and African Americans.

Scores by High School

		OrgScore	OrgDevScore	DevScore	MechScore	Composite * HighSchool
HighSchool		OrgScore	OrgDevScore	DevScore	MechScore	Composite
GED	Mean	52.5926	68.5185	51.8519	45.30	52.4444
	N	27	27	27	27	27
	Std. Deviation	26.10520	29.89774	42.70084	19.122	18.50849
HSDiploma	Mean	62.9878	71.8750	51.0671	47.75	55.9512
	N	328	328	328	328	328
	Std. Deviation	23.34896	26.58849	37.79579	19.419	16.35082
Neither	Mean	68.8889	61.1111	44.4444	45.30	52.4444
	N	9	9	9	9	9
	Std. Deviation	28.48001	37.73077	39.08680	22.573	22.84246
Total	Mean	62.3626	71.3599	50.9615	47.51	55.6044
	N	364	364	364	364	364
	Std. Deviation	23.79713	27.12342	38.10828	19.433	16.67243

Comments: Not surprisingly, students with a high school diploma scored the highest. Remember, the "Neither" category is most likely concurrent students that are still in high school. I was surprised that the differences in the scores were not more pronounced.

Scores by Division Major

		OrgScore	OrgDevScore	DevScore	MechScore	Composite * Division
Division						
BIT	Mean	61.2727	71.5909	52.7273	49.79	56.7636
	N	110	110	110	110	110
	Std. Deviation	24.57376	29.42049	38.21497	19.817	17.45239
ES	Mean	65.8824	67.6471	51.4706	47.96	55.8824
	N	34	34	34	34	34
	Std. Deviation	22.84568	25.76806	39.85826	19.410	17.18309
HU	Mean	67.6471	76.4706	51.4706	52.49	59.7647
	N	34	34	34	34	34
	Std. Deviation	22.57094	26.78561	37.90997	18.406	15.59926
SS	Mean	62.3529	67.6471	39.7059	42.53	51.2941
	N	34	34	34	34	34
	Std. Deviation	20.75234	30.48187	34.33218	20.851	18.25000
HS	Mean	60.5882	71.6912	52.5735	45.93	54.8235
	N	136	136	136	136	136
	Std. Deviation	23.71949	24.68483	38.64360	19.003	15.51195
Unknown	Mean	65.2632	72.3684	47.3684	44.13	54.1053
	N	19	19	19	19	19
	Std. Deviation	27.35942	27.50598	38.99318	17.549	17.09417
Total	Mean	62.3433	71.3896	50.9537	47.47	55.5967
	N	367	367	367	367	367
	Std. Deviation	23.70036	27.07717	38.13143	19.409	16.62873

Comments: These analyses compare the student scores to the division associated with the student's major, if they know, or have a major. Prior to the data analysis, I would guess that those majoring in a HU program would score higher, which they did, and much higher in some cases. As you can see in the composite scores, the range was approximately 51 – 60 with HU scoring the highest and SS the lowest and the others grouped in between. One might be surprised to see that ES majors were in the highest quartile of the student scores. We are taught that students are either oriented toward mathematics or English, but not both. Remember, data continues to show that English scores are good predictors of mathematics competencies, and vice versa. Both disciplines are challenging. Those who are competent in one can be competent in the other. Our hope is that the competence is highly malleable and if we improve one, it may improve the other. Is that dreamy, or what?

Scores by Credits

		OrgScore	OrgDevScore	DevScore	MechScore	Composite * Credits
Credits		OrgScore	OrgDevScore	DevScore	MechScore	Composite
0	Mean	54.0000	68.3333	45.0000	44.62	51.0667
	N	30	30	30	30	30
	Std. Deviation	22.98425	28.56732	40.15058	18.559	19.55881
1-15	Mean	66.8817	66.3978	42.4731	42.93	52.4301
	N	93	93	93	93	93
	Std. Deviation	24.04608	30.28278	38.26839	20.425	17.98030
16-30	Mean	64.8101	70.2532	56.9620	44.60	55.0380
	N	79	79	79	79	79
	Std. Deviation	25.66354	27.46675	37.32582	16.359	16.00276
31-45	Mean	64.4068	77.1186	57.6271	50.72	59.5254
	N	59	59	59	59	59
	Std. Deviation	18.96196	24.25090	36.92205	19.540	13.55621
46-60	Mean	59.4595	72.9730	36.4865	46.36	53.1892
	N	37	37	37	37	37
	Std. Deviation	19.71265	25.26140	30.38788	16.467	12.92250
61+	Mean	57.3529	75.0000	59.5588	55.77	60.4118
	N	68	68	68	68	68
	Std. Deviation	25.13353	24.04908	38.88114	20.476	17.02872
Total	Mean	62.4590	71.3798	50.8197	47.41	55.5847
	N	366	366	366	366	366
	Std. Deviation	23.62880	27.11357	38.09700	19.402	16.64989

Comments: As the number of hours completed increase, generally a student's expected writing competency increases. One would like to attribute all of this to their learning from instruction. This does explain a portion of the increase. We cannot decipher exactly what portion without a much more controlled study. The problem here is that the students with more hours completed tend to be the more competent students...they have completed the hours because they work harder, are more responsible, have succeeded in courses, and are more competent...but, I believe a large portion of this improvement IS attributable to their learning. Given this, we should be encouraged. The malleability of writing and mathematics competencies is at the core of our developmental courses.

Scores by Expected Graduation

		OrgScore	OrgDevScore	DevScore	MechScore	Composite * Graduate
This semester	Mean	63.3333	76.5625	56.2500	51.76	59.1667
	N	48	48	48	48	48
	Std. Deviation	23.81965	23.86033	35.16678	18.282	15.76332
Next semester	Mean	58.6364	72.7273	48.8636	47.73	55.0000
	N	44	44	44	44	44
	Std. Deviation	17.46637	26.31329	38.10731	19.102	15.19180
1-2 years	Mean	64.0237	72.0414	54.1420	48.70	56.9467
	N	169	169	169	169	169
	Std. Deviation	24.55120	27.65871	38.35149	19.589	16.86510
2-3 years	Mean	62.9333	67.3333	42.6667	42.77	52.0533
	N	75	75	75	75	75
	Std. Deviation	24.53752	28.46683	37.39249	19.313	16.83617
more than 3 years	Mean	53.3333	58.3333	40.0000	43.59	49.3333
	N	15	15	15	15	15
	Std. Deviation	27.94553	27.81743	47.05620	17.844	18.43392
Non-degree seeking	Mean	56.9231	76.9231	53.8462	42.60	52.3077
	N	13	13	13	13	13
	Std. Deviation	16.01282	21.55791	32.02563	19.766	12.90597
Total	Mean	62.3626	71.3599	50.8242	47.34	55.5165
	N	364	364	364	364	364
	Std. Deviation	23.61118	27.12342	38.02104	19.352	16.57464

Comments: Similarly, those students who are closer to graduation tend to score higher. They have taken a variety of courses, succeeded to this point, and are more effective writers.

Conclusion

These analyses were very interesting, but not terribly alarming or unexpected. Next week, I will begin the analysis of the in-class data. This included those students enrolled in English Comp I. We will analyze the students across similar categories and across similar domains, if possible. Lastly, we will compare the results for this year to those of 2013.

Send me any questions, observations, or donations. All are welcome!!