

## 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 2012-2013, 1125 students submitted portfolios.

#### *When is it administered?*

Most students complete the process as part of their capstone experience, usually during their senior year. Some submit earlier, while others submit after they have finished their time on campus. Since it is a graduation requirement, students who do not submit their portfolio are subject to transcript/diploma/verification holds. Our new online portfolio submission system went online in August 2011, and it is specifically designed to allow students to store potential portfolio elements throughout 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 this year is almost four and a half hours, including time to retrieve and upload previously written files. This is up slightly from previous years.

#### *What office administers it?*

The portfolio project director administers portfolio collection in conjunction with each discipline/program. The portfolio project director also leads the faculty and staff readers who evaluate and score the portfolios. These readers work in groups of approximately twenty and 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 scored in May and August. The results are usually available to departments 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 2012-2013 academic year, a portfolio included works demonstrating 1) *critical thinking and writing*, 2) *interdisciplinary thinking*, 3) *problem solving*, and 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, 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 their teaching 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.

## 2013 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 (analogous to previous years), 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 2013, portfolios from 1125 students, representing over 96% 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. Finally, a few documents submitted might be unreadable by the portfolio readers for a variety of technical reasons. A count of students by first major for the last five years is given in the table below.

	Major	First Major Count				
		2009	2010	2011	2012	2013
<b>Arts and Letters</b>	ART	47	37	43	29	30
	CML	23	29	26	26	8
	CWRT				6	11
	ENG	105	107	104	90	90
	LING	8	7	7	6	9
	MUS	42	24	18	36	38
	THEA	18	11	19	5	9
	<b>AAL</b>	<b>243</b>	<b>215</b>	<b>217</b>	<b>198</b>	<b>195</b>
<b>Business</b>	ACCT	67	90	59	69	68
	BSAD	113	110	101	91	105
	<b>BUS</b>	<b>180</b>	<b>200</b>	<b>160</b>	<b>160</b>	<b>173</b>
<b>Hlth.Sci.and Ed.</b>	AT				4	5
	CMDS	36	38	30	40	45
	ES	64	69	79	74	97
	HLTH	45	36	42	53	61
	NU	34	30	43	42	40
	<b>HSE</b>	<b>179</b>	<b>173</b>	<b>194</b>	<b>213</b>	<b>248</b>
<b>Social and Cultural Studies</b>	COMM	75	68	71	74	67
	ECON	11	10	16	13	8
	HIST	46	55	50	44	34
	JUST	38	40	26	27	45
	PHRE	6	7	20	13	14
	POL	45	31	32	41	29
	PSYC	105	88	102	102	86

	SOAN	27	13	18	20	16
	<b>SCS</b>	<b>353</b>	<b>312</b>	<b>335</b>	<b>334</b>	<b>299</b>
<b>Sciences and Mathematics</b>	AGSC	17	14	16	22	24
	BIOL	112	111	126	107	99
	CHEM	31	23	19	28	19
	CS	17	17	19	24	28
	MATH	37	23	30	23	22
	PHYS	9	15	12	7	15
	<b>SAM</b>	<b>223</b>	<b>203</b>	<b>222</b>	<b>211</b>	<b>207</b>
	IDSM	8	6	9	10	3
	<b>All</b>	<b>1186</b>	<b>1109</b>	<b>1142</b>	<b>1130</b>	<b>1125</b>

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. Note that Athletic Training and Creative Writing majors are only recently listed separately (in previous years, these students were combined with Exercise Science and English, respectively).

The next table shows the counts of second majors for the last three years and the corresponding percent of that major's total count. As you can see, some majors have very few second majors, but for others, up to half of their majors are listed as a second major. A few students may have third majors (or more), but the Portfolio Project does not keep track beyond the second major.

		Second Major Count			% that Major		
		2011	2012	2013	2011	2012	2013
<b>Arts and letters</b>	ART	2		2	4%		6%
	CML	13	6	9	33%	19%	53%
	CRWT			1			8%
	ENG	9	18	7	8%	17%	7%
	LING	3	2		30%	25%	0%
	MUS	2		3	10%		7%
	THEA		1	2		17%	18%
	<b>AAL</b>	<b>29</b>	<b>27</b>	<b>24</b>			<b>11%</b>
<b>Business</b>	ACCT	4	7	6	6%	9%	8%
	BSAD	12	20	18	11%	18%	15%
	<b>BUS</b>	<b>16</b>	<b>27</b>	<b>24</b>			<b>12%</b>
<b>Hlth. Sci. and Ed.</b>	ATHT						0%
	CMDS						0%
	ES		2	1		3%	1%
	HLTH	1	2	3	2%	4%	5%
	NU			4			9%

	<b>HSE</b>	1	4	8			3%
<b>Social and Cultural Studies</b>	COMM	3	6	4	4%	8%	6%
	ECON	6	12	6	27%	48%	43%
	HIST	3	3	4	6%	6%	11%
	JUST	3	4	8	10%	13%	15%
	PHRE	3	4	5	13%	24%	26%
	POL	4	4	2	11%	9%	6%
	PSYC	9	9	8	8%	8%	9%
	SOAN	1	7	1		26%	6%
	SCS	32	49	38			11%
<b>Sciences and Mathematics</b>	AGSC						0%
	BIOL	1	5	5	1%	4%	5%
	CHEM		3			10%	0%
	CS	1	2	3	5%	8%	10%
	MATH	7	4	6	19%	15%	21%
	PHYS	1			8%		0%
	<b>SAM</b>	10	14	14			6%
	<b>IDSM</b>		2	1		17%	25%

A total of seventy-seven faculty and staff members read and evaluated portfolios, representing all ranks of faculty across all five academic schools and twenty-three academic departments, as well as seven Graduate Teaching Assistants from English and eleven professional staff from the writing center, athletics, counseling services, international admissions, student affairs, disability services, and study abroad. Twenty-two were new readers. Each week, a student worker assisted with processing, technical support, and sorting, providing critical support to the success of this complicated process.

This year, reading sessions were scheduled over four weeks during the May and August interims, from May 14-17, May 20-24, May 28-31, and August 8-13, 2013 in two different campus computer classrooms. The May sessions were held in Violette Hall and the August session was held in Magruder Hall. Roughly one-fourth of the readers participated during each week, with a handful participating more than one 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. Only one group of readers met for all five days of the week this year, with each of the other three groups meeting for only 4 days. 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. Our "rotating" submissions, "Intercultural Thinking" and "Problem Solving" also had submissions scored each week.

#### **2013 Portfolio Contents**

- Critical Thinking and Writing
- Interdisciplinary Thinking
- Intercultural Thinking
- Most Personally Satisfying Experience
- Problem Solving
- Letter to Truman
- Transformative Exp. Questionnaire

The Critical Thinking and Writing rubric changed to a new format consistent with the campus-wide acceptance of the Common Framework for Critical Thinking Pedagogy, and a significant sample of submissions were scored with both the old and new rubrics to develop an understanding of how these two rubrics compare. A new prompt in Problem Solving was implemented as a one-year or two-year rotating prompt.

## 2013 Truman Portfolio Findings

This report presents the findings of the Portfolio Project for all prompts and submissions. Groupings are based on Truman's five-school administrative structure. 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 Letters to Truman, 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. Since most of the work submitted was completed outside of the portfolio process itself, lack of motivation to complete the portfolio does not always translate directly into poor quality submissions.

In addition to the ratings of quality, we record what the seniors report about the sources of items they selected for each submission, as reported by the students. 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 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 from a service learning or capstone experience; in addition, they identify submissions that deal with issues of race, class, gender, international perspectives, and environmental perspectives. Faculty reviewers may volunteer this information when the student did not.

The two continuing prompts in 2013 are Interdisciplinary Thinking and Critical Thinking and Writing. The table summarizing the scores for these prompts is below. Scoring for Interdisciplinary Thinking uses a 5 point scale with the following points: 0 (no demonstration of competence), 1 (weak competence), 2 (minimal competence), 3 (competence) and 4 (strong competence). Only the most exceptional papers are included in the strong competence category, but papers scoring a 2 or higher are scored as "demonstrating competence" in that area. As mentioned above, the Critical Thinking and Writing scoring rubric changed to a new format consistent with the campus wide acceptance of the Common Framework for Critical Thinking Pedagogy, and so the scoring is different starting with 2013. The rubric includes four subcategories of critical thinking as well as a separate category for the writing score. Each subcategory has a scale of 1-4, with a sum of the scores of the critical thinking subscores ranging from 1-16. A score of 10 for this sum is considered demonstrating competence for this rubric. The details of this new rubric will be discussed further below, but this table does allow for direct comparison with the percent competent category.

	Mean score					% Achieving Benchmark				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Interdisciplinary Thinking	1.78	1.79	1.85	1.94	1.82	55.7%	59.4%	62.5%	65.2%	63%
Critical Thinking	1.85	1.83	1.92	1.83	10.18*	67.2%	66.8%	71.2%	65.0%	60.1%
Writing - Organization	1.99	1.96	1.93	1.91	*	75.6%	75.3%	75.8%	73.1%	*
Writing - Style	1.97	1.94	1.87	1.86	*	75.2%	75.9%	71.2%	71.0%	*
Writing - Mechanics	2.04	2.00	1.96	1.90	2.8*	80.8%	81.5%	77.2%	74.2%	*

\*New rubric in use, with new scoring system. The benchmark for critical thinking is scoring 10 or better on the sum of the critical thinking subscores of the rubric; no benchmark has yet been set for the writing subscore. See further discussion below.

## Critical Thinking and Writing

Students submit works to demonstrate their abilities as critical thinkers and writers. Items were elicited with the following prompt. Of the 1125 portfolios collected, 1114 submitted readable examples of critical thinking.

*Please submit the document you have written that demonstrates your strongest critical thinking skills. 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. Students typically compose their best critical writing later in college.*

*Truman's Common Framework of Critical Thinking Pedagogy states that critical thinking includes the ability to understand and articulate well-reasoned arguments. It involves using evidence to determine the level of confidence you should have in a proposition. It demands comprehensively exploring issues and ideas before coming to conclusions.*

*In addition, good writing is a reflection of good thinking. Therefore, good writing communicates meaning and 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*

*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.*

*Faculty readers will evaluate your writing sample with attention to five areas: explanation of the issue, development of the context, presentation of appropriate evidence, assessment of conclusions, and overall effectiveness of your communication.*

<b>Critical Thinking at a Glance</b>	
• Number of submissions read:	<b>1114</b>
• Median critical thinking (on a 4-16 scale):	<b>10.18</b>
• Percent achieving benchmark:	<b>60.1%</b>
• Highest scoring school:	<b>Arts and Letters</b>
• Most frequent source (course):	<b>ENG 190</b>
• Most frequent source (discipline):	<b>ENG</b>
• Trend:	<b>New</b>

### **Critical Thinking Framework Scoring Rubric (used by the Portfolio beginning Fall of 2012)**

- This rubric has been adapted from the Critical Thinking rubric adopted by Truman.
- For each component, assign a score that best fits a student submission.

1. Identifies, summarizes, and appropriately formulates the **issue** (e.g. a question to be answered, hypothesis to be tested, subject to be interpreted, or a problem to be solved).

<b>4 – Mastering</b>	<b>3 - Developing</b>	<b>2 - Growing</b>	<b>1 - Emerging</b>
Clearly identifies and summarizes issue including nuances and details, revealing subsidiary, embedded, or implicit issues.	Identifies and summarizes issue, though some aspects are incorrect or confused. Some nuances or key details missing or glossed over.	Identifies and summarizes issue in a confused or incorrect way. Nuances and key details missing.	Fails to or does not attempt to identify and summarize issue.

2. (merged with 3) Identifies and considers existing **context**, theory, and/or previous work in the field (literature reviews, world-views, contentions, interpretations, interdisciplinary approaches).

4 – Mastering	3 - Developing	2 - Growing	1 - Emerging
Approaches issue with clear sense of scope and context. May consider multiple relevant contexts.	Presents and explores relevant contexts in relation to issue, but with some limitations.	Presents context superficially or connects to issue in a limited way.	Does not connect issue to context, or attempts but fails to do so.
Shows clear and nuanced understanding of convergent or divergent aspects of contexts.	Shows some clear understanding of convergent or divergent aspects of context.	Shows limited understanding of convergent or divergent aspects of context.	Shows little or no awareness of convergent or divergent aspects of context.
Engages multiple, convergent and divergent perspectives in nuanced ways that qualify or enrich own perspective.	Engages both convergent and divergent or challenging perspectives, may be tentative, overstating, or too easily dismissive.	Presents convergent and divergent or challenging perspectives, but with little engagement.	Raises only convergent or agreeable perspectives or conclusions; avoids challenging, divergent, or discomforting perspectives.

5. Presents, interprets, analyses, and/or assesses appropriate **supporting evidence** (e.g. observations, data, information, citations, argumentation, proofs, etc.) using validated techniques.

4 – Mastering	3 - Developing	2 - Growing	1 - Emerging
Shows excellent skills in searching, selecting and evaluating appropriate sources.	Shows some adequate skills in searching, selecting, and evaluating appropriate sources.	Shows inadequate skills in searching, selecting, and evaluating sources.	No indication of search, selection, or source evaluation skills.
Appropriate and salient evidence is thoroughly developed and clearly supports conclusions.	Evidence is appropriate—exploration may be routine or gaps may exist in relation to conclusions.	Some evidence may be inappropriate or related only loosely to conclusions.	Evidence is lacking, simplistic, inappropriate, or unrelated to the topic.
Causal relationships are clearly and consistently distinguished from correlations.	Distinguishes causality and correlation,	Aware of distinction between cause and correlation, but confuses application.	Conflates cause and correlation.
Demonstrates understanding of complex relationships between facts, opinions, and values in light of available evidence; recognizes bias, including selection bias.	Distinguishes among facts, opinions, and values, may recognize some issues of bias, and opinions are responsive to evidence.	Attempts or begins to distinguish fact, opinion, values may mention without developing issues of bias.	Does not distinguish among fact, opinion, and values; seems unaware of problems of bias or holds opinions in face of counterevidence.

6. Identifies and assesses **conclusions** (e.g. theses, contentions, hypotheses, answers, solutions, interpretations) and further **implications or consequences** (e.g. practical applications, policy implications, relevance to other issues or disciplines, discussions or future research).

4 – Mastering	3 - Developing	2 - Growing	1 - Emerging
Conclusions are tailored to fit the best available evidence within the context and in relation to relevant perspectives.	Presents conclusions as following from the evidence; shows some insight into context or perspectives.	Presents conclusions as relative or only loosely related to evidence, lacking insight into context or perspectives.	Fails to present conclusions; or conclusion is a simplistic summary or unrelated to stated evidence.
Grounds own conclusions with strong support, qualifies own conclusions with balance and acknowledgement of scope, limitations, or ambiguities.	Grounds own conclusions with clear and appropriate support, may have occasional inconsistencies or lapses.	Presents own conclusions with weak support or support from inappropriate authorities.	Presents own assertions without support, as absolute, or as attributed to external or inappropriate authorities.
Conclusions are nuanced and developed and provide evidence for, discuss, and extend relevant implications, and consequences.	Conclusions are developed to provide some linkage and integration with relevant consequences and implications.	Identifies some relevant consequences or implications with weak attempt to link to conclusion.	Fails to identify implications or consequences or mentions purported implications or consequences without linking to conclusions.

7. **Communicates** effectively (e.g. clarity and precision, organization, ease with use of medium, voice or palette, disciplinary conventions, stylistic and mechanical conventions).

4 – Mastering	3 - Developing	2 - Growing	1 - Emerging
Language clearly and effectively communicates ideas. May at times be nuanced and eloquent.	In general, language does not interfere with communication.	Language occasionally interferes with communication.	In many places, language (word choice) obscures meaning.
Organization is clear and cogent; transitions between ideas enrich presentation.	Basic organization is clear; transitions connect most ideas, although some may be rote.	Basic organization is apparent; some transitions connect ideas, but some gaps or confusions.	Work is unfocused and poorly organized; lacks logical connection of ideas.
Errors of grammar, syntax, voice, etc. are minimal, even when using complex structures.	Errors are not overly distracting or frequent, or attempts at more complex structures lead to occasional errors.	Some errors are repeated or distracting; some copy-editing errors should be caught by proofreading.	Grammar, syntax, voice or other errors are repeated, frequent, and distracting, or show lack of proofreading.
Style is consistent, sophisticated, and appropriate for discipline, genre, and, audience.	Style is generally consistent and appropriate for discipline, genre, and audience, may be occasional lapses.	Some attempt at appropriate style, but with major lapses or inconsistencies; begins or attempts to attend to discipline, genre, or audience.	Style is simplistic, inconsistent, or inappropriate; little to no attention to discipline, genre, or audience.
Consistent use of appropriate format. All sources cited and used correctly; shows understanding of disciplinary, economic, legal and social aspects of using information.	Format is appropriate although at times inconsistent. Most sources cited and used correctly, appropriate style is employed.	Format is flawed or occasionally distracting; citations are uneven, inconsistent, or incorrectly documented.	Format is absent, incorrect, or distracting; citations are absent or used or documented incorrectly.



Faculty readers evaluated the works using the new rubric. Rather than a single score for Critical Thinking, submissions are judged to meet Truman's standard for Critical Thinking if the sum of the first four scores (excluding Communication; labeled Sum4) equals or exceeds 10. Around 60% of students met that standard.

		N	Issue	Context	Supporting Evidence	Concl.	Sum4	% 10+	Comm.
Arts and letters	ART	30	2.60	2.50	2.37	2.10	9.57	57%	2.40
	CML	8	2.88	2.63	2.50	3.00	11.00	63%	3.00
	CRWT	11	3.18	2.91	3.00	2.73	11.82	82%	3.09
	ENG	90	3.00	2.72	2.81	2.62	11.16	72%	2.93
	LING	9	3.00	2.56	2.89	2.56	11.00	78%	3.11
	MUS	38	2.42	2.29	2.34	2.13	9.18	45%	2.53
	THEA	9	2.56	2.67	2.22	2.11	9.56	44%	2.78
	<b>AAL</b>	<b>195</b>	<b>2.81</b>	<b>2.60</b>	<b>2.63</b>	<b>2.44</b>	<b>10.48</b>	<b>64%</b>	<b>2.78</b>
Business	ACCT	68	2.57	2.34	2.21	2.19	9.31	47%	2.49
	BSAD	105	2.70	2.60	2.46	2.45	10.20	59%	2.70
	<b>BUS</b>	<b>173</b>	<b>2.65</b>	<b>2.50</b>	<b>2.36</b>	<b>2.35</b>	<b>9.85</b>	<b>54%</b>	<b>2.62</b>
Hlth. Sci. and Ed.	ATHT	5	2.40	2.40	2.40	2.20	9.40	40%	2.00
	CMDS	45	2.96	2.67	2.69	2.51	10.82	62%	2.98
	ES	97	2.57	2.38	2.25	2.19	9.38	46%	2.70
	HLTH	61	2.72	2.41	2.25	2.13	9.51	52%	2.53
	NU	40	3.25	2.93	3.15	2.73	12.05	80%	3.00
	<b>HSE</b>	<b>247</b>	<b>2.79</b>	<b>2.54</b>	<b>2.49</b>	<b>2.33</b>	<b>10.15</b>	<b>56%</b>	<b>2.75</b>
Social and Cultural Studies	COMM	67	2.90	2.54	2.46	2.37	10.27	58%	2.85
	ECON	8	3.13	2.88	2.88	2.75	11.63	63%	3.00
	HIST	34	2.65	2.44	2.35	2.38	9.82	59%	2.74
	JUST	45	2.64	2.51	2.42	2.33	9.91	53%	2.67
	PHRE	14	2.64	2.36	2.64	2.57	10.21	64%	2.93
	POL	29	3.17	3.03	2.83	2.76	11.79	76%	3.17
	PSYC	86	2.94	2.61	2.61	2.51	10.66	66%	3.01
	SOAN	16	2.94	2.56	2.63	2.44	10.56	69%	2.63
	<b>SCS</b>	<b>289</b>	<b>2.21</b>	<b>2.68</b>	<b>2.64</b>	<b>2.55</b>	<b>10.08</b>	<b>65%</b>	<b>2.98</b>
Science & Mathematics	AGSC	24	2.42	2.25	2.17	2.13	8.96	38%	2.13
	BIOL	99	3.06	2.74	2.70	2.46	10.96	66%	2.95
	CHEM	19	2.68	2.58	2.47	2.26	10.00	53%	2.95
	CS	28	2.46	2.07	2.07	2.21	8.82	46%	2.43
	MATH	22	2.46	2.46	2.82	2.46	10.18	73%	2.86
	PHYS	15	3.20	3.07	3.00	3.07	12.33	73%	2.87
	<b>SAM</b>	<b>207</b>	<b>2.82</b>	<b>2.57</b>	<b>2.57</b>	<b>2.42</b>	<b>10.37</b>	<b>60%</b>	<b>2.77</b>
	IDSM	3	3.00	3.00	2.67	2.33	11.00	67%	3.00
	<b>ALL</b>	<b>1114</b>	<b>2.63</b>	<b>2.59</b>	<b>2.54</b>	<b>2.43</b>	<b>10.18</b>	<b>60%</b>	<b>2.80</b>

The table above gives the scores by a student's first major. The shaded column shows the % of students who scored at or above a 10 on the score sum and the associated average score on those four, and the other columns show the average score on that element. Communication is in the far right as a measure of technical writing ability on a 1-4 scale. Differences by major and school can be seen in mostly predictable patterns, with the schools of Arts and Letters and of Social and Cultural Studies scoring a bit above the Truman average, and the professional schools scoring a bit below. Students from Science and Mathematics scored right at the Truman average.

Submissions are also analyzed by the discipline from which the submission comes. As the table below shows, ENG, JINS, and PHRE are the most common sources for submissions. ENG would be substantially higher if ENG 190 submissions (n = 65) were removed. JINS submissions score similarly to the overall average submission of 10.18. The row marked "Other" represents those from non-course entries (it scores quite low), while those in the bottom row, "<5" come from a range of disciplines with fewer than 5 submissions.

Prefix	N	Issue	Context	Supporting evidence	Concl.	Sum4	% 10+	Comm.
<b>ALL</b>	<b>1114</b>	<b>2.63</b>	<b>2.59</b>	<b>2.54</b>	<b>2.43</b>	<b>10.18</b>	<b>60%</b>	<b>2.80</b>
ENG	214	2.65	2.40	2.35	2.29	9.68	52%	2.67
JINS	96	2.71	2.60	2.51	2.31	10.14	61%	2.69
PHRE	89	2.65	2.44	2.38	2.28	9.75	53%	2.67
Other	65	2.46	2.22	2.15	2.00	8.83	34%	2.46
PSYC	62	3.03	2.77	2.69	2.53	11.03	65%	3.02
BSAD	58	2.79	2.62	2.66	2.50	10.57	64%	2.71
COMM	53	2.94	2.70	2.53	2.49	10.66	62%	2.94
BIOL	47	3.09	2.85	2.87	2.53	11.34	72%	3.02
ES	37	2.41	2.41	2.32	2.38	9.51	49%	2.84
HIST	34	2.82	2.71	2.53	2.59	10.65	71%	2.77
POL	33	3.03	2.91	2.70	2.61	11.24	67%	3.12
CHEM	32	3.31	2.94	2.97	2.66	11.88	78%	3.38
JUST	32	2.94	2.72	2.44	2.41	10.50	66%	2.88
ACCT	27	2.67	2.30	2.22	2.41	9.59	56%	2.67
NU	24	3.54	3.08	3.25	2.83	12.71	83%	3.08
ART	23	3.00	2.87	2.87	2.48	11.22	78%	2.74
ECON	20	2.85	2.65	2.55	2.55	10.60	65%	2.85
ED	19	2.74	2.32	2.32	2.32	9.69	63%	2.68
HLTH	19	2.79	2.32	2.37	2.37	9.84	53%	2.47
SOAN	19	2.90	2.32	2.58	2.21	10.00	47%	2.63
MUSI	18	2.06	1.83	1.89	1.72	7.50	22%	1.94
LING	14	3.21	3.00	3.29	3.00	12.50	93%	3.43
CMDS	13	3.39	2.92	3.00	3.00	12.31	77%	3.46
PHYS	10	3.00	3.10	3.10	3.00	12.20	70%	2.80
CS	9	2.56	2.22	2.22	2.22	9.22	67%	2.22
AGSC	9	3.00	2.67	2.78	2.67	11.11	56%	2.44
SPAN	8	3.25	2.38	2.63	2.88	11.13	88%	3.00
ENVS	6	2.83	2.67	2.67	2.50	10.67	67%	2.83
STAT	5	3.00	2.20	2.80	2.80	10.80	60%	2.60
< 5	30	2.63	2.60	2.57	2.33	10.13	67%	2.77

Because this rubric is a new measure, inter-rater reliability was of particular importance, and our new measure has exceeded expectations. Of the 1114 submissions, 153 were scored by a second reviewer. On the right is the table of absolute differences between the two reviewers on the combined four components. The range of scores is from 4 to 16, and almost one-third of reviewers assigned the same summed score, with over 90% giving a score within +/- two. A Pearson correlation of the two scores gave  $r = 0.883$  showing a very highly significant level of inter-rater reliability.

<b>Interdisciplinary Thinking at a Glance</b>		
• Number of submissions read	<b>1111</b> (of 1148)	
• Mean score (on a 0-4 scale):	<b>1.82</b>	
• % Scoring 2 or higher	<b>63%</b>	
• Highest scoring School:	<b>Arts and Letters</b>	
• Most frequent source (discipline):	<b>JINS</b>	
• Trends in recent years:	<b>Stable</b>	
	1	47.0%
	0	32.5%

Readers also read a significant number of submissions from previous semesters so that we could compare the previous measure with this new one. Comparing the new rubric (with its Sum4 score) to the previous single measure, a Pearson correlation of  $r = 0.527$  was found, showing substantial agreement between the two scores.

<b>Pearson's <math>r</math> Correlation between old Critical Thinking score and:</b>					
<b>Issue</b>	<b>Context</b>	<b>Supporting evidence</b>	<b>Concl.</b>	<b>Comm.</b>	<b>Sum4</b>
0.460	0.473	0.455	0.470	0.340	<b>0.527</b>

We also looked at a sample of past submissions originally scored using the old rubric. Using this measure, we see that the scores are consistent with the old rubric, with 2011 scoring higher than 2010 and 2012 in both systems. We also see that, as desired, our new rubric puts a higher standard, with fewer submissions achieving the benchmark.

			Rescoring with new Rubric			Old Rubric	
	n	N	% re-scored	Mean Score	%10+	Mean	%2+
2010	451	1109	40.7%	9.98	59%	1.83	68%
2011	397	1142	34.8%	10.4	63%	1.88	71%
2012	584	1131	51.6%	10.2	57%	1.76	63%
2013	1108	1126	98.4%	10.4	60%		

As our academic programs begin to implement their critical thinking plans, we expect scores to continue to rise in this submission area, in line with the campus-wide attention being placed on Critical Thinking as a key component of a liberal education.

## 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.*

The portfolio readers scored submissions using these descriptors:

### **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				
		2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Arts and Letters	ART	2.02	1.97	2.05	2.14	1.61	72%	70%	70%	79%	50%
	CML	1.83	1.97	2.19	2.27	1.75	61%	69%	73%	73%	63%
	CWRT*				2.33	2.00				67%	64%
	ENG	2.04	1.94	1.98	2.04	2.13	71%	68%	68%	71%	77%
	LING	2.63	1.71	2.86	1.00	2.33	88%	43%	100%	17%	67%
	MUS	1.88	2.33	2.56	2.06	1.73	62%	83%	83%	75%	62%
	THEA	2.00	1.91	2.32	2.20	1.89	78%	64%	89%	80%	78%
	<b>AAL</b>	<b>2.00</b>	<b>1.99</b>	<b>2.12</b>	<b>2.07</b>	<b>1.95</b>	<b>70%</b>	<b>69%</b>	<b>73%</b>	<b>72%</b>	<b>68%</b>
Business	ACCT	1.55	1.73	1.76	1.72	1.72	52%	61%	64%	58%	64%
	BSAD	1.50	1.63	1.50	1.68	1.51	47%	53%	49%	51%	48%
	<b>BUS</b>	<b>1.52</b>	<b>1.68</b>	<b>1.60</b>	<b>1.70</b>	<b>1.59</b>	<b>49%</b>	<b>57%</b>	<b>54%</b>	<b>54%</b>	<b>54%</b>
Hlth. Sci. and Ed.	AT*				3.00	2.00				100%	80%
	CMDS	1.50	1.58	1.57	1.90	1.96	47%	58%	57%	68%	66%
	ES	1.59	1.57	1.56	1.76	1.56	55%	49%	54%	62%	51%
	HLTH	1.76	1.75	1.90	1.51	1.92	60%	47%	62%	51%	61%
	NU	1.38	1.60	2.00	1.93	2.13	44%	57%	67%	62%	78%
	<b>HSE</b>	<b>1.58</b>	<b>1.61</b>	<b>1.73</b>	<b>1.78</b>	<b>1.82</b>	<b>53%</b>	<b>52%</b>	<b>59%</b>	<b>61%</b>	<b>60%</b>
Social and Cultural Studies	COMM	1.93	1.90	1.58	1.92	1.91	71%	67%	54%	62%	62%
	ECON	1.55	2.00	2.13	2.23	2.13	55%	67%	75%	85%	75%
	HIST	2.13	1.87	2.00	2.14	1.94	76%	65%	68%	66%	74%
	JUST	1.42	1.33	1.62	1.48	1.43	50%	60%	46%	56%	48%
	PHRE	2.67	2.29	2.45	1.92	1.77	83%	56%	85%	69%	69%
	POL	2.16	1.77	1.94	2.02	1.86	76%	48%	59%	63%	68%
	PSYC	1.67	1.83	1.64	2.00	2.00	54%	61%	51%	71%	72%
	SOAN	2.11	1.85	1.78	2.55	1.88	81%	71%	67%	90%	63%
	<b>SCS</b>	<b>1.87</b>	<b>1.80</b>	<b>1.79</b>	<b>2.00</b>	<b>1.86</b>	<b>65%</b>	<b>62%</b>	<b>59%</b>	<b>68%</b>	<b>65%</b>
Sciences and Mathematics	AGSC	1.88	1.79	1.81	2.00	1.17	65%	50%	69%	64%	42%
	BIOL	1.84	1.87	2.02	2.25	1.95	62%	64%	68%	76%	68%
	CHEM	1.65	1.48	1.63	1.79	1.53	58%	39%	63%	54%	53%
	CS	1.41	1.76	1.47	1.96	1.71	53%	59%	53%	63%	61%
	MATH	1.81	1.96	1.87	1.52	2.18	62%	57%	63%	52%	73%
	PHYS	2.00	1.80	2.17	1.86	2.27	67%	60%	67%	71%	73%
	<b>SAM</b>	<b>1.78</b>	<b>1.82</b>	<b>1.91</b>	<b>2.04</b>	<b>1.84</b>	<b>61%</b>	<b>59%</b>	<b>66%</b>	<b>67%</b>	<b>63%</b>
	IDSMD	1.88	1.67	3.11	2.40	3.67	75%	61%	89%	80%	100%
	<b>All</b>	<b>1.78</b>	<b>1.78</b>	<b>1.85</b>	<b>1.94</b>	<b>1.82</b>	<b>56%</b>	<b>60%</b>	<b>63%</b>	<b>65%</b>	<b>63%</b>

When the data are examined by school (omitting IDS majors who, while few in number, outperform all other groups), submissions from the School of Business still score significantly lower than those from other schools. The scores of the HSE majors are still a bit lower than the others, but their scores continue to move toward the average of all majors. Majors from all schools have a median of 2 (IDS majors have a median of 3).

## IDS Scores by Course Prefix

The table listing the IDS submission scores by the course prefix gives the number of submissions for each course prefix, the mean score for that prefix, and the percent that demonstrated competence. The JINS courses continue to be successful at producing papers that earn scores demonstrating competence 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.

Since the Fall of 2011, 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. This year, all students in JINS courses in the Spring and Summer semesters of 2013 were asked to include their best JINS paper in this course-based prompt in the Portfolio as part of a review of the effectiveness of the JINS courses to produce student interdisciplinary outcomes. Portfolio readers scored these papers alongside of those of graduating seniors during our 2013 reading sessions. The full report of the review committee (chaired by Dr. Dereck Daschke) used these data (among other resources) to support the continuation of the JINS program. The JINS submissions included 183 artifacts from 51 JINS courses; the average score for these artifacts was 2.2, with 76% of submissions scoring 2 or more (demonstrated competence).

Prefix	Count	Mean	% 2+
JINS	635	2.09	73%
ENG	58	1.22	41%
PHRE	55	1.60	56%
Other	33	1.03	33%
MUSI	25	1.40	44%
PSYC	25	1.48	44%
BSAD	25	1.32	40%
HIST	24	1.38	42%
COMM	21	1.29	48%
ART	16	1.88	69%
BIOL	16	1.69	56%
SPAN	16	1.38	50%
POL	15	1.73	60%
JUST	13	1.69	69%
ES	12	1.08	25%
NU	11	1.36	46%
ECON	10	2.00	80%
IDSM	10	2.40	70%
ACCT	10	1.20	40%
SOAN	8	2.13	63%
CS	7	1.43	43%
HLTH	7	0.71	0%
ENVS	6	2.00	67%
AGSC	6	1.17	33%
ED	6	1.17	33%
GEOG	5	2.40	80%
CMD5	5	1.20	40%
< 5	32	1.81	66%

To measure inter-rater reliability, 656 submissions (59%) were read and scored by two readers. Mean scores overall stayed about the same (1.82 v 2.01), but inter-reader reliability was high, with 81% of second readers assigning either the same score or a score within one rating of the first scorer. Four 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 43 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.

AbsDiff	%	n
4	1%	4
3	6%	43
2	12%	81
1	45%	305
0	36%	244
	<b>100%</b>	<b>656</b>

## Intercultural Thinking

This year, the portfolio project completed a two-year project examining Intercultural Thinking. The LSP requires students to complete a class or experience that fulfills broad Intercultural outcomes. For the first year of this project, we decided to ask for submissions very broadly, and kept this approach was drawing 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:

- I. 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."**
  - 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.)*

Submissions were scored by the portfolio readers using these descriptors:

### **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. For the 2012 data, only the count per major, average score, and % scoring at 2 or better are shown; the counts per score for each major can be found in the Portfolio 2012 Almanac chapter. For the 2013 data, the counts for each score are included here, as well as the total counts per major, average score, and % scoring at 2 or better. 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.

Intercultural Scores by First Major											
		2012			2013 Raw Scores				2013		
	Major	2012 N	2012 AVE	2012 %2+	0	1	2	3	2013 N	2013 AVE	2013 %2+
Arts and Letters	ART	27	1.48	52%	4	12	5	4	25	1.36	36%
	CML	22	1.73	64%	1	1	3	2	7	1.86	71%
	CWRT	6	2	67%		5	3	2	10	1.70	50%
	ENG	86	1.64	55%	4	29	37	10	80	1.66	59%
	LING	6	2.17	83%		5	4		9	1.44	44%
	MUS	34	1.15	35%	1	11	11	5	28	1.71	57%
	THEA	5	2	60%	3	3	2		8	0.88	25%
	<b>AAL</b>	<b>186</b>	<b>1.58</b>	<b>53%</b>	<b>13</b>	<b>66</b>	<b>65</b>	<b>23</b>	<b>167</b>	<b>1.59</b>	<b>53%</b>
Business	ACCT	68	1.29	37%	5	33	13	4	55	1.29	31%
	BSAD	85	1.51	53%	10	30	29	10	79	1.49	49%
	<b>Bus</b>	<b>153</b>	<b>1.41</b>	<b>46%</b>	<b>15</b>	<b>63</b>	<b>42</b>	<b>14</b>	<b>134</b>	<b>1.41</b>	<b>42%</b>
Hlth.Sci.and Ed.	ATHT	3	2.25	100%		2	1		3	1.33	33%
	CMDS	21	1.68	58%	2	15	18	8	43	1.74	60%
	ES	36	1.46	52%	12	37	19	7	75	1.28	35%
	HLTH	34	1.41	45%	5	27	14	6	52	1.40	38%
	NU	26	1.79	62%	5	9	12	7	33	1.64	58%
	<b>HSE</b>	<b>120</b>	<b>1.57</b>	<b>54%</b>	<b>24</b>	<b>90</b>	<b>64</b>	<b>28</b>	<b>206</b>	<b>1.47</b>	<b>45%</b>
Social and Cultural Studies	COMM	71	1.56	52%	3	22	30	8	63	1.68	60%
	ECON	13	1.69	54%			2	2	4	2.50	100%
	HIST	43	1.98	77%	2	8	19	4	33	1.76	70%
	JUST	25	1	24%	3	21	10	2	36	1.31	33%
	PHRE	13	1.85	62%		3	7	2	12	1.92	75%
	POL	40	1.63	63%	1	9	7	6	23	1.78	57%
	PSYC	95	1.56	55%	10	29	27	4	70	1.36	44%
	SOAN	20	1.9	60%	1	8	4	1	14	1.36	36%

	<b>SCS</b>	<b>320</b>	<b>1.62</b>	<b>56%</b>	<b>20</b>	<b>100</b>	<b>106</b>	<b>29</b>	<b>255</b>	<b>1.56</b>	<b>53%</b>
<b>Sciences and Mathematics</b>	AGSC	16	1.41	41%	7	6	4		17	0.82	24%
	BIOL	57	1.39	44%	10	37	27	11	85	1.46	45%
	CHEM	16	0.74	15%	5	7	3		15	0.87	20%
	CS	12	1.52	57%	5	8	7	2	22	1.27	41%
	MATH	11	0.91	18%	3	8	7		18	1.22	39%
	PHYS	3	1.29	43%	1	7	5	1	14	1.43	43%
	<b>SAM</b>	<b>115</b>	<b>1.27</b>	<b>38%</b>	<b>31</b>	<b>73</b>	<b>53</b>	<b>14</b>	<b>171</b>	<b>1.29</b>	<b>39%</b>
	IDSMS	8	2.25	88%		1	2		3	1.67	67%
	<b>All</b>	<b>1079</b>	<b>1.51</b>	<b>51%</b>	<b>103</b>	<b>393</b>	<b>332</b>	<b>108</b>	<b>936</b>	<b>1.48</b>	<b>47%</b>

Although differences can be seen across departments and schools, no surprising patterns are visible. Overall, in both years about half of our students are scoring a 2 or better. Science and Math students score least well on this prompt, while Arts and Letters and Social and Cultural Studies score the best.

This next table shows the data sorted by the source of the submission. Notice that the largest number of submissions came from non-course experiences, labeled as *None* in the course prefix column. These submissions scored quite well in fact, with an average score of 1.72 (better than all but 5 course prefixes). For the submissions from courses, majors that have a course or course component within their major that speaks to this prompt directly scored better than those that do not.

**2013 Intercultural Scores by Course Prefix**

Prefix	N	Raw Score				Average	% 2+
		0	1	2	3		
<i>None</i>	165	15	53	60	37	1.72	59%
ENG	102	8	41	44	9	1.53	52%
PHRE	102	16	43	34	9	1.35	42%
JINS	88	10	41	31	6	1.38	42%
MUSI	69	14	44	9	2	0.99	16%
HIST	60	3	27	24	6	1.55	50%
COMM	42	0	14	22	6	1.81	67%
SPAN	39	4	17	14	4	1.46	46%
SOAN	34	3	11	17	3	1.59	59%
CMDS	26	0	8	12	6	1.92	69%
CHIN	19	1	6	10	2	1.68	63%
NU	18	1	4	8	5	1.94	72%
BSAD	18	5	9	2	2	1.06	22%
ART	16	1	8	5	2	1.50	44%
POL	13	1	6	3	3	1.62	46%
FREN	13	1	5	7	0	1.46	54%
PSYC	12	3	5	4	0	1.08	33%
ECON	9	3	5	0	1	0.89	11%

ES	7	2	5	0	0	0.71	0%
HLTH	7	1	2	4	0	1.43	57%
ED	6	0	2	2	2	2.00	67%
CLAS	6	0	4	1	1	1.50	33%
ITAL	6	3	2	1	0	0.67	17%
LING	6	0	4	2	0	1.33	33%
GEOG	5	1	4	0	0	0.80	0%
AGSC	5	3	1	1	0	0.60	20%
BIOL	5	0	4	1	0	1.20	20%
INDV	5	0	3	2	0	1.40	40%
IDSM	5	1	0	2	2	2.00	80%
JUST	4	0	2	2	0	1.50	50%
MS	4	0	3	1	0	1.25	25%
JAPN	4	1	1	2	0	1.25	50%
Other	16	2	9	5	0	1.19	31%
<b>All</b>	<b>936</b>	<b>103</b>	<b>393</b>	<b>332</b>	<b>108</b>	<b>1.48</b>	<b>47%</b>

Although the data were not particularly useful, the discussion about intercultural thinking was very productive again this year. We believe that this LSP requirement could usefully be reexamined and revised given the changes that are rapidly taking place throughout the world.

## Problem Solving Analysis

In 2012-2013, the following prompt was used to solicit submissions relating to problem solving.

*Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.*

*For the prompt below, please think of your most **engaging** experience that involved problem solving. The significance of the experience is more important than whether you were ultimately successful in solving the problem, or whether it was inside or outside of the classroom. This experience may have been for credit or pay, for a course, a co-curricular activity or “just for fun”. Experiences away from Truman, such as a study abroad, internship, or service experience would certainly be appropriate.*

The students were then given spaces to describe 1) this experience and the underlying problem to be solved, 2) how they recognized the problem and identified strategies to solve it, 3) how they actually investigated these strategies, and finally, 4) how they implemented the chosen solution and evaluated the outcome(s). The students were also asked to comment on the evolution of their problem solving ability while they were students at Truman.

These submissions were evaluated using the rubric given here. This rubric was simplified from an AACU Value Rubric, <http://www.aacu.org/value/rubrics/ProblemSolving.cfm>.

### PROBLEM SOLVING RUBRIC, 2012-2013

Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.

- Each row contains two related concepts. While both are important, the bottom line, in **bold**, demonstrates deeper engagement with Problem Solving.
- An implied score of zero exists for submissions that do not rise to the level of “Emerging.”

	<b>4 = Mastering</b>	<b>3 = High Demonstrating</b>	<b>2 = Moderate Demonstrating</b>	<b>1 = Emerging</b>
<p>Define Problem</p> <p>and</p> <p><b>Identify Strategies</b></p>	<p>Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.</p> <p>Identifies multiple approaches for solving the problem that apply within a specific context.</p>	<p>Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed.</p> <p>Identifies multiple approaches for solving the problem, only some of which apply within a specific context.</p>	<p>Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, but problem statement is superficial.</p> <p>Identifies only a single approach for solving the problem that does apply within a specific context.</p>	<p>Demonstrates a limited ability in identifying a problem statement or related contextual factors.</p> <p>Identifies one or more approaches for solving the problem that do not apply within a specific context.</p>
<p>Propose Solutions/ Hypotheses</p> <p>and</p> <p><b>Assess Potential Solutions</b></p>	<p>Proposes one or more solutions/ hypotheses that indicates a deep comprehension of the problem.</p> <p>Solution/hypotheses are sensitive to contextual factors as well as all of the following: ethical, logical, and cultural dimensions of the problem.</p> <p>Assessment of solutions is deep and elegant (for example, contains thorough and insightful explanation) and includes, deeply and thoroughly, all of the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.</p>	<p>Proposes one or more solutions/hypotheses that indicates comprehension of the problem.</p> <p>Solutions/hypotheses are sensitive to contextual factors as well as the one of the following: ethical, logical, or cultural dimensions of the problem.</p> <p>Assessment of solutions is adequate (for example, contains thorough explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.</p>	<p>Proposes one solution/hypothesis that is “off the shelf” rather than individually designed to address the specific contextual factors of the problem.</p> <p>Assessment of solutions is brief (for example, explanation lacks depth) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.</p>	<p>Proposes a solution/ hypothesis that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.</p> <p>Assessment of solutions is superficial (for example, contains cursory, surface level explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.</p>
<p>Implement Solution</p> <p>and</p>	<p>Implements the solution in a manner that addresses thoroughly and deeply multiple contextual factors of the problem.</p>	<p>Implements the solution in a manner that addresses multiple contextual factors of the problem in a surface manner.</p>	<p>Implements the solution in a manner that addresses the problem statement but ignores relevant contextual factors.</p>	<p>Implements the solution in a manner that does not directly address the problem statement.</p> <p>Evaluates superficially</p>

<b>Evaluate Outcomes</b>	Evaluates outcomes relative to the problem defined with thorough, specific considerations of need for further work.	Evaluates outcomes relative to the problem defined with some consideration of need for further work.	Evaluates outcomes in terms of the problem defined with little, if any, consideration of need for further work.	in terms of the problem defined with no consideration of need for further work
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### Definition

Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.

### Framing Language

Problem-solving covers a wide range of activities that may vary significantly across disciplines. Activities that encompass problem-solving by students may involve problems that range from well-defined to ambiguous in a simulated or laboratory context, or in real-world settings. This rubric distills the common elements of most problem-solving contexts and is designed to function across all disciplines. It is broad-based enough to allow for individual differences among learners, yet is concise and descriptive in its scope to determine how well students have maximized their respective abilities to practice thinking through problems in order to reach solutions.

This rubric is designed to measure the quality of a **process**, rather than the quality of an **end-product**. As a result, work samples or collections of work will need to include some evidence of the individual's thinking about a problem-solving task (e.g., reflections on the process from problem to proposed solution; steps in a problem-based learning assignment; record of think-aloud protocol while solving a problem). The final product of an assignment that required problem resolution is insufficient without insight into the student's problem-solving process. Because the focus is on institutional level assessment, scoring team projects, such as those developed in capstone courses, may be appropriate as well.

### Glossary

*The definitions that follow were developed to clarify terms and concepts used in this rubric only.*

- Contextual Factors: Constraints (such as limits on cost), resources, attitudes (such as biases) and desired additional knowledge which affect how the problem can be best solved in the real world or simulated setting.
- Critique: Involves analysis and synthesis of a full range of perspectives.
- Feasible: Workable, in consideration of time-frame, functionality, available resources, necessary buy-in, and limits of the assignment or task.
- "Off the shelf" solution: A simplistic option that is familiar from everyday experience but not tailored to the problem at hand (e.g. holding a bake sale to "save" an underfunded public library).
- Solution: An appropriate response to a challenge or a problem.
- Strategy: A plan of action or an approach designed to arrive at a solution. ( If the problem is a river that needs to be crossed, there could be a construction-oriented, cooperative (build a bridge with your community) approach and a personally oriented, physical (swim across alone) approach. An approach that partially applies would be a personal, physical approach for someone who doesn't know how to swim.
- Support: Specific rationale, evidence, etc. for solution or selection of solution.

A total of 1060 submissions were scored out of the 1089 portfolios. A table summarizing the count of each submission score and the percent of students scoring at that level for each phase of the problem solving process is given here. Most submissions (72%) scored 2 or more on the first phase of defining the problem and identifying strategies for solving it. Somewhat fewer (64%) scored as well on proposing and assessing the solution options. Even fewer (49%) scored as well on implementing and evaluating the solutions.

In the discussions after these scoring sessions, many readers suggested that the students did not understand what we meant by problem solving. The prompt and corresponding rubric value the *process* over the success of the actual solving of the problem, and many students did not adequately describe the process that they used. Some of them confused problem solving with more simple decision making. Even though we included separate boxes for the sequential phases of the process of solving their problem, generally their competence at explaining steadily fell off

as they moved through the phases. In addition, this prompt asks the student to describe and reflect on an experience, not simply submit a previously prepared document from a class or special project. Completion of this kind of prompt requires a bit more motivation from the students than prompts that request documents such as Critical Thinking and Writing.

	Scores		4		3		2		1		0	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Define Problem &amp; ID strategies</b>	93	9%	292	28%	376	35%	231	22%	68	6%		
<b>Propose &amp; Assess Solutions</b>	66	6%	232	22%	379	36%	282	27%	101	10%		
<b>Implement Solutions &amp; Evaluate</b>	31	3%	172	16%	320	30%	293	28%	240	23%		

## 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. Anecdotally, most submitted artifacts continue 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.

		2013	Pers. Best		Pers. Goals		Pers. Growth		Challenging	
		Count	Yes	Pct.	Yes	Pct.	Yes	Pct.	Yes	Pct.
Arts and letters	ART	30	7	23%	4	13%	11	37%	7	23%
	CML	8	3	38%	3	38%	2	25%	3	38%
	CRWT	11	3	27%	3	27%	2	18%	4	36%
	ENG	90	27	30%	12	13%	34	38%	39	43%
	LING	9	3	33%	1	11%	3	33%	4	44%
	MUS	38	12	32%	10	26%	16	42%	12	32%
	THEA	9	1	11%	2	22%	3	33%	4	44%
	AAL	195	56	29%	35	18%	71	36%	73	37%

Business	ACCT	68	12	18%	14	21%	25	37%	19	28%
	BSAD	105	19	18%	15	14%	30	29%	26	25%
	<b>BUS</b>	<b>173</b>	<b>31</b>	<b>18%</b>	<b>29</b>	<b>17%</b>	<b>55</b>	<b>32%</b>	<b>45</b>	<b>26%</b>
Hlth. Sci. and Ed.	ATHT	5	1	20%	1	20%	2	40%	1	20%
	CMDS	45	13	29%	5	11%	20	44%	12	27%
	ES	97	22	23%	18	19%	34	35%	20	21%
	HLTH	61	12	20%	15	25%	22	36%	18	30%
	NU	40	9	23%	9	23%	19	48%	13	33%
	<b>HSE</b>	<b>248</b>	<b>57</b>	<b>23%</b>	<b>48</b>	<b>19%</b>	<b>97</b>	<b>39%</b>	<b>64</b>	<b>26%</b>
Social and Cultural Studies	COMM	67	20	30%	14	21%	21	31%	21	31%
	ECON	8	1	13%	1	13%	3	38%	4	50%
	HIST	34	13	38%	7	21%	6	18%	16	47%
	JUST	45	12	27%	8	18%	15	33%	8	18%
	PHRE	14	3	21%	2	14%	5	36%	5	36%
	POL	29	13	45%	4	14%	11	38%	12	41%
	PSYC	86	27	31%	18	21%	37	43%	34	40%
	SOAN	16	3	19%	3	19%	5	31%	6	38%
	<b>SCS</b>	<b>299</b>	<b>92</b>	<b>31%</b>	<b>57</b>	<b>19%</b>	<b>103</b>	<b>34%</b>	<b>106</b>	<b>35%</b>
Sciences and Mathematics	AGSC	24	9	38%	7	29%	4	17%	6	25%
	BIOL	99	28	28%	22	22%	42	42%	36	36%
	CHEM	19	5	26%	3	16%	5	26%	8	42%
	CS	28	8	29%	9	32%	10	36%	9	32%
	MATH	22	9	41%	3	14%	7	32%	3	14%
	PHYS	15	8	53%	1	7%	6	40%	6	40%
	<b>SAM</b>	<b>207</b>	<b>67</b>	<b>32%</b>	<b>45</b>	<b>22%</b>	<b>74</b>	<b>36%</b>	<b>68</b>	<b>33%</b>
	IDSM	3	0	0%	1	33%	3	100%	0	0%
	<b>ALL</b>	<b>1125</b>	<b>303</b>	<b>27%</b>	<b>215</b>	<b>19%</b>	<b>403</b>	<b>36%</b>	<b>356</b>	<b>32%</b>

		2013	Professional		Collaborative		Enjoyable		Prob. Solv.	
		Count	Yes	Pct.	Yes	Pct.	Yes	Pct.	Yes	Pct.
Arts and letters	ART	30	7	23%	0	0%	16	53%	1	3%
	CML	8	1	13%	0	0%	3	38%	0	0%
	CRWT	11	4	36%	0	0%	6	55%	0	0%
	ENG	90	5	6%	7	8%	38	42%	3	3%
	LING	9	1	11%	0	0%	4	44%	0	0%
	MUS	38	12	32%	3	8%	19	50%	0	0%
	THEA	9	1	11%	2	22%	5	56%	0	0%
	<b>AAL</b>	<b>195</b>	<b>31</b>	<b>16%</b>	<b>12</b>	<b>6%</b>	<b>91</b>	<b>47%</b>	<b>4</b>	<b>2%</b>

Business	ACCT	68	10	15%	5	7%	24	35%	2	3%
	BSAD	105	27	26%	15	14%	42	40%	4	4%
	<b>BUS</b>	<b>173</b>	<b>37</b>	<b>21%</b>	<b>20</b>	<b>12%</b>	<b>66</b>	<b>38%</b>	<b>6</b>	<b>3%</b>
Hlth. Sci. and Ed.	ATHT	5	2	40%	0	0%	1	20%	0	0%
	CMDS	45	13	29%	3	7%	18	40%	1	2%
	ES	97	26	27%	8	8%	40	41%	2	2%
	HLTH	61	16	26%	9	15%	35	57%	4	7%
	NU	40	18	45%	9	23%	12	30%	2	5%
	<b>HSE</b>	<b>248</b>	<b>75</b>	<b>30%</b>	<b>29</b>	<b>12%</b>	<b>106</b>	<b>43%</b>	<b>9</b>	<b>4%</b>
Social and Cultural Studies	COMM	67	21	31%	9	13%	33	49%	1	1%
	ECON	8	1	13%	1	13%	2	25%	0	0%
	HIST	34	5	15%	3	9%	12	35%	0	0%
	JUST	45	8	18%	2	4%	23	51%	1	2%
	PHRE	14	2	14%	0	0%	4	29%	0	0%
	POL	29	3	10%	4	14%	9	31%	1	3%
	PSYC	86	18	21%	8	9%	40	47%	4	5%
	SOAN	16	2	13%	2	13%	8	50%	0	0%
	<b>SCS</b>	<b>299</b>	<b>60</b>	<b>20%</b>	<b>29</b>	<b>10%</b>	<b>131</b>	<b>44%</b>	<b>7</b>	<b>2%</b>
Sciences and Mathematics	AGSC	24	3	13%	1	4%	9	38%	1	4%
	BIOL	99	28	28%	16	16%	42	42%	2	2%
	CHEM	19	2	11%	1	5%	10	53%	0	0%
	CS	28	6	21%	5	18%	9	32%	3	11%
	MATH	22	5	23%	3	14%	7	32%	0	0%
	PHYS	15	6	40%	1	7%	10	67%	1	7%
	<b>SAM</b>	<b>207</b>	<b>50</b>	<b>24%</b>	<b>27</b>	<b>13%</b>	<b>87</b>	<b>42%</b>	<b>7</b>	<b>3%</b>
	IDSM	3	1	33%	0	0%	2	67%	0	0%
	<b>ALL</b>	<b>1125</b>	<b>254</b>	<b>23%</b>	<b>117</b>	<b>10%</b>	<b>483</b>	<b>43%</b>	<b>33</b>	<b>3%</b>



## Letters to Truman

Finally, the portfolio asks students to compose a letter addressed to the Liberal Arts and Science Portfolio Project Team. In 2013, 1103 (over 98%) 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, 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.

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, and faculty readers record this time. In 2013, the median time to complete the portfolio was 45 hours. Only 10% of students report spending less than 2 hours, and only 10% report spending 10 or more hours. 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. As discussed below, many students found the search process itself reflective and useful.

### Letters to Truman at a Glance

• Number of submissions:	<b>1103</b>
• Median time to complete portfolio:	<b>4 hours</b>
• Attitudes to Truman Education	<b>Very Positive</b>
• Attitudes to portfolio	<b>Positive</b>
• Common themes	<b>Growth in writing skill Praise to faculty Varied opinions on LSP</b>

## ATTITUDE TOWARD THE PORTFOLIO PROCESS

The reported attitudes toward the Portfolio dropped a bit from last year to a little below the recent five year average, but are still mostly positive. 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.

*"I entered Truman as someone with a dreadfully adolescent mentality. I wanted facts spoon-fed to me, for my life to continue on as it had, and, in short, to not grow up. However, Truman changed that. It was not until I began work on the graduation portfolio that I realized the profound effect this institution has had on me. Actually, when I was first asked to complete this requirement, there was much wailing and gnashing of the teeth on my part. I was indignant that I had yet another hoop to leap through on my quest to graduate. But, after I completed the frustrating task at hand, I could not help but notice exactly how much I have grown...."*

*"It was not until I actually sat down to complete the portfolio that I realized how much I have really accomplished and how my writing and thinking skills have developed. I have come to truly appreciate my liberal arts education – it has expanded my knowledge and interests in many ways.*

Some students who report mixed feelings about the portfolio comment on how the requested prompts are not relevant to their main interests, and some worry about how the portfolio reflects on themselves personally. Others mentioned their own lack of organization and file keeping (our new system is helping with this).

*"I won't lie and say I was excited to complete my Senior Portfolio this semester, but I have found the process to be very rewarding. Being a science major and minor, none of my classes have been paper writing heavy, so I assumed I would not have a very diverse selection for my Portfolio. Luckily, that was not the case. Throughout my classes at Truman, I have had the opportunity to write numerous papers on various topics. While looking back through these papers, I was able to see the progression of my writing."*

*"The portfolio process here at Truman at first seemed to be just another bureaucratic hoop to jump through on the path to graduation, but after completing the process it has actually had a positive effect on my reflection process as I move closer to graduation. Looking back through past assignments, reading my own thoughts and assertions, has given me a much greater perspective on my overall growth over the past four years. The entire process took me no more than six hours, but it was time well spent. It was a challenge finding all of my past work due to various computer crashes, but in the end I believe that I have put forth work that accurately encompasses my development as a student and as an individual while attending Truman. The portfolio process opened my eyes to how much I have truly changed over the past four years. My critical thinking and problem solving skills have improved tremendously, and personally I have become a much stronger and confident individual. While the portfolio process was indeed tedious and at times frustrating, it has allowed me to reflect on how I have developed not just as a student, but as a person."*

*"However, other than the enjoyment of noticing this change in my writing, I did not feel that the process of putting together my portfolio was very helpful to me. I do believe that the portfolio is a far better method of assessment than the tests each major has to take. I felt that the tests did nothing to reflect my growth as a student and my abilities as a graduate. The questions we are asked to answer on the portfolio are also, in my opinion, too vague to elicit any real introspection."*

Negative comments often question on the value of the portfolio to the students and faculty. We must continue to better explain and promote the portfolio's benefits to all parties involved.

*"If the portfolio is something that is very important for students and not something to take for granted, I feel that the professors should be told to encourage us in that way. Otherwise, it does not seem beneficial to most parties."*

*"Even after reading the information provided on the portfolio website it is unclear to me exactly what sorts of changes come about as a result of the faculty readings and research. I believe that more concrete*

*examples explaining the ways in which portfolio data is applied to Truman academic programs would help me be more enthusiastic about the portfolio requirement."*

*"A large part in my choice to attend Truman was the small class size, which meant a more personal relationship between teacher and student. I feel that a good relationship between a teacher and a student leads to a better educational experience for both, and I feel that this relationship, a feature that makes Truman distinct, is lost in the portfolio assessment."*

While almost three quarters of students commented on the portfolio method of assessment, only about one quarter responded to our suggestion to comment on any other aspect of Truman's assessment opportunities. Of those who did, 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.

## REFLECTION IN COVER LETTERS

Ideally, the portfolio serves as an opportunity for students to reflect on their experiences at the University. Students often present specific insights into their growth or lack of growth. Many students do engage in self-assessment, and this percentage seems to have stabilized. 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.

Across majors, the proportion who engage in reflection is fairly consistent. No particular school jumps out as particularly reflective, although this year, Business and Science and Math are a bit less reflective than the other schools. In general, the amount of reflection has stayed fairly constant over the past few years, with about 70% of students engaging in reflection.

When students do share the results of self-reflection, many comment on improvement in their writing, as was shown about in the previous quotes. Other reflections discuss their increasing independence. One student writes

*"My years at Truman have been an essential part of my maturation and the development of my independence, and I have had a number of experiences here that I will never, ever forget."*

Others speak of their personal growth in other areas.

*"It took me four years, but I got it. I finally understood what a beautiful thing it is to learn."*

*"Looking back on my four years, I truly believe that Truman has molded me into the woman I am today. I feel strong, independent, intelligent, well educated, and ready to move on to the next step. Not all universities really prepare their students to the point where they are actually ready to graduate. I feel as though Truman makes it their number one priority to ensure their students feel not only ready to graduate, but also capable to get a job or go on to higher education. My professors in the History and Theatre departments have been crucial in that aspect. I have never had a problem with a professor being unwilling to help me, even if it was a problem outside of class. I have been involved in campus organizations, which I feel enabled me to socialize outside of my normal group of friends and learn more about my university. Though Truman has not been without its challenges, no school is a walk in the park. I feel as though I was challenged enough at Truman to where my mind was pushed to the limit, but never to a point where I felt inadequate or unable to do the work. No class was an 'easy A,' but I preferred it that way. I enjoy working to really earn the grade I deserve and knowing how and why I did or did not do well in a class."*

		Count	Attitude toward Portfolio					Attitude toward Assessment				
		2013	Neg.	Mix	Pos.	None	W% Pos	Neg.	Mix	Pos.	None	W% Pos
Arts and letters	ART	30	2	9	15	3	75%	2	2	7	18	73%
	CML	8	0	3	3	2	75%	0	1	2	5	83%
	CRWT	11	2	1	4	4	64%	1	1	1	8	50%
	ENG	87	11	24	36	16	68%	4	7	7	72	58%
	LING	9	1	3	4	0	69%	0	1	0	8	50%
	MUS	36	6	15	11	6	58%	2	3	5	28	65%
	THEA	9	3	2	0	4	20%	0	0	0	8	0%
	<b>AAL</b>	<b>190</b>	<b>25</b>	<b>57</b>	<b>73</b>	<b>35</b>	<b>65%</b>	<b>9</b>	<b>15</b>	<b>22</b>	<b>147</b>	<b>64%</b>
Business	ACCT	68	12	19	22	14	59%	4	4	10	50	67%
	BSAD	102	20	23	23	37	52%	7	12	12	71	58%
	<b>BUS</b>	<b>170</b>	<b>32</b>	<b>42</b>	<b>45</b>	<b>51</b>	<b>55%</b>	<b>11</b>	<b>16</b>	<b>22</b>	<b>121</b>	<b>61%</b>
Hlth. Sci. and Ed.	ATHT	5	2	1	1	1	38%	1	0	0	4	0%
	CMD5	42	6	20	9	9	54%	6	4	1	32	27%
	ES	94	23	27	24	21	51%	6	8	10	73	58%
	HLTH	59	8	13	30	8	72%	2	3	13	40	81%
	NU	39	9	10	16	4	60%	1	5	10	24	78%
	<b>HSE</b>	<b>239</b>	<b>48</b>	<b>71</b>	<b>80</b>	<b>43</b>	<b>58%</b>	<b>16</b>	<b>20</b>	<b>34</b>	<b>173</b>	<b>63%</b>
Social and Cultural Studies	COMM	65	14	19	22	12	57%	6	3	5	52	46%
	ECON	8	3	3	2	0	44%	0	2	0	6	50%
	HIST	34	8	8	7	11	48%	4	2	2	26	38%
	JUST	44	8	5	18	12	66%	1	2	6	35	78%
	PHRE	13	3	2	3	6	50%	1	0	2	11	67%
	POL	28	4	6	14	5	71%	1	2	8	18	82%
	PSYC	86	25	20	29	12	53%	9	6	0	56	20%
	SOAN	16	5	3	5	3	50%	0	0	4	10	100%
	<b>SCS</b>	<b>294</b>	<b>70</b>	<b>66</b>	<b>100</b>	<b>61</b>	<b>56%</b>	<b>22</b>	<b>17</b>	<b>27</b>	<b>214</b>	<b>54%</b>
Sciences and Math.	AGSC	24	6	4	7	6	53%	1	2	4	16	71%
	BIOL	99	19	25	34	20	60%	3	6	17	69	77%
	CHEM	19	7	5	2	5	32%	1	2	2	14	60%
	CS	28	8	6	4	10	39%	1	2	2	23	60%
	MATH	22	5	7	5	5	50%	0	3	1	18	63%
	PHYS	15	2	4	5	3	64%	1	5	2	6	56%
	<b>SAM</b>	<b>207</b>	<b>47</b>	<b>51</b>	<b>57</b>	<b>49</b>	<b>53%</b>	<b>7</b>	<b>20</b>	<b>28</b>	<b>146</b>	<b>69%</b>
	IDSM	3	1	1	1	0	50%	1	0	0	2	0%
	<b>ALL</b>	<b>1103</b>	<b>223</b>	<b>288</b>	<b>356</b>	<b>239</b>	<b>58%</b>	<b>66</b>	<b>88</b>	<b>133</b>	<b>803</b>	<b>62%</b>

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

		Count	Evidence of Self-reflection			
		2013	No	Yes	Findings	% Reflect
<b>Arts and Letters</b>	ART	30	7	16	7	77%
	CML	8	1	3	4	88%
	CRWT	11	3	4	4	73%
	ENG	87	21	36	30	76%
	LING	9	3	4	2	67%
	MUS	36	12	18	6	67%
	THEA	9	6	2	1	33%
	<b>AAL</b>	<b>190</b>	<b>53</b>	<b>83</b>	<b>54</b>	<b>72%</b>
<b>Business</b>	ACCT	68	27	30	11	60%
	BSAD	102	38	46	18	63%
	<b>BUS</b>	<b>170</b>	<b>65</b>	<b>76</b>	<b>29</b>	<b>62%</b>
<b>Hlth. Sci. and Ed.</b>	ATHT	5	4	1	0	20%
	CMDS	42	10	22	10	76%
	ES	94	40	36	18	57%
	HLTH	59	10	36	13	83%
	NU	39	10	20	9	74%
	<b>HSE</b>	<b>239</b>	<b>74</b>	<b>115</b>	<b>50</b>	<b>69%</b>
<b>Social and Cultural Studies</b>	COMM	65	15	35	17	78%
	ECON	8	2	5	1	75%
	HIST	34	10	18	6	71%
	JUST	44	14	19	9	67%
	PHRE	13	2	7	5	86%
	POL	28	9	10	10	69%
	PSYC	86	19	49	18	78%
	SOAN	16	4	9	3	75%
	<b>SCS</b>	<b>294</b>	<b>75</b>	<b>152</b>	<b>69</b>	<b>75%</b>
<b>Sciences and Math.</b>	AGSC	24	10	8	4	55%
	BIOL	99	30	45	21	69%
	CHEM	19	9	10	0	53%
	CS	28	19	4	4	30%
	MATH	22	7	11	0	61%
	PHYS	15	3	8	3	79%
	<b>SAM</b>	<b>207</b>	<b>78</b>	<b>86</b>	<b>32</b>	<b>60%</b>
	IDSM	3	1	2	0	67%
	<b>ALL</b>	<b>1103</b>	<b>346</b>	<b>514</b>	<b>234</b>	<b>68%</b>

## ATTITUDE TOWARD EDUCATION AT TRUMAN AND IN THE MAJORS

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

*"I am thankful for the liberal arts education I have received, and plan to take with me much more than a degree. I am taking with me a way of thought, an ability to critically examine, and an understanding of my own abilities."*

*"Truman has done an excellent job of forcing me outside my intellectual comfort zone."*

*"I have immensely enjoyed my academic experiences at Truman. Small classes, concerned faculty, and an intellectually-engaging environment have shaped my academic career incomparably. I have never once felt alone at Truman. My teachers have always expressed the most vehement concerns for my academic, social, and personal success. This foundational support has been integral to my enjoyment and intellectual burgeoning at Truman. For this reason – perhaps more than any other – I am continually grateful I selected Truman State University."*

*"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."*

As was seen from previous quotes, many students use their Letters to Truman to "shout out" to the people who have made a difference for them here. Most of these people are from within their majors, but other groups and individuals are mentioned routinely. For example, the University Counseling Center, the Career Center, the International Students office, and many others regularly make a great difference for our students. It is wonderful to read about how much our community of Trumanites support each other and are "there" for each other.

*"The people at Truman care. The professors, the staff, the students—they (we) all care so much, so passionately for many a cause."*

*"There are many great things about Truman that I love, more than I can mention in a letter, but if there was one thing that has been so crucial to my success in college, it would be my professors. Truman has a reputation for having high standards for its students and I will agree that it is a challenging university to attend, but this is balanced by the fact that the professors give everything to help you succeed. I've had friends at other universities who barely even get to see their professors and this amazes me. The fact that my professors are actually willing to give me one-on-one attention and take a vested interest in my success has made all the difference. I believe that Truman does a great job of recognizing its staff for the work that they do but with recent cuts in the budgets and particularly to certain programs, I believe one area we cannot skimp on is the quality of the people who teach here."*

Only 21 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 way. 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 changed this year to specifically mention the major when asking for students’ thoughts about their education. Many more students responded to this issue, up from 40% last year to 60% this year. As with the comments about their education in general, comments about the major are also overwhelmingly positive, with 85% of those that comment rated as positive. Only 33 students had only negative things to say about their major’s education. 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.

*“As I look back on the time that I spent here at Truman State, I cannot help but feel a degree of sadness. This school has provided me with many fun and engaging experiences and prepared me so well for becoming part of the world. When I step up onto the stage and receive my diploma, I know that part of me will want to remain here. Truman State has been more than a school; it’s been another home, a community where I feel like a true member. My days of college are irreplaceable, and I will treasure them dearly.”*

		Count	Attitude toward Education at Truman					Attitude toward Education in the Major				
		2013	Neg.	Mix	Pos.	None	W% Pos	Neg.	Mix	Pos.	None	W% Pos
<b>Arts and Letters</b>	ART	30	1	8	17	4	81%	0	9	16	5	82%
	CML	8	0	0	7	0	100%	0	3	2	3	70%
	CRWT	11	0	2	6	2	88%	1	2	3	5	67%
	ENG	87	0	13	68	7	92%	2	5	42	39	91%
	LING	9	0	1	6	2	93%	0	0	5	4	100%
	MUS	36	0	13	21	3	81%	1	7	17	13	82%
	THEA	9	1	1	3	4	70%	0	1	3	5	88%
	<b>AAL</b>	<b>190</b>	<b>2</b>	<b>38</b>	<b>128</b>	<b>22</b>	<b>88%</b>	<b>4</b>	<b>27</b>	<b>88</b>	<b>74</b>	<b>85%</b>
<b>Business</b>	ACCT	68	0	9	46	12	92%	1	4	27	36	91%
	BSAD	102	2	19	71	9	88%	7	13	36	45	76%
	<b>BUS</b>	<b>170</b>	<b>2</b>	<b>28</b>	<b>117</b>	<b>21</b>	<b>89%</b>	<b>8</b>	<b>17</b>	<b>63</b>	<b>81</b>	<b>81%</b>
<b>Hlth. Sci. and Ed.</b>	ATHT	5	0	3	2	0	70%	1	0	2	2	67%
	CMDS	42	2	7	30	5	86%	4	5	18	16	76%
	ES	94	1	12	79	5	92%	1	11	48	36	89%
	HLTH	59	0	11	45	3	90%	0	7	39	13	92%
	NU	39	1	6	31	2	89%	1	7	22	9	85%
	<b>HSE</b>	<b>239</b>	<b>4</b>	<b>39</b>	<b>187</b>	<b>15</b>	<b>90%</b>	<b>7</b>	<b>30</b>	<b>129</b>	<b>76</b>	<b>87%</b>
<b>Social and Cultural Studies</b>	COMM	65	0	6	53	8	95%	0	2	31	34	97%
	ECON	8	0	0	7	1	100%	1	0	3	4	75%
	HIST	34	0	11	22	1	83%	0	8	14	12	82%
	JUST	44	1	6	33	3	90%	2	4	14	23	80%
	PHRE	13	0	0	14	0	100%	0	0	8	6	100%
	POL	28	0	3	24	2	94%	0	2	14	12	94%
	PSYC	86	5	14	62	5	85%	4	10	30	41	80%
	SOAN	16	0	1	12	3	96%	0	2	7	5	89%
	<b>SCS</b>	<b>294</b>	<b>6</b>	<b>41</b>	<b>227</b>	<b>23</b>	<b>90%</b>	<b>7</b>	<b>28</b>	<b>121</b>	<b>137</b>	<b>87%</b>
<b>Sciences and Math.</b>	AGSC	24	1	2	18	2	90%	1	1	15	6	91%
	BIOL	99	2	10	76	9	92%	3	8	43	41	87%
	CHEM	19	1	1	15	2	91%	0	2	10	7	92%
	CS	28	2	3	15	7	83%	2	5	9	11	72%
	MATH	22	1	4	13	4	83%	1	3	11	7	83%
	PHYS	15	0	0	14	0	100%	0	2	10	2	92%
	<b>SAM</b>	<b>207</b>	<b>7</b>	<b>20</b>	<b>151</b>	<b>24</b>	<b>90%</b>	<b>7</b>	<b>21</b>	<b>98</b>	<b>74</b>	<b>86%</b>
	IDSM	3	0	1	2	0	83%	0	2	0	1	50%
	<b>ALL</b>	<b>1103</b>	<b>21</b>	<b>167</b>	<b>812</b>	<b>105</b>	<b>90%</b>	<b>33</b>	<b>125</b>	<b>499</b>	<b>443</b>	<b>85%</b>



## 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 has administered a survey to students about these and other transformative experiences since 2011. 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. 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 - Transformative
- 2 - Somewhat Transformative
- 1 - Not Particularly Transformative

		Score					2013	Avg.	%
Maj.		1	2	3	4	5	N		4 & 5
Arts and Letters	ART	2	5	8	9	5	29	3.3	48%
	CML		3	7	7		17	3.2	41%
	CWRT	2	6	1	2		11	2.3	18%
	ENG	8	17	25	29	9	88	3.2	43%
	LING		3	3	3		9	3.0	33%
	MUS	2		16	14	6	38	3.6	53%
	THEA		2	3	4		9	3.2	44%
	<b>AAL</b>	<b>14</b>	<b>36</b>	<b>63</b>	<b>68</b>	<b>20</b>	<b>201</b>	<b>3.2</b>	<b>44%</b>
Business	ACCT	3	8	26	21	10	68	3.4	46%
	BSAD	7	16	34	36	10	103	3.3	45%
	<b>BUS</b>	<b>10</b>	<b>24</b>	<b>60</b>	<b>57</b>	<b>20</b>	<b>171</b>	<b>3.3</b>	<b>45%</b>
Hlth. Sci. and Ed.	ATHT			2	3		5	3.6	60%
	CMDS	4	10	14	14	3	45	3.0	38%
	ES	3	11	32	41	10	97	3.5	53%
	HLTH	6	12	17	21	4	60	3.1	42%
	NU	3	6	8	21	2	40	3.3	58%
	<b>HSE</b>	<b>16</b>	<b>39</b>	<b>73</b>	<b>100</b>	<b>19</b>	<b>247</b>	<b>3.3</b>	<b>48%</b>
Social and Cultural Studies	COMM	4	10	18	27	7	66	3.3	52%
	ECON		4	2	1	1	8	2.9	25%
	HIST	1	7	11	14	1	34	3.2	44%
	JUST	2	6	12	19	6	45	3.5	56%
	PHRE		2	5	6	1	14	3.4	50%
	POL		7	9	10	3	29	3.3	45%

	PSYC	4	9	22	33	8	76	3.4	54%
	SOAN		3		12	1	16	3.7	81%
	<b>SCS</b>	<b>11</b>	<b>48</b>	<b>79</b>	<b>122</b>	<b>28</b>	<b>288</b>	<b>3.4</b>	<b>52%</b>
Sciences and Mathematics	AGSC		3	8	10	3	24	3.5	54%
	BIOL	3	13	33	43	6	98	3.4	50%
	CHEM	2	2	6	7	2	19	3.3	47%
	CS	1	5	8	12	2	28	3.3	50%
	MATH	2	6	4	6	3	21	3.1	43%
	PHYS	1	5	2	6		14	2.9	43%
	<b>SAM</b>	<b>9</b>	<b>34</b>	<b>61</b>	<b>84</b>	<b>16</b>	<b>204</b>	<b>3.3</b>	<b>49%</b>
	IDSM				3		3	4.0	100%
	<b>All</b>	<b>60</b>	<b>181</b>	<b>336</b>	<b>434</b>	<b>103</b>	<b>1114</b>	<b>3.3</b>	<b>48%</b>

Overall, about half of students answered “Totally” or “Very” transformative. Responses are quite consistent, and no significant differences were found across major or gender.

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, 473 students (42%) listed one or more courses, with 100 (9%) listing two or more courses. The list of courses is quite long, and was not coded for easy tabulation.

Students were next asked if they had an experience with Writing that they would report as transformational, with about one-quarter reporting such an experience.

Next, students were asked to report any of these 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 Transformative Activity

When they check that they have done one of these activities, follow-up questions are asked.

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

Experience	% Reporting Activity			
	2010	2011	2012	2013
Study Abroad	21%	22%	23%	19%
Service Learning	23%	21%	23%	18%
Research	26%	29%	31%	27%
Internship	24%	29%	33%	26%
Leadership	35%	35%	40%	36%

Student-led	7%	6%	9%	7%
Writing*			25%	21%
Other*	8%	7%	7%	7%
Course*	8%	7%	45%	42%
<b>Any (Big 4)</b>	<b>61%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>
<b>Any</b>	<b>79%</b>	<b>82%</b>	<b>82%</b>	<b>79%</b>

Some issues with the TEQ instrument for comparison purposes include:

- 1) “Writing” was new in 2012 as an option on the instrument.
- 2) 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.
- 3) Some terms are 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.

Significant differences continue to be found by gender. There is no category where men report higher participation than women (leadership is comparable), and some differences are quite striking. Overall participation in “Big4” activities by male students continues to lag.

Experience	2011		2012		2013	
	Women	Men	Women	Men	Women	Men
Study Abroad	28%	12%	28%	17%	24%	13%
Service Learning	28%	11%	27%	15%	25%	9%
Research	30%	27%	30%	31%	29%	26%
Internship	31%	26%	36%	29%	38%	30%
Leadership	41%	25%	44%	33%	37%	37%
Student-led	5%	6%	10%	8%	8%	6%
Course*+	27%	26%	49%	38%	46%	38%
Writing*			7%	8%	23%	19%
Other*	7%	6%	7%	8%	8%	6%
<b>Any (Big 4)</b>	<b>71%</b>	<b>56%</b>	<b>74%</b>	<b>63%</b>	<b>72%</b>	<b>56%</b>
<b>Any</b>	<b>86%</b>	<b>76%</b>	<b>86%</b>	<b>80%</b>	<b>84%</b>	<b>73%</b>

Many Differences by first major are evident, most unsurprising (Language majors study abroad the most, while pre-professional majors take internships, etc.). In the following table, participation by more than 10% of students from a given major is highlighted in pale purple, with the darkest purple shading indicating participation by more than 40% of that major’s students.

		Count	Participation by Experience							
Maj.		2013	StAbr	ServL	UGRes	Intern	Ldrshp	StuLed	Writing	Other
Arts and Letters	ART	29	14%	7%	10%	38%	3%	7%	24%	0%
	CML	17	71%	12%	12%	12%	12%	0%	24%	12%
	CRWT	11	9%	0%	18%	36%	45%	0%	55%	9%
	ENG	88	18%	8%	14%	19%	24%	10%	47%	15%
	LING	9	33%	0%	22%	11%	56%	11%	22%	0%
	MUS	38	18%	0%	24%	8%	34%	11%	26%	5%
	THEA	9	11%	11%	0%	33%	0%	22%	11%	0%
	<b>A&amp;L</b>	<b>201</b>	<b>22%</b>	<b>6%</b>	<b>15%</b>	<b>20%</b>	<b>23%</b>	<b>9%</b>	<b>35%</b>	<b>9%</b>
Business	ACCT	68	15%	15%	3%	43%	44%	1%	9%	4%
	BSAD	103	24%	7%	12%	45%	41%	3%	12%	12%
	<b>BUS</b>	<b>171</b>	<b>20%</b>	<b>10%</b>	<b>8%</b>	<b>44%</b>	<b>42%</b>	<b>2%</b>	<b>11%</b>	<b>9%</b>
Hlth.Sci.and Ed.	ATHT	5	0%	0%	40%	20%	80%	20%	20%	0%
	CMDS	45	38%	62%	40%	11%	42%	9%	24%	4%
	ES	97	6%	27%	47%	56%	37%	6%	7%	3%
	HLTH	60	10%	87%	48%	48%	37%	12%	5%	15%
	NU	40	28%	25%	10%	48%	35%	13%	18%	5%
	<b>HSE</b>	<b>247</b>	<b>16%</b>	<b>47%</b>	<b>40%</b>	<b>44%</b>	<b>38%</b>	<b>9%</b>	<b>12%</b>	<b>6%</b>
Science and Mathematics	AGSC	24	0%	8%	13%	42%	38%	0%	17%	4%
	BIOL	98	30%	14%	49%	19%	36%	11%	32%	8%
	CHEM	19	5%	5%	58%	26%	26%	0%	11%	5%
	CS	28	14%	4%	14%	43%	25%	7%	4%	0%
	MATH	21	5%	5%	24%	14%	38%	5%	10%	10%
	PHYS	14	21%	7%	86%	7%	36%	0%	36%	0%
	<b>SAM</b>	<b>204</b>	<b>19%</b>	<b>10%</b>	<b>41%</b>	<b>25%</b>	<b>34%</b>	<b>7%</b>	<b>22%</b>	<b>6%</b>
Social and Cultural Studies	COMM	66	33%	3%	6%	48%	39%	3%	20%	5%
	ECON	8	25%	13%	25%	25%	63%	0%	13%	13%
	HIST	34	12%	0%	35%	32%	41%	12%	38%	15%
	JUST	45	4%	4%	2%	24%	47%	2%	16%	4%
	PHRE	14	29%	7%	0%	14%	14%	0%	21%	14%
	POL	29	21%	7%	21%	52%	52%	3%	31%	0%
	PSYC	76	16%	36%	55%	37%	43%	7%	22%	5%
	SOAN	16	19%	25%	50%	25%	19%	19%	38%	0%
	<b>SCS</b>	<b>288</b>	<b>19%</b>	<b>14%</b>	<b>26%</b>	<b>3%</b>	<b>41%</b>	<b>6%</b>	<b>24%</b>	<b>6%</b>
	IDSM	3	0%	0%	0%	33%	0%	0%	67%	33%
	<b>All</b>	<b>1114</b>	<b>19%</b>	<b>18%</b>	<b>27%</b>	<b>26%</b>	<b>36%</b>	<b>7%</b>	<b>21%</b>	<b>7%</b>

\*Note that darker shading indicates higher participation.

Looking across activities, participation varies by major and school. Again, in this table, the depth of green shading indicates the larger numbers of participation for each major.

	Maj.	Count	Big4 Participation		Big4		All Participation		All
		2013	One or More	Two or More	Avg.		One or More	Two or More	Avg.
Arts and Letters	ART	29	52%	14%	0.69		66%	34%	1.03
	CML	17	76%	24%	1.06		76%	41%	1.53
	CRWT	11	45%	18%	0.64		82%	45%	1.73
	ENG	88	43%	15%	0.59		74%	45%	1.55
	LING	9	56%	11%	0.67		78%	56%	1.56
	MUS	38	42%	8%	0.50		66%	39%	1.26
	THEA	9	56%	0%	0.56		78%	11%	0.89
	<b>A&amp;L</b>	<b>201</b>	<b>48%</b>	<b>13%</b>	<b>1.18</b>		<b>72%</b>	<b>41%</b>	<b>1.40</b>
Business	ACCT	68	61%	13%	0.75		73%	43%	1.34
	BSAD	103	61%	23%	0.87		75%	42%	1.54
	<b>BUS</b>	<b>171</b>	<b>61%</b>	<b>19%</b>	<b>1.26</b>		<b>74%</b>	<b>42%</b>	<b>1.46</b>
Hlth. Sci. and Ed.	ATHT	5	40%	20%	0.60		80%	60%	1.80
	CMD5	45	78%	51%	1.51		84%	64%	2.31
	ES	97	79%	45%	1.36		85%	59%	1.90
	HLTH	60	95%	75%	1.93		97%	88%	2.62
	NU	40	70%	28%	1.10		83%	50%	1.80
	<b>HSE</b>	<b>247</b>	<b>80%</b>	<b>50%</b>	<b>1.97</b>		<b>87%</b>	<b>66%</b>	<b>2.13</b>
Science and Mathematics	AGSC	24	54%	8%	0.63		75%	38%	1.21
	BIOL	98	75%	31%	1.12		86%	64%	1.99
	CHEM	19	68%	26%	0.95		74%	32%	1.37
	CS	28	54%	25%	0.75		58%	33%	1.11
	MATH	21	38%	5%	0.48		62%	24%	1.10
	PHYS	14	100%	21%	1.21		100%	71%	1.93
	<b>SAM</b>	<b>204</b>	<b>67%</b>	<b>24%</b>	<b>1.44</b>		<b>78%</b>	<b>50%</b>	<b>1.62</b>
Social and Cultural Studies	COMM	66	63%	26%	0.91		77%	54%	1.58
	ECON	8	50%	25%	0.88		63%	63%	1.75
	HIST	34	67%	12%	0.79		82%	52%	1.85
	JUST	45	36%	0%	0.36		82%	18%	1.04
	PHRE	14	46%	8%	0.50		69%	23%	1.00
	POL	29	64%	32%	1.00		79%	54%	1.86
	PSYC	76	83%	43%	1.43		89%	67%	2.21
	SOAN	16	75%	38%	1.19		88%	63%	1.94
	<b>SCS</b>	<b>288</b>	<b>64%</b>	<b>25%</b>	<b>1.20</b>		<b>82%</b>	<b>51%</b>	<b>1.39</b>
	IDSM	3	33%	40%	0.33		66%	66%	1.33
	<b>All</b>	<b>1114</b>	<b>65%</b>	<b>27%</b>	<b>1.42</b>		<b>79%</b>	<b>51%</b>	<b>1.61</b>

Truman has a strategic goal that all students will have at least one transformative learning experience. About 65% of students report having at least one of the “Big 4” and almost 80% reporting having some transformative experience.

## **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 was asked to complete an online survey in the weeks following their participation in the portfolio review process. Although the portfolio team is 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 new rubric for the Critical Thinking and Writing Prompt was fully implemented this year and the faculty found it very intuitive to use for scoring. Since this prompt will continue to be used as a Performance Funding measure, it is gratifying that faculty find scoring to be straightforward.

The intercultural prompt was tweaked as a result of the discussions last year, and this year’s data confirmed our conclusions. Broader discussions about the nature of Truman’s intercultural requirement was sparked, and there is hope that UGC and the campus community will take these data as a part of the review of that LSP component.

In 2013, the May portfolio reading sessions were in VH 1232, as in 2012. In August, the sessions were moved to the Magruder Hall computer room, MG 2005, to be in the same building as the new portfolio director and our portfolio office space. It is much more open, although it does not allow for a circle of discussion. It is very comfortable, however and conversation has flowed readily during discussions.

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 and we are actively encouraging students to log in early in their careers here. The new system also allows Course-embedded submissions, such as submissions from Eng 190 - 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. The Department of Society and Environment has used the Portfolio system to collect research papers from their SOAN majors since 2012, and we would be happy to offer this service to other majors in future years.

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. One campus topic that seems to be on the horizon is a Civic Engagement. Many of our guiding documents suggest that we aim to develop fully engaged citizens, so a prompt relating to this topic is being considered for inclusion in the next year.

### **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 Writing. The portfolio project is well-placed to continue to be seen as 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.