

# The Digital Portfolio Project and Portfolio Assessment [draft]

March 29, 2016

Submitted to Doris Cintrón, Senior Associate Provost for Academic Affairs

Submitted by Professor Thomas Peele

## Digital Portfolio Project Background

In the fall of 2014, the First Year Writing Program received funds to pilot a digital portfolio project in the first semester of the composition sequence. For this project, we requested \$3,000 to fund the participation of ten faculty members. To earn the stipend, these faculty members would have to include a portfolio requirement in their courses, collect the portfolios, and participate in a full day assessment workshop.

In addition to the ten faculty members who participated in this assignment, new part-time instructors were also asked to participate as a part of their education in the English department's teaching practicum (CO862: The Teaching of Composition and Literature). In all, sixteen instructors teaching twenty-five classes participated in the project.<sup>1</sup>

Each of these instructors distributed a portfolio assignment to their students; the portfolio assignment was uniform across classes.<sup>2</sup> The portfolios had to be digital, but the platform was up to the students and the instructors. They could use free versions of WordPress or other Web platforms suitable for portfolios, their Blackboard course sites, or ask students to make a .pdf portfolio.

We collected 199 portfolios from a pool of 494 students enrolled in twenty-four sections of ENGL110 and FIQWS composition. We used a random integer set generator to choose the

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<sup>1</sup> In order to increase participation, the funds were distributed based on a variety of factors including the applicant's participation in other faculty development projects and the number of courses he or she was teaching. The \$3,000 provided half or full stipends of \$300 to twelve individual instructors teaching twenty courses. Five of these courses were English 210. Although we collected the portfolios from ENGL 210, we have not yet conducted an assessment of them. Of the twelve individual instructors who were awarded stipends in the spring of 2015, two had to withdraw from the project for personal reasons.

<sup>2</sup> One instructor did not realize this and so gave his own version of the assignment.

portfolios.<sup>3</sup> The portfolio assessment took place on January 25, 2016. Ten instructors gathered and spent the day scoring portfolios. Follow-up assessments were completed remotely. Of the 199 portfolios that we collected, we able to assess 176 of them.<sup>4</sup> Each portfolio was assessed twice. Portfolios whose scores were not identical or adjacent were assessed a third time. By scoring 176 portfolios from a possible total of 494, we achieved a 90% confidence level that results of our assessment of the representative portfolios can be reliably applied to all of the portfolios in our pool.<sup>5</sup>

## The Scoring Guide

The Scoring Guide was drawn from the Course Learning Outcomes (see page 7). Although we did not assess all of the learning outcomes, we isolated eight learning objectives to frame our assessment and to provide direction for faculty development in the 2016-2017 academic year. We scored the following writing traits:

### Information Literacy and Citation

1. Information Literacy. There is evidence that students used the library's databases to find research materials.
2. Citation. There is evidence that students practiced systematic application of citation conventions.

### Writing Processes

3. Drafting. There is evidence that students wrote at least one draft to prepare for the final writing assignment.
4. Collaboration. There is evidence that students engaged in collaborative writing processes.
5. Synthesis. There is evidence that students composed texts that integrated their ideas with appropriate sources.

### Audience Awareness, Technology, and Reading Practices

6. Audience. There is evidence that students wrote to a range of audiences.
7. Technology. There is evidence that students used multiple technologies to complete writing assignments.
8. Reading. There is evidence that students applied multiple reading strategies.

The individual traits and the overall portfolios were scored on a six point scale, with “1” representing “failing” and “6” representing “highly advanced.”

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<sup>3</sup> Random.org Integer Set Generator.

<sup>4</sup> Due to privacy restrictions, some of the portfolios were unavailable to anyone in the assessment group.

<sup>5</sup> Raosoft.com Sample Size Calculator.

To prepare for the scoring session, instructors read Ed White's "The Scoring of Writing Portfolios: Phase Two" (2005), which commonly serves as a guide to portfolio assessment. I also collected from assessors what they considered to be model portfolios (both weak and strong) and distributed these to all of the assessors before the assessment. On the morning of the assessment session, we discussed the portfolios and the writing traits that we valued as we made our scoring decisions. In this way, we were able to reach a degree of consensus with regard to scoring portfolios.

## Scoring Process and Rationale

Raters, all experienced CCNY composition instructors, scored each trait and the overall portfolio based on our norming session on the morning of the portfolio assessment as well as their years of teaching experience. While instructors will not always agree on the evidence or particular traits, this assessment model allows the First Year Writing Program to take advantage of our instructors' years of experience and deep knowledge of our program's context. In addition, all of the instructors in the classes whose portfolios we assessed used the same set of course learning objectives from which the scoring traits are derived. Thus, in our view, the assessment was fair since the aims of the course were made clear to the students, the information that portfolios were going to be collected and scored was known both by instructors and students, and the portfolios were scored by instructors experienced with teaching composition at CCNY.

It's important to note that in portfolio assessment the aim is to assess the writing program itself rather than individual instructors or students. When we read the portfolios for traits, we look for evidence of the traits in the portfolios since the portfolio assignment asks students to write about each of these traits. If there is no evidence of the trait in the portfolio, this does not necessarily mean that the trait was not covered by the instructor. Rather, it means that the student showed no evidence of the trait in the portfolio and, thus, no awareness of the trait. This lack of evidence provides the Writing Program with direction for faculty development. Our aim is not only to have students develop these aspects of their writing, but also to reflect on these traits to increase their meta-awareness of writing. In portfolio assessment, metacognition of writing practices (process and content knowledge) is as important as the practices themselves.

## Scoring Results

### Overall Portfolio Score

Portfolios were scored on a scale of 1-6:

1. Failing
2. Attempted
3. Minimally Proficient
4. Proficient
5. Advanced
6. Highly Advanced

Every portfolio was scored twice; portfolios whose scores were not identical or adjacent were scored a third time. The scores reflect a high degree of inter-rater reliability of 88.59%. After the portfolios were scored, the individual scores were added together to create a twelve point scale. For example, a portfolio with a score of 8 received a score of 4 from each rater (4+4=8).

The overall score (see page 22) displays a more-or-less normal distribution, with 43% of the portfolios receiving a score of 7 or higher. While this figure is not insubstantial, our overall aim will be to increase the percentage of portfolios scored at 7 or higher to 60% within the next three years.

As the means on the Descriptive Statistics chart show (see page 9), students' greatest weakness is in the area of Information Literacy (3.93); their strengths are in Drafting (6.15), Synthesis (6.3), Audience (6.4), and Technology (6.8). As with the overall portfolio score, however, our aim with regard to all of these traits is to increase the mean score to 7.0.

## Incorporation of The Results into the Writing Program

### Model Portfolios

The portfolio corpus provides the Writing Program with significant resources to provide sample essays and self-reflection letters to existing and new composition instructors. In addition, the individual traits show a high degree of correlation (see page 23). These correlations provide us with additional direction for faculty development in that we can trace our steps back to the portfolios to not only look at individual traits but to look at traits in correlation. For example, the Information Literacy and Collaboration traits are strongly correlated, which suggests that students are more likely to demonstrate evidence of Information Literacy traits when they demonstrate awareness of collaboration. These correlations provide us with information with regard to how we might approach faculty development and student achievement that takes into account how individual traits appear in relation to other traits.

Strong correlations appear throughout the corpus. As a part of faculty development, then, instructors would work as a team to identify portfolios that demonstrate these correlations in order to describe more specifically how we see them in print and to provide instructors with models of strong essays and portfolios and to develop workshops on teaching these models.

### Faculty Development Workshops AY 2016-2017

While it's important to address faculty development with a view toward looking at the ways in which individual traits correlate with other traits, the assessment results also offer some clear direction for addressing individual traits. In the following year, the Writing Program will develop and deliver faculty development workshops and training materials in the following areas:

#### **Information Literacy**

While the degree of success is very low in this area, it is perhaps the easiest of the traits to address. The assessment question asks specifically for evidence that students have used the

academic databases. Students can show evidence of this either by mentioning the databases in their portfolio reflections or by correctly citing them. Showing instructors the results of the assessment and providing them with the tools for teaching the databases should have a considerable impact on student performance. The Writing Program can provide a good deal of support for this trait through the distribution of videos designed to demonstrate both how to use the databases and why they're important.

It is worth noting that many of our instructors are either current or former MFA students who would not generally use the databases for research or be publishing in venues that require a list of works cited. Even those instructors with literature or language and literacy backgrounds might not have written academic articles since their graduation. In our view, we will be able to raise awareness of this deficit and have a significant impact on this trait in the 2016-2017 academic year.

### **Citation**

While the citation practices are much stronger than the information literacy practices, these two traits are natural correlates. And, as with the information literacy traits, much can be done with video. We might direct instructors to the citation generator on the library's Web site, for example, a resource that correlates with instruction about our databases.

### **Drafting and Collaboration**

While a significant number of students demonstrate evidence of drafting and collaborative practice, too many students scored low in these areas. Unlike Information Literacy and Citation, faculty development in these areas is likely to be best accomplished through workshops. In particular, we should note the correlation between drafting and collaboration, since students who collaborate on peer reviews are more likely to significantly revise their essays. Furthermore, research demonstrates that the practice of drafting is often new to our students and that they are likely to transfer this practice to other sites of writing during their college careers.

### **Synthesis, Audience, Technology, and Reading**

These traits, while in need of improvement, are surprisingly strong. In our view, the Audience and Technology trait scores were heavily influenced by the medium on which the portfolios were delivered, the vast majority of which were Web based. Given this platform, scorers likely perceived a fairly sophisticated awareness of technology and more awareness of audience than a print or .pdf portfolio would elicit.

As we expand the digital portfolio project, I anticipate that the rate of Audience and Technology awareness will increase. These numbers also suggest the need for a workshop that focuses on our successes with regard to synthesis (an assessment that might come as a surprise to many of our instructors) with an emphasis on the relationship between synthesis and reading. Reading is likely overlooked because of the large number of traits that composition instructors and students are expected to address.

## Summary

The Digital Portfolio Project effectively improved City College's first-year writing program in significant ways. It has provided our program with resources and direction in the following ways:

- Provided a corpus from which to select model student essays for instructors;
- Supplied information for data-driven faculty development workshops;
- Generated assessment benchmarks;
- Provided intensive faculty development in the use of portfolios;
- Based on the success of this program, the English department will include the portfolio assignment in its list of requirements for every composition course.

### **Course Learning Outcomes Fall 2015**

- Explore and analyze, in writing and reading, a variety of genres and rhetorical situations.
- Develop strategies for reading, drafting, collaborating, revising, and editing.
- Recognize and practice key rhetorical terms and strategies when engaged in writing situations.
- Engage in the collaborative and social aspects of writing processes.
- Understand and use print and digital technologies to address a range of audiences.
- Locate research sources (including academic journal articles, magazine and newspaper articles) in the library's databases or archives and on the Internet and evaluate them for credibility, accuracy, timeliness, and bias.
- Compose texts that integrate your stance with appropriate sources using strategies such as summary, critical analysis, interpretation, synthesis, and argumentation.
- Practice systematic application of citation conventions.

*EPortfolio Consensus and Consistency Estimates, CCNY*

Consensus Estimates					
	Exact agreement	Adjacent	Scores differ by 2	Scores differ by 3	Scored differ by 4
All Students (N = 176)					
	n (%)				
Information Literacy	90 51.136%	54 30.681%			
Citation	68 38.636%	77 43.750%			
Drafting	80 45.977%	55 31.609%			
Collaboration	78 44.318%	58 32.954%			
Synthesis	68 38.636%	74 42.045%			
Audience	72 40.909%	69 39.204%			
Technology	58 32.954%	71 40.340%			
Reading	62 35.227%	62 35.227%			
Overall Score	70 39.772%	86 48.863%	18 10.227%	2 1.136%	

\*\*  $p < .01$

\*\*\*  $p < .001$

Note: p-values not statistically significant at the 0.05 level are designated as *nss*.



**CCNY Data**  
**Prepared by N. Elliot**  
**March 3, 2015**

**Descriptive Statistics**

Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
InformationLiteracy	144	7.00	2.00	9.00	3.9306	2.31339
Citation	145	8.00	2.00	10.00	5.8690	2.15785
Drafting	137	8.00	2.00	10.00	6.1533	2.43712
Collaboration	136	7.00	2.00	9.00	5.2941	2.64188
Synthesis	142	8.00	2.00	10.00	6.3099	2.00773
Audiece	141	8.00	2.00	10.00	6.3901	1.81176
Technology	129	8.00	2.00	10.00	6.7674	1.91014
Reading	124	7.00	2.00	9.00	5.0968	2.28967
OverallScore	176	8.00	2.00	10.00	5.9261	1.82685
Valid N (listwise)	31					

Information Literacy				
	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	59	33.3	41.0	41.0
3.00	31	17.5	21.5	62.5
4.00	8	4.5	5.6	68.1
5.00	12	6.8	8.3	76.4
Valid 6.00	1	.6	.7	77.1
7.00	9	5.1	6.3	83.3
8.00	22	12.4	15.3	98.6
9.00	2	1.1	1.4	100.0
Total	144	81.4	100.0	
Missing System	33	18.6		
Total	177	100.0		

**Citation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	14	7.9	9.7	9.7
	3.00	21	11.9	14.5	24.1
	4.00	5	2.8	3.4	27.6
	5.00	11	6.2	7.6	35.2
	6.00	17	9.6	11.7	46.9
	7.00	41	23.2	28.3	75.2
	8.00	30	16.9	20.7	95.9
	9.00	4	2.3	2.8	98.6
	10.00	2	1.1	1.4	100.0
	Total	145	81.9	100.0	
Missing	System	32	18.1		
Total		177	100.0		

**Drafting**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	18	10.2	13.1	13.1
	3.00	14	7.9	10.2	23.4
	4.00	8	4.5	5.8	29.2
	5.00	8	4.5	5.8	35.0
	6.00	9	5.1	6.6	41.6
	7.00	19	10.7	13.9	55.5
	8.00	45	25.4	32.8	88.3
	9.00	14	7.9	10.2	98.5
	10.00	2	1.1	1.5	100.0
	Total	137	77.4	100.0	
Missing	System	40	22.6		
Total		177	100.0		

**Collaboration**

	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	32	18.1	23.5	23.5
3.00	22	12.4	16.2	39.7
4.00	6	3.4	4.4	44.1
5.00	9	5.1	6.6	50.7
Valid 6.00	8	4.5	5.9	56.6
7.00	13	7.3	9.6	66.2
8.00	32	18.1	23.5	89.7
9.00	14	7.9	10.3	100.0
Total	136	76.8	100.0	
Missing System	41	23.2		
Total	177	100.0		

**Synthesis**

	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	10	5.6	7.0	7.0
3.00	8	4.5	5.6	12.7
4.00	9	5.1	6.3	19.0
5.00	19	10.7	13.4	32.4
Valid 6.00	12	6.8	8.5	40.8
7.00	36	20.3	25.4	66.2
8.00	36	20.3	25.4	91.5
9.00	11	6.2	7.7	99.3
10.00	1	.6	.7	100.0
Total	142	80.2	100.0	
Missing System	35	19.8		
Total	177	100.0		

**Audience**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	2.3	2.8	2.8
	3.00	10	5.6	7.1	9.9
	4.00	7	4.0	5.0	14.9
	5.00	19	10.7	13.5	28.4
	6.00	24	13.6	17.0	45.4
	7.00	33	18.6	23.4	68.8
	8.00	34	19.2	24.1	92.9
	9.00	7	4.0	5.0	97.9
	10.00	3	1.7	2.1	100.0
	Total	141	79.7	100.0	
Missing	System	36	20.3		
Total		177	100.0		

**Technology**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	2.8	3.9	3.9
	3.00	8	4.5	6.2	10.1
	4.00	4	2.3	3.1	13.2
	5.00	12	6.8	9.3	22.5
	6.00	11	6.2	8.5	31.0
	7.00	37	20.9	28.7	59.7
	8.00	34	19.2	26.4	86.0
	9.00	14	7.9	10.9	96.9
	10.00	4	2.3	3.1	100.0
	Total	129	72.9	100.0	
Missing	System	48	27.1		
Total		177	100.0		

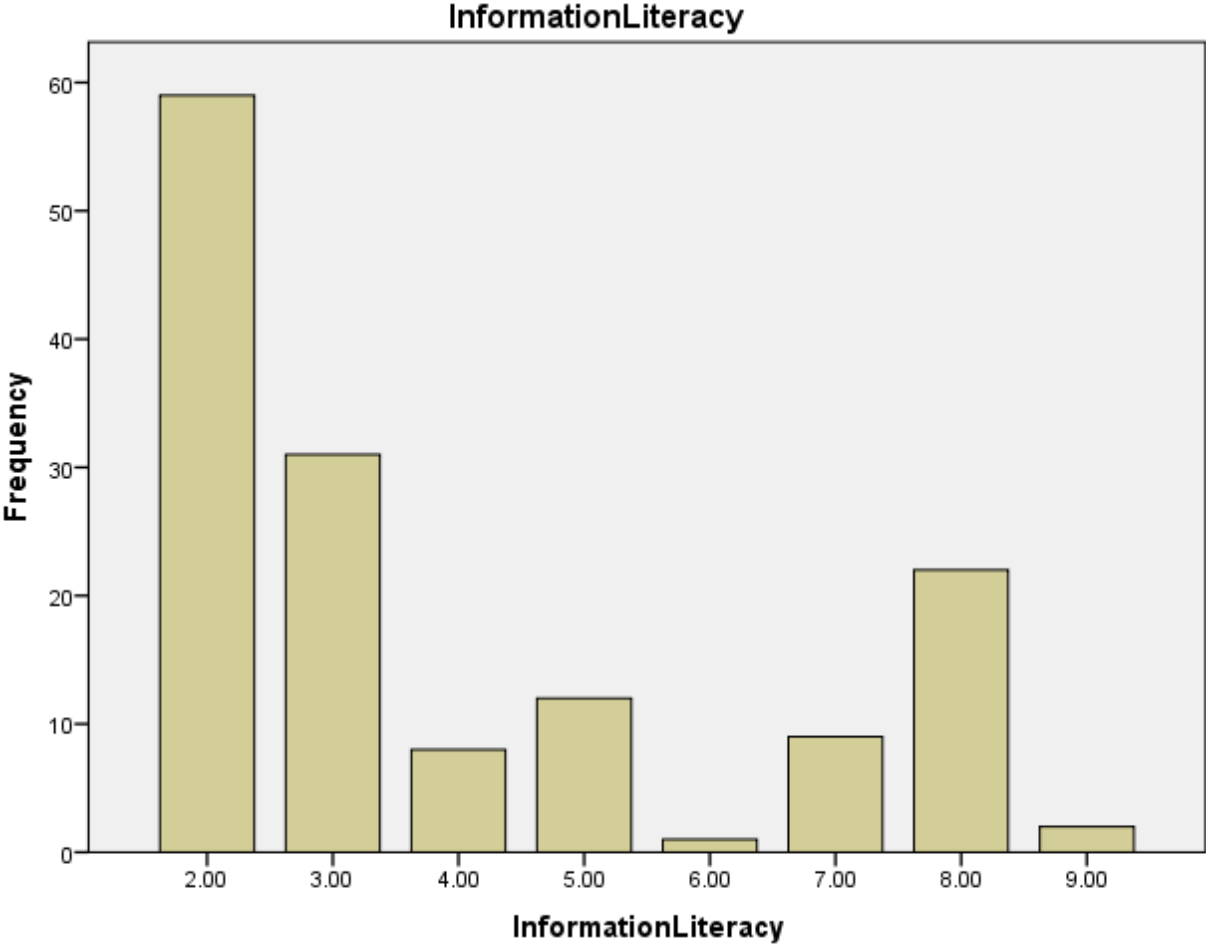
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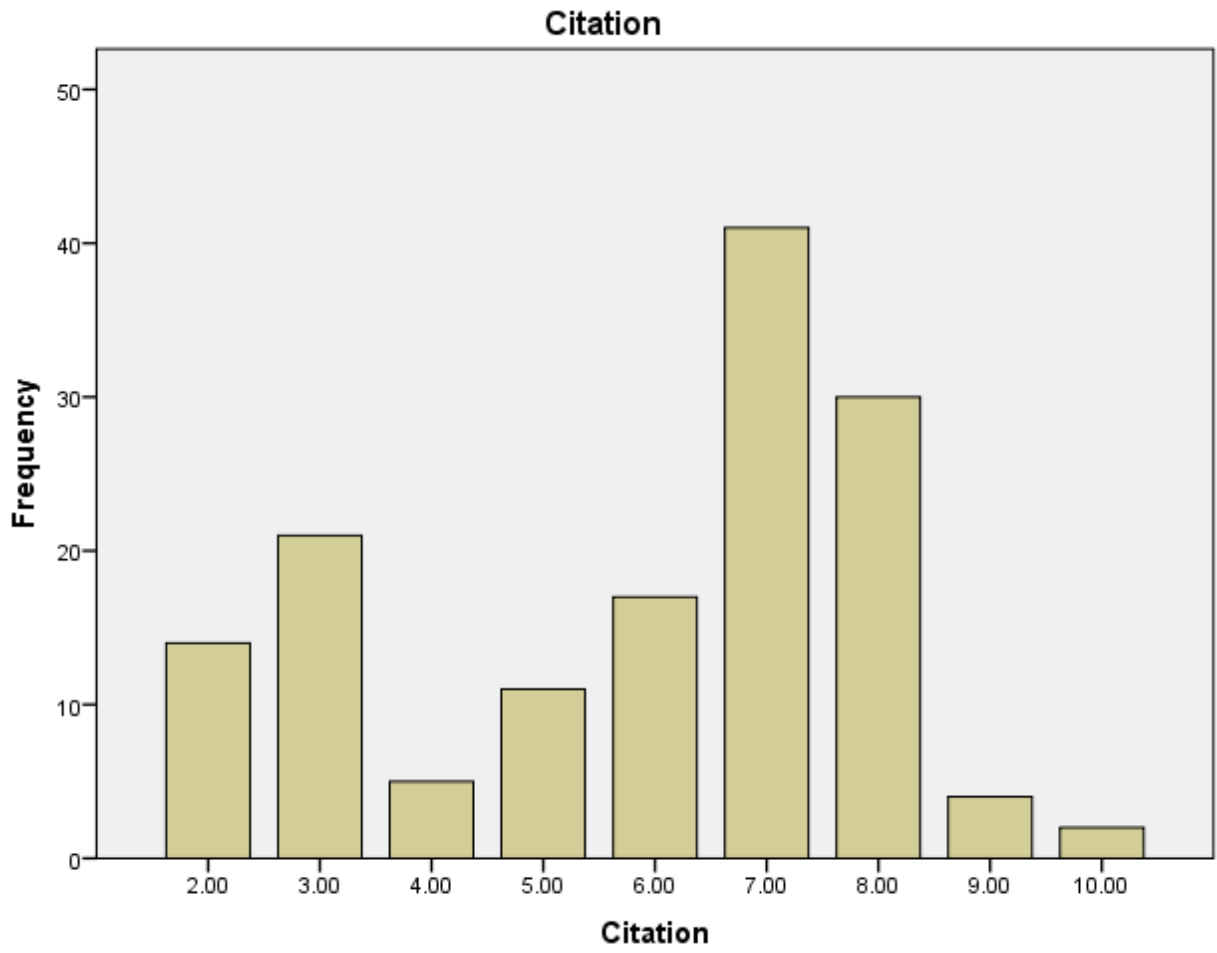
	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	25	14.1	20.2	20.2
3.00	16	9.0	12.9	33.1
4.00	10	5.6	8.1	41.1
5.00	17	9.6	13.7	54.8
Valid 6.00	12	6.8	9.7	64.5
7.00	22	12.4	17.7	82.3
8.00	15	8.5	12.1	94.4
9.00	7	4.0	5.6	100.0
Total	124	70.1	100.0	
Missing System	53	29.9		
Total	177	100.0		

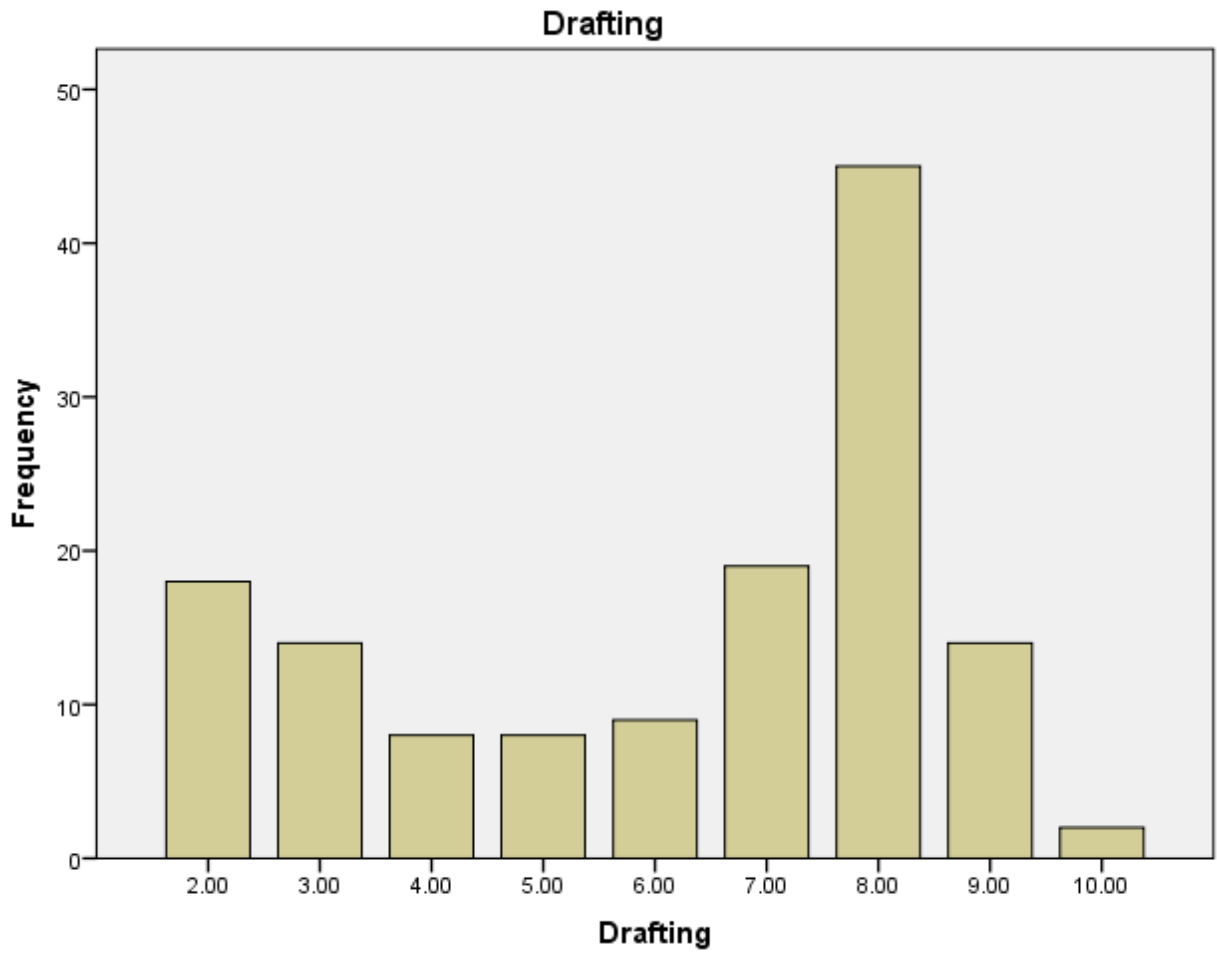
**OverallScore**

	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	7	4.0	4.0	4.0
3.00	14	7.9	8.0	11.9
4.00	16	9.0	9.1	21.0
5.00	36	20.3	20.5	41.5
Valid 6.00	28	15.8	15.9	57.4
7.00	35	19.8	19.9	77.3
8.00	31	17.5	17.6	94.9
9.00	8	4.5	4.5	99.4
10.00	1	.6	.6	100.0
Total	176	99.4	100.0	
Missing System	1	.6		
Total	177	100.0		

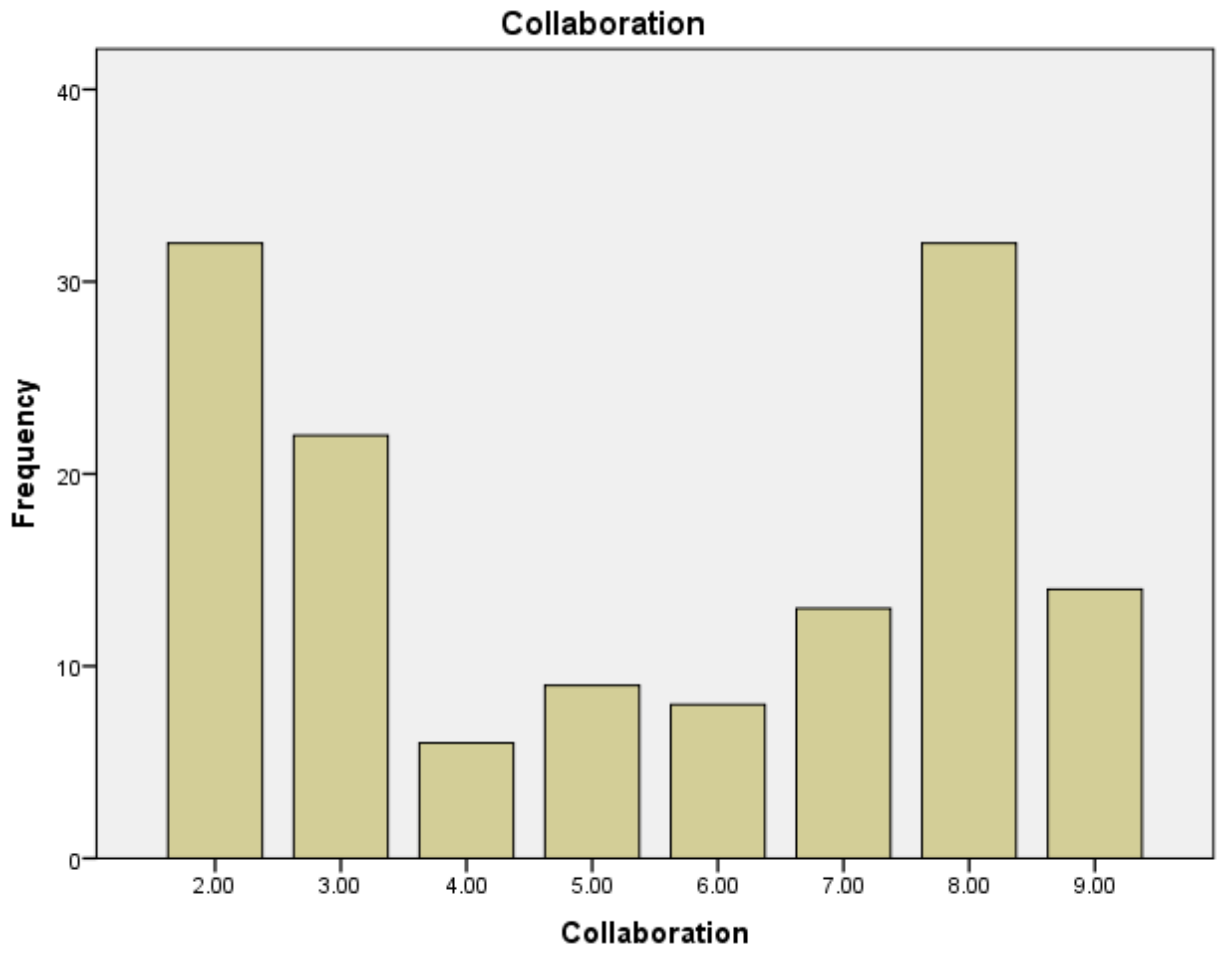
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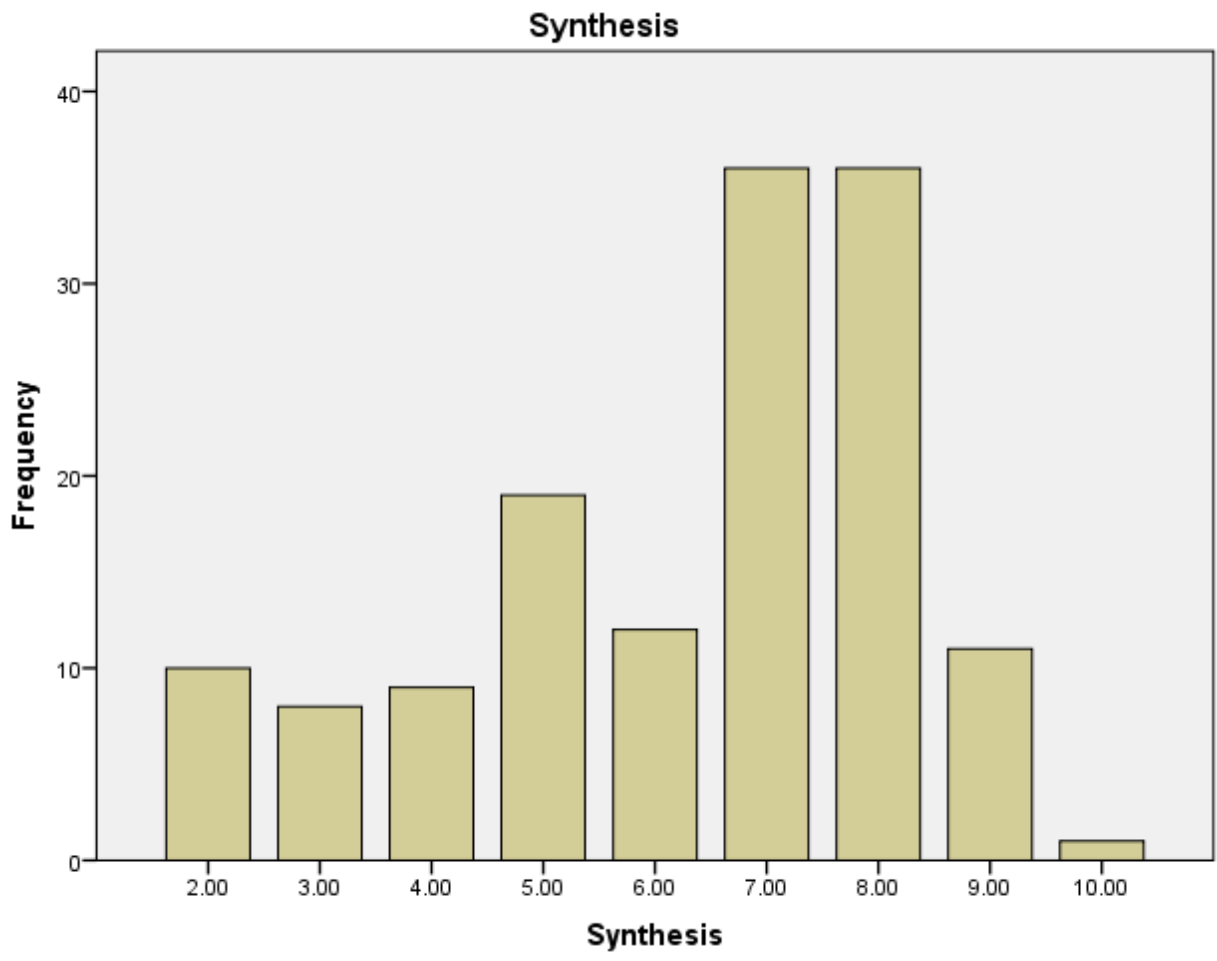


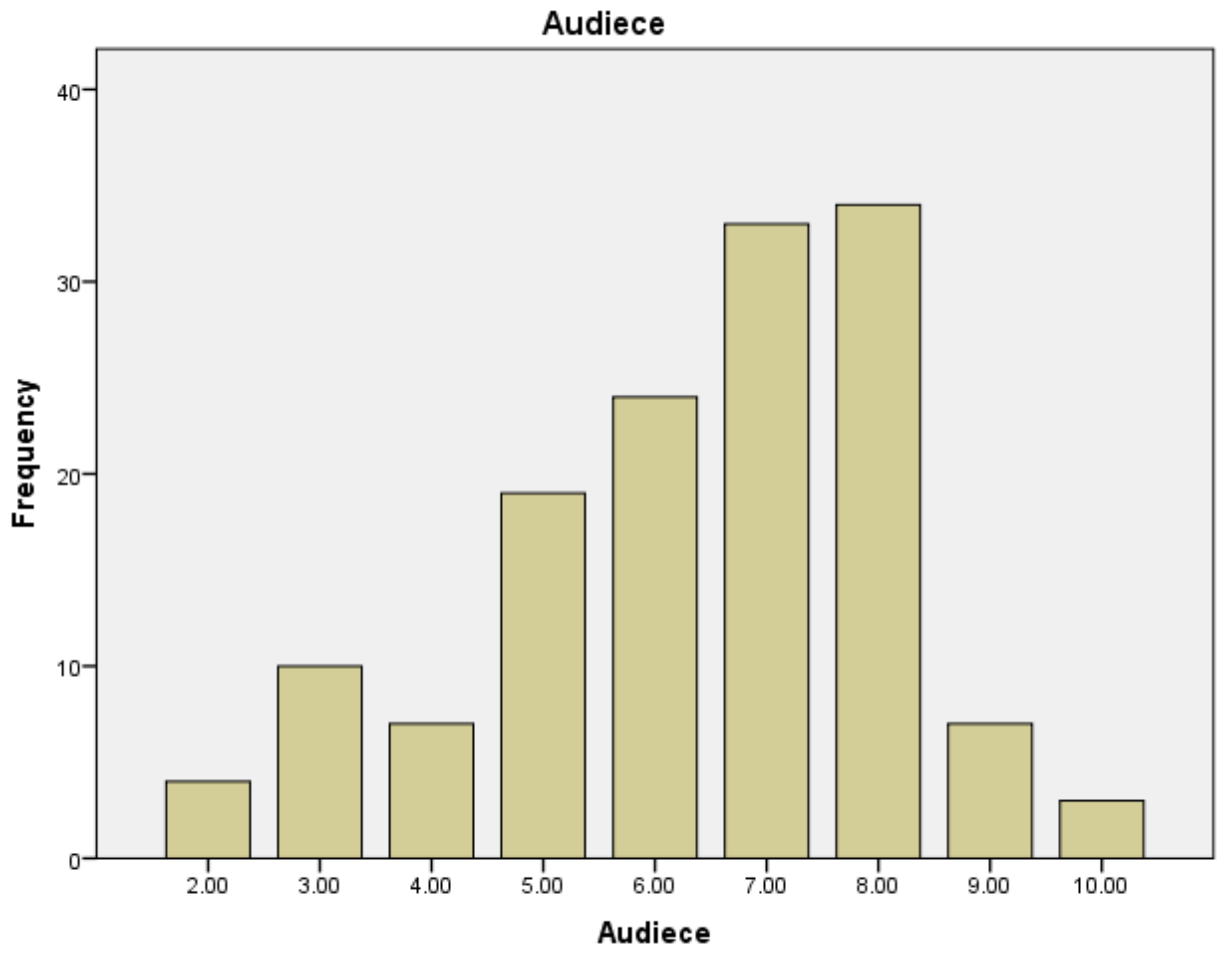


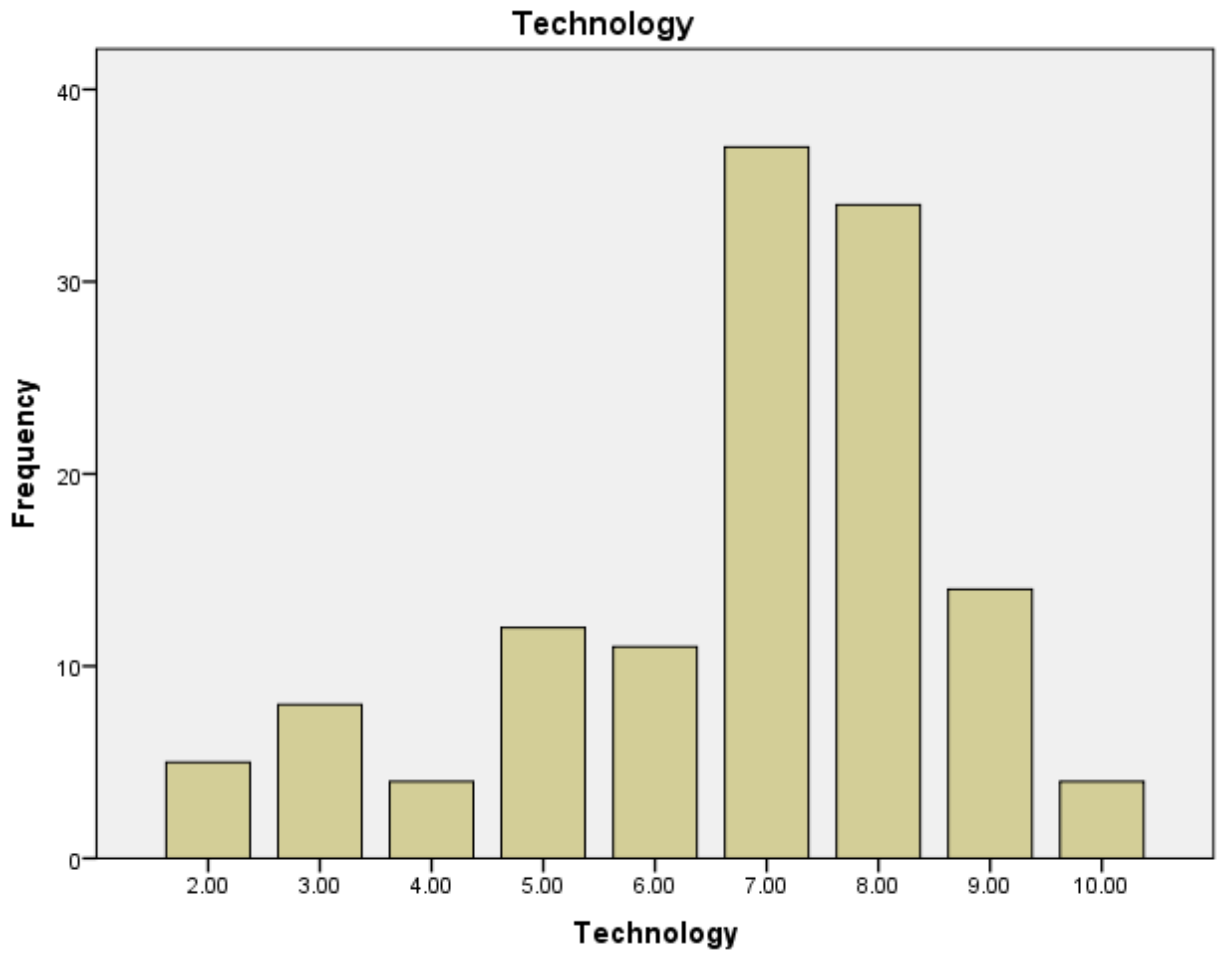


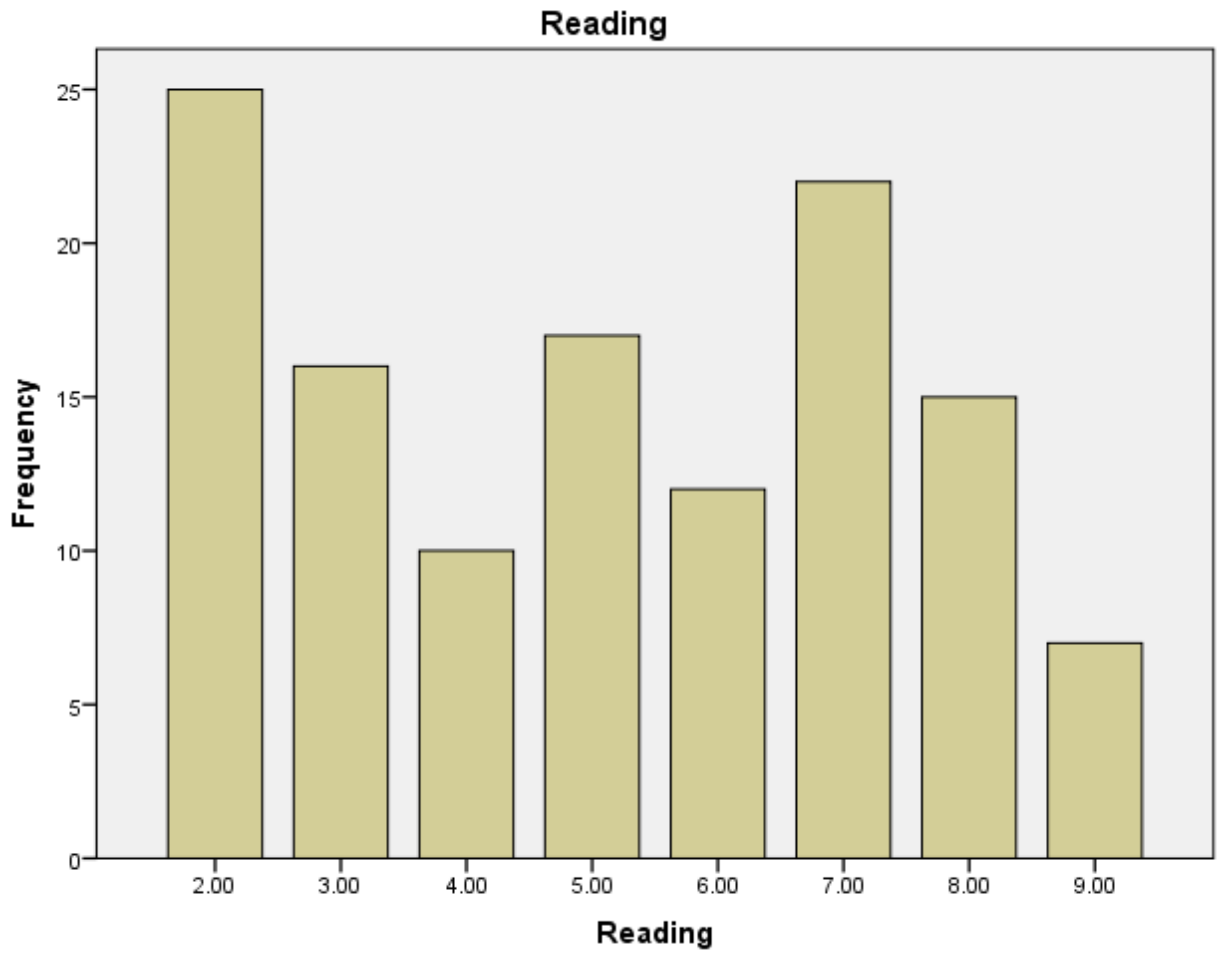


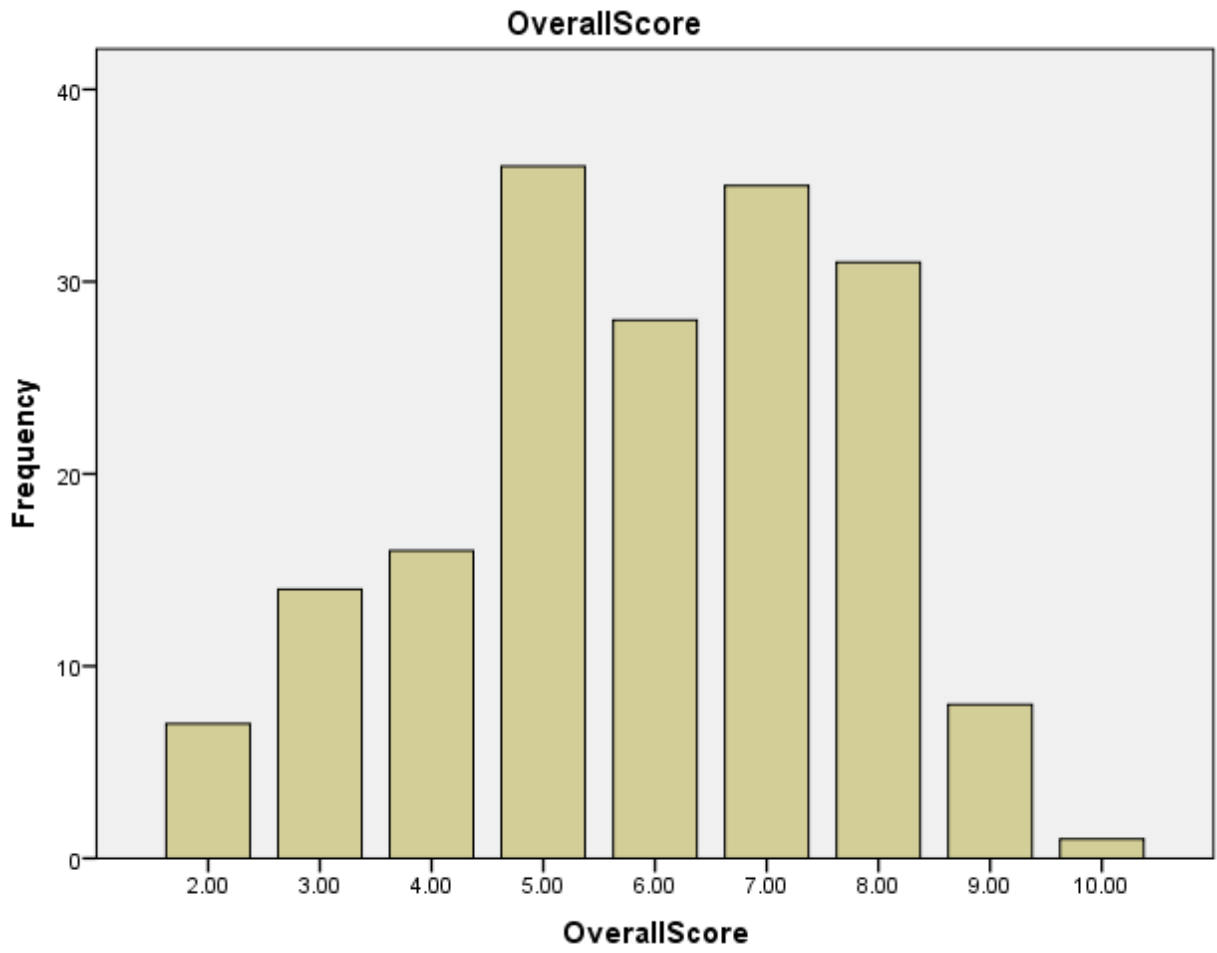












## Correlations

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Correlations

		InformationLiteracy	Citation	Drafting	Collaboration	Synthesis	Audiece	Technology	Reading	OverallScore
InformationLiteracy	Pearson Correlation	1	.512**	.538**	.609**	.391**	.445**	.480**	.477**	-.059
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.485
	N	144	119	115	114	115	117	101	101	144
Citation	Pearson Correlation	.512**	1	.607**	.502**	.838**	.638**	.606**	.557**	-.157
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.059
	N	119	145	110	111	119	118	107	103	145
Drafting	Pearson Correlation	.538**	.607**	1	.742**	.629**	.614**	.568**	.735**	.007
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.932
	N	115	110	137	116	110	111	100	95	137
Collaboration	Pearson Correlation	.609**	.502**	.742**	1	.468**	.566**	.478**	.691**	-.003
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.969
	N	114	111	116	136	111	109	102	99	136
Synthesis	Pearson Correlation	.391**	.838**	.629**	.468**	1	.745**	.650**	.554**	-.076
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.368
	N	115	119	110	111	142	119	105	99	142
Audiece	Pearson Correlation	.445**	.638**	.614**	.566**	.745**	1	.743**	.756**	.001
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.991
	N	117	118	111	109	119	141	110	98	141
Technology	Pearson Correlation	.480**	.606**	.568**	.478**	.650**	.743**	1	.604**	.063
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.476
	N	101	107	100	102	105	110	129	89	129
Reading	Pearson Correlation	.477**	.557**	.735**	.691**	.554**	.756**	.604**	1	.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.998
	N	101	103	95	99	99	98	89	124	124
OverallScore	Pearson Correlation	-.059	-.157	.007	-.003	-.076	.001	.063	.000	1
	Sig. (2-tailed)	.485	.059	.932	.969	.368	.991	.476	.998	
	N	144	145	137	136	142	141	129	124	176

\*\* Correlation is significant at the 0.01 level (2-tailed).