Chapter XIII: PORTFOLIO ASSESSMENT

Portfolio Assessment

Who takes it?
All students must develop and submit a portfolio as a requirement for graduation.
In academic year 2011-2012, 1130 students submitted portfolios.

When is it administered?
Most students complete the process as part of their capstone experience, so students usually submit portfolios during their senior year. Some submit earlier, while others have actually completed their Truman course work and submit after they have finished their time on campus. As a graduation requirement, students who do not submit their portfolio are subject to transcript/diploma/verification holds. A new online system went online in August 2011, specifically designed to allow students to submit portfolio elements earlier in their college career. Regardless of when students submit the portfolio, the work itself may have been completed at any time during their college career.

How long does it take for the student to compile the portfolio?
The average is three to four hours, including time to retrieve and upload previously written files.

What office administers it?
The portfolio project director administers portfolio collection in conjunction with each discipline/program. Evaluation and scoring of the portfolio is done by teams of faculty working in groups of approximately twenty, who also participate in faculty development and campus discussion.

Who originates the submission requirements for portfolios?
The Assessment Committee evaluates requests for specific portfolio items, led by the Portfolio director working with faculty assessors and the Portfolio Committee (a standing subcommittee of the Assessment Committee)

When are results typically available?
The portfolios are read and evaluated in May and August. The results are available late in the fall or early in spring of the following year.

What type of information is sought?
Faculty evaluators and the Assessment Committee designate the types of works requested from students, but many of the requested items have remained constant for multiple years. In the 2011-2012 academic year, a portfolio included works demonstrating 1) *critical thinking and writing*, 2) *interdisciplinary thinking*, 3) *historical analysis*, 4) *intercultural thinking*. The portfolio also included a work or experience the student considered 5) *most personally satisfying*, and 6) *a Letter to Truman* in which students give summary thoughts about their experience with the Portfolio and at Truman. Other items may be included, but these are evaluated separately, if at all, including a 7) *transformative learning experience questionnaire*.

From whom are the results available?
The director of the portfolio project can release datasets or additional analyses upon request.

Are the results available by school or department?
Yes.

To whom are results regularly distributed?
Overall results of portfolio assessment are available to the Truman community through this Assessment Almanac. Occasional reports are given to governance, planning workshops, and other forums. Some departments use the information to reform their curriculum, improve programs, and engage in self-study. Faculty who participate in reading sessions report changing their assignments and the techniques based on their experience.

Are the results comparable to data of other universities?
No. While some universities are using portfolios for assessment of general education or liberal studies, most do not use similar prompts or submission categories.

2012 Truman Portfolio

Since 1988, Truman State has utilized a locally designed senior portfolio for sampling and assessing student achievement and learning. It has been a graduation requirement since 1999. This volume reports and analyzes current year academic year portfolio assessment findings, concluding with a discussion about changes to the portfolio project and about the use of the data for improving teaching and learning.

In May and August 2012, portfolios from 1130 students, representing nearly 100% of graduates, were read and evaluated by faculty readers. The number of degrees conferred may not match the number of portfolios in any given year for two primary reasons. First, students who earn multiple degrees need only submit one portfolio. Second, many students submit the portfolio as part of their capstone course rather than in their final semester. For example, some students will have submitted their portfolio in December 2012 as part of their senior seminar class, but do not graduate until December 2013, the following year. A count of students in each major is to the right.

Major2	#		%	
	2011	2012	2011	2012
None	1055	1022		
ACCT	4	7	6%	9%
ART	2		4%	
BIOL	1	5	1%	4%
BSAD	12	20	11%	18%

Their "First" major, as maintained by the Registrar, classifies students with more than one major; around 10% of students have two or more majors. A list of second majors is to the left, along with the percent of total majors counted as second majors. A few students may have third majors (or more), but these are not tracked by the Portfolio Project.

Because each individual program within Art, Classical and Modern Languages, and Music has relatively few graduates, data have been combined throughout this report to preserve individual anonymity. In most cases, these majors can be separated further upon request. Athletic Training and Creative Writing majors are listed separately for the first time this year (in previous years, these students were combined with Exercise Science and English, respectively).

	Major	First Major				
		2008	2009	2010	2011	2012
Arts and Letters	ART	34	47	37	43	29
	CML	21	23	29	26	26
	CWRT					6
	ENG	113	105	107	104	90
	LING	9	8	7	7	6
	MUS	37	42	24	18	36
	THEA	7	18	11	19	5
	AAL	*221*	*243*	*215*	*217*	*198*
Business	ACCT	58	67	90	59	69
	BSAD	133	113	110	101	91
	BUS	*191*	*180*	*200*	*160*	*160*
Hlth. Sci. and Ed.	AT					4
	CMDS	28	36	38	30	40
	ES	47	64	69	79	74
	HLTH	31	45	36	42	53
	NU	38	34	30	43	42
	HSE	*144*	*179*	*173*	*194*	*213*
Social and Cultural Studies	COMM	53	75	68	71	74
	ECON	13	11	10	16	13
	HIST	60	46	55	50	44
	JUST	36	38	40	26	27
	PHRE	16	6	7	20	13
	POL	38	45	31	32	41
	PSYC	109	105	88	102	102
	SOAN	16	27	13	18	20
	SCS	*341*	*353*	*312*	*335*	*334*
Sciences and Mathematics	AGSC	22	17	14	16	22
	BIOL	77	112	111	126	107
	CHEM	27	31	23	19	28
	CS	13	17	17	19	24
	MATH	24	37	23	30	23
	PHYS	8	9	15	12	7
	SAM	*171*	*223*	*203*	*222*	*211*
	IDSM	8	8	6	9	10
	All	*1076*	*1186*	*1109*	*1142*	*1130*

CHEM		3		10%
CML	13	6	33%	19%
COMM	3	6	4%	8%
CS	1	2	5%	8%
ECON	6	12	27%	48%
ENG	9	18	8%	17%
ES		2		3%
HIST	3	3	6%	6%
HLTH	1	2	2%	4%
IDSM		2		17%
JUST	3	4	10%	13%
LING	3	2	30%	25%
MATH	7	4	19%	15%
MUSI	2		10%	
PHRE	3	4	13%	24%
PHYS	1		8%	
POL	4	4	11%	9%
PSYC	9	9	8%	8%
SOAN	1	7		26%
THEA		1		17%
Total	1142	1146		

A total of sixty-four faculty and staff members read and evaluated portfolios, representing all ranks of faculty across four academic schools and eighteen academic departments, as well as five Graduate Teaching Assistants from English and professional staff from the library, athletics, counseling services, and student affairs. Ten participants were new readers. A student worker assisted with processing, technical support, and sorting, providing critical support to the success of this complicated process.

Reading sessions were scheduled over three weeks during the May and August interims, from May 7 to 11, May 14-18, and August 9-14, 2012 in campus computer classroom. Roughly one-third of the readers participated during each week, with a handful participating in both a May week and the August split week. Readers gathered daily at 8:30 AM and ended at 4:30 PM with an hour for lunch and a morning and afternoon break. Every week readers evaluated Interdisciplinary and Critical Thinking & Writing submissions, as well as Letters to Truman and Most Personally Satisfying responses; every student's submissions in these categories were read and scored. Over 60% of the submissions in Historical analysis were scored during the first week of reading. Our "rotating" submission, "Intercultural Thinking" had submissions scored each week.

After this year, the Historical Analysis submission will rotate out of the portfolio, the Critical Thinking and Writing rubrics are likely to change to a new format consistent with the proposed Critical Thinking Framework, and a new prompt in Problem Solving will be implemented as a one-year or two-year rotating prompt.

2012 Truman Portfolio Findings

This report presents the findings of the Portfolio Project for all prompts and submissions. Groupings are based on the five-school administrative structure adopted in 2008. The table on the previous page shows how various majors are characterized in this scheme. When a student had more than one major, their first major was used for grouping. Grouping of several years of past data into this structure has been included to allow comparisons over time.

Because this assessment relies on students to first retain and then select materials for inclusion in their portfolios, the resulting data are inherently "fuzzier" than data from a standardized, systematically controlled instrument. Students occasionally indicate that they are submitting work that is not their strongest demonstration because they did not keep or did not receive back the artifacts which best demonstrate their competence in the specified area. Other students report that they were never challenged to use the thinking skills or the type of approach requested by individual prompts. Lack of motivation may inhibit the thoughtfulness of the selection process or engagement in self-assessment encouraged by the prompts for each portfolio category. In their reflective cover letters, students report a wide range of motivation levels. Some complete the portfolio in stages, as part of a course, and show good engagement with the process. Others are quite frank in stating that they compiled their portfolio quickly because other responsibilities were considered higher priorities. The administration of the portfolio and the degree of self-reflection it fosters in students are uneven across the campus. However, most of the work submitted was completed outside the portfolio process itself, so lack of motivation to complete the portfolio does not translate directly into poor quality submissions.

In addition to the ratings of quality, we have kept track of the sources of items selected by seniors for their portfolios. We characterize that data by indicating several of the most common sources (disciplines and courses) for each category. In some cases, students could not recall all of the details of when and why the work was created; except where a

2012 Portfolio Contents
- Critical Thinking and Writing
- Interdisciplinary Thinking
- Historical Analysis
- Intercultural Thinking (Pilot)
- Most Personally Satisfying Experience
- Reflective Cover Letter
- Transformative Exp. Questionnaire

large percentage of students were missing data, we include percentages only for those students who did report the information. Finally, students identify submissions that are collaborative or dealing with issues of race, class, gender, international perspectives, environmental perspectives, and identifying work that comes from a service learning or capstone experience. Faculty reviewers may volunteer this information when the student did not.

With the exception of Interdisciplinary Thinking, all results are scored using a 4 point scale with the following points: 0 (no competence demonstrated), 1 (minimal competence), 2 (competence) and 3 (strong competence). Interdisciplinary Thinking has an added category of 4 for exceptional papers. Papers scoring a 2 or higher are scored as "demonstrating competence" in that area.

As the table shows, scores have increased in Interdisciplinary thinking over the past few years, while decreasing in Analytical Writing (Organization, Style & Mechanics) and Historical Analysis. Critical Thinking has stayed flat (perhaps why the campus has engaged in a discussion of improving that skill among our students).

	Mean score					% Demonstrating Competence				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Interdisciplinary Thinking	1.69	1.78	1.79	1.85	1.94	54.6%	55.7%	59.4%	62.5%	65.2%
Critical Thinking	1.90	1.85	1.83	1.92	1.83	69.3%	67.2%	66.8%	71.2%	65.0%
Writing - Organization	2.07	1.99	1.96	1.93	1.91	80.0%	75.6%	75.3%	75.8%	73.1%
Writing - Style	2.06	1.97	1.94	1.87	1.86	80.9%	75.2%	75.9%	71.2%	71.0%
Writing - Mechanics	2.21	2.04	2.00	1.96	1.90	86.3%	80.8%	81.5%	77.2%	74.2%
Historical Anal.	1.58	1.68	1.50	1.49	1.45	54.1%	53.4%	50.2%	49.0%	46.0%

Critical Thinking and Writing

Students submit works to demonstrate their abilities as critical thinkers and writers. Items were elicited with the following prompt:

Please include an example of your best writing that demonstrates your critical thinking skills. As stated in Truman's LSP outcomes, good writing is a reflection of good thinking. Thus, as a result of an intellectual process that communicates meaning to a reader, good writing integrates ideas through analysis, evaluation, and the synthesis of ideas and concepts. Good writing also exhibits skill in language usage and clarity of expression through good organization.

Critical Thinking at a Glance	
• Number of submissions read:	**1108**
• Median critical thinking (on a 0 – 3 scale):	**2**
• Percent demonstrating Competence:	**65.3%**
• Highest scoring school:	**Arts and Letters**
• Most frequent source (course):	**ENG 190**
• Most frequent source (discipline):	**ENG**
• Trend:	**Stable**

Faculty readers will evaluate your writing sample with attention to four areas:

1. *Thinking (developing ideas, making connections between ideas, integrating ideas to make meaning) For further information regarding the nature of critical thinking, review the prompt entitled "Critical Thinking Definitions".*
2. *Organization (communicating a purpose, writing clearly, making strong arguments, drawing conclusions)*
3. *Style (employing appropriate voice and tone, having an audience in mind, choosing appropriate words, using appropriate sentence structures)*
4. *Mechanics (adhering to the accepted conventions of grammar and punctuation, spelling words correctly)*

As you consider this category, you may find that a submission from another category demonstrates strong critical thinking and writing. If so, feel free to use that item for this category as well.

NOTE: Do not submit a writing sample from ENG 190 ("Writing as Critical Thinking") simply because this course focuses on critical thinking and writing. Typically students compose their best critical writing later in college.

Of the 1146 portfolios collected, 1108 submitted readable examples of critical thinking. Faculty readers evaluated the works for the quality of critical thinking evidenced and rated the thinking as "strong", "competent", "weak", or "none". In conjunction with the writing assessment project, a scoring rubric was developed in 2003 that included descriptors for evidence of critical thinking. The following table presents the phrases used for evaluating critical thinking.

Critical Thinking Scoring Rubric

0 No Evidence	1 Weak Competence	2 Competence	3 Strong Competence
displays no real development of ideas	develops ideas superficially or inconsistently	develops ideas with some consistency and depth	displays insight and thorough development of ideas
lacks convincing support	provides weak support	develops adequate support	develops consistently strong support
exhibits no attempt to make connections between ideas	begins to make connections between ideas	makes some good connections between ideas	reveals mature and thoughtful connections between ideas
includes no real analysis, or synthesis, or interpretation, or …	begins to analyze, or synthesize, or interpret, or …	shows some analysis, or synthesis, or interpretation, or …	shows sophistication in analysis, or synthesis, or interpretation, or …
demonstrates no real integration of ideas (the author's or those of others) to make meaning	begins to integrate ideas (the author's or those of others) to make meaning	displays some skill at integrating ideas (the author's or those of others) to make meaning	is adept at integrating ideas (the authors or those of others) to make meaning

Critical Thinking Scores by First Major

	Maj.	Count					Mean Score					% Competent				
		2008	2009	2010	2011	2012	*2008*	2009	2010	2011	2012	*2008*	2009	2010	2011	2012
Arts and Letters	ART	*34*	47	38	43	27	*1.89*	1.85	2.08	2.07	1.89	*72%*	70%	82%	77%	70%
	CML	*20*	24	26	26	21	*2.25*	1.88	1.96	1.88	1.95	*95%*	58%	81%	73%	71%
	CWRT					6					1.50					50%
	ENG	*111*	103	106	104	88	*2.12*	2.06	1.97	2.16	2.03	*78%*	77%	75%	85%	77%
	LING	*9*	8	7	7	6	*2.44*	2.38	1.86	2.00	2.33	*89%*	100%	86%	86%	100%
	MUS	*38*	40	24	18	34	*1.74*	1.95	1.79	2.11	1.76	*61%*	73%	63%	72%	68%
	THEA	*7*	18	12	19	5	*1.86*	1.72	2.08	2.00	2.00	*71%*	72%	75%	74%	100%
	AAL	*219*	*243*	*213*	*217*	*187*	*2.04*	*1.97*	*1.97*	*2.09*	*1.95*	*76%*	*73%*	*76%*	*80%*	*74%*
Business	ACCT	*57*	67	91	59	69	*1.82*	1.63	1.66	1.64	1.67	*68%*	54%	56%	56%	58%
	BSAD	*138*	110	105	101	90	*1.70*	1.63	1.74	1.64	1.57	*59%*	55%	66%	56%	50%
	BUS	*195*	*180*	*196*	*160*	*159*	*1.74*	*1.63*	*1.70*	*1.64*	*1.61*	*62%*	*54%*	*61%*	*56%*	*53%*
Hlth. Sci.and Ed.	*AT*					4					*1.50*					50%
	CMDS	*28*	36	38	30	40	*2.07*	1.61	1.74	1.87	1.60	*75%*	58%	66%	67%	58%
	ES	*48*	63	69	79	73	*1.60*	1.78	1.70	1.73	1.75	*46%*	65%	58%	65%	63%
	HLTH	*30*	45	35	42	51	*1.67*	1.53	1.63	1.93	1.55	*60%*	53%	57%	76%	57%
	NU	*38*	34	30	43	42	*1.82*	2.06	1.87	2.16	1.81	*66%*	82%	70%	79%	69%
	HSE	*144*	*179*	*172*	*194*	*210*	*1.76*	*1.74*	*1.72*	*1.89*	*1.68*	*60%*	*64%*	*62%*	*71%*	*61%*
Socia	COMM	*53*	75	67	71	74	*2.07*	1.96	1.99	2.08	1.80	*72%*	68%	76%	82%	62%

l and Cultural Studies	ECON	13	11	10	16	14	2.38	2.00	1.80	2.00	2.36	92%	73%	80%	81%	86%
	HIST	60	47	57	50	43	2.03	1.85	1.93	2.10	1.98	75%	70%	70%	78%	72%
	JUST	37	37	39	26	27	1.92	1.97	1.95	1.92	1.74	78%	70%	67%	77%	70%
	PHRE	16	6	7	20	11	2.13	1.83	2.29	2.45	2.09	88%	67%	86%	90%	82%
	POL	38	46	32	32	41	2.42	2.20	1.84	2.13	2.12	87%	83%	66%	81%	78%
	PSYC	109	105	84	102	101	1.80	1.64	1.73	1.67	1.74	64%	56%	61%	59%	63%
	SOAN	16	26	13	18	19	1.94	2.08	2.00	1.83	1.84	63%	77%	85%	67%	58%
	SCS	**342**	**353**	**309**	**335**	**330**	**2.01**	**1.89**	**1.89**	**1.96**	**1.88**	**73%**	**68%**	**69%**	**73%**	**68%**
Sciences and Mathematics	AGSC	23	15	14	16	22	1.83	1.80	1.79	1.81	1.55	70%	73%	71%	63%	55%
	BIOL	78	112	112	126	106	2.05	1.96	1.84	1.87	1.77	81%	76%	67%	70%	66%
	CHEM	26	31	25	19	28	1.31	2.03	1.44	1.68	1.68	42%	74%	40%	58%	68%
	CS	14	17	17	19	23	1.23	1.71	1.53	1.68	1.57	64%	59%	47%	58%	61%
	MATH	26	36	24	30	23	1.69	1.83	1.83	1.80	1.83	62%	69%	67%	73%	74%
	PHYS	8	9	15	12	7	1.75	2.22	2.27	2.08	1.57	63%	78%	93%	75%	57%
	SAM	**175**	**220**	**207**	**222**	**209**	**1.78**	**1.93**	**1.79**	**1.84**	**1.71**	**69%**	**73%**	**64%**	**68%**	**65%**
	IDSM	8	7	7	9	10	2.75	2.14	1.86	2.22	2.20	100%	71%	57%	78%	80%
	All	**1083**	**1186**	**1104**	**1137**	**1108**	**1.90**	**1.85**	**1.83**	**1.91**	**1.83**	**69%**	**67%**	**67%**	**71%**	**65%**

In 2012, 65.0% of seniors submitted material judged as demonstrating "competence" or "strong competence." Around 6% (a substantial increase over last year's 3.5%) submitted material judged as demonstrating no critical thinking. Typically, entries evaluated as "none" were creative writing samples (rather than analytical writing) or very short reports displaying neither analysis nor evaluation. Since 2007, the percentage of seniors with submissions judged as competent or showing strong competence has been generally stable, as have average scores.

Students whose majors fall in the schools of Arts and Letters and Social and Cultural Studies significantly outperform those in the schools of Science and Mathematics, Business, and Health Science and Education. Results shown in this table reflect the first major, which may be misleading for majors with many "second majors," such as ECON.

In the interest of inter-rater reliability, 115 submissions (10.3% of all Critical Thinking and Writing submissions) were read by two readers each. A significant Pearson correlation of 0.41 was found, showing that, while not perfect, readers do substantially agree on Critical Thinking and Analytical Writing Scores. This score was lower than the past two years. With a new rubric coming online in the coming year, it is hoped that inter-rater reliability can be a focus from the beginning.

CT	2010	2011	2012
Double-Read Count	367	435	115
Double-Read Pct.	32%	38%	10%
Pearson R (p-value)	.60	.56	.41
Same Score	**55.1%**	**55.9%**	**50.4%**
Off by +/- 1	**42.2%**	**41.8%**	**42.6%**
Off by +/- 2	2.7%	2.3%	6.1%
Off by +/- 3	0.0%	0.0%	0.9%

	N	% Comp	Mean
100-level	187	46.5%	1.48
200-level	118	64.4%	1.72
300-level	448	73.4%	1.92
400-level	169	65.7%	1.83
500-level	22	72.7%	1.95
Total	944		

Over 210 unique courses were used for this submission, with 164 submissions not identifiable as being from a course. Despite the suggestion within the prompt, Writing as Critical Thinking (ENG 190) was the single most common source of submissions with 91 submissions (over 8.2% of all submissions. Other courses responsible for 11 or more submissions were BIOL 301, BSAD 460, COMM 350, ED 389, PHRE 186, PHRE 188, POL 345, and PSYC 166. The table below shows those prefixes responsible for four or more submissions per year over the past two years. English leads the way, partially owing to the large number of submissions from ENG 190: Writing as Critical Thinking. Omitting that course, ENG scores are more similar to other prefixes. The table to the right shows how removing ENG 190 from the ENG prefix affects the scoring of that prefix. The score for JINS is also included for comparison, but JINS submissions scored lower than in previous years.

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In general, 100-level courses score much worse than other submissions. This matches our general idea that the best critical thinking happens later in a students' academic career. While many appropriate capstone experiences are at the 400-level and score quite high, as expected, some students submitted 400-level work from practical experience like internships that did not score as well.

	#	% Comp	Mean
ENG 190	91	45.1%	1.46
Other ENG	139	71.2%	1.85
JINS	100	60.0%	1.63
All Others	755	67.8%	1.84
Total	1030	65%	1.78

The table below shows the scores by submission for all course prefixes with four or more submissions. Analyzing with a Tukey's post-hoc test, none shows a significant difference from others, implying that capstone-level work is roughly equivalent in terms of demonstration of critical thinking across majors.

Critical Thinking Scores by Course Prefix

	Count					Mean Score					% Competent				
Prefix	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
ENG	208	227	220	224	253	1.85	1.69	1.69	1.84	1.68	66%	60%	58%	69%	60%
JINS	171	149	118	132	100	1.87	1.82	1.92	1.83	1.63	71%	64%	72%	69%	60%
PHRE	117	85	88	107	89	1.95	1.74	1.74	1.91	1.78	72%	60%	64%	68%	64%
Other	58	144	64	81	75	1.74	1.81	1.71	1.91	1.79	62%	66%	61%	74%	68%
COMM	45	61	74	64	65	1.76	1.87	1.74	1.95	1.92	62%	66%	64%	75%	69%
BSAD	72	43	60	52	50	1.68	1.84	1.95	1.73	1.94	58%	65%	78%	60%	70%
PSYC	27	24	28	42	49	1.96	1.88	1.86	1.79	1.67	74%	67%	64%	62%	53%
BIOL	27	46	44	39	43	1.93	2.07	2.18	2.03	1.88	74%	78%	82%	74%	77%
POL	38	56	46	36	43	2.47	2.20	1.98	2.03	2.09	95%	84%	72%	75%	79%
HIST	64	44	54	52	37	2.00	1.89	1.87	1.94	2.03	70%	66%	70%	67%	68%
ES	16	22	29	37	30	1.75	1.86	1.62	1.92	1.93	56%	77%	52%	70%	73%
ED	28	31	32	30	30	1.75	1.84	1.84	1.67	1.90	64%	74%	78%	67%	77%
SOAN	15	34	12	18	24	2.13	2.12	2.07	1.94	2.21	67%	79%	80%	61%	79%
JUST	32	40	33	23	22	2.16	1.98	2.03	2.09	1.68	81%	65%	70%	83%	59%
ECON	26	25	21	26	21	2.15	2.12	2.00	1.77	2.00	88%	76%	76%	65%	71%
NU	28	22	23	33	20	1.93	2.09	1.87	2.36	2.00	68%	82%	74%	91%	85%
ART	18	22	23	33	19	2.06	1.91	2.22	2.09	1.89	72%	68%	87%	76%	74%
CMDS	3	7	10	16	18	2.33	1.57	1.40	1.63	1.50	100%	57%	50%	56%	56%
CHEM	13	17	8	14	18	1.38	2.18	2.13	2.07	1.72	38%	82%	75%	86%	67%
MUSI	1	10	11	6	18	3.00	1.80	1.45	2.17	1.56	100%	70%	45%	67%	56%

ACCT	17	17	21	13	16	1.94	1.65	1.95	1.62	1.19	82%	59%	71%	46%	31%
HLTH	8	13	9	12	16	1.75	1.31	1.33	2.17	1.44	63%	54%	33%	100%	50%
LING			1	5	14			1.00	2.00	2.14			0%	60%	86%
AGSC	18	6	7	9	10	1.83	1.50	1.71	1.89	1.40	67%	67%	71%	67%	50%
CS	2	6	5	7	10	2.00	1.17	1.40	2.00	1.50	50%	33%	40%	71%	70%
ENVS	3	3	2	0	8	2.33	2.33	2.00	1.91	2.13	100%	100%	100%	82%	88%
SPAN	4	8	15	8	6	2.50	1.88	1.75	2.00	1.83	100%	63%	58%	88%	67%
IDSM			4	4	4			2.00	2.50	2.50			75%	100%	100%
All	**1083**	**1186**	**1104**	**1137**	**1137**	**1.90**	**1.85**	**1.83**	**1.91**	**1.78**	**69%**	**67%**	**67%**	**71%**	**65%**

Over the 2011-2012 year, a new critical thinking framework has been proposed by a task force. Assuming that it is adopted by governance, the rubric and scoring will adapt to the new framework next year. Pilot data were collected during the August session using a draft rubric. This data was not included here, but will be used to help lize a new rubric that is in concord with the new critical thinking framework submitted for governance approval.

Analytical Writing Assessment

In addition to reading "Critical Thinking and Writing" submissions for critical thinking, faculty readers assessed them for evidence of writing skills. As with other categories where works are scored, a group of student-produced writing samples were used to assist faculty in identifying relevant factors. A scoring rubric, first drafted in 2003 by members of the Writing Assessment Committee, was used. Unlike in other categories, readers were trained to conduct an analytical assessment,

	Thinking	Organization	Style
Organization	0.57		
Style	0.58	0.65	
Mechanics	0.45	0.60	0.67

reviewing and scoring each submission in terms of organization, style, and mechanics. The descriptors for these categories are presented in the following rubric:

Rubric for Analytical Writing Assessment

	0	1	2	3
Organization	lacks introduction lacks controlling idea lacks clarity lacks logical structure lacks conclusion	includes weak introduction displays controlling idea exhibits weak clarity exhibits weak logical structure includes weak conclusion	includes adequate introduction displays adequately developed controlling idea exhibits adequate clarity exhibits adequate logical structure includes adequate conclusion	includes strong introduction displays clear, well-developed controlling idea exhibits excellent clarity exhibits strong logical structure includes well-supported conclusion

	0	1	2	3
Style	tone or voice is off-putting seems to have no audience in mind frequently chooses inappropriate words exhibits frequent inappropriate sentence structure uses no appropriate stylistic conventions	contains inconsistent tone or voice shows little audience awareness sometimes chooses inappropriate words exhibits occasional inappropriate sentence structure uses few appropriate stylistic conventions	contains occasional lapses in tone or voice shows audience awareness chooses appropriate words exhibits appropriate sentence structure uses appropriate stylistic conventions	maintains a consistent tone and voice shows consistent audience awareness exhibits skill in word choice exhibits sophisticated sentence structure skillfully uses appropriate stylistic conventions
Mechanics	lacks command of mechanical conventions: grammar, punctuation, or spelling errors present major distraction to readers	demonstrates weak command of mechanical conventions: grammar, punctuation, or spelling errors are occasionally distracting to readers	demonstrates adequate command of mechanical conventions: grammar, punctuation, or spelling errors are minimally distracting to readers	demonstrates excellent command of mechanical conventions: grammar, punctuation, and spelling small errors do not distract readers

Pearson Correlations between Analytical Writing and Critical Thinking Scores

As has been found in the past, analytical writing scores do correlate strongly with each other and with the critical thinking score. All correlations are significantly positive with a *p*-value smaller than 0.001, and all are similar to data from past years

Based on this scoring rubric, the median score was "competent" (2) for each of three categories. The percent of students demonstrating competence and the mean are given for by major and school, below. For space reasons, the major-level results are split into two tables:

Organization - Analytical Writing Results by First Major

		Count					Mean					% Comp				
	Year	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Arts and Letters	ART	34	47	38	43	27	2.06	1.91	2.13	1.91	1.67	74%	79%	87%	70%	59%
	CML	17	24	26	26	21	2.29	2.08	2.19	2.08	2.05	100%	79%	88%	85%	71%
	CWRT					6					1.83					83%
	ENG	111	103	106	104	88	2.14	2.17	1.99	2.02	2.10	84%	83%	76%	81%	85%
	LING	9	8	7	7	6	2.33	1.88	1.71	1.71	2.50	100%	75%	71%	71%	100%
	MUS	38	40	24	18	34	2.00	1.98	1.88	2.11	1.88	79%	78%	75%	83%	74%
	THEA	7	18	12	19	5	1.86	2.00	2.33	2.00	2.00	71%	83%	100%	74%	100%
	AAL	**216**	**240**	**213**	**217**	**187**	**2.11**	**2.06**	**2.04**	**2.00**	**1.99**	**83%**	**80%**	**81%**	**78%**	**79%**
Business	ACCT	57	67	91	59	69	2.11	1.79	1.85	1.83	1.87	84%	67%	69%	69%	70%
	BSAD	138	110	105	101	90	1.99	1.85	1.91	1.81	1.74	74%	71%	75%	68%	62%
	BUS	**195**	**177**	**196**	**160**	**159**	**2.03**	**1.83**	**1.88**	**1.82**	**1.80**	**77%**	**69%**	**72%**	**69%**	**65%**
Hlth. Sci. and Ed.	*AT*					4					2.00					75%
	CMDS	28	36	38	30	40	2.21	1.89	1.84	2.23	1.83	79%	75%	74%	93%	75%
	ES	48	63	69	79	73	1.98	1.98	2.07	1.90	1.81	71%	75%	84%	80%	64%
	HLTH	30	45	35	42	51	1.97	1.76	1.83	1.86	1.69	70%	60%	69%	79%	65%
	NU	38	34	30	43	42	2.16	1.97	2.03	2.12	1.83	90%	82%	77%	77%	67%
	HSE	**144**	**178**	**172**	**194**	**210**	**2.07**	**1.90**	**1.97**	**1.99**	**1.79**	**77%**	**72%**	**77%**	**81%**	**67%**
Social and Cultural Studies	COMM	53	75	67	71	74	2.19	2.16	1.99	1.99	1.93	87%	81%	73%	80%	74%
	ECON	13	11	10	16	14	2.23	2.27	2.20	2.25	2.21	77%	82%	90%	94%	86%
	HIST	60	47	57	50	43	2.07	1.96	2.04	2.16	2.05	78%	72%	88%	84%	74%
	JUST	37	37	39	26	27	2.19	2.11	1.92	1.85	1.70	81%	78%	69%	65%	67%
	PHRE	16	6	7	20	11	2.25	2.17	2.29	2.40	2.00	88%	83%	86%	90%	82%
	POL	38	46	32	32	41	2.42	2.39	1.94	1.97	2.17	92%	91%	66%	75%	88%
	PSYC	109	105	84	102	101	1.96	1.90	1.86	1.80	1.93	76%	70%	69%	68%	78%
	SOAN	16	26	13	18	19	1.88	2.00	1.92	1.78	2.00	75%	73%	62%	61%	68%
	SCS	**342**	**353**	**309**	**335**	**330**	**2.11**	**2.07**	**1.96**	**1.97**	**1.98**	**81%**	**77%**	**74%**	76%	**77%**
Sciences and Mathematics	AGSC	23	15	14	16	22	1.91	2.00	1.86	1.63	1.68	78%	73%	79%	56%	59%
	BIOL	78	112	112	126	106	2.08	2.09	2.00	1.92	2.11	87%	80%	78%	75%	81%
	CHEM	26	31	25	19	28	1.73	2.10	1.64	1.89	2.04	62%	74%	52%	79%	79%
	CS	14	17	17	19	23	1.86	1.88	1.76	1.58	1.65	79%	76%	71%	53%	61%
	MATH	26	36	24	30	23	1.88	1.78	2.00	1.67	2.00	69%	61%	79%	73%	78%
	PHYS	8	9	15	12	7	2.38	2.00	2.13	2.08	1.14	100%	78%	73%	75%	29%
	SAM	**175**	**220**	**207**	**222**	**209**	**1.97**	**2.01**	**1.94**	**1.84**	**1.96**	**79%**	**75%**	**74%**	**72%**	**74%**
	IDSM	8	7	7	9	10	2.38	2.00	1.86	2.22	1.90	100%	71%	57%	78%	60%
	All	**1080**	**1175**	**1104**	**1137**	**1108**	**2.07**	**1.99**	**1.96**	**1.93**	**1.91**	**80%**	**76%**	**75%**	**75%**	**73%**

Style - Analytical Writing Results by First Major, cont.

	Year	Count					Mean					% Comp				
		2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Arts and Letters	ART	34	47	38	43	27	2.21	2.09	2.11	1.84	1.85	88%	81%	87%	63%	63%
	CML	17	24	26	26	21	2.25	2.00	2.12	2.12	2.19	100%	71%	85%	88%	90%
	CWRT					6					1.67					67%
	ENG	111	103	106	104	88	2.16	2.17	2.08	2.06	2.13	87%	85%	84%	79%	85%
	LING	9	8	7	7	6	2.44	2.13	2.00	1.57	2.00	100%	88%	86%	57%	67%
	MUS	38	40	24	18	34	2.03	2.25	2.04	2.06	1.97	84%	90%	75%	78%	74%
	THEA	7	18	12	19	5	1.71	1.78	2.08	1.79	2.40	57%	67%	100%	63%	100%
	AAL	**216**	**240**	**213**	**217**	**187**	**2.15**	**2.12**	**2.08**	**1.98**	**2.05**	**87%**	**83%**	**85%**	**75%**	**80%**
Business	ACCT	57	67	91	59	69	2.02	1.82	1.90	1.69	1.78	81%	67%	76%	63%	70%
	BSAD	138	110	105	101	90	1.87	1.75	1.83	1.56	1.66	70%	65%	70%	54%	60%
	BUS	**195**	**177**	**196**	**160**	**159**	**1.91**	**1.77**	**1.86**	**1.61**	**1.71**	**73%**	**66%**	**73%**	**58%**	**64%**
Hlth. Sci. and Ed.	*AT*					4					2.25					75%
	CMDS	28	36	38	30	40	2.29	1.78	1.84	2.10	1.73	82%	69%	76%	83%	65%
	ES	48	63	69	79	73	1.90	1.95	1.91	1.78	1.79	75%	73%	78%	72%	70%
	HLTH	30	45	35	42	51	2.17	1.71	1.60	1.86	1.61	93%	62%	51%	74%	63%
	NU	38	34	30	43	42	2.03	1.79	2.17	2.28	1.79	87%	68%	87%	91%	67%
	HSE	**144**	**178**	**172**	**194**	**210**	**2.07**	**1.83**	**1.88**	**1.96**	**1.74**	**83%**	**69%**	**74%**	**78%**	**67%**
Social and Cultural Studies	COMM	53	75	67	71	74	2.04	2.01	1.97	2.07	1.74	81%	72%	75%	82%	69%
	ECON	13	11	10	16	14	2.31	2.36	1.80	1.69	2.14	85%	91%	70%	50%	86%
	HIST	60	47	57	50	43	2.15	2.02	2.07	2.10	1.91	85%	79%	81%	80%	67%
	JUST	37	37	39	26	27	2.11	2.03	2.05	1.69	1.63	76%	76%	85%	69%	63%
	PHRE	16	6	7	20	11	2.19	2.17	2.57	2.30	1.91	88%	83%	86%	95%	64%
	POL	38	46	32	32	41	2.26	2.26	1.78	1.75	2.12	92%	91%	59%	56%	78%
	PSYC	109	105	84	102	101	1.97	1.85	1.80	1.75	1.81	75%	70%	70%	66%	67%
	SOAN	16	26	13	18	19	2.13	1.92	2.00	1.72	2.11	88%	73%	77%	61%	74%
	SCS	**342**	**353**	**309**	**335**	**330**	**2.09**	**2.01**	**1.94**	**1.90**	**1.87**	**81%**	**76%**	**74%**	**71%**	**70%**
Sciences and Mathematics	AGSC	23	15	14	16	22	1.87	2.00	1.79	1.63	1.59	74%	73%	71%	56%	55%
	BIOL	78	112	112	126	106	2.14	2.11	1.98	1.88	2.07	83%	82%	81%	74%	79%
	CHEM	26	31	25	19	28	1.88	2.00	1.56	1.74	2.11	73%	87%	64%	53%	82%
	CS	14	17	17	19	23	2.00	1.76	1.71	1.63	1.70	86%	65%	65%	58%	65%
	MATH	26	36	24	30	23	1.81	1.81	1.96	1.67	1.83	65%	72%	79%	67%	74%
	PHYS	8	9	15	12	7	2.38	1.89	2.13	2.08	1.43	88%	67%	73%	75%	43%
	SAM	**175**	**220**	**207**	**222**	**209**	**2.02**	**2.00**	**1.90**	**1.81**	**1.93**	**78%**	**79%**	**76%**	**68%**	**74%**
	IDSM	8	7	7	9	10	2.63	2.43	1.71	2.11	2.10	100%	100%	43%	78%	90%
	All	**1080**	**1175**	**1104**	**1137**	**1108**	**2.06**	**1.97**	**1.94**	**1.87**	**1.87**	**81%**	**75%**	**76%**	**71%**	**71%**

Mechanics - Analytical Writing Results by First Major, cont.

		Count					Mean					% Comp				
Year		2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Arts and Letters	ART	34	47	38	43	27	2.29	2.15	2.16	1.93	1.85	85%	83%	95%	74%	70%
	CML	17	24	26	26	21	2.69	1.79	2.35	2.19	2.14	100%	67%	88%	85%	90%
	CWRT					6					2.33					100%
	ENG	111	103	106	104	88	2.34	2.19	2.08	2.16	2.13	90%	86%	89%	86%	84%
	LING	9	8	7	7	6	2.89	2.25	2.14	2.00	2.33	100%	100%	100%	86%	83%
	MUS	38	40	24	18	34	2.21	2.18	2.04	2.11	2.06	95%	85%	88%	94%	85%
	THEA	7	18	12	19	5	2.14	1.94	1.92	2.00	2.40	86%	78%	75%	74%	100%
	AAL	**216**	**240**	**213**	**217**	**187**	**2.35**	**2.13**	**2.12**	**2.10**	**2.10**	**91%**	**83%**	**89%**	**83%**	**84%**
Business	ACCT	57	67	91	59	69	2.09	2.01	1.97	1.83	1.72	86%	78%	82%	73%	64%
	BSAD	138	110	105	101	90	2.06	1.84	1.81	1.72	1.69	80%	72%	72%	63%	62%
	BUS	**195**	**177**	**196**	**160**	**159**	**2.07**	**1.90**	**1.88**	**1.76**	**1.70**	**82%**	**74%**	**77%**	**67%**	**63%**
Hlth. Sci. and Ed.	*AT*					4					2.00					75%
	CMDS	28	36	38	30	40	2.32	1.94	2.11	2.07	1.83	89%	78%	89%	83%	78%
	ES	48	63	69	79	73	2.19	2.00	2.03	1.86	1.78	96%	81%	84%	81%	67%
	HLTH	30	45	35	42	51	2.13	1.78	1.91	1.88	1.76	87%	73%	71%	74%	69%
	NU	38	34	30	43	42	2.00	1.71	2.13	2.16	1.88	76%	74%	87%	81%	86%
	HSE	**144**	**178**	**172**	**194**	**210**	**2.15**	**1.88**	**2.04**	**1.96**	**1.81**	**87%**	**77%**	**83%**	**80%**	**73%**
Social and Cultural Studies	COMM	53	75	67	71	74	2.21	2.05	1.91	2.13	1.82	87%	77%	78%	85%	72%
	ECON	13	11	10	16	14	2.46	2.27	1.90	2.00	2.21	92%	82%	70%	75%	86%
	HIST	60	47	57	50	43	2.17	2.09	2.07	2.18	2.00	82%	83%	84%	82%	79%
	JUST	37	37	39	26	27	2.35	2.03	2.10	1.77	1.67	87%	76%	79%	69%	63%
	PHRE	16	6	7	20	11	2.44	2.17	2.57	2.35	1.82	100%	100%	100%	90%	64%
	POL	38	46	32	32	41	2.50	2.26	1.91	1.81	2.00	90%	87%	78%	69%	80%
	PSYC	109	105	84	102	101	2.15	2.05	1.92	1.81	1.90	86%	86%	80%	71%	74%
	SOAN	16	26	13	18	19	2.13	2.04	2.08	1.78	1.89	75%	77%	92%	72%	79%
	SCS	**342**	**353**	**309**	**335**	**330**	**2.25**	**2.09**	**1.99**	**1.97**	**1.90**	**86%**	**82%**	**81%**	**76%**	**74%**
Sciences and Mathematics	AGSC	23	15	14	16	22	2.13	2.07	2.00	1.50	1.82	83%	73%	93%	44%	68%
	BIOL	78	112	112	126	106	2.27	2.18	2.04	1.94	2.04	86%	88%	83%	79%	78%
	CHEM	26	31	25	19	28	2.04	2.10	1.80	2.00	2.00	81%	90%	64%	84%	86%
	CS	14	17	17	19	23	2.14	2.00	1.88	1.74	1.65	79%	71%	65%	63%	61%
	MATH	26	36	24	30	23	1.96	1.92	2.13	1.87	1.70	77%	78%	88%	80%	70%
	PHYS	8	9	15	12	7	2.38	2.00	2.00	1.83	1.14	100%	78%	80%	58%	29%
	SAM	**175**	**220**	**207**	**222**	**209**	**2.17**	**2.10**	**2.00**	**1.88**	**1.90**	**83%**	**84%**	**80%**	**75%**	**74%**
	IDSM	8	7	7	9	10	2.75	2.43	2.14	2.22	2.20	100%	100%	71%	78%	80%
	All	**1080**	**1175**	**1104**	**1137**	**1108**	**2.21**	**2.04**	**2.01**	**1.95**	**1.89**	**86%**	**81%**	**82%**	**77%**	**74%**

When scores are broken down into schools, patterns emerge. Across all three measures, students whose majors fall in the School of Business perform significantly lower than Arts and Letters and Social and Cultural Studies. Submissions from the school of Health Science and Education have halted their upward climb. For Analytical Writing submissions, the submission numbers by prefix are the same as for Critical Thinking. For each prefix, the mean and percent of submissions "demonstrating competence" on each of the three areas was given. Prefixes with fewer than four submissions are omitted. For space purposes, this chart only compares 2009 through 2012 data, but trends have remained stable across most prefixes.

Results are sorted by frequency. As in the Critical Thinking Analysis, ENG submissions may be especially affected by the high number of ENG 190, Writing as Critical Thinking, papers submitted.

Analytical Writing Results by Course Prefix

								Organization			
	Count				**Mean**				**% Comp.**		
Prefix	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
ENG	227	236	224	253	1.83	1.83	1.83	1.79	68%	67%	71%	70%
JINS	149	126	132	100	1.93	1.96	1.80	1.85	75%	75%	69%	70%
PHRE	85	91	107	88	1.82	1.88	1.89	1.82	68%	77%	70%	69%
COMM	61	76	64	65	2.11	1.84	1.91	1.97	82%	67%	77%	74%
BSAD	43	67	52	50	1.95	2.12	1.98	2.12	77%	85%	77%	78%
PSYC	24	29	42	49	2.25	2.21	1.83	1.84	83%	93%	64%	71%
POL	56	48	36	43	2.34	2.02	1.94	2.09	89%	73%	78%	84%
BIOL	46	46	39	43	2.2	2.13	2.03	2.33	78%	83%	74%	88%
HIST	44	54	52	37	2.07	2.04	2.13	2.27	80%	87%	83%	86%
ED	31	33	30	30	1.87	1.7	1.87	1.87	74%	67%	77%	70%
ES	22	29	37	30	2.09	2.17	2.03	1.93	77%	90%	84%	70%
SOAN	34	15	18	24	2.09	1.67	1.89	2.08	76%	53%	67%	71%
JUST	40	33	23	22	2.15	1.94	1.96	1.77	80%	70%	78%	64%
ECON	25	21	26	21	2.32	2.05	1.96	1.81	92%	81%	77%	67%
NU	22	23	33	20	1.95	2.09	2.36	2.20	82%	78%	94%	85%
ART	22	23	33	19	2.23	2.13	2.00	1.74	95%	87%	76%	63%
MUSI	10	14	6	18	2.2	1.86	2.17	1.61	80%	79%	83%	56%
CMDS	7	10	16	18	2	1.5	2.25	1.83	86%	60%	100%	78%
CHEM	17	8	14	18	2.24	2.5	2.07	2.44	88%	100%	86%	94%
ACCT	17	23	13	16	2.29	2.22	1.92	2.06	82%	83%	69%	88%
HLTH	13	10	12	16	1.54	1.8	2.08	1.50	46%	60%	92%	50%
LING				14				2.29				93%
AGSC	6	7	9	10	2	1.86	1.56	1.60	67%	86%	56%	50%
CS	6	5	7	10	1	1.8	1.57	1.60	33%	60%	57%	60%
ENVS	3	2	11	8	2	1.5	1.64	2.25	67%	50%	64%	88%
SPAN	8	15	8	6	2.38	2	2.38	2.17	100%	80%	100%	100%
IDSM				4				2.00				75%
Other				56				1.83				67%

Analytical Writing Results by Course Prefix, cont.

	Style								Mechanics							
	Mean				% Comp.				Mean				% Comp.			
Prefix	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
ENG	1.92	1.9	1.80	1.77	74%	75%	68%	66%	1.99	2.03	1.94	1.83	79%	84%	76%	72%
JINS	1.86	2.04	1.80	1.70	72%	83%	68%	62%	1.97	2.13	1.83	1.70	81%	89%	71%	61%
PHRE	1.92	1.81	1.88	1.78	71%	75%	68%	64%	2.05	1.91	2.05	1.90	82%	79%	80%	73%
COMM	1.95	1.82	1.95	1.91	72%	67%	77%	80%	2.05	1.82	1.97	1.91	82%	70%	80%	75%
BSAD	1.79	2.03	1.67	1.92	70%	85%	60%	82%	1.93	1.97	1.81	1.86	81%	78%	69%	74%
PSYC	2.17	1.9	1.79	1.86	75%	72%	67%	71%	2.17	1.93	1.93	1.90	88%	79%	81%	71%
POL	2.25	1.98	1.89	2.12	89%	69%	64%	81%	2.18	1.98	1.92	1.93	84%	73%	72%	77%
BIOL	2.17	2.2	1.90	2.30	85%	89%	74%	88%	2.22	2.24	2.03	2.28	89%	91%	82%	93%
HIST	2.02	2.11	2.04	2.11	80%	87%	77%	84%	2.09	2.07	2.10	2.14	82%	85%	77%	92%
ED	2.03	1.73	1.73	1.87	77%	70%	70%	73%	2.16	1.88	1.90	1.83	87%	85%	83%	70%
ES	2.05	1.93	2.00	2.00	77%	79%	86%	80%	2.14	1.97	1.92	1.87	91%	83%	84%	63%
SOAN	2	1.67	1.61	2.17	79%	53%	50%	79%	2.06	1.87	1.72	2.08	79%	73%	67%	83%
JUST	2.08	2.03	1.70	1.73	75%	88%	70%	64%	2.08	2.12	1.83	1.64	75%	82%	78%	64%
ECON	2.16	1.9	1.73	1.90	88%	76%	62%	71%	2.16	1.95	1.81	2.00	92%	81%	69%	71%
NU	1.82	2.26	2.36	2.05	68%	96%	91%	75%	1.77	2.17	2.33	1.95	77%	91%	88%	85%
ART	2.32	2	1.82	1.89	95%	70%	64%	63%	2.45	2.13	2.00	2.00	95%	87%	73%	84%
MUSI	2.2	1.86	2.00	1.78	80%	57%	67%	72%	2.2	2	2.33	1.83	80%	79%	100%	78%
CMDS	1.86	1.6	2.13	1.61	71%	60%	88%	61%	2	1.7	2.00	1.89	86%	80%	81%	83%
CHEM	2.18	2	2.29	2.33	94%	75%	93%	89%	2.24	2.25	2.21	2.17	88%	75%	93%	94%
ACCT	2	2.09	1.92	1.75	82%	78%	77%	69%	2.24	2.22	2.00	1.94	82%	91%	69%	81%
HLTH	1.54	1.5	1.75	1.56	54%	30%	75%	63%	1.69	1.8	1.67	1.75	69%	70%	67%	69%
LING				1.93				71%				2.07				86%
AGSC	1.83	1.57	1.56	1.50	50%	57%	56%	50%	1.83	1.71	1.56	1.70	50%	71%	56%	70%
CS	0.83	1.6	1.71	1.60	17%	40%	71%	60%	0.83	1.6	1.57	1.50	17%	60%	57%	60%
ENVS	2.33	1.5	1.82	2.25	100%	50%	82%	88%	2.67	2	2.00	2.13	100%	100%	91%	75%
SPAN	2.38	2.07	2.25	1.83	88%	80%	88%	83%	1.63	2.33	2.13	2.00	63%	87%	88%	83%
IDSM				2.00				100%				2.25				100%
Other				1.82				76%				1.91				78%

Interdisciplinary Thinking

Examples of student work demonstrating interdisciplinary thinking were elicited with the following prompt:

Please include a work demonstrating that you have engaged in interdisciplinary thinking. "Interdisciplinary Thinking" means using the perspectives, methodologies or modes of inquiry of two or more disciplines in exploring problems, issues, and ideas as you make meaning or gain understanding. You work in an interdisciplinary way when you integrate or synthesize ideas, materials, or processes across traditional disciplinary boundaries. You should not assume that you are generating interdisciplinary work if you merely use essential skills like writing, speaking, a second language, computation, percentages, or averages to explore content, perspectives and ideas in only one discipline.

To illustrate interdisciplinary thinking, consider reviewing the examples from the "Book of Fours," which is available on the Portfolio Project website. These outstanding works were submitted by Truman students for this category and demonstrate a strong command of interdisciplinary thinking skills.

Some Descriptors of Competence as an Interdisciplinary Thinker

The items submitted may have some, many, or all of these features which influence your holistic response to the material you review.

4 Strong Competence
- ❖ A number of disciplines
- ❖ Significant disparity of disciplines
- ❖ Uses methodology from other disciplines for inquiry
- ❖ Analyzes using multiple disciplines
- ❖ Integrates or synthesizes content, perspectives, discourse, or methodologies from a number of disciplines

3 Competence
- ❖ A number of disciplines
- ❖ Less disparity of disciplines
- ❖ Moderate analysis using multiple disciplines
- ❖ Moderate integration or synthesis

2 Some Competence
- ❖ A number of disciplines
- ❖ Minimal disparity of disciplines
- ❖ Minimal analysis using multiple disciplines
- ❖ Minimal evidence of comprehension of interdisciplinarity

1 Weak Competence
- ❖ A number of disciplines
- ❖ Mentions disciplines without making meaningful connections among them
- ❖ No analysis using multiple disciplines
- ❖ No evidence of comprehension of interdisciplinarity

0 No demonstration of competence as an interdisciplinary thinker
- ❖ Only one discipline represented
- ❖ No evidence of multiple disciplines, of making connections among disciplines, or of some comprehension of interdisciplinarity

Interdisciplinary Thinking Scores by First Major

Maj.		Mean Score					% Competent				
		2008	2009	2010	2011	2012	*2008*	2009	2010	2011	2012
Arts and Letters	ART	*1.79*	2.02	1.97	2.05	2.14	*55%*	72%	70%	70%	79%
	CML	*2.24*	1.83	1.97	2.19	2.27	*76%*	61%	69%	73%	73%
	CWRT					2.33					67%
	ENG	*1.96*	2.04	1.94	1.98	2.04	*62%*	71%	68%	68%	71%
	LING	*2.44*	2.63	1.71	2.86	1.00	*67%*	88%	43%	100%	17%
	MUS	*1.84*	1.88	2.33	2.56	2.06	*62%*	62%	83%	83%	75%
	THEA	*1.14*	2.00	1.91	2.32	2.20	*27%*	78%	64%	89%	80%
	AAL	*1.93*	*2.00*	*1.99*	*2.12*	*2.07*	*61%*	*70%*	*69%*	*73%*	*72%*
Business	ACCT	*1.57*	1.55	1.73	1.76	1.72	*53%*	52%	61%	64%	58%
	BSAD	*1.46*	1.50	1.63	1.50	1.68	*46%*	47%	53%	49%	51%
	BUS	*1.49*	*1.52*	*1.68*	*1.60*	*1.70*	*48%*	*49%*	*57%*	*54%*	*54%*
Hlth.Sci.and Ed.	AT					3.00					100%
	CMDS	*1.61*	1.50	1.58	1.57	1.90	*54%*	47%	58%	57%	68%
	ES	*1.53*	1.59	1.57	1.56	1.76	*47%*	55%	49%	54%	62%
	HLTH	*1.74*	1.76	1.75	1.90	1.51	*68%*	60%	47%	62%	51%
	NU	*1.45*	1.38	1.60	2.00	1.93	*42%*	44%	57%	67%	62%
	HSE	*1.57*	*1.58*	*1.61*	*1.73*	*1.78*	*51%*	*53%*	*52%*	*59%*	*61%*
Social and Cultural Studies	COMM	*1.60*	1.93	1.90	1.58	1.92	*53%*	71%	67%	54%	62%
	ECON	*1.92*	1.55	2.00	2.13	2.23	*69%*	55%	67%	75%	85%
	HIST	*1.80*	2.13	1.87	2.00	2.14	*60%*	76%	65%	68%	66%
	JUST	*1.56*	1.42	1.33	1.62	1.48	*50%*	50%	60%	46%	56%
	PHRE	*2.00*	2.67	2.29	2.45	1.92	*69%*	83%	56%	85%	69%
	POL	*1.97*	2.16	1.77	1.94	2.02	*63%*	76%	48%	59%	63%
	PSYC	*1.48*	1.67	1.83	1.64	2.00	*45%*	54%	61%	51%	71%
	SOAN	*1.94*	2.11	1.85	1.78	2.55	*75%*	81%	71%	67%	90%
	SCS	*1.68*	*1.87*	*1.80*	*1.79*	*2.00*	*55%*	*65%*	*62%*	*59%*	*68%*
Sciences and Mathematics	AGSC	*1.27*	1.88	1.79	1.81	2.00	*36%*	65%	50%	69%	64%
	BIOL	*1.79*	1.84	1.87	2.02	2.25	*55%*	62%	64%	68%	76%
	CHEM	*1.70*	1.65	1.48	1.63	1.79	*56%*	58%	39%	63%	54%
	CS	*1.23*	1.41	1.76	1.47	1.96	*46%*	53%	59%	53%	63%
	MATH	*1.54*	1.81	1.96	1.87	1.52	*56%*	62%	57%	63%	52%
	PHYS	*1.75*	2.00	1.80	2.17	1.86	*75%*	67%	60%	67%	71%
	SAM	*1.63*	*1.78*	*1.82*	*1.91*	*2.04*	*53%*	*61%*	*59%*	*66%*	*67%*
	IDSM	*3.13*	1.88	1.67	3.11	2.40	*100%*	75%	61%	89%	80%
	All	*1.69*	*1.78*	*1.78*	*1.85*	*1.94*	*55%*	*56%*	*60%*	*63%*	*65%*

When data are examined by school (omitting IDS majors who, while few in number, outperform all other groups), submissions from the pre-professional schools (HSE and BUS) score significantly lower than those from other schools. Majors from all schools have a median of 2 (IDS majors have a median of 3).

IDS Scores by Course Prefix

Prefix	Count 2012	Mean Score 2008	2009	2010	2011	2012	% Competent 2008	2009	2010	2011	2012
EUR	2	2.25	2.00	3.00	2.67	3.50	75%	67%	100%	100%	100%
MATH	3	1.27	0.80	1.50	2.50	3.33	53%	20%	50%	100%	100%
SOAN	18	1.86	2.00	1.77	1.53	2.58	71%	79%	54%	53%	83%
IDSM	16	3.00	2.17	1.88	3.00	2.50	100%	67%	63%	88%	88%
NASC	4	3.00	1.25	0.86	1.33	2.50	100%	25%	29%	33%	75%
GEOG	8	2.50	2.50	1.00	1.80	2.38	100%	83%	40%	40%	88%
ENVS	5	1.60	1.25	1.67	2.00	2.20	40%	50%	33%	57%	80%
JINS	**540**	**1.91**	**2.03**	**1.97**	**2.03**	**2.16**	**64%**	**72%**	**67%**	**70%**	**74%**
CS	10	2.00	1.83	1.67	0.80	2.10	50%	67%	44%	20%	60%
ECON	23	1.06	1.64	1.47	1.33	2.09	22%	36%	53%	50%	70%
AGSC	9	1.60	1.63	2.33	1.33	2.00	50%	63%	67%	50%	67%
STAT	3	0.50	1.00	2.00	0.00	2.00	17%	17%	40%	0%	100%
SPAN	25	1.25	2.07	1.58	2.00	1.89	31%	67%	50%	62%	67%
ENG	72	1.19	1.39	1.75	1.76	1.81	28%	44%	61%	60%	60%
ART	19	2.09	1.88	2.38	2.00	1.79	64%	63%	81%	63%	63%
ED	17	1.33	1.08	1.67	0.92	1.76	33%	23%	53%	23%	71%
BSAD	25	1.00	1.26	1.39	1.12	1.72	31%	44%	46%	30%	56%
MUSI	20	1.47	1.12	1.59	1.00	1.70	53%	35%	55%	29%	60%
COMM	36	1.30	1.88	1.57	1.41	1.67	37%	72%	50%	44%	56%
THEA	2	1.17	2.00	1.50	1.67	1.67	33%	71%	50%	67%	67%
POL	13	1.58	1.72	2.00	1.92	1.63	47%	56%	67%	67%	56%
PHRE	69	1.21	1.76	1.49	2.10	1.62	36%	54%	47%	71%	51%
Other	47	1.59	1.61	1.25	1.44	1.62	52%	29%	44%	42%	55%
BIOL	18	1.10	1.33	1.36	1.36	1.61	30%	48%	45%	32%	56%
HIST	19	1.32	1.83	1.70	2.06	1.58	37%	65%	52%	78%	42%
ES	11	0.89	1.44	1.33	1.08	1.55	22%	50%	47%	33%	55%
PSYC	9	1.35	1.06	1.47	1.22	1.39	35%	29%	47%	39%	45%
ACCT	13	0.66	0.83	1.67	1.50	1.38	0%	17%	50%	50%	31%
JUST	16	1.60	1.36	1.89	1.71	1.38	60%	55%	61%	57%	50%
NU	17	0.44	1.19	2.20	1.63	1.35	0%	31%	80%	56%	35%
HLTH	6	1.00	0.63	0.88	1.43	1.00	33%	0%	0%	57%	33%
SED	0		0.00	1.20				0%	40%		
All	**1130**	**1.69**	**1.78**	**1.78**	**1.85**	**1.94**	**55%**	**56%**	**60%**	**63%**	**65%**

JINS courses continue to be successful at demonstrating competent scores in interdisciplinary thinking. While several other disciplines and courses were also notably successful, the JINS course seems to be fulfilling its designated purpose of giving students demonstrable interdisciplinary experiences.

Starting this year, students were asked to submit an artifact and reflection from their JINS class regardless of whether they believe this is their best inter-disciplinary work. As JINS is reviewed as part of the LSP review process, these submissions can be used to assess the success of the class. Future work could include looking at students who submit unsatisfactory work for this prompt to see if their JINS submission would have been a better choice.

To measure inter-rater reliability, 291 submissions (25%) were read and scored by two readers. Mean scores overall stayed about the same (1.94 v 2.01), but inter-reader reliability was high, with 83% of second readers assigning either the same score or a score within one rating of the first scorer. No submissions differed by 4 levels (for instance, a first reader score assigning a score of zero while the other scored the submission as a four) while nine submissions differed by three levels. A Pearson's correlation between the two readers was found to be $r = 0.46$, which is slightly lower than past years.

The increase in double-read submissions also lead to the discovery of seven new papers that earn the distinction of being "double-fours," interdisciplinary papers that have been read by two readers and found to be excellent by both. All were from JINS courses, except for one capstone paper from an Agriculture major.

2ⁿᵈ Reader Difference	%
Same Score	**40 %**
Off by +/-1	**43 %**
Off by +/-+2	15 %
Off by +/-+3	5 %
Off by +/-+4	0 %

HISTORICAL SOURCES	
Top Courses among all submissions	
(* denotes courses not used frequently last year)	
HIST 105: U.S. History II	45
HIST 104: U.S. History I	16
HIST 131: World Civ. before 500 AD	16
*MUSI 341: Music History II	11
ENG 190: Writing as Critical Thinking	10
*ECON 305: Amer. Econ. History	9
HIST 132: World Civ. 500 AD - 1700	7
MUSI 207: Perspectives in Music: Jazz	7

Historical Analysis at a Glance
- Number of reviewed submissions: **584 (of 1148 submitted)**
- Median score (on a 0-3 scale): **1**
- Mean score (on a 0-3 scale): **1.45**
- Highest scoring school: **Social & Cultural Studies**
- Most frequent source (course): **HIST 105**
- Most frequent Source: (discipline): **History**
- Trend **Decreasing Slightly**

Historical Analysis

The following prompt was reviewed for a sample of 584 submissions, approximately 52% of all submissions for Historical Analysis:

Please include a work that shows your ability to think historically. This involves analyzing connections between events or developments, demonstrating change over time, and showing the relevance of historical context to the topic you are discussing, whether the focus be individuals, social groups, cultural developments, or particular events. Historical thinking critically evaluates historical sources, which could be written, visual, aural, archaeological, scientific, etc., and it pays attention to the reliability and objectivity of the historical record.

These submissions were evaluated using the descriptors below.

Some Descriptors of Competence in Historical Analysis

3 Strong Competence
Strong demonstration of historical analysis includes one or more of these features. The submission may:
- ❖ Evaluate historical resources.
- ❖ Actively engage historical context and chronology.
- ❖ Use good analytical thinking in making an argument.
- ❖ Show clear awareness of causation in examining changes over time.

2 Competence
    Submissions that demonstrate competent historical analysis may:
- ❖ Employ historical resources.
- ❖ Show some awareness of historical context and chronology.
- ❖ Be uneven in supporting arguments.
- ❖ Demonstrate some awareness of causation in examining changes over time.

1 Minimal Competence
    Minimally competent submissions may:
- ❖ Merely list historical resources.
- ❖ Have limited or confused use of historical context and chronology.
- ❖ Make an unsupported thesis or argument
- ❖ Show minimal awareness of causation in examining changes over time.
- ❖ Simply report historical facts

0 No Competence
- ❖ Ignore historical context
- ❖ No thesis, argument, or analysis
- ❖ Neglects changes over time
- ❖ Demonstrates lack of knowledge regarding basic historical facts

Historical Analysis Scores by First Major

	Maj.	Count					Mean Score					% Competent				
		2008	2009	2010	2011	2012	*2008*	2009	2010	2011	2012	*2008*	2009	2010	2011	2012
Arts and Letters	ART	34	45	27	26	11	1.79	1.78	1.96	1.81	2.00	71%	64%	70%	69%	82%
	CML	21	22	22	17	13	2.19	1.68	2.09	1.88	1.69	81%	64%	86%	59%	62%
	CWRT					2					2.00					50%
	ENG	112	96	77	68	53	1.62	1.77	1.61	1.54	1.42	56%	60%	52%	54%	42%
	LING	9	7	4	5	1	1.67	1.86	2.00	2.00	2.00	56%	71%	75%	60%	100%
	MUS	38	39	16	8	18	1.55	1.74	1.44	2.25	1.39	55%	69%	44%	100%	39%
	THEA	7	16	10	12	3	1.71	1.69	1.60	1.58	1.67	57%	69%	50%	50%	67%
	AAL	**221**	**225**	**156**	**136**	**101**	**1.69**	**1.76**	**1.73**	**1.70**	**1.53**	**61%**	**64%**	**60%**	**60%**	**50%**
Business	ACCT	58	60	72	30	38	1.34	1.42	1.46	1.33	1.29	45%	45%	49%	47%	37%
	BSAD	138	107	81	65	50	1.49	1.30	1.22	1.12	1.32	52%	39%	41%	35%	46%
	Bus	**196**	**167**	**153**	**95**	**88**	**1.45**	**1.34**	**1.33**	**1.19**	**1.31**	**50%**	**41%**	**44%**	**39%**	**42%**
Health. Sci. and Ed.	ATHT					3					1.00					33%
	CMDS	28	35	29	17	21	1.25	1.26	1.34	1.35	1.14	43%	40%	48%	53%	29%
	ES	45	42	52	48	36	1.16	1.10	1.17	1.23	1.14	33%	33%	31%	33%	31%
	HLTH	31	27	29	24	34	1.29	1.19	1.17	1.21	1.35	39%	37%	41%	33%	41%
	NU	37	34	23	26	26	1.24	1.12	1.30	1.23	1.12	43%	41%	39%	31%	31%
	HSE	**141**	**138**	**133**	**115**	**120**	**1.23**	**1.16**	**1.23**	**1.24**	**1.19**	**39%**	**38%**	**38%**	**36%**	**33%**
Social	COMM	52	74	55	47	35	1.63	1.66	1.38	1.38	1.37	52%	58%	44%	40%	40%

	Prefix	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
l and Cultural Studies	ECON	13	10	8	9	7	1.62	1.50	1.75	1.22	1.57	54%	50%	63%	22%	71%
	HIST	60	42	44	32	26	2.53	2.57	2.68	2.78	2.38	92%	90%	93%	100%	85%
	JUST	35	35	33	20	17	1.40	1.43	1.33	1.25	1.29	43%	49%	39%	25%	35%
	PHRE	16	6	7	11	4	1.81	1.67	1.86	2.18	2.25	75%	67%	57%	82%	75%
	POL	38	45	26	19	10	2.16	2.13	2.04	1.68	1.70	79%	78%	77%	63%	60%
	PSYC	109	100	63	71	45	1.54	1.37	1.44	1.28	1.42	52%	78%	48%	45%	49%
	SOAN	17	27	10	10	10	1.88	1.70	1.30	2.10	2.00	77%	63%	50%	90%	80%
	SCS	**340**	**339**	**246**	**219**	**154**	**1.82**	**1.73**	**1.72**	**1.63**	**1.64**	**64%**	**70%**	**58%**	**55%**	**56%**
Sciences and Mathematics	AGSC	23		10	10	16	1.22		1.30	1.20	1.50	44%		40%	30%	50%
	BIOL	79	106	88	76	57	1.46	1.67	1.34	1.46	1.42	52%	58%	43%	49%	53%
	CHEM	27	13	19	13	16	1.00	0.92	1.26	1.38	1.31	30%	31%	42%	46%	31%
	CS	14	15	12	15	12	1.29	1.33	1.50	1.60	1.67	43%	40%	58%	60%	58%
	MATH	25	33	19	18	11	1.52	1.27	1.26	1.50	1.91	48%	36%	47%	44%	64%
	PHYS	8	9	12	6	3	2.00	1.22	1.17	1.17	1.33	75%	22%	42%	33%	33%
	SAM	**176**	**176**	**160**	**138**	**115**	**1.38**	**1.49**	**1.32**	**1.44**	**1.49**	**47%**	**49%**	**44%**	**47%**	**50%**
	IDSM	8	8	6	6	3	2.50	1.75	1.83	2.17	1.33	88%	75%	67%	67%	33%
	All	**1082**	**1053**	**854**	**709**	**584**	**1.58**	**1.56**	**1.50**	**1.49**	**1.45**	**55%**	**56%**	**50%**	**49%**	**46%**

Examining the results by major yields few surprises. History majors were, by far, the best at the category, with PHRE, SOAN, ART, and LING also performing very highly. As schools, Social and Cultural Studies and Arts and Letters were significantly higher than the other schools. Science and Mathematics students were significantly higher than students in the school of Health Sciences and Education.

As expected, students frequently chose works from history and JINS courses for this category. Almost thirty percent of the items came from history courses, and JINS courses accounted for over 11% of the submissions, The U.S. History sequence, HIST 104 and 105, were the two most common courses used as sources for items in this category, together accounting for 9% of the total number.

Historical Scores by Course Prefix

	Count					Mean Score					% Competent				
Prefix	*2008*	*2009*	*2010*	*2011*	*2012*	*2008*	*2009*	*2010*	*2011*	*2012*	*2008*	*2009*	*2010*	*2011*	*2012*
BIOL	11	14	16	9	10	1.18	1.64	0.69	0.78	2.27	45%	57%	19%	22%	73%
ECON	26	21	21	20	15	1.73	1.62	1.48	1.20	1.86	58%	57%	48%	30%	62%
ENG	79	76	59	59	61	1.18	1.34	1.14	1.22	1.50	38%	43%	27%	37%	55%
JINS	159	122	96	85	66	1.57	1.74	1.65	1.56	1.56	56%	62%	58%	51%	51%
COMM	28	31	22	12	12	1.39	1.52	1.14	1.42	1.42	46%	48%	23%	50%	50%
HIST	369	326	278	198	169	1.87	1.83	1.79	1.76	1.56	67%	64%	63%	61%	49%
BSAD	27	21	35	21	14	0.96	0.90	1.06	1.24	1.40	30%	24%	37%	38%	47%
Other	201	254	178	166	137	1.47	1.33	1.24	1.43	1.42	48%	44%	50%	49%	45%
MUSI	32	39	24	26	22	1.41	1.51	1.21	1.58	1.43	44%	54%	33%	62%	43%
ART	41	48	41	36	21	1.85	1.73	2.15	1.78	1.32	68%	60%	78%	61%	36%
PSYC	13	15	14	20	12	0.46	0.67	0.71	0.70	1.21	0%	7%	21%	15%	36%
PHRE	61	46	35	29	23	1.26	0.87	1.43	1.34	1.23	43%	26%	46%	48%	34%
HLTH	4	6	8	10	11	1.25	1.17	1.00	0.60	1.09	25%	33%	25%	0%	27%
POL	31	34	26	18	11	1.84	2.09	1.92	1.61	0.75	58%	76%	77%	61%	25%
All	**1082**	**1053**	**854**	**709**	**584**	**1.58**	**1.56**	**1.50**	**1.49**	**1.42**	**55%**	**53%**	**50%**	**49%**	**45%**

ESTIMATED EFFECT OF SAMPLING ON SCORES

For the past three years, Historical Analysis submissions have been scored by a sample of 50% - 70% rather than a census of all submissions. This high rate means that the overall scores are likely quite accurate (estimated margin of error is around +/- 3% for proportion of students who demonstrate competence and under +/- .05 for mean score). However, the margin of error for individual programs and prefixes may be quite higher, especially for smaller programs. Care should be taken to avoid making major decisions at the program or course level based on a single year's score. Upon request, additional submissions could be scored to allow particular programs more complete information.

PHASE-OUT OF HISTORICAL ANALYSIS

This is the final year that Historical Analysis submissions were scored. For the coming year, we will continue to ask for submissions, but will not require them. After that, we have asked the Historical Mode Faculty if they would like us to move towards an "embedded submission," where a portfolio slot would be reserved for students taking a historical mode course. While the portfolio reading sessions will not score these submissions, it will be an easy place to keep the submissions for use at program review, LSP component review, and other purposes. Our new portfolio system makes this a real possibility.

Intercultural Thinking

This year, the portfolio project has begun a two-year project examining Intercultural Thinking. The LSP requires students to complete a class or experience that fulfills the broad Intercultural outcomes. For the first year of this project, we decided to ask for submissions very broadly, hoping to tighten the request in the second year.

> *Please provide an example of writing you have done that reflects an understanding of Intercultural Thinking. Intercultural Thinking demonstrates knowledge and appreciation of cultural diversity and interaction. It can also be thought of as any situation where students move beyond their own culture and experience the discomfort of encountering differences between themselves and others or between two competing worldviews. (link to LSP Documentation)*

> *This writing may have been done inside or outside of the classroom. Work may be for credit or pay, for a course, a co-curricular activity or "just for fun". Many students will find that work they did to complete the Intercultural Component of the LSP would be appropriate, but you are not constrained to only such coursework. Artifacts created while away from Truman, such as works produced for Study Abroad, internship, or service experiences would certainly be appropriate.*

Students were also asked to describe the work, especially if an artifact was not included, as well as the circumstances under which it was created; and to describe why the work was, in fact, intercultural. Students were asked finally to discuss how their intercultural thinking has changed while they were at Truman.

Students (and faculty reviewers) were asked to answer the following two questions:

1. Truman's guiding documents include a list of "Desired Characteristics of Graduates." One of those characteristics says, **"Truman Graduates will be known to welcome and value new and diverse perspectives."**
   a. Thinking of yourself, as a soon-to-be Truman graduate, do you believe this statement is true?
      (student responses: Completely True, Mostly True, Mostly Untrue, Completely Untrue)
   b. Based on this submission and reflection, does this student appear to demonstrate this characteristic?
      (faculty responses: Extraordinarily Well, Very Well, Somewhat, Minimally, Not at all, unable to tell from this submission.)

2. Truman's guiding documents include a list of "Desired Characteristics of Graduates." One of those characteristics says, **"Truman Graduates will be known to appreciate ambiguity and thrive in unfamiliar, rapidly changing situations."** Thinking of yourself, as a soon-to-be Truman graduate, do you believe this statement is true?   *(same responses)*

Intercultural Thinking – Holistic Score

Please read the material the student submitted to demonstrate "intercultural thinking." Think about your overall holistic impression of the thinking demonstrated in the piece and compare it, perhaps, with your range finders. Then score it, keeping in mind that, with holistic evaluation, we reward for what we find rather than penalize for absence of any one feature we think should be there.

These descriptors about what might demonstrate "intercultural analysis" come from the LSP outcome statements for Intercultural Perspectives and other Truman Guiding documents. These are descriptors, not "primary traits." Not all the descriptors need be present and measurable in a submission to warrant a specific score. You may find additional features that make you call the work a demonstration of intercultural thinking.

SOME DESCRIPTORS OF COMPETENCE IN INTERCULTURAL THINKING

3 Strong Competence

Strong demonstration of intercultural thinking includes one or more of these features. The submission may use convergent and divergent thinking to:
- Demonstrate superior knowledge and appreciation of cultural diversity.
- Deeply engage in self-reflective thinking,
- Recognize significant transformation in their personal worldview.
- Embrace an intercultural consideration that allows one to transcend (but not erase) cultural and ethnic differences.

2 Competence

Submissions that demonstrate competent intercultural thinking may:
- Demonstrate a greater knowledge and appreciation of cultural diversity.
- Engage in critical and self-reflective thinking, and awareness of a transformation in their personal worldview.
- Identify instances where culture influences behavior (their own or others).
- Show understanding of how cultural differences impact intercultural interactions.
- Recognize of the political and social aspects of culture and cultural diversity.

1 Minimal Competence

Minimally competent submissions may:
- Demonstrate minimal knowledge and appreciation of cultural diversity.
- Lack critical and self-reflective thinking, and self-awareness of personal transformation.
- Identify, with minimal understanding, instances where culture influences behavior, political or social aspects, or cultural differences.

0 No Competence

Submissions:
- Demonstrate a flawed knowledge or appreciation of cultural diversity.
- Show no self-awareness, reflection, or critical thinking.
- List intercultural events without interacting with them.

Faculty scores of student submissions are below. As this rubric is brand new, it has not been examined for inter-rater reliability nor validity measures, so care should be taken in making conclusions from these responses. Although differences can be seen across departments and schools, no surprising patterns are visible.

	Maj.	2012	Score counts				Avg.	% Comp 2012
			0	1	2	3		
Arts and Letters	ART	27	4	9	11	3	1.48	52%
	CML	22	3	5	9	5	1.73	64%
	CWRT	6		2	2	2	2.00	67%
	ENG	86	9	30	30	17	1.64	55%
	LING	6	1		2	3	2.17	83%
	MUS	34	8	14	11	1	1.15	35%
	THEA	5	1	1		3	2.00	60%
	AAL	**186**	**26**	**61**	**65**	**34**	**1.58**	**53%**
Business	ACCT	68	11	32	19	6	1.29	37%
	BSAD	85	12	28	35	10	1.51	53%
	Bus	**153**	**23**	**60**	**54**	**16**	**1.41**	**46%**
Hlth. Sci. and Ed.	ATHT	3			3	1	2.25	100%
	CMDS	21	3	14	16	7	1.68	58%
	ES	36	11	22	29	7	1.46	52%
	HLTH	34	8	20	17	6	1.41	45%
	NU	26	6	9	11	13	1.79	62%
	HSE	**120**	**28**	**65**	**76**	**34**	**1.57**	**54%**
Social and Cultural Studies	COMM	71	9	25	25	12	1.56	52%
	ECON	13	1	5	4	3	1.69	54%
	HIST	43	2	8	22	11	1.98	77%
	JUST	25	6	13	6		1.00	24%
	PHRE	13	1	4	4	4	1.85	62%
	POL	40	5	10	20	5	1.63	63%
	PSYC	95	11	32	40	12	1.56	55%
	SOAN	20		8	6	6	1.90	60%
	SCS	**320**	**35**	**105**	**127**	**53**	**1.62**	**56%**
Sciences and Mathematics	AGSC	16	4	9	5	4	1.41	41%
	BIOL	57	18	41	33	13	1.39	44%
	CHEM	16	13	10	2	2	0.74	15%
	CS	12	2	8	12	1	1.52	57%
	MATH	11	6	12	4		0.91	18%
	PHYS	3	2	2	2	1	1.29	43%
	SAM	**115**	**45**	**82**	**58**	**21**	**1.27**	**38%**
	IDSM	8		1	4	3	2.25	88%
	All	**1079**	**158**	**375**	**385**	**161**	**1.51**	**50.6%**

Although the data were not particularly useful, the discussion about intercultural thinking was very productive, and a revised prompt will be used for next year to collect more focused data.

Most Personally Satisfying Work or Experience

Students are asked to submit an item or a description of a most personally satisfying experience with the following prompt:

Please include something (a work from a class, a work from an extracurricular activity, an account of an experience, objects which are symbolic to you, etc.) that you consider representative of the most personally satisfying results of your experiences at Truman. If you don't have an "artifact", which would represent or demonstrate the experience, write about it on this sheet. This is space for something you feel represents an important aspect, experience or event of your college experience.

Faculty readers do not evaluate the quality of the materials submitted in any way. Rather they review and describe what it is that a student found to be "most personally satisfying". Over time, repeated motifs have been identified. Readers use a checklist to record the context of the experience and the reason it was especially satisfying to the student. In 2012, data for source of the most personally satisfying experience was garbled by a database error, and it is not included here. Anecdotally, the great majority of submitted artifacts continues to be papers, essays, projects, and lab reports generated in classes or through independent research activities. As more attention is put on out-of-class experiences, we expect submissions to this category over the next few years to move in the same direction.

Faculty readers were asked to examine whether the student found the experience personally satisfying because it 1) represented a personal best, 2) was especially challenging, 3) achieved personal goals 4) modeled working as a professional, 5) achieved significant personal growth, 6) was a collaborative effort, 7) was enjoyable, or 8) solved a problem. If none of these was a good representation of the student's reasoning, a more detailed explanation was given by the reviewer. Responses sum to more than 100% because more than one response may be chosen.

	Year	Count 2012	Pers. Best Yes	Pct.	Pers. Goals Yes	Pct.	Pers. Growth Yes	Pct.	Challenging Yes	Pct.
Arts and Letters	ART	30	5	17%	4	13%	21	70%	11	37%
	CML	26	7	27%	12	46%	12	46%	13	50%
	CWRT	6	2	33%	2	33%	2	33%	1	17%
	ENG	92	29	32%	15	16%	43	47%	29	32%
	LING	6	2	33%	2	33%	3	50%	3	50%
	MUS	38	14	37%	2	5%	16	42%	14	37%
	THEA	5	1	20%	2	40%	3	60%	4	80%
	AAL	**203**	**60**	**30%**	**39**	**19%**	**100**	**49%**	**75**	**37%**
Business	ACCT	69	22	32%	13	19%	28	41%	26	38%
	BSAD	92	19	21%	17	18%	33	36%	24	26%
	BUS	**161**	**41**	**25%**	**30**	**19%**	**61**	**38%**	**50**	**31%**
Hlth.Sci.and Ed.	AT	4	1	25%	1	25%	2	50%	1	25%
	CMDS	41	14	34%	8	20%	23	56%	13	32%
	ES	74	20	27%	24	32%	25	34%	24	32%
	HLTH	54	12	22%	18	33%	23	43%	15	28%
	NU	42	6	14%	8	19%	21	50%	16	38%
	HSE	**215**	**53**	**25%**	**59**	**27%**	**94**	**44%**	**69**	**32%**
Social and Cultural Studies	COMM	75	18	24%	19	25%	23	31%	25	33%
	ECON	14	5	36%	1	7%	2	14%	6	43%
	HIST	45	14	31%	8	18%	13	29%	15	33%
	JUST	28	4	14%	4	14%	12	43%	6	21%
	PHRE	13	3	23%	4	31%	6	46%	5	38%
	POL	41	12	29%	6	15%	15	37%	15	37%

	PSYC	103	*26*	25%	*25*	24%	*36*	35%	*26*	25%
	SOAN	20	*5*	25%	*7*	35%	*9*	45%	*6*	30%
	SCS	339	*87*	26%	*74*	22%	*116*	34%	*104*	31%
	AGSC	22	*5*	23%	*6*	27%	*3*	14%	*3*	14%
	BIOL	108	*34*	31%	*21*	19%	*43*	40%	*47*	44%
Sciences and Mathematics	CHEM	28	*4*	14%	*3*	11%	*9*	32%	*8*	29%
	CS	24	*6*	25%	*4*	17%	*7*	29%	*12*	50%
	MATH	25	*11*	44%	*5*	20%	*9*	36%	*10*	40%
	PHYS	7	*1*	14%	*3*	43%	*3*	43%	*1*	14%
	SAM	214	*61*	29%	*42*	20%	*74*	35%	*81*	38%
	IDSM	10	*3*	30%	*3*	30%	*5*	50%	*5*	50%
	All	**1146**	*305*	*27%*	*247*	*22%*	*450*	*39%*	*384*	*34%*

	Year	Count 2012	Professional		Collaborative		Enjoyable		Prob. Solv.	
			Yes	Pct.	*Yes*	Pct.	*Yes*	Pct.	*Yes*	Pct.
	ART	30	*3*	10%	*0*		*15*	50%	*2*	7%
	CML	26	*3*	12%	*4*	15%	*10*	38%	*1*	4%
	CWRT	6	*0*		*0*		*3*		*0*	
Arts and Letters	ENG	92	*9*	10%	*4*	4%	*38*	41%	*2*	2%
	LING	6	*1*	17%	*0*		*5*	83%	*0*	
	MUS	38	*9*	24%	*5*	13%	*17*	45%	*0*	
	THEA	5	*2*	40%	*2*	40%	*3*	60%	*0*	
	AAL	**203**	**27**	**13%**	**15**	**7%**	**91**	**45%**	**5**	**2%**
	ACCT	69	*18*	26%	*16*	23%	*27*	39%	*3*	4%
Business	BSAD	92	*18*	20%	*24*	26%	*44*	48%	*4*	4%
	BUS	**161**	**36**	**22%**	**40**	**25%**	**71**	**44%**	**7**	**4%**
	AT	4	*3*	75%	*0*		*1*	25%	*1*	25%
	CMDS	41	*12*	29%	*2*	5%	*11*	27%	*2*	5%
Hlth.Sci.and Ed.	ES	74	*20*	27%	*10*	14%	*25*	34%	*2*	3%
	HLTH	54	*19*	35%	*11*	20%	*21*	39%	*1*	2%
	NU	42	*9*	21%	*3*	7%	*14*	33%	*1*	2%
	HSE	**215**	**63**	**29%**	**26**	**12%**	**72**	**33%**	**7**	**3%**
	COMM	75	*15*	20%	*3*	4%	*32*	43%	*1*	1%
	ECON	14	*2*	14%	*2*	14%	*3*	21%	*0*	
	HIST	45	*7*	16%	*0*		*17*	38%	*1*	2%
Social and Cultural Studies	JUST	28	*9*	32%	*0*		*10*	36%	*1*	4%
	PHRE	13	*1*	8%	*0*		*6*	46%	*1*	8%
	POL	41	*14*	34%	*1*	2%	*7*	17%	*1*	2%
	PSYC	103	*21*	20%	*8*	8%	*41*	40%	*2*	2%
	SOAN	20	*5*	25%	*2*	10%	*4*	20%	*0*	
	SCS	339	*74*	22%	*16*	5%	*120*	35%	*7*	2%
	AGSC	22	*3*	14%	*1*	5%	*9*	41%	*1*	5%
	BIOL	108	*27*	25%	*14*	13%	*33*	31%	*3*	3%
Sciences and Mathematics	CHEM	28	*7*	25%	*6*	21%	*7*	25%	*1*	4%
	CS	24	*5*	21%	*2*	8%	*7*	29%	*2*	8%
	MATH	25	*3*	12%	*1*	4%	*13*	52%	*3*	12%
	PHYS	7	*2*	29%	*1*	14%	*1*	14%	*0*	
	SAM	214	*47*	22%	*25*	12%	*70*	33%	*10*	5%
	IDSM	10	*4*	40%			*3*	30%		
	All	**1146**	*251*	*22%*	*122*	*11%*	*851*	*74%*	*4*	*0%*

Portfolio-25

Letters to Truman

Finally, the portfolio asks students to compose a letter addressed to the Liberal Arts and Science Portfolio Project Team. In 2012, 1030 (over 95%) of portfolios included a Letter to Truman. This is high, given that portfolios must be resubmitted if they are missing one of the academic prompts, but portfolios without Letters to Truman are grudgingly accepted. While the academic works submitted in other categories provide direct insight into student achievement,

Letters to Truman at a Glance	
• Number of submissions:	**1030**
• Median time to complete portfolio:	**3.5 hours**
• Attitudes to Truman Education	**Very Positive**
• Attitudes to portfolio	**Positive**
• Common themes	**Growth in writing skill**
	Praise to faculty
	Varied opinions on LSP

the Letters to Truman provide a more personal view of student attitudes and opinions. The content of these letters varies widely, and many students do not talk about all of the suggested topics. Therefore, when data are reported for this category, any student not reporting an opinion is listed as "no indication." This is true even when a student gives no indication because they submitted no Letter to Truman.

During the weeks of portfolio assessment and evaluation, the student letters are generally reserved for the last day. While reading student letters, faculty readers are instructed to reserve one or more student letters to share with the group, and thus the week of portfolio evaluations ends with an airing of student concerns, criticisms, recommendations, and/or praise.

Students are asked in their cover letters to reflect on and write about several specific items:
- *The process used and time spent in compiling their portfolio.*
- *What they learned about themselves through the process.*
- *Their attitudes toward portfolio assessment (and assessment at Truman in general).*
- *Their attitudes about their education at Truman. Their ideas, reactions, and suggestions regarding the undergraduate experience at Truman.*
- *Their immediate plans upon leaving Truman.*

Faculty readers track the number of hours devoted to the portfolio assembly, and look for self-reflection in the letters. When students express attitudes about the portfolio, about assessment and about their education, readers note whether those opinions are positive, mixed, or negative. Finally, readers designate parts of letters containing relevant insights, or specific suggestions, to be given a broader audience. Some of these insights and suggestions are shared openly with the other readers as described above, and some are included as quotes here.

Percentile	# of Hours
Minimum	.3
10th %ile	2
25th %ile	2.5
50th %ile	3.5
75th %ile	5
90th %ile	8
Maximum	75

Because of an expressed concern that portfolio assessment could be too intrusive in student and faculty lives, the prompt for the Letters to Truman asks seniors to report the time involved in compiling and submitting their portfolio. In 2012, the mode response was three hours, and the mean was 4.7, with percentiles shown in the table. This analysis includes all responses that could be put into quantitative form – some students did not address the time they spent on this task, and others gave responses like "I spent a little bit each week for the whole semester." Even so, a small number of students reporting a very large amount of time makes the raw average a bit misleading, and probably an overestimate. However, these numbers are an increase over the past few years, perhaps due to more senior seminar and capstone classes requiring work on it each week.

Some students reported difficulty in finding papers because their computers had crashed or they had not remembered to save their work, but many also reported that choosing the best work for each prompt was quite simple.

> *I went about compiling this portfolio in around two hours. I had all of my papers from past classes that were needed already on my computer, so uploading them was relatively quick and easy.*

As discussed below, many students found the search process itself reflective and useful.

REFLECTION IN COVER LETTERS

Ideally, the portfolio serves as an opportunity for students to reflect on their experiences at the University. Students will present specific insights into their growth or lack of growth. Many students did engage in self-assessment, and this percentage has been increasing for several years.

Submissions are rated as having No Evidence of Reflection, Evidence Found, or "Evidence with Findings." The column marked "% Refl" adds the two positive responses together.

		Count	Evidence of Self-reflection			
	Year	2012	No	Yes	Findings	% Reflect
Arts and Letters	ART	26	4	13	9	84.6%
	CML	25	6	15	4	76.0%
	ENG	6	2	3	1	66.7%
	ENG	80	18	36	26	77.5%
	LING	6		6		100%
	MUS	33	9	15	9	72.7%
	THEA	4	2	1	1	50.0%
	AAL	**180**	**41**	**89**	**50**	**77.2%**
Business	ACCT	65	28	22	15	56.9%
	BSAD	83	33	31	19	60.2%
	BUS	**148**	**61**	**53**	**34**	**58.8%**
Hlth. Sci. and Ed.	ATHT	3	2	1		33.3%
	CMDS	38	11	14	13	71.1%
	ES	65	13	36	16	80.0%
	HLTH	49	18	20	11	63.3%
	NU	37	14	12	11	62.2%
	HSE	**192**	**58**	**83**	**51**	**69.8%**
Social and Cultural Studies	COMM	67	13	33	21	80.6%
	ECON	12	2	4	6	83.3%
	HIST	42	17	13	12	59.5%
	JUST	26	6	15	5	76.9%
	PHRE	13	6	5	2	53.8%
	POL	34	6	17	11	82.4%
	PSYC	91	18	56	17	80.2%
	SOAN	17	2	7	8	88.2%
	SCS	**302**	**70**	**150**	**82**	**76.8%**
Sciences & Math.	AGSC	20	5	11	4	75.0%
	BIOL	104	23	49	32	77.9%
	CHEM	24	8	9	7	66.7%
	CS	21	5	10	6	76.2%
	MATH	24	7	7	10	70.8%
	PHYS	7	4	2	1	42.9%
	SAM	**200**	**52**	**88**	**60**	**74.0%**
	IDSM	8	3	4	1	63%

Across majors, the proportion who
engage in reflection is fairly consistent. No

	All	1030	285	467	278	72.3%

particular school jumps out as particularly reflective, although the professional programs are a bit less reflective. In general, the amount of reflection has stayed constant over the past few years, with about 70-80% of students engaging in reflection.

When students do share the results of self-reflection, many comment on improvement in their writing and independence. For example, one student writes

My college experience has helped me to discover my own independence. I realize now that if I set my mind to getting something that I truly want, I will be able to achieve it. This university has not only prepared me for my future as a graduate student and profession, but I have also come to realize exactly how far I can push myself in order to obtain my dreams.

Of those who comment on their education, the feeling is quite positive.

ATTITUDE TOWARD EDUCATION AT TRUMAN

	Year	Count 2012	Attitude toward Education at Truman					Attitude toward Education in the Major				
			Neg.	Mix.	Pos.	None	W% Pos	Neg.	Mix.	Pos.	None	W% Pos
Arts and Letters	ART	26	1	7	16	2	81.3%	1	7	14	4	79.5%
	CML	25	1	2	20	2	91.3%	2	3	10	10	76.7%
	ENG	6	0	1	4	1	90.0%	0	0	3	3	100.0%
	ENG	80	1	10	57	12	91.2%	0	12	23	45	82.9%
	LING	6	0	1	5	0	91.7%	0	0	3	3	100.0%
	MUS	33	0	7	25	1	89.1%	0	6	16	11	86.4%
	THEA	4	0	2	1	1	66.7%	0	1	2	1	83.3%
	AAL	**180**	**3**	**30**	**128**	**19**	**88.8%**	**3**	**29**	**71**	**77**	**83.0%**
Business	ACCT	65	0	6	39	20	93.3%	1	5	17	42	84.8%
	BSAD	83	3	14	46	20	84.1%	4	9	29	41	79.8%
	BUS	**148**	**3**	**20**	**85**	**40**	**88.0%**	**5**	**14**	**46**	**83**	**81.5%**
Hlth. Sci.and Ed.	ATHT	3	0	0	2	1	100.0%	0	0	1	2	100.0%
	CMDS	38	0	4	31	3	94.3%	1	0	17	20	94.4%
	ES	65	2	6	50	7	91.4%	1	4	35	25	92.5%
	HLTH	49	0	8	31	10	89.7%	3	3	17	26	80.4%
	NU	37	0	6	24	7	90.0%	1	7	20	9	83.9%
	HSE	**192**	**2**	**24**	**138**	**28**	**91.5%**	**6**	**14**	**90**	**82**	**88.2%**
Social and Cultural Studies	COMM	67	0	7	55	5	94.4%	0	8	34	25	90.5%
	ECON	12	0	3	9	0	87.5%	0	1	5	6	91.7%
	HIST	42	1	9	27	5	85.1%	1	3	16	22	87.5%
	JUST	26	0	6	18	2	87.5%	0	5	10	11	83.3%
	PHRE	13	0	3	10	0	88.5%	0	0	6	7	100.0%
	POL	34	1	3	30	0	92.6%	1	6	15	12	81.8%
	PSYC	91	2	12	67	10	90.1%	4	6	38	43	85.4%
	SOAN	17	1	1	12	3	89.3%	2	0	10	5	83.3%
	SCS	**302**	**5**	**44**	**228**	**25**	**90.3%**	**8**	**29**	**134**	**131**	**86.8%**
Sciences and Mathematics	AGSC	20	0	5	12	3	85.3%	0	1	11	8	95.8%
	BIOL	104	4	15	75	10	87.8%	1	16	44	43	85.2%
	CHEM	24	0	4	13	7	88.2%	0	4	12	8	87.5%
	CS	21	2	1	16	2	86.8%	1	3	7	10	77.3%
	MATH	24	3	4	14	3	76.2%	3	7	9	5	65.8%
	PHYS	7	0	1	5	1	91.7%	0	0	2	5	100.0%
	SAM	**200**	**9**	**30**	**135**	**26**	**86.2%**	**5**	**31**	**85**	**79**	**83.1%**
	IDSM	8	0	0	5	3	100.0%	1	0	2	5	66.7%
	All	**1030**	**22**	**148**	**719**	**141**	**89.2%**	**28**	**117**	**428**	**457**	**84.9%**

W% Pos = (# positive responses + # of mixed responses/2)/ Number who discussed issue

The trend of these attitudes over the past few years has been stable and high in almost all areas. The following comments are representative.

Truman is truly a transformative location. I like the passion and devotion of the faculty and administration towards making Truman a place for high quality education and a place that genuinely puts students first.

It was not until college that I could see how what I learned in class carried over into my everyday life. I do feel like the atmosphere at Truman had a lot to do with how much I have enjoyed learning. Here at Truman students are proud of their intellectual abilities and work hard at perfecting them... Truman

State University is a prime example of how a small school in an even smaller town can produce a world of opportunity. I am appreciative of my experiences at Truman and I will always be a Bulldog.

All in all I am grateful for the education and opportunities that I have had because of Truman. I know I will leave this place a better person, not just smarter. I've grown in so many ways other than academically, and that in my opinion is what the college experience is actually about.

Only 22 students were negative about their overall education at Truman. The few mixed and negative submissions vary, but some use the Letters to Truman to give very specific or very general complaints about Truman, disdain for a "well-rounded education" or a particular professor, or the lack of name recognition Truman has.

As a music major at this university I often find myself at odds with the multitudes of tasks that the university requires for my "well-roundedness." I spend almost all of my day either practicing, in rehearsals, in classes, or doing homework. I have little to no time to do much of anything outside of these four things (sleep included!). This is why writing these trivial responses to a portfolio that is in itself ambiguous to me seems like an incredible waste of time that I could be using to either study or otherwise prepare for class. It is probably also painfully obvious that my writing ability really hasn't changed at all from the time I wrote many of the submissions until now. This is because my major has very little to do with writing. If you instead asked me to create and perform a recital for you, I would certainly be able to (more than) adequately demonstrate to you how profoundly Truman has impacted me as a professional musician.

Overall, I would say my experience at Truman has been a mixed bag. While I have gained important analytical skills, I have also at times been bogged down by LSP modes of inquiry that take more of my attention than my actual major. As great as a liberal arts education is, I think the professors that offer those classes for modes need to place more of an effort in helping the student gain that facet of knowledge instead of slacking. It has been my experience with the modes that the professors view them as an obligation and do not care to help students. It is their major's chance to haze a student who is a different major, in a sway. For Truman placing so much emphasis on being a liberal arts institution, the modes have been largely subpar. Finally, I have learned most from my experiences outside of class, such as training events in ROTC or interactions with others. I am convinced that an education is unnecessary to acquire true skills and knowledge to navigate the real world. In fact, I would say it largely stifles the process of learning real-world skills as most students are pampered or perpetuate adolescence and have few if any responsibilities. Basically, most of my peers believe in entitlement and think that success should be handed to them on a platter. Colleges, not just Truman, have encouraged this by being too easy at times and not requiring their students to partake in leadership roles.

The Letters to Truman prompt does not specifically mention the major, so under 40% of submissions mention the major specifically. Of those that do, however, comments about the major are also overwhelmingly positive, with over 80% of those that comment rated as positive, with under 5% negative. Positive comments vary by major, of course, but often focus on faculty interaction, preparation for future career or study, or the community of students they have worked with.

I don't think just having an understanding of life sciences and the human body will make for a successful health care worker. In order to fully understand people's needs, it is best to have many different perspectives on life, and I think I have this from the different modes of inquiry and other non-major classes I have taken... I think you get what you want out of any educational experience at any university, but Truman definitely provides more opportunities than normal for those looking to take advantage of them.

	Year	Count 2012	Attitude toward Portfolio					Attitude toward Assessment (Other than Portfolio)					
			Neg.	Mix.	Pos.	None	W% Pos	Neg.	Mix.	Pos.	None	W% Pos	
Arts and Letters	ART	26	1	13	10	2	68.8%	1	5	2	18	56.3%	Arts and Letters
	CML	25	4	4	10	7	66.7%	2	1	5	17	68.8%	
	ENG	6	3	1	2	0	41.7%	0	1	2	3	83.3%	
	ENG	80	11	28	32	9	64.8%	2	5	12	61	76.3%	
	LING	6	1	2	3	0	66.7%	0	0	2	4	100.0%	
	MUS	33	6	13	13	1	60.9%	4	7	8	14	60.5%	
	THEA	4	3	1	0	0	12.5%	0	1	0	3	50.0%	
	AAL	**180**	**29**	**62**	**70**	**19**	**62.7%**	**9**	**20**	**31**	**120**	**68.3%**	
Business	ACCT	65	7	19	19	20	63.3%	3	4	6	52	61.5%	Business
	BSAD	83	20	18	29	16	56.7%	5	4	11	63	65.0%	
	BUS	**148**	**27**	**37**	**48**	**36**	**59.4%**	**8**	**8**	**17**	**115**	**63.6%**	
Hlth.Sci.and Ed.	ATHT	3	1	1	1	0	50.0%	2	1	8	-8	77.3%	Hlth.Sci.and Ed.
	CMDS	38	4	8	22	4	76.5%	6	5	15	12	67.3%	
	ES	65	14	17	25	9	59.8%	3	2	5	55	60.0%	
	HLTH	49	5	12	22	10	71.8%	2	2	6	39	70.0%	
	NU	37	4	13	13	7	65.0%	13	10	34	-20	68.4%	
	HSE	**192**	**28**	**51**	**83**	**30**	**67.0%**	**5**	**11**	**76**	**100**	**88.6%**	
Social and Cultural Studies	COMM	67	7	21	31	8	70.3%	3	6	12	46	71.4%	Social and Cultural Studies
	ECON	12	1	6	5	0	66.7%	0	2	4	6	83.3%	
	HIST	42	7	16	15	4	60.5%	5	5	2	30	37.5%	
	JUST	26	6	6	5	9	47.1%	2	3	4	17	61.1%	
	PHRE	13	2	4	3	4	56%	0	1	1	11	75.0%	
	POL	34	9	8	12	5	55.2%	3	4	4	23	54.5%	
	PSYC	91	18	27	40	6	62.9%	3	12	12	64	66.7%	
	SOAN	17	2	3	8	4	73.1%	1	0	3	13	75.0%	
	SCS	**302**	**52**	**91**	**119**	**40**	**62.8%**	**17**	**33**	**42**	**210**	**63.6%**	
Sciences and Mathematics	AGSC	20	2	5	6	7	65.4%	0	2	0	18	50.0%	Sciences and Mathematics
	BIOL	104	17	28	43	16	64.8%	5	7	13	79	66.0%	
	CHEM	24	8	2	4	10	35.7%	1	1	3	19	70.0%	
	CS	21	7	7	5	2	44.7%	0	1	3	17	87.5%	
	MATH	24	4	6	3	11	46.2%	0	1	3	20	87.5%	
	PHYS	7	1	1	3	2	70.0%	0	0	2	5	100.0%	
	SAM	**200**	**39**	**49**	**64**	**48**	**58.2%**	**6**	**12**	**24**	**158**	**71.4%**	
	IDSM	8	0	0	3	5	100.0%	0	0	3	5	100.0%	
	All	**1030**	**175**	**290**	**387**	**178**	**62.4%**	**45**	**84**	**193**	**708**	**73.0%**	

W% Pos = (# positive responses + # of mixed responses/2)/ Number who discussed issue

ATTITUDE TOWARD THE PORTFOLIO PROCESS

After last year's jump, reported attitudes towards the portfolio itself have reverted to the mean. Negative responses are still lower than in the past, and more students failed to mention it at all.

Positive comments about the portfolio often point out how the process has given them a chance to see their own growth, usually in thinking or in writing.

As I sit here putting together my portfolio I find this experience to be very rewarding. I have written numerous papers over my four years at Truman and have enjoyed looking through all of these papers and

seeing how far I have advanced in my knowledge base. From these papers I have looked through I have realized how many other disciplines I have a good knowledge base in besides nursing; for example, psychology, biology, history, etc. To complete my portfolio I worked on it little by little, using spare time to pick through papers to use.

Compiling documents for my senior portfolio is the best means of reflection on the past four years. It is not often that I look back at my work after completion. It not only stirs up memories of class, but it reminds me who I was at that unique period of my life in which I completed the work.

Compiling my portfolio has helped me to take a look at all that I have learned and how my education has shaped me as person while here.

Many mixed comments comment on how the requested prompts are not relevant to their main interests, and their worry about how the portfolio reflects on themselves personally. Others mentioned their own lack of organization and file keeping (our new system should help with this).

My personal thoughts on the assessment are that I'm not a big fan. To me, it just felt like something on a checklist I need to do before graduation. Keep in mind I'm a computer science major. I've talked to people in other majors and they use the portfolio throughout their years at Truman and the vault is a comprehensive archive of their work. I received no such benefit.

Putting this portfolio together was nothing short of a tedious process. It was a constant back and forth search for works that best represented me as a student here at Truman. Whether I chose wisely or not is something that even I am not sure about. Nonetheless, I did it to the best of my ability and hope that my achievements and development are displayed through my submissions.

The process used was not very good because I did not have the majority of my best work available to submit for the portfolio as it is on my private computer and I did not have access to it while I made this portfolio. The total amount of time spent on the portfolio is minimal. I have learned that I should organize my work better so that it is readily available if I want to go back to something I have done that I am proud of.

Negative comments often mention the amount of work it took at a busy time and that the portfolio isn't helpful to them directly.

I don't really care for the portfolio project because it seemed to take up precious time that I don't have.

We feel that we have already shown snapshots with liberal-arts classes of the LSP, mandatory interdisciplinary classes, and a transcript that shows how professors viewed our work. This seems incredibly bureaucratic and repetitive in this form.

ATTITUDES TOWARD ASSESSMENT AT TRUMAN

Students are invited to discuss their attitudes toward assessment at Truman overall, although just over one-half of students actually discuss assessment besides the portfolio itself. Positive comments about assessment outnumbered negative ones, continuing an improving trend in this area. Many underscored their knowledge that it is useful for the school, but not for them.

Transformative Learning Experiences Questionnaire (TEQ)

Although Truman uses various instruments and systems to measure students' participation in key experiential learning opportunities such as Study Abroad, Undergraduate Research Experiences, Service Learning, and Internships, we do not have a single instrument that asks about all of them. The portfolio project administers a survey to students about these and other transformative experiences. Small changes were made from last year's initial offering. We define Transformative Learning as follows:

Transformative learning occurs when an educational experience that includes reflection results in a profound change in the way you think and/or behave relative to what you have learned.

Students may complete the TEQ at any time, but are also asked to review it again when they indicate that their portfolio is complete. In a change from previous years, students are first asked to consider:

"Thinking of your higher-education experience at Truman as a whole, to what degree was your education Transformative, according to the definition above?"

5 - Totally Transformative
4 - Very Transformative
3 - Somewhat Transformative
2 - Somewhat Transformative
1 - Not Particularly Transformative

	Maj.	Score					Count	Avg.	%
		1	2	3	4	5	N		4 & 5
Arts and Letters	ART	1	5	10	13	1	30	3.3	47%
	CML	1	3	7	12	3	26	3.5	58%
	CWRT	0	1	4	1	0	6	3.0	17%
	ENG	5	9	30	36	13	93	3.5	53%
	LING	0	1	0	2	3	6	4.2	83%
	MUS	3	5	11	16	3	38	3.3	50%
	THEA	0	1	0	4	0	5	3.6	80%
	AAL	*10*	*25*	*62*	*84*	*23*	*204*	*3.4*	*52%*
Business	ACCT	6	15	29	16	3	69	2.9	28%
	BSAD	8	20	30	28	6	92	3.0	37%
	BUS	*14*	*35*	*59*	*44*	*9*	*161*	*3.0*	*33%*
Hlth. Sci. and Ed.	AT	0	1	2	1	0	4	3.0	25%
	CMDS	0	5	12	21	4	42	3.6	60%
	ES	5	11	27	24	7	74	3.2	42%
	HLTH	3	12	16	21	2	54	3.1	43%
	NU	2	2	12	22	4	42	3.6	62%
	HSE	*10*	*31*	*69*	*89*	*17*	*216*	*3.3*	*49%*
Social and Cultural Studies	COMM	2	11	20	35	7	75	3.5	56%
	ECON	1	2	5	6	0	14	3.1	43%
	HIST	1	7	11	22	5	46	3.5	59%
	JUST	2	6	10	8	2	28	3.1	36%
	PHRE	0	1	4	6	2	13	3.7	62%
	POL	2	6	14	17	2	41	3.3	46%
	PSYC	6	17	33	41	7	104	3.3	46%
	SOAN	2	0	2	13	3	20	3.8	80%
	SCS	*16*	*50*	*99*	*148*	*28*	*341*	*3.4*	*52%*
Sciences	AGSC	1	7	3	10	1	22	3.1	50%
	BIOL	5	15	30	42	16	108	3.5	54%

Overall, almost half of students answered "Totally" or "Very" transformative, with fewer than 6% answering "not particularly" transformative. The results by major program are on the right. Except for the smallest programs, responses are quite consistent, and no significant differences were found across major. Similarly, no significant gender effect was found, as shown below.

and Mathematics									
	CHEM	2	3	11	7	5	28	3.4	43%
	CS	3	1	7	11	2	24	3.3	54%
	MATH	4	2	8	7	4	25	3.2	44%
	PHYS	0	0	1	3	3	7	4.3	86%
	SAM	*15*	*28*	*60*	*80*	*31*	*214*	*3.4*	*52%*
	IDSM	1	1	2	2	4	10	3.7	60%
	All	**66**	**170**	**351**	**447**	**112**	**1146**	**3.3**	**49%**

Next, students were asked:

"Now, please think about particular courses. We would like to hear about the traditional courses that you found to be most transformational. If you did not find any to be transformational, please skip this section. Please do not include experiences such as undergraduate research, study abroad, or internships, even if they were technically taken for Truman Credit or were embedded in a course experience (we ask about them below)."

In all, 510 students (44.5%) listed one or more courses, with 501 (43.7%) listing two or more, and 199 (17.4%) listing three courses. The list of courses is quite long, and was not coded for easy tabulation, but seems to span the gambit, with some students listing upper-level major courses and JINS, while others listed LSP and other lower-level courses. In the future, the portfolio should re-design this question to use our standard Course Recorder so that prefix and course-level information can be obtained.

Students were next asked if they had an experience with Writing that they would report as transformational, followed by this list of activities that they might have completed:
1) Study Abroad
2) Service Learning
3) Undergraduate Research
4) Internship
5) Leadership
6) Student-Led Learning
7) Other

	1	2	3	4	5
F	5%	14%	30%	43%	8%
M	7%	16%	31%	33%	12%
All	6%	15%	31%	39%	10%

The following levels of transformative activities were reported by the students:

Experience	% Reporting Activity			Avg. Rating (0-3 scale)	
	2010	2011	2012	2010	2011
Study Abroad	21%	22%	23%	2.7	2.8
Service Learning	23%	21%	23%	2.0	2.1
Research	26%	29%	31%	2.2	2.2
Internship	24%	29%	33%	2.5	2.6
Leadership	35%	35%	40%	2.5	2.6
Student-led	7%	6%	9%	2.3	2.4
Writing*	N/A	N/A	25%	2.8	2.8
Other*	8%	7%	7%	2.8	2.7
Course*	8%	7%	45%	2.8	2.7
Any (Big 4)	**61%**	**65%**	**65%**		
Any	**79%**	**82%**	**82%**		

Some issues with the TEQ instrument for comparison purposes include:
1) "Writing" was new this year as an option on the instrument.
2) The order of items was changed this year: the order was "Overall," Courses, Writing, and then the list from previous years.
3) For "Writing," "Course," and "Other" only those students with transformative experiences give a report. (Presumably all students did some writing and took a variety of courses). For the others, students who had any experience, transformative or not, were asked to respond either way, so average ratings may be artificially low.
4) Some terms were not fully defined in the survey or campus-wide, so students may have different ideas of "Research," "Service-learning," and other terms used in this study.

When they check that they have done one of these activities, the white box appears as shown and asks them about that experience. After that, students were asked if they had participated in a Transformative Experience related to writing (new this year), and in their courses (Students were allowed to volunteer up to 3 courses). Eighty-two percent of women and seventy-five percent of men report participation in a transformative activity throughout their time at Truman. Two-thirds of women and one-half of men report participation in one of the "big four" experiences: study abroad, service learning, research, and internships.

Experience	Percent Reporting Participation in an Experience				
	2011		2012		Sig.
	Women	Men	Women	Men	
Study Abroad	28%	12%	28%	17%	α <.001
Service Learning	28%	11%	27%	15%	α <.001
Research	30%	27%	30%	31%	n.s.
Internship	31%	26%	36%	29%	α <.05
Leadership	41%	25%	44%	33%	α <.001

Student-led	5%	6%	10%	8%	
Course*+	27%	26%	49%	38%	
Writing*			7%	8%	
Other*	7%	6%	7%	8%	
Any (Big 4)	**71%**	**56%**	**74%**	**63%**	α <.001
Any	**86%**	**76%**	**86%**	**80%**	α <.01

Significant differences have been found by gender: marginally for Internships (this analysis applied no adjustment for multiple comparison error concerns), and strongly significant for Study Abroad, Service Learning, and Leadership, as well as the overall likelihood that a student will participate in any Transformative Learning Experience, and even more strongly for the "Big 4." By School, significant differences were found in Service Learning, Research, Internships, Course, and Overall Participation levels, with students in the school of business showing the lowest level of Big 4 transformative experiences, as shown below.

Experience	% Reporting Transformative Learning Experience							
	AAL	B	HSE	IDS	SCS	SaM	Overall	significant
Study Abroad	26%	22%	18%	38%	22%	20%	22%	
Service Learning	13%	9%	47%	13%	23%	12%	21%	α <.001
Research	18%	8%	38%	63%	32%	40%	29%	α <.001
Internship	20%	28%	46%	25%	32%	19%	30%	α <.001
Leadership	33%	30%	40%	38%	35%	33%	33%	
Student-led	6%	2%	7%	13%	7%	4%	6%	α <.10
Course*	31%	22%	20%	38%	33%	23%	27%	α <.05
Other*	7%	6%	4%	0%	8%	6%	6%	
Any (Big 4)	**56%**	**50%**	**81%**	**88%**	**70%**	**62%**	**65%**	α <.001
Any	**77%**	**70%**	**88%**	**100%**	**86%**	**80%**	**82%**	α <.001

For students who did report transformative activities, the percent reporting very high or low transformation are:

	Very Transformative	None / Little	N
Study Abroad	**85%**	2%	253
Service Learning	35%	**24%**	264
Research	45%	3.5%	345
Internship	69%	6%	336
Leadership	69%	6%	407
Student-Led Learning	50%	**13%**	68
Course*	82%	1.5%	329
Other T.E.*	88%	0%	86

Overall, students were quite pleased with their transformative experiences. Over two-thirds of responses included detailed descriptions of their experiences and why they are transformative. Similar to last year's results, service learning and research experiences were less consistent in leading to reported transformation; this could be due to a wide range of activities within those umbrellas or a lack of clarity regarding the definition of those

experiences. Student-led learning had a number of students reporting both especially high and especially low responses from participating students.

A connected question was the number of transformative experiences a student participated in overall, given the strategic goal that all students will have at least one transformative learning experience. About two-thirds of students report having at least one of the "Big 4" and almost 82% reporting having some transformative experience.

	Overall	%
7	4	0.4%
6	11	1.0%
5	34	3.0%
4	95	8.4%
3	176	15.5%
2	283	25.0%
1	323	28.5%
0	207	18.3%

	Big4	%
4	12	1.1%
3	71	6.3%
2	232	20.5%
1	424	37.4%
0	394	34.8%
	1133	

Overall	% reporting "3"	Count
2 or more	37.0%	419
1	31.0%	351
0	32.0%	363
		1133

Similarly, one might wonder about the percent of students who report that the experience was actually transformational (with a top score of 3 on the rating).

Big 4	% reporting "3"	Count
2 or more	12.0%	138
1	34.5%	398
0	51.7%	597
		1133

Students are split almost in even thirds among those who report none, one or more than one experience worthy of that top rating. Limiting analyses to the "Big 4" experiences limits those who report any truly transformative learning experience to under half.

Evaluator Feedback

Because the Portfolio project has a secondary goal of faculty development and campus discussion, each reading week ends with a broad discussion of curriculum, assessment, and ways to improve the Truman experience. In addition, each evaluator during the May and August sessions were asked to complete an online survey in the weeks following their participation in the portfolio review process. Although not a formal decision-making body, the presence of so many faculty and staff from across campus make this a valuable opportunity for discussion and sharing ideas across departments and schools.

The intercultural prompt was tweaked as a result of the discussions, and show allow excellent data to be collected in the coming year. Broader discussions about the nature of Truman's intercultural requirement was sparked, and with another year of data collection, some ideas can be taken to UGC and the campus community, as part of the review of that LSP component.

The portfolio reading sessions moved to VH 1232, down the hall from VH 1220, as a result of campus renovations. The room is much larger, but allows a circle of discussion, similar to rooms used in the past.

Overall, faculty and staff readers report a very positive experience, and mention the benefits to them personally as well as how their participation benefits the university.

Future Plans

The guiding principles for the portfolio project are
- A. Efficiency: Everything in the portfolio should be used for campus assessment and anything not useful should be removed.
- B. Feedback: Evolve the portfolio away from being perceived as a "black hole" where students submit work but never receive feedback about that work.
- C. Technology Improvements: allow greater opportunities and flexibility.
- D. Student Buy-in and motivation: Can we convince more of them to care?
- E. Faculty Buy-In and motivation: Can we convince more of them to care?
- F. Baselines: As our curriculum evolves, what do we need to measure now so that we will recognize changes once they happen?

The new online system is fully implemented and seems to be working well. Students may now upload files as soon as they arrive on campus. The new system also allows Course-embedded submissions, such as submissions from Eng190- Writing as Critical Thinking, JINS courses, and capstone artifacts, whether or not they will be used as part of the formal portfolio review. Although not fully embedded with other campus databases, the capability can be added later. Another feature that is now possible is the ability of the portfolio system to maintain major-specific portfolio submissions and reflections. In 2012, a pilot study was done with the Department of Society and Environment and their SOAN majors. We hope to expand this in future years.

The revision of the rotating prompt, Intercultural Thinking, will give a more detailed look at a component of the LSP that has not been quantitatively studied in its dozen years as a requirement. This year, we have just scratched the surface of the topic. It also led to excellent discussion among the review teams.

As the Undergraduate Council continues its review of LSP components, the portfolio is ready to revise LSP-driven prompts or to implement necessary new prompts.

In the coming year, the portfolio project will implement the new critical thinking rubric, and use it as the basis of the main score. Since it will be not only used for internal purposes, but also as a Performance funding measure, a lot of attention will be spent on this.

The portfolio will also ask students to submit their best work in Problem Solving. Although not part of the LSP specifically, the idea of applying Critical Thinking to a real world problem is specifically mentioned in several of our strategic documents and the new campus Vision Document. It may be controversial.

Summary

Student performance remains stable. The new elements have achieved stability, and the new submission system is working well. Our students generally demonstrate competence at Interdisciplinary Thinking and Critical Thinking, and strong competence in Analytical Writing. The portfolio project is well-placed to continue to be a jewel of Truman's assessment program and will continue to be seen as a national leader in portfolio assessment, as well as using a portfolio as a valuable faculty development tool.