COMET Spring 2019 Statistical Exploration by High School

This document is an exploration of data from the College of Micronesia-FSM spring 2019 entrance COMET with a focus on individual high school and section statistics. In this document the word "sections" refers to high school sections. The word subsection will be used to refer to the different sections of the COMET entrance instrument. This document should be construed as an occasional informal paper by a member of faculty. Any opinions expressed are solely those of the author and do not reflect an official position of the college.

Basic statistics for all candidates

The COMET consists of four subsections: a written essay, a vocabulary test, a comprehension test, and a mathematics placement test. Total possible for the essay is 50 points. The mathematics subsection has four sets of ten problems designed to help place students. The total possible for the sum of the mathematics scores is 40. The msum column tracks the sum of the four math subsection scores. There are also sections that test vocabulary and comprehension.

Statistics 2019	Essay	Voc	Comp	MS095	MS096	MS099	MS100	Msum
n	1419	1419	1419	1419	1419	1419	1417	1419
min	0	6	0	0	0	0	0	3
max	50	80	37	10	10	10	10	39
mode	50	24	18	9	10	2	2	12
median	36	27	18	7	6	4	3	20
mean	34.88	29.84	18.55	6.84	6.09	4.11	3.49	20.53
sx	10.86	12.94	6.96	2.42	2.89	2.60	2.31	8.69
cv	0.31	0.43	0.38	0.35	0.47	0.63	0.66	0.42

Correlations internal to the data

To provide context for the correlations between the subsections of the COMET, the spring 2018 was:

Correl	Essay	Voc	Comp	MS095	MS096	MS099	MS100	msum
Essay	1.00	0.57	0.65	0.53	0.57	0.50	0.38	0.58
Vocab	0.57	1.00	0.73	0.46	0.58	0.55	0.49	0.61
Comp	0.65	0.73	1.00	0.50	0.59	0.56	0.40	0.60
Msum	0.58	0.61	0.60	0.82	0.90	0.89	0.81	1.00

This pattern of relationships shifted this year.

Correlations	Essay	Voc	Comp	MS095	MS096	MS099	MS100	Msum
Essay	1.00	0.46	0.61	0.46	0.53	0.43	0.34	0.52
Vocab	0.46	1.00	0.58	0.33	0.41	0.37	0.33	0.42
Comp	0.61	0.58	1.00	0.48	0.58	0.46	0.37	0.56
Math sum	0.52	0.42	0.56	0.83	0.90	0.87	0.79	1.00

The change was a slight decorrelation of the vocabulary subsection from the mathematics subsections and the sum of the mathematics scores for the four math subsections.

The vocabulary and comprehension subsections correlated to each other less strongly spring 2019 than spring 2018. Both vocabulary and comprehension also dropped in their correlation with the essay year-on-year. In general, all correlations are lower year-on-year.

Correlation of the language sections of the COMET to the mathematics sections are low, with especially poor correlations to skills in college algebra. There remains no way to infer mathematical capabilities from language skills. This suggests that the mathematics section continues to be necessary for placement purposes.

Means by COMENT subsection versus the year

Mean by COMET subsection versus year

Spring term test runs only
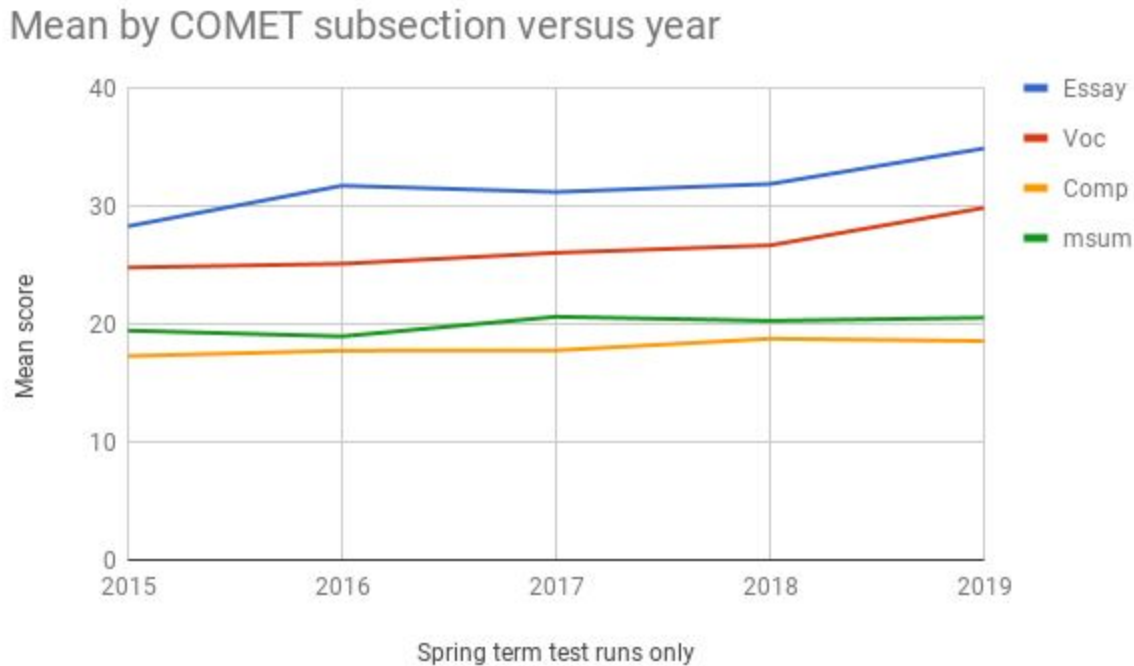
Both the essay and vocabulary subsection means (averages) saw year-on-year gains with both rising to their highest level both since 2015 and historically. While the details are more complex, the general picture is one of improved performance on the COMET over time.

In quantum mechanics one gets results based on what one chooses to observe and measure. Here too the COMET may be getting what the college is measuring for. The emphasis on good COMET results at the high schools cannot be underestimated. This spring one school purchased a banner to announce that all of their senior class had obtained degree admission as a result of the COMET test results. Photos were posted to social media accounts. Another school reminded their seniors that the previous class of seniors had all achieved degree admission on the COMET. When the current class did not meet that mark there was a sense akin to having lost a competition. The college asks high schools not to use the COMET as a tool, as a judgement on their academic quality. The COMET provides useful placement data for placing students into program levels for which the student is deemed to have the ability to benefit.

The long aside in the paragraph above is to say that teaching to the COMET is occurring. Whether year-on -year improvement is due to academic improvement in the schools or an improved ability to teach to the test is an open question. In the past faculty at the college have voiced the opinion that the COMET should also include science and social science sections.

The test, however, is already long in duration. Testing a student to exhaustion would be inappropriate and generates meaningless data late in the test.

Essay score distribution

At one time the distribution of essay scores had a large number of essays marked as a zero - essays that were off topic or written in a language other than English. The original essay marking rubric had only a four point scale. A fifth point was added to each metric (syntax, vocabulary, organization, cohesion, content) when the number of papers maxing out on the rubric strongly skewed the distribution. The number of zeroes was also reduced by instructing scorers to be more judicious in their marking a paper with zeroes across all metrics. If there are words in English on the paper, then if nothing else that is worthy of a point for vocabulary.

Essay score distribution spring 2018
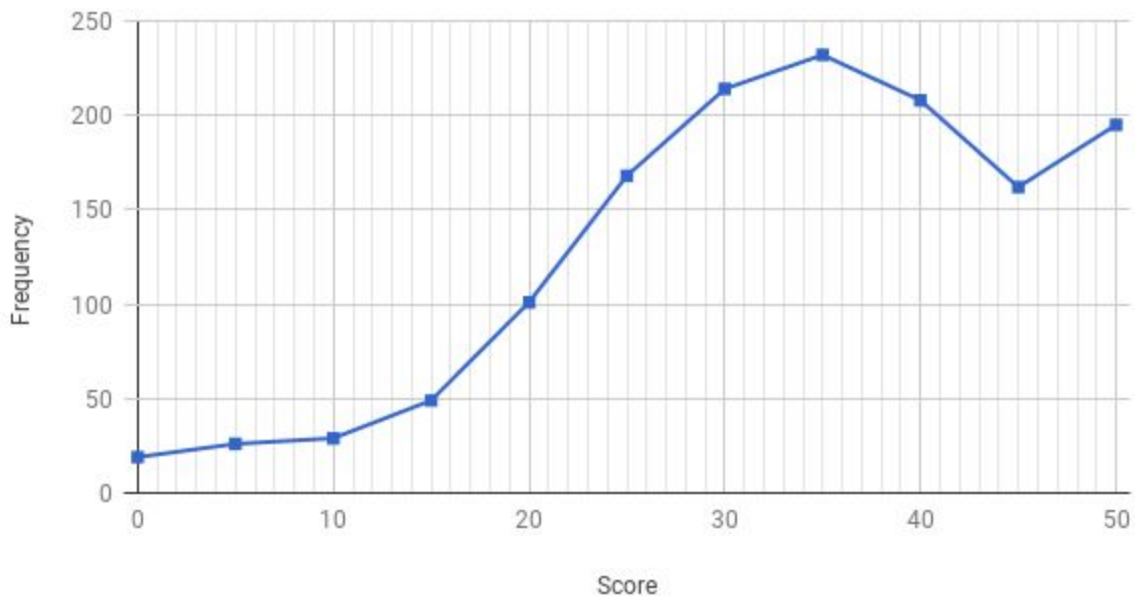
In spring 2018 the essay score distribution had some hints of normality below 45 points. Above 45 points the essay produces are large number of high scores. Knowing this provides context for the spring 2019 COMET essay distribution.

Essay score distribution spring 2019
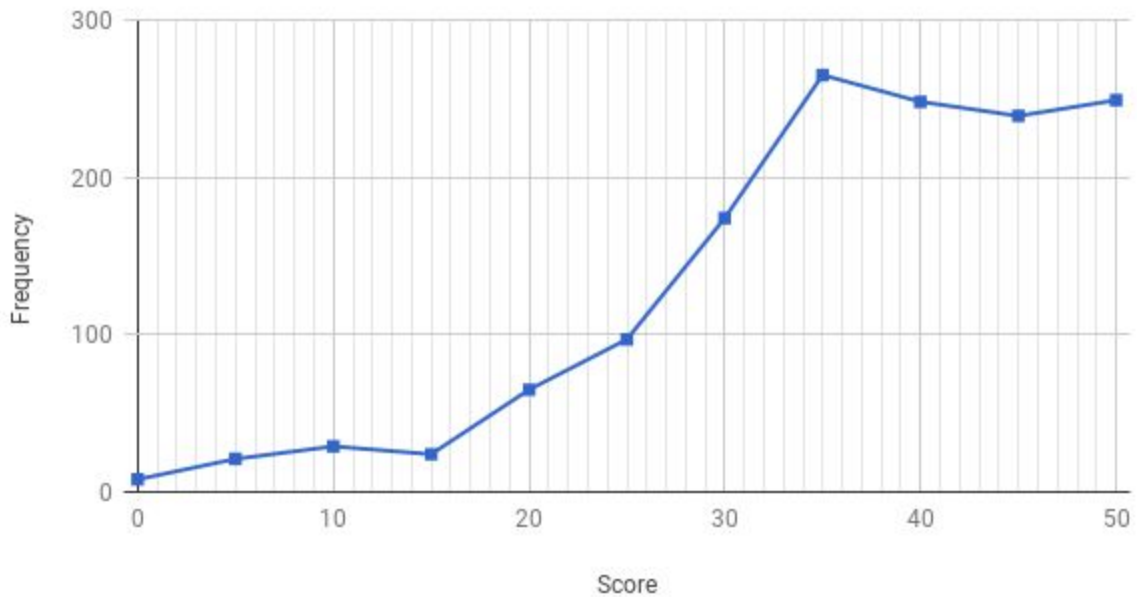
The COMET saw strong growth in the portion of essays above a score of 35. Note too that the vertical scale has changed: the top of the 2018 curve was 232 at 35 points, the top of the curve in 2019 was 265 at 35 points. The marking team composition was fairly stable year-on-year. Internal to the COMET this represents strong improvement on the essay subsection year-on-year. Either student capacity to write an essay is improving year-on-year, or the schools are getting better at teaching to what the college measures, or both effects are occurring.

Frequency Distributions
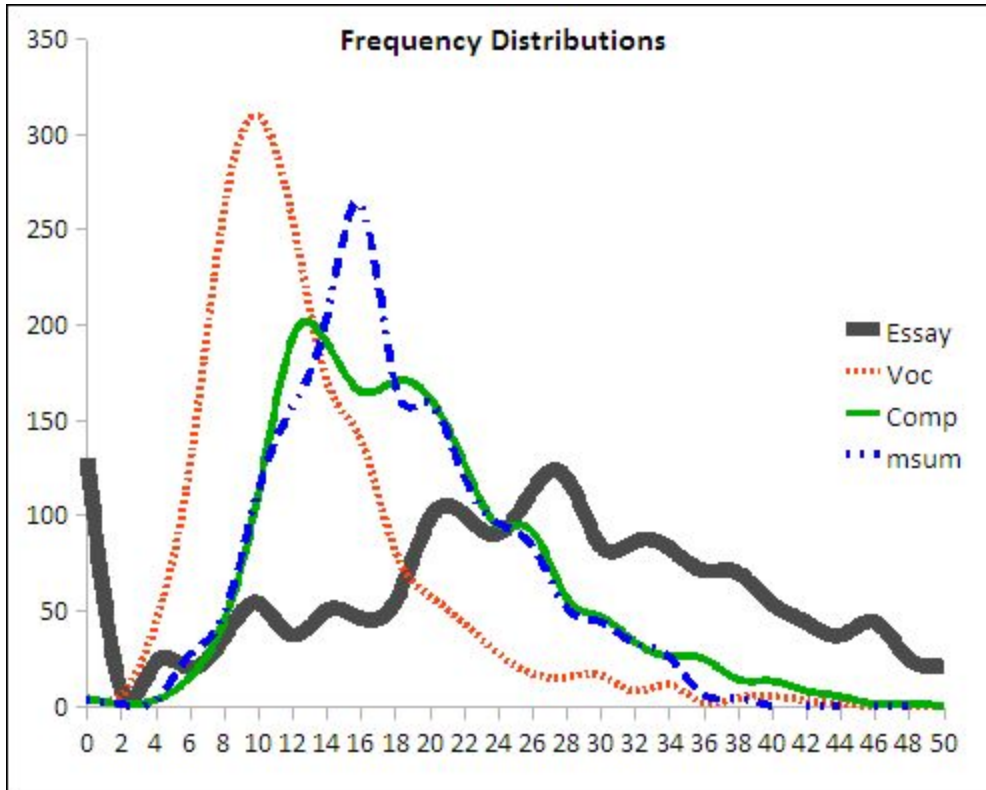
When viewing the 2018 and 2019 charts, one does not get a sense of how much improvement there has been over a longer time frame. In 2008 the distribution of 1601 essays was reported by the thick gray line. Note that the bin interval width was different as was the software used to produce the chart. The mean score in 2008 was 24.35 versus 34.88 this year. The distribution peak was below 30 in 2008.

High school abbreviations

Sch	School	State
Berea	Berea Christian High School	Chuuk
CCA	Calvary Christian Academy	Pohnpei
CHS	Chuuk High School	Chuuk
CSC	COM-FSM Chuuk Campus	Chuuk
CTEC	Career and Technical Education Center	Pohnpei
FCA	Faith Christian Academy	Yap
FHS	Faichuk High School	Chuuk
KHS	Kosrae High School	Kosrae
KSC	COMFSM Kosrae Campus	Kosrae
MHS	Madolenihmw High School	Pohnpei
Moch	Moch	Chuuk
Mortlock	Mortlock	Chuuk

|		
NICHS	NICHS	Yap
NMHS	Nanpei Memorial High School	Pohnpei
OICA	Ohwa International Christian Academy	Pohnpei
OIHS	Outer Island High School	Yap
OLM	Our Lady of Mercy Catholic High School	Pohnpei
PICS	Pohnpei Island Central School	Pohnpei
PSDA	Pohnpei Seventh Day Adventist School	Pohnpei
SCA	Saramen Chuuk Academy	Chuuk
SNHSF	Southern Namoneas High School-Fefan	Chuuk
SNHST	Southern Namoneas High School-Tonoas	Chuuk
XHS	Xavier High School	Chuuk
YCHS	Yap Catholic High School	Yap
YHS	Yap High School	Yap
YICS	YICS (Yap International Christian School)	Yap
YSC	COM-FSM Yap Campus	Yap
YSDA	Yap Seventh Day Adventist School	Yap

Notes

Pohnpei State Campus is now known as the Career & Technical Education Center

Overall average performance on subsection by high schools

In the table the n is the sample size, vocab refers to the vocabulary subsection, and comp refers to the comprehension subsection. The math column is based on the sum of the four subsections of the math component of the COMET. All values are the overall average for that school on the given subsection. Small differences in the average scores are not significant. Note that for each subsection the schools are sorted into rank order.

| School	n	School	Essay	School	Vocab	School	Comp	School	Math
Berea	32	OLM	49.03	KSC	57.50	YCHS	32.10	YCHS	35.15
CCA	14	CCA	47.43	YCHS	50.70	XHS	30.73	XHS	31.30
CHS	205	YCHS	47.00	CCA	48.21	KSC	29.50	NMHS	30.73
CSC	68	PSDA	46.74	XHS	46.59	CCA	29.14	MHS	29.93
CTEC	53	XHS	45.68	MHS	44.49	YSDA	27.50	OLM	27.68
FCA	7	YSDA	44.80	YSDA	41.90	OLM	26.45	YICS	25.33
FHS	10	KSC	44.50	OLM	36.23	PSDA	25.44	NICHS	25.00
KHS	112	FCA	42.43	PSDA	36.04	YICS	22.33	YSDA	24.80
KSC	2	OICA	40.33	CHS	33.07	YHS	20.99	PSDA	24.48
MHS	85	PICS	38.87	YICS	32.33	SCA	20.95	CCA	24.00
Moch	14	NMHS	38.66	NMHS	31.48	MHS	19.65	YHS	23.10
Mortlock	17	MHS	37.71	PICS	29.38	KHS	19.45	KHS	22.05
NICHS	28	YSC	37.00	YHS	26.98	PICS	18.93	FCA	21.43
NMHS	154	CTEC	36.09	SCA	26.95	Berea	18.59	PICS	19.64
OICA	15	YHS	35.26	FCA	25.14	NMHS	18.47	KSC	19.50
OIHS	19	KHS	34.56	YSC	25.09	OICA	18.13	CTEC	18.51
OLM	31	SCA	32.91	Berea	24.38	FCA	17.71	SCA	17.86
PICS	256	CSC	31.37	CTEC	24.08	CTEC	17.49	YSC	17.27
PSDA	27	CHS	29.00	Moch	23.71	YSC	16.91	Berea	17.22
SCA	44	Berea	28.88	OIHS	23.58	NICHS	16.25	OICA	16.33
SNHSF	36	OIHS	27.79	OICA	23.27	CHS	14.98	OIHS	15.84
SNHST	16	NICHS	27.79	KHS	22.78	Moch	14.14	Moch	15.21
XHS	37	Moch	23.86	FHS	22.00	CSC	14.10	Mortlock	13.00
YCHS	20	YICS	22.67	CSC	21.19	Mortlock	13.94	CSC	12.12
YHS	82	Mortlock	17.76	NICHS	21.11	OIHS	12.68	FHS	12.10
YICS	3	SNHST	17.25	Mortlock	20.88	FHS	11.70	CHS	11.59
YSC	22	SNHSF	14.86	SNHST	16.06	SNHST	11.31	SNHST	11.06
YSDA	10	FHS	10.60	SNHSF	15.17	SNHSF	8.42	SNHSF	9.86
Total	**1419**	**Mean**	**34.88**	**Mean**	**29.84**	**Mean**	**18.55**	**Mean**	**20.53**

Mean essay score vs. School spring 2019
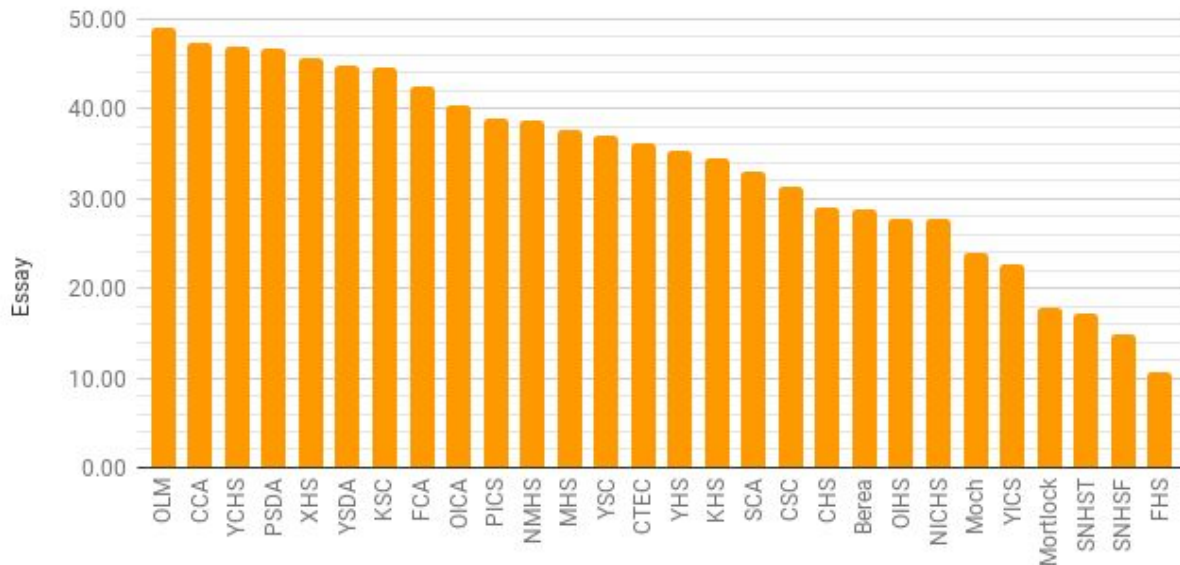
While placement does not depend on any single score, an essay score of 40 or higher usually results in placement in a college level writing course. An essay score of 34 to 39 is likely to result in placement in a one semester developmental writing course. Scores between 20 and 34 yield program admission decisions that depend in part on the other subsection scores.

Essay scores belong 20 are the result of errors of grammar or word order being frequent, limited vocabulary and frequent errors clearly hindering expression of ideas, an essay that evidences little or no attempt at connectivity - although the reader can deduce some attempt at organization, and the essay response is of limited relevance to the task set. Below 20 there may be major gaps in the treatment of topic and/or pointless repetition. As an anecdotal reference point, some years ago a fifth grade student with L1 skills in English wrote an essay that scored a 36. High school averages below 20 suggest a rather comprehensive systemic failure across multiple years of education.

Mean math score vs. School spring 2019
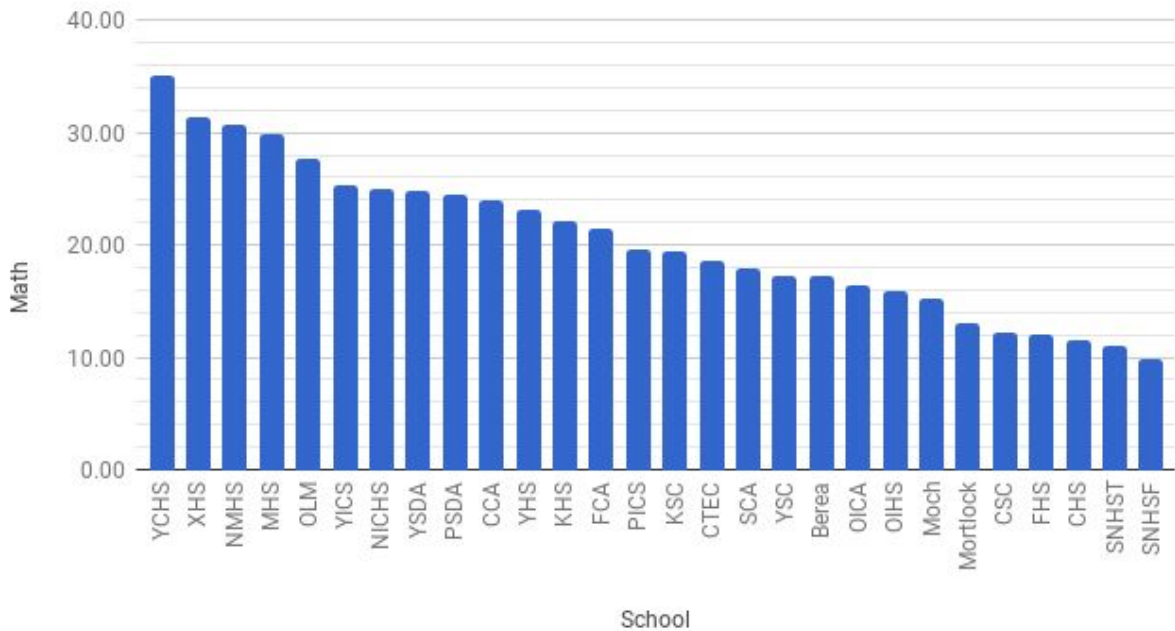
The math score sum does not translate into placements per se as this subsection consists of four sets of ten problems each targeting a particular level in mathematics. These are multiple choice questions. Randomly selecting answers should generate a score of roughly eight. Averages near ten or less suggest near random answering of the questions. The first ten questions are usually at an arithmetic and pre-algebra level of mathematics. A sum of less than fourteen would suggest a fundamental failure to lift students above the most basic numeric skills. High schools with an average lower than this ought to be taking a critical look at their mathematics programs.

Overall average performance on subsection by high schools with sections broken out for schools that submitted section lists

In addition to the high schools listed earlier, the section codes in the next table has the following meanings. Note that jr indicates the students were in the 11th grade junior class for that high school.

jr	Juniors				
NMHS a	Academic	NMHS ag	Agriculture	NMHS bu	Business
NMHS co	Construction	NMHS h	Health		
PICS a	Academic	PICS b	Business	PICS v	Vocational
u	unknown section				

School sxn	n	School	Essay	School	Vocab	School	Comp	School	Math
Berea	16	OLM	49.03	KSC	57.50	YCHS	32.10	MHS jr	35.92
Berea jr	16	CCA	47.43	MHS jr	52.33	XHS	30.73	YCHS	35.15
CCA	14	YCHS	47.00	YCHS	50.70	KSC	29.50	NMHS a	35.06
CHS	166	PSDA	46.74	CCA	48.21	CCA	29.14	MHS a	34.25
CHS jr	39	XHS	45.68	MHS a	47.33	YSDA	27.50	MHS b	31.88
CSC	68	YSDA	44.80	XHS	46.59	OLM	26.45	XHS	31.30
CTEC	53	KSC	44.50	MHS b	43.50	PSDA	25.44	NMHS h	29.81
FCA	7	PICS b1	43.42	MHS	42.00	MHS jr	23.75	NMHS co	29.73
FHS	10	PICS a1	42.96	YSDA	41.90	NMHS a	22.94	NMHS jr	29.47
KHS	112	MHS a	42.67	PICS b4	39.13	PICS jr	22.62	NMHS bu	29.17
KSC	2	FCA	42.43	NMHS a	38.92	MHS a	22.42	NMHS ag	28.47
MHS	45	PICS jr	41.86	CHS jr	36.85	YICS	22.33	OLM	27.68
MHS a	12	MHS jr	41.67	OLM	36.23	PICS a1	21.64	MHS	26.49
MHS b	16	PICS a2	41.16	PSDA	36.04	YHS jr	21.29	PICS a1	25.44
MHS jr	12	NMHS a	40.86	PICS a1	34.08	SCA	20.95	YICS	25.33
Moch	14	OICA	40.58	PICS a2	33.78	YHS	20.91	NICHS	25.00
Mortlock	17	PICS a4	40.57	NMHS co	33.41	PICS a2	20.53	YSDA	24.80
NICHS	28	MHS b	40.56	YICS	32.33	PICS a3	20.40	PSDA	24.48
NMHS a	36	PICS a3	39.73	CHS	32.18	MHS b	19.63	CCA	24.00
NMHS ag	15	PICS b3	39.55	PICS a3	32.17	KHS	19.45	YHS	23.58
NMHS bu	23	NMHS h	39.46	NMHS h	31.38	Berea	19.44	PICS a2	23.13
NMHS co	22	OICA jr	39.33	PICS u	30.75	PICS v4	18.74	KHS	22.05
NMHS h	26	PICS b2	38.25	NMHS bu	30.22	NMHS jr	18.66	FCA	21.43
NMHS jr	32	NMHS co	37.77	PICS jr	30.14	PICS a4	18.50	PICS b1	21.33
OICA	12	NMHS jr	37.72	PICS b1	29.42	OICA	18.42	YHS jr	21.24
OICA jr	3	NMHS bu	37.48	PICS b2	29.08	PICS a5	18.37	PICS v4	20.11

School sxn	n	School	Essay	School	Vocab	School	Comp	School	Math
OIHS	19	NMHS ag	37.13	YHS jr	28.94	PICS b1	18.08	PICS a3	20.10
OLM	31	PICS b4	37.13	NMHS ag	28.07	MHS	17.82	KSC	19.50
PICS a1	25	YSC	37.00	SCA	26.95	Berea jr	17.75	PICS jr	19.43
PICS a2	32	PICS v4	36.58	PICS v4	26.95	FCA	17.71	PICS b4	19.38
PICS a3	30	CTEC	36.09	PICS a4	26.77	NMHS co	17.64	Berea	19.19
PICS a4	30	PICS v1	35.47	Berea	26.50	CTEC	17.49	PICS a4	18.67
PICS a5	30	YHS jr	35.29	YHS	26.46	OICA jr	17.00	CTEC	18.51
PICS b1	12	YHS	35.25	PICS a5	25.87	YSC	16.91	PICS b3	18.36
PICS b2	12	CHS jr	35.21	FCA	25.14	CHS jr	16.90	SCA	17.86
PICS b3	11	PICS a5	35.13	YSC	25.09	PICS b3	16.64	YSC	17.27
PICS b4	8	KHS	34.56	OICA	24.92	PICS b2	16.58	OICA	17.25
PICS jr	21	MHS	34.31	PICS b3	24.82	NMHS ag	16.33	PICS a5	16.70
PICS u	4	PICS u	33.00	NMHS jr	24.38	NMHS bu	16.30	PICS b2	16.58
PICS v1	15	SCA	32.91	CTEC	24.08	NICHS	16.25	OIHS	15.84
PICS v3	7	Berea	31.63	PICS v1	23.80	PICS u	16.00	PICS u	15.75
PICS v4	19	CSC	31.37	Moch	23.71	NMHS h	15.88	PICS v1	15.27
PSDA	27	OIHS	27.79	OIHS	23.58	PICS v1	14.87	Berea jr	15.25
SCA	44	NICHS	27.79	KHS	22.78	PICS b4	14.75	Moch	15.21
SNHSF	36	CHS	27.54	Berea jr	22.25	CHS	14.52	PICS v3	13.43
SNHST	16	Berea jr	26.13	FHS	22.00	Moch	14.14	Mortlock	13.00
XHS	37	Moch	23.86	CSC	21.19	CSC	14.10	CHS jr	12.72
YCHS	20	YICS	22.67	NICHS	21.11	Mortlock	13.94	OICA jr	12.67
YHS	65	PICS v3	21.00	Mortlock	20.88	PICS v3	13.43	CSC	12.12
YHS jr	17	Mortlock	17.76	PICS v3	18.71	OIHS	12.68	FHS	12.10
YICS	3	SNHST	17.25	OICA jr	16.67	FHS	11.70	CHS	11.32
YSC	22	SNHSF	14.86	SNHST	16.06	SNHST	11.31	SNHST	11.06
YSDA	10	FHS	10.60	SNHSF	15.17	SNHSF	8.42	SNHSF	9.86
Total	1419	Mean	34.88	Mean	29.84	Mean	18.55	Mean	20.53
School sxn	n	School	Essay	School	Vocab	School	Comp	School	Math

At top rank on the essay was OLM. On the vocabulary subsection top rank went to Kosrae State Campus followed by juniors at MHS who sat the spring 2019 COMET. YCHS took top rank on composition subsection. The MHS juniors who sat the COMET were top rank on the math subsection.

[Edited 15 June 2019 to add MHS a and MHS b section values.] The MHS Academic A section was the top ranked on the vocabulary section among the senior classes at the public high schools.

Given that the math subsection is multiple choice, the math scores at SNHSF is indistinguishable from random. Performance at SNHST, CHS, FHS, CSC, OICA junior class,

and CHS juniors is barely better than random - on average students are obtaining four more correct that the score of eight that blind guessing should yield.

Essay performance over time for high schools and selected sections

| Spring: Essay	2012	2013	2014	2015	2016	2017	2018	2019
Berea	27.21	25.63	28.73	38.22	28.95	45.00	28.05	31.63
CCA	46.82	37.25	41.29	44.80	42.53	47.40	42.35	47.43
CHS	18.41	22.44	16.8	20.54	20.78	28.56	24.29	27.54
CHS A	36.82	37.96	39	41.67	36.44	42.30	34.58	
Faichuk	4.87	4.84	1.81	12.33	7.80	15.47	8.54	10.60
Faith Christian							29.80	42.43
KHS	33.39	30.24	29.9	33.53	31.22	30.98	32.11	34.56
MHS	29.86	30.6	30.84	28.13	32.08	31.94	38.86	37.05
Moch	20.95	21.82	17.32					23.86
Mortlock	12	11.25	21.85					17.76
NICHS			24.97					27.79
MHS A1/A	37.89	33.95		32	39.14	39.32	42.06	42.67
MHS A2/B	32.11	28.57		29.3	29.29	32.30	36.56	40.56
MHS BU/C				28	33.90	29.86	33.85	
NMHS	30.51	31.74	33.3	23.39	36.52	28.58	36.65	38.66
NMHS A1/A	36.22	38.92	38.5	32.43	40.47	37.43	37.90	40.86
NMHS A2/H	32.48	32.46	37.13	27.05	39.63	30.93	36.45	39.46
NMHS B	29.18	28.4	30.44	19.73	37.33	26.17	30.81	37.48
OICA	34.17	30.7	30.55	31.24	30.27	35.00	28.44	40.58
OIHS	21.41		29.62	29.78	28.00		29.17	27.79
OLMCHS	35.17	42.59	42.48	44.58	36.58	43.40	46.31	49.03
PICS	32.95	31.68	28.05	29.67	31.88	31.00	32.29	38.87
PICS A1						44.58		42.96
PICS A2						36.39		41.16
SCA	32.89	36.63	33.56	37.85	37.59	42.65	41.41	32.91
SDA-P	43.24	39.32	41.68	39.69	41.28	44.78	46.26	46.74
SDA-Y	42.2	33.14	41.4	40.40	40.58	42.00	37.64	44.80
SNHS-Fefan	13.32	15.76	21.36	12.08	12.90	17.40	13.26	14.86
SNHS-Tonoas	7.52	12.87	12.88	12.79	13.12	13.78	10.65	17.25
Xavier	43.24	43.98	42.66	47.13	48.61	48.31	48.05	45.68
YCHS			44.67	46.50	47.31	48.31	47.05	47.00
YHS	30.06	34.13	27.16	30.86	37.20	32.83	32.36	35.25
YICS								22.67

Placement status analysis by high schools including section level details for some schools and sections

School sxn	Non-Admit	Certificate	ACE	Associates	Sum
Berea	5	3	1	7	16
Berea jr	4	8	1	3	16
CCA	1			13	14
CHS	78	56	16	16	166
CHS jr	5	22	6	6	39
CSC	26	33	4	5	68
CTEC	5	30	8	10	53
FCA	1	1	2	3	7
FHS	8	1	1		10
KHS	18	37	13	44	112
KSC				2	2
MHS	4	29	12	28	73
MHS jr		1	2	9	12
Moch	7	5	2		14
Mortlock	13	1	2	1	17
NICHS	8	12	7	1	28
NMHS a		3	8	25	36
NMHS ag	2	6	5	2	15
NMHS bu	3	10	7	3	23
NMHS co	2	9		11	22
NMHS h	4	12	4	6	26
NMHS jr	2	11	3	16	32
OICA	1	6	1	4	12
OICA jr	1		1	1	3
OIHS	12	5	1	1	19
OLM				31	31
PICS a1	1	1	1	22	25
PICS a2	2	7	4	19	32
PICS a3		8	4	18	30
PICS a4	2	14	2	12	30
PICS a5	6	9	6	9	30
PICS b1	1	4	5	2	12
PICS b2	3	5	2	2	12
PICS b3	3	4	2	2	11

School sxn	Non-Admit	Certificate	ACE	Associates	Sum
PICS b4	4	1		3	8
PICS jr		4	5	12	21
PICS u	1	2	1		4
PICS v1	5	5	3	2	15
PICS v3	4	3			7
PICS v4	2	7	3	7	19
PSDA		1	1	25	27
SCA	6	14	6	18	44
SNHSF	35	1			36
SNHST	8	8			16
XHS				37	37
YCHS				20	20
YHS	11	15	5	34	65
YHS jr	2	4	2	9	17
YICS	1	1		1	3
YSC	3	10	3	6	22
YSDA		1		9	10
Grand Total	**310**	**430**	**162**	**517**	**1419**
School sxn	**Non-Admit**	**Certificate**	**ACE**	**Associates**	**Sum**

The performance of the public high schools over time has been variable with all but one high school showing year-on-year improvement. The one high school that saw a drop is still performing well above their pre-2018 performance levels.

Essay test averages for specific sections and high schools
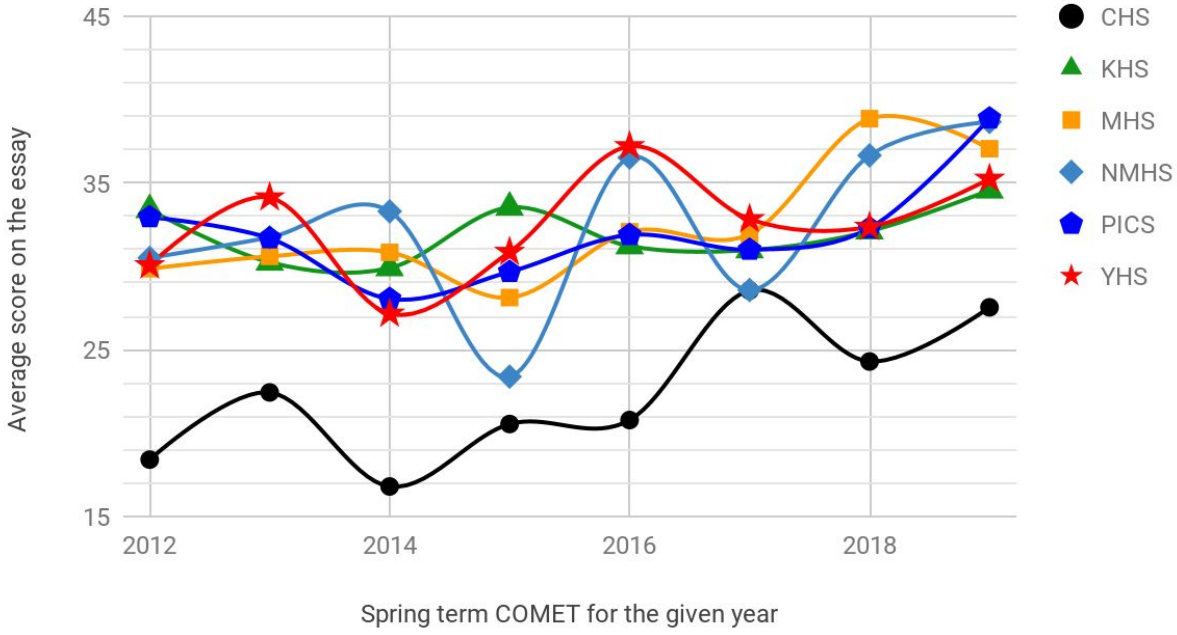
Gender differentials

The number of females who sat for the COMET outnumbered the number of males, thus the number of females placing at a particular level should exceed the number of males.

School sxn	Non-Admit	Certificate	ACE	Associates	Sum
Female	144	211	92	306	753
Male	166	219	70	211	666
Differentials:	-22	-8	22	95	87

This expectation holds for ACE and Associates admissions, but for students who were not admitted to a program at the college and for certificate admissions the number of males exceeded the number of females. While the overall ratio of females to males was 1.13 to 1, the associates admissions ran at 1.45 to 1.

Gender differentials were explored for the essay average and math sum average by state. Given the large underlying n, differences may be significant from a frequentist statistical point of view, but the size of the effect is generally small.

Gender	Chuuk	Kosrae	Pohnpei	Yap	Mean
Female	30.16	36.95	41.24	37.50	36.35
Male	26.48	31.90	37.77	33.07	33.22
State means:	28.59	34.74	39.49	35.41	34.88

In all four states the females candidates outperformed the male candidates on average on the essay subsection of the COMET.

Differences on the math subsection were small and not statistically meaningful.

Gender	Chuuk	Kosrae	Pohnpei	Yap	Mean
Female	13.77	22.92	24.47	23.44	20.31
Male	14.68	20.84	23.99	23.17	20.77
State means:	14.16	22.01	24.23	23.31	20.53

Upward Bound summary statistics

The following averages are for Pohnpei Upward Bound students on the COMET test. The sample sizes were too small to break out by high school.

Count	Essay	Voc	Comp	MS095	MS096	MS099	MS100	Msum
22	41.23	42.05	25.18	9.68	10.00	8.27	8.45	36.41

If Upward Bound were a high school in the high school rankings then Upward Bound would the number eight ranked high school on the essay, number six in vocabulary, seven in composition, and the top rank, number one, on the math subsection. On the math subsection Upward Bound also scored above the highest average among the high school sections where the Madolehnihmw junior class was first ranked.

Diversity

The College of Micronesia-FSM was founded by an act of the FSM congress and is thus effectively the national college of the Federated States of Micronesia. The degree granting programs provide a path to positions of leadership in business, government, education, and other fields. Differentials in admission to degree programs by state can have long term impacts on opportunities for residents of a particular state.

State	Population	Pop %	Degree admits	Deg %	Share of pop	Parity
Chuuk	48654	47%	93	18%	38%	100%
Kosrae	6616	6%	46	9%	138%	100%
Pohnpei	36196	35%	294	57%	162%	100%
Yap	11377	11%	84	16%	147%	100%
Sums:	102843		517			

The population data is from the 2010 census and is no longer accurate. Anecdotal reports are that the national population is now under 100,000. Kosrae is estimated to be as low as 5200 as of late 2017.

The number of admissions by state to degree granting programs is based on the state in which the high school is located. Xavier High School, located and counted in Chuuk, actually draws students from across the nation and has the effect of inflating the number of degree admissions apparently from Chuuk.

Note that the above number of degree admissions will not be the same as earlier tables. Earlier tables were generated by analysis of the raw data in the original spreadsheets. Final admissions

decisions are guided by the COMET results, but the Recruitment, Admissions, and Retention committee can and does make recommendations that impact final numbers. For the purposes of this diversity analysis, the above values derive from tables prepared after admission decisions were made.

Relative share of seats versus population

Degree admission only
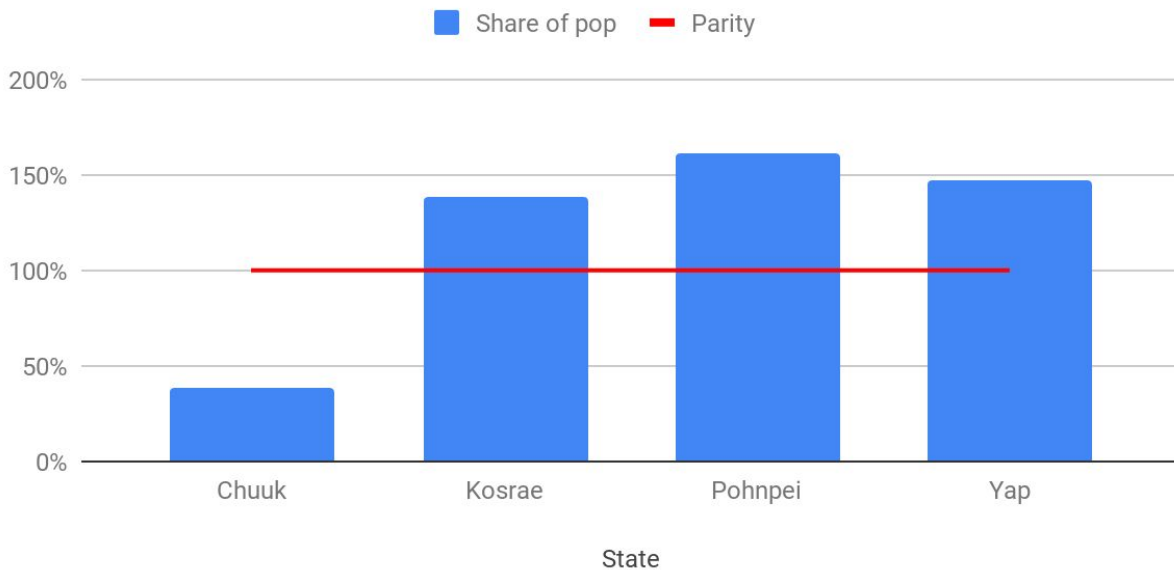
While Chuuk state residents are underrepresented in degree admissions at the college, the other three states are each over-represented as a share of the national population. Note that the above numbers are invitations to the degree program at the college and do not represent the number who accept those invitations and attend the college.

There are complex contributing factors that lead to the differential increasings seen. The national campus is located on Pohnpei, a Pohnpeian student can remain at home and attend the national campus. Students from other states have to leave home to attend the national campus. Once a decision is made to leave one's home island, then there are other options. Guam Community College is a a single hop by air from Chuuk for a Chuukese student. For Kosraean students, there are more Kosraeans living abroad than on the home island. They have the option to continue on in schools stateside while staying with relatives there. And Yapese students can remain closer to their home island by attending Palau Community College.

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Author and contact information

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Appendix A

COMET Sub-Test 3 (Writing) Analytic Scale [Essay rubric]

Syntax

5 Grammar and word order nearly perfect.

4 Some errors of grammar or word order but communication not impaired.

3 Errors of grammar or word order fairly frequent; occasional re-reading necessary for full comprehension.

2 Errors of grammar or word order frequent; efforts of interpretation sometimes required on reader's part.

1 Errors of grammar or word order very frequent; reader often has to rely on own interpretation.

0 Errors of grammar or word order so severe as to make comprehension virtually impossible.

Vocabulary

5 Wide and correctly used vocabulary.

4 Occasionally uses inappropriate terms or relies on circumlocution; expression of ideas not impaired.

3 Uses wrong or inappropriate words fairly frequently; expression of ideas may be limited because of inadequate vocabulary.

2 Limited vocabulary and frequent errors clearly hinder expression of ideas.

1 Vocabulary so limited and so frequently misused that reader must often rely on own interpretation.

0 Vocabulary limitations so extreme as to make comprehension virtually impossible.

Organization

5 Extremely well organized.

4 Material fairly well organized; links could occasionally be clearer but communication not impaired.

3 Some lack of organization; re-reading required for clarification of ideas.

2 Little or no attempt at connectivity, though reader can deduce some organization.

1 Individual ideas may be clear, but very difficult to deduce connection between them.

0 Lack of organization so severe that communication is seriously impaired.

Cohesion

5 Strong cohesion with smooth transitions both within and between paragraphs.

4 Occasional lack of consistency in choice of cohesive structures and vocabulary but overall ease of communication not impaired.

3 'Patchy', with some cohesive structures or vocabulary items noticeably inappropriate to general style.
2 Cohesive structures or vocabulary items sometimes not only inappropriate but also misused; little sense of ease of communication.
1 Communication often impaired by completely inappropriate or misused cohesive structures or vocabulary items.
0 A 'hotchpotch' of half-learned misused cohesive structures and vocabulary items rendering communication almost impossible.

Content

5 Full and complete answer, inclusive of all parts of the task.
4 Relevant and adequate answer to the task set.
3 For the most part answers the task set, though there may be some gaps or redundant information.
2 Answer of limited relevance to the task set. Possibly major gaps in treatment of topic and/or pointless repetition.
1 Answer bears little relation to the task set.
0 No evidence of assigned task.