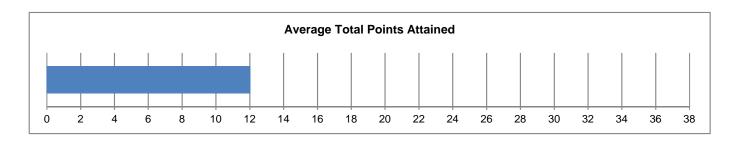# Sam Houston State University

CAT Institutional Report

July 2017 - COE - Curriculum and Instruction

CAT Overview: Descriptive Statistics for CAT Total Score
Sam Houston State University : July 2017 - COE - Curriculum and Instruction

	N	Min.	Max.	Mean	Std. Dev
CAT Total Score	201	1.00	25.00	12.04	4.58

Average Total Points Attained

CAT Demographics: Descriptive Statistics for Sample

		Freq.	Freq. %
Gender	**Male**	34	17.0%
	Female	166	83.0%
Class Standing	**Freshman**	0	0.0%
	Sophomore	0	0.0%
	Junior	0	0.0%
	Senior	197	100.0%
Class	**Undergraduate**	192	98.5%
	Graduate	3	1.5%
Age	**≤ 20 years**	0	0.0%
	21-25 years	161	83.4%
	≥ 26 years	32	16.6%

		Freq.	Freq. %
Race**	**White**	176	87.6%
	Black or African American	75	37.3%
	American Indian or Alaska Native	62	30.8%
	Asian	102	50.7%
	Native Hawaiian or Other Pacific Islander	109	54.2%
	Other Race	83	41.3%

**The cumulative percent may exceed 100% as students are allowed to select more than one category.

		Freq.	Freq. %
Proficiency with the English Language*	**Excellent**	176	87.6%
	Very Good	21	10.4%
	Good	2	1.0%
	Fair	2	1.0%
	Poor	0	0.0%

* Self-rated

	Freq.	Freq. %
Spanish/Hispanic/Latino Ethnicity	46	22.9%
Considered English primary language?	196	97.5%

CAT Breakdown: Frequency of Points Awarded for Each Question

Sam Houston State University : July 2017 - COE - Curriculum and Instruction

	Skill Assessed by CAT Question	Points Awarded	Freq.	Freq. %
Q1	Summarize the pattern of results in a graph without making inappropriate inferences.	0	63	31.3%
		1	138	68.7%
Q2	Evaluate how strongly correlational-type data supports a hypothesis.	0	91	45.3%
		1	66	32.8%
		2	25	12.4%
		3	19	9.5%
Q3	Provide alternative explanations for a pattern of results that has many possible causes.	0	137	68.2%
		1	38	18.9%
		2	22	10.9%
		3	4	2.0%
Q4	Identify additional information needed to evaluate a hypothesis.	0	139	69.2%
		1	46	22.9%
		2	11	5.5%
		3	5	2.5%
		4	0	0.0%
Q5	Evaluate whether spurious information strongly supports a hypothesis.	0	66	32.8%
		1	135	67.2%
Q6	Provide alternative explanations for spurious associations.	0	37	18.4%
		1	106	52.7%
		2	52	25.9%
		3	6	3.0%
Q7	Identify additional information needed to evaluate a hypothesis.	0	161	80.1%
		1	38	18.9%
		2	2	1.0%
Q8	Determine whether an invited inference is supported by specific information.	0	69	34.3%
		1	132	65.7%
Q9	Provide relevant alternative interpretations for a specific set of results.	0	102	50.7%
		1	79	39.3%
		2	20	10.0%
Q10	Separate relevant from irrelevant information when solving a real-world problem.	0	6	3.0%
		1	11	5.5%
		2	34	16.9%
		3	90	44.8%
		4	60	29.9%
Q11	Use and apply relevant information to evaluate a problem.	0	129	64.2%
		1	66	32.8%
		2	6	3.0%
Q12	Use basic mathematical skills to help solve a real-world problem.	0	61	30.3%
		1	140	69.7%
Q13	Identify suitable solutions for a real-world problem using relevant information.	0	96	47.8%
		1	86	42.8%
		2	16	8.0%
		3	3	1.5%
Q14	Identify and explain the best solution for a real-world problem using relevant information.	0	99	49.3%
		1	19	9.5%
		2	10	5.0%
		3	43	21.4%
		4	27	13.4%
		5	3	1.5%
Q15	Explain how changes in a real-world problem situation might affect the solution.	0	162	80.6%
		1	30	14.9%
		2	6	3.0%
		3	3	1.5%

Institutional/Departmental Profile

Sam Houston State University : July 2017 - COE - Curriculum and Instruction

Evaluate and Interpret Info	Problem Solving	Creative Thinking	Effective Comm.		Skill Assessed by CAT Question	Mean	Avg. % of Attainable Points
X				Q1	Summarize the pattern of results in a graph without making inappropriate inferences.	0.69	69%
X			X	Q2	Evaluate how strongly correlational-type data supports a hypothesis.	0.86	29%
		X	X	Q3	Provide alternative explanations for a pattern of results that has many possible causes.	0.47	16%
	X	X	X	Q4	Identify additional information needed to evaluate a hypothesis.	0.41	10%
X				Q5	Evaluate whether spurious information strongly supports a hypothesis.	0.67	67%
		X	X	Q6	Provide alternative explanations for spurious associations.	1.13	38%
	X	X	X	Q7	Identify additional information needed to evaluate a hypothesis.	0.21	10%
X				Q8	Determine whether an invited inference is supported by specific information.	0.66	66%
		X	X	Q9	Provide relevant alternative interpretations for a specific set of results.	0.59	30%
X	X			Q10	Separate relevant from irrelevant information when solving a real-world problem.	2.93	73%
X	X		X	Q11	Use and apply relevant information to evaluate a problem.	0.39	19%
	X			Q12	Use basic mathematical skills to help solve a real-world problem.	0.70	70%
X	X			Q13	Identify suitable solutions for a real-world problem using relevant information.	0.63	21%
X	X		X	Q14	Identify and explain the best solution for a real-world problem using relevant information.	1.45	29%
	X	X	X	Q15	Explain how changes in a real-world problem situation might affect the solution.	0.25	8%
					CAT Total Score	12.04	32%

The map of skills covered by each question above is a suggested theoretical guide for interpreting results.

Upper Division CAT Means Comparison Report

Sam Houston State University : July 2017 - COE - Curriculum and Instruction

Evaluate and Interpret Info	Problem Solving	Creative Thinking	Effective Comm.		Skill Assessed by CAT Question	Institution Mean	National Mean	National Probability of difference[a]	National Effect Size[b]
X				Q1	Summarize the pattern of results in a graph without making inappropriate inferences.	0.69	0.67		
X			X	Q2	Evaluate how strongly correlational-type data supports a hypothesis.	0.86	1.21	***	-.33
		X	X	Q3	Provide alternative explanations for a pattern of results that has many possible causes.	0.47	1.35	***	-.97
	X	X	X	Q4	Identify additional information needed to evaluate a hypothesis.	0.41	1.41	***	-.98
X				Q5	Evaluate whether spurious information strongly supports a hypothesis.	0.67	0.73		
		X	X	Q6	Provide alternative explanations for spurious associations.	1.13	1.56	***	-.53
	X	X	X	Q7	Identify additional information needed to evaluate a hypothesis.	0.21	0.82	***	-1.07
X				Q8	Determine whether an invited inference is supported by specific information.	0.66	0.68		
		X	X	Q9	Provide relevant alternative interpretations for a specific set of results.	0.59	0.93	***	-.48
X	X			Q10	Separate relevant from irrelevant information when solving a real-world problem.	2.93	3.14	**	-.22
X	X		X	Q11	Use and apply relevant information to evaluate a problem.	0.39	1.11	***	-1.21
	X			Q12	Use basic mathematical skills to help solve a real-world problem.	0.70	0.82	***	-.28
X	X			Q13	Identify suitable solutions for a real-world problem using relevant information.	0.63	1.18	***	-.62
X	X		X	Q14	Identify and explain the best solution for a real-world problem using relevant information.	1.45	2.29	***	-.49
	X	X	X	Q15	Explain how changes in a real-world problem situation might affect the solution.	0.25	1.15	***	-1.04
					CAT Total Score	12.04	19.04	***	-1.31

[a]. * p<.05 **p<.01 ***p<.001 (2 –tailed)   Does not Account for entering ACT/SAT.

[b]. Mean difference divided by pooled group standard deviation.

 (0.1 - 0.3 = small effect; 0.3 - 0.5 = moderate effect; >0.5 = large effect)

The map of skills covered by each question above is a suggested theoretical guide for interpreting results.