University of La Verne

Capstone Assessment of University Values and Competencies:

Written Communication Subsection

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Prepared by: Educational Effectiveness Committee

Coordinated by: Aghop Der-Karabetian, Jeanne Flora, Marga Madhuri, and Yingxia Cao

Participating faculty: Kent Badger, Carolyn Bekhor, Christine Broussard, Yingxia Cao, Al Clark, Dietz, Sean Dillon, Kathy Duncan, Linda Gordon, Megan Granquist, Erin Gratz, Cathy Irwin, Tye Johnson, Sonja Lopez, Marilyn Oliver, Larry Kemper, Jerry Kernes, Peggy Redman, Richard Simpson and Zandra Wagoner

Note: This report presents the Written Communication subsection findings of the full report available at: http://www.laverne.edu/institutional-research/assets/CAPSTONE-FULL-REPORT-08-09%20COMBINED.pdf.

Executive Summary

Purpose

The purpose of the capstone assessment project was to evaluate the extent to which the following learning outcomes and Mission elements are attained in capstone projects at the undergraduate, masters and doctoral levels institution-wide: Diversity and Community, Values Orientation, Life-long Learning (Critical Thinking), and Writing.

Method and Procedure

Through the office of Institutional Research a total random sample of 127 capstone projects were collected from across the university: 41 undergraduate senior projects/papers, 40 masters projects and 46 doctoral dissertations. Five different types of capstone projects were identified: 65 were empirical in nature, 22 were applied, 17 were theoretical, 1 was creative, and 19 were business strategic analyses. The projects were completed between 2006 and 2008, and came from three colleges: College of Arts and Sciences, College of Business and Public Management, and College of Education and Organizational Leadership.

Four learning outcomes were assessed: Diversity and Community, Values Orientation, Lifelong Learning (Critical Thinking) and Written Communication (Mechanics, Organization, Development of Thesis, Project Appropriate Formatting and Citation). Global rubrics accompanied by articulated criteria especially developed for different types of capstone projects addressing each of the learning outcomes were developed and used to assess the projects. The rubric ratings were made on a 4-point scale: 4=Accomplished, 3=Developed, 2=Developing, 1=Undeveloped.

A pilot study was conducted in the summer of 2008 that established the sensitivity of the rubrics to identify the variability in the projects, and reliably assess the degree to which the four learning outcomes were attained in capstone projects. Another sample of projects was collected in 2009 and compared to the 2008 pilot data. Showing no significant differences, the two samples were combined. Group comparisons were made among different degree levels (undergraduate, masters and doctoral) and different types of projects (empirical, applied and other types of projects that combined theoretical, creative and strategic analysis because of small samples). If 70% or more of the projects received ratings of Accomplished or Developed on a particular learning outcome it was considered high level of attainment; between 50% and 69% was considered moderate level of attainment (needing improvement), and below 50% was considered low level of attainment (needing serious attention).

Findings

Writing

Tables 7 to 12 summarize the findings regarding writing skills. The five skills evaluated under writing are discussed separately below.

Table 7

Means and standard deviations for all levels and types of projects combined on writing skills

Writing Skills	N	M	SD
Mechanics	125	3.0	.9
Organization	124	3.0	.9
Development of Thesis	119	2.8	1.1
Project Appropriate Format	125	3.0	.9
Citation	125	2.9	1.1

Notes: 4=Accomplished; 3=Developed; 2=Developing; 1=Undeveloped; Combined 2008 and 2009 samples

Table 8

Percentages (Accomplished and Developed) for all levels and types of projects combined on writing skills

Writing Skills	N	%		
		Developed	Accomplished	Combined
Mechanics	125	35	37	72
Organization	124	36	36	72
Development of Thesis	119	30	36	66
Project Appropriate Format	125	32	42	74
Citation	125	23	43	66

Notes: 4=Accomplished; 3=Developed; 2=Developing; 1=Undeveloped; Combined 2008 and 2009 samples

Table 9

Means and standard deviations comparing undergraduate, masters and doctoral capstone projects on writing skills

	Project Levels										
	Undergraduate			Masters			Doctoral				
Writing Skills	N	M	SD	N	M	SD	N	M	SD	F	Sig
Mechanics	39	2.3[ab]	.9	40	2.8[bc]	.9	46	3.8[ac]	.4	38.66	<.001
Organization	39	2.2[ab]	.9	40	2.9[ac]	.9	45	3.7[bc]	.5	38.66	<.001
Development of Thesis	39	1.9[ab]	.9	34	3.0[a]	1.0	46	3.4[b]	.8	32.28	<.001
Project Appropriate Format	39	2.3[ab]	.8	40	3.1[ac]	.9	46	3.7[bc]	.5	36.53	<.001
Citation	39	1.9[ab]	1.0	40	2.9[ac]	1.0	46	3.8[bc]	.5	47.66	<.001

Note: 4=Accomplished; 3=Developed; 2=Developing; 1=Undeveloped; Combined 2008 and 2009 samples; Means with common superscripts are significantly different at p <.05 level

Table 10

Percentages (Accomplished and Developed) comparing undergraduate, masters and doctoral capstone projects on writing skills

	Project Levels								
	Undergraduate(N=39)			Masters (N=40)			Doctoral(N=46)		
Writing Skills	%			%			%		
	Developed	Accomplished	Combined	Developed	Accomplished	Combined	Developed	Accomplished	Combined
Mechanics	36	10	46	43	20	63	26	74	100
Organization	23	10	33	50	28	78	32	68	100
Development of Thesis	5	10	15	32	41	73	30	54	84
Project Appropriate Format	36	5	41	40	40	80	22	74	96
Citation	21	8	29	35	35	70	15	80	95

Note: 4=Accomplished; 3=Developed; 2=Developing; 1=Undeveloped; Combined 2008 and 2009 samples

Table 11

Means and standard deviations comparing empirical, applied and other types of capstone projects on writing skills

	Types of Projects										
	Empirical			Applied			Other				
Writing Skills	N	M	SD	N	M	SD	N	M	SD	F	Sig
Mechanics	65	3.4^a	.8	22	3.1^b	.8	35	2.2^{ab}	1.0	23.16	<.001
Organization	64	3.2^a	.9	22	3.3^b	.7	35	2.3^{ab}	.9	12.89	<.001
Development of Thesis	65	3.0^a	1.0	16	3.4^b	.8	35	2.2^{ab}	1.2	9.20	<.001
Project Appropriate Format	65	3.4^a	.8	22	3.5^b	.7	35	2.3^{ab}	1.0	21.80	<.001
Citation	65	3.4^a	.9	22	2.9^b	.9	35	2.2^{ab}	1.2	14.99	<.001

Note: 4=Accomplished; 3=Developed; 2=Developing; 1=Undeveloped; Combined 2008 and 2009 samples; Means with common superscripts are significantly different at p <.05 level

Table 12

Percentages (Accomplished and Developed) comparing empirical, applied and other types of capstone projects on writing skills

	Types of Projects								
	Empirical(N=65)			Applied (N=22)			Other (N=35)		
Writing Skills	%			%			%		
	Developed	Accomplished	Combined	Developed	Accomplished	Combined	Developed	Accomplished	Combined
Mechanics	35	52	87	46	32	78	23	11	34
Organization	33	48	81	46	41	87	34	11	45
Development of Thesis	24	40	64	25	56	81	17	20	37
Project Appropriate Format	29	55	84	36	55	91	34	11	45
Citation	18	62	80	41	32	73	20	20	40

Notes: 4=Accomplished; 3=Developed; 2=Developing; 1=Undeveloped); Combined 2008 and 2009 samples

Writing Skills-Mechanics

For the **overall sample** (N=125), the mean score on Mechanic is 3.0, and 72% of the projects are at the Accomplished or Developed levels. Mean comparisons of **degree levels** show that doctoral dissertations (3.8) are significantly higher than the undergraduate (2.3) and masters (2.8) projects, which are significantly different from each other. Writing Mechanics skills are present in 100% of the doctoral dissertations and 63% of masters projects at the Accomplished or Developed levels. However, only 46% of the undergraduate projects are at these levels. Mean comparisons of **types of projects** show that the empirical

(3.4) and applied (3.1) projects are significantly higher than other (2.2) types of projects. Writing Mechanics skills are present in 87% of empirical and 78% of applied projects at the Accomplished or Developed levels. However, only 34% of other types of projects are at these levels. **In summary,** it appears that at the institutional level, doctoral, empirical and applied projects reflect writing Mechanics skills at high levels of attainment, and masters' projects at a moderate level of attainment. Undergraduate and other types of projects reflect writing Mechanics skills at low levels of attainment. **Recommendations:** (a) To improve the institutional level of attainment of the writing Mechanics skills for undergraduate and other types of projects, as demonstrated in capstone projects, faculty in various colleges should develop action plans to address the issue; (b) Individual departments across the university are encouraged to use the rubric and the articulated criteria for Writing Skills-Mechanics to continuously assess this learning outcome in their capstone courses.

Writing Skills-Organization

For the **overall sample** (N=124), the mean score on Organization is 3.0, and 72% of the projects are at the Accomplished or Developed levels. Mean comparisons of **degree levels** show that doctoral dissertations (3.7) are significantly higher than the undergraduate (2.2) and masters (2.9) projects, which are also significantly different from each other. Writing Organization skills are present in 100% of the doctoral dissertations and 78% of masters' projects at the Accomplished or Developed levels. However, only 33% of the undergraduate projects are at these levels. Mean comparisons of **types of projects** show that the empirical (3.2) and applied (3.3) projects are not different from each other, and are significantly higher than other (2.3) types of projects. Writing Organization skills are present in 81% of empirical and 87% of applied projects at the Accomplished or Developed levels. However, 45% of other types of projects are at these levels. **In summary,** it appears that at the institutional level, doctoral, masters, empirical and applied projects reflect writing Organization skills at high levels of attainment. Undergraduate and other types of projects reflect writing Organization skills at low levels of attainment.

Recommendations: (a) To improve the institutional level of attainment of the writing Organization skills for undergraduate and other types of projects, as demonstrated in capstone projects, faculty in various colleges should develop action plans to address the issue in undergraduate and other types of projects; (b) Individual departments across the university are encouraged to use the rubric and the articulated criteria for Writing Skills-Organization to continuously assess this learning outcome in their capstone courses.

Writing Skills-Development of Thesis

For the **overall sample** (N=119), the mean score on Development of Thesis is 2.8, and 66% of the projects are at the Accomplished or Developed levels. Mean comparisons of **degree levels** show that doctoral dissertations (3.4) are significantly higher than the undergraduate (1.9) projects and so are the masters' (3.0) projects, which are not significantly different from

doctoral dissertations. Thesis Development skills are present in 84% of the doctoral dissertations and 73% of masters projects at the Accomplished or Developed levels. However, only 15% of the undergraduate projects are at these levels. Mean comparisons of **types of projects** show that the empirical (3.0) and applied (3.4) projects are significantly higher than other (2.2) types of projects and not different from each other. Thesis Development skills are present in 64% of empirical and 81% of applied projects at the Accomplished or Developed levels. However, only 37% of other projects are at these levels. **In summary,** it appears that at the institutional level, doctoral, masters' and applied projects reflect Thesis Development skills at high levels of attainment, and empirical projects are at moderate level of attainment. Undergraduate and other types of projects reflect thesis development skills at low levels of attainment. Empirical and applied projects are at moderate levels of attainment, and could be improved.

Recommendations: (a) To improve the institutional level of attainment of thesis development skills for undergraduate and all different types of projects, as demonstrated in capstone projects, faculty in various colleges should develop action plans to address the issue;(b) Individual departments across the university are encouraged to use the rubric for Writing Skills-Development of Thesis to continuously assess this learning outcome in their capstone courses.

Writing Skills-Project Appropriate Format

For the **overall sample** (N=125), the mean score on Project Appropriate Format is 3.0, and 74% of the projects are at the Accomplished or Developed levels. Mean comparisons of **degree levels** show that doctoral dissertations (3.7) are significantly higher than the undergraduate (2.3) projects and so are the masters' (3.1) projects, which are also significantly different from doctoral dissertations. Project Appropriate formatting skills are present in 96% of the doctoral dissertations and 80% of masters' projects at the Accomplished or Developed levels. However, only 41% of the undergraduate projects are at these levels. Mean comparisons of **types of projects** show that the empirical (3.4) and applied (3.5) projects are significantly higher than other (2.3) types of projects and not different from each other. Project Appropriate formatting skills are present in 84% of empirical and 91% of applied projects at the Accomplished or Developed levels. However, only 45% of other types of projects are at these levels. **In summary,** it appears that at the institutional level, doctoral, masters, empirical and applied projects reflect Project Appropriate formatting skills at high levels of attainment. Undergraduate and other types of projects reflect Project Appropriate skills at low levels of attainment.

Recommendations: (a) To improve the institutional level of attainment of Project Appropriate formatting skills for undergraduate and other types of projects, as demonstrated in capstone projects, faculty in various colleges should develop action plans to address the issue;(b) Individual departments across the university are encouraged to use the writing rubric to continuously assess this learning outcome in their capstone courses.

Writing Skills-Citation

For the **overall sample** (N=125), the mean score on Citation skills is 2.9, and 66% of the projects are at the Accomplished or Developed levels. Mean comparisons of **degree levels** show that doctoral dissertations (3.8) are significantly higher than the undergraduate (1.9) projects and so are the masters (2.9) projects, which are also significantly lower than doctoral dissertations. Citation skills are present in 95% of the doctoral dissertations and 70% of masters' projects at the Accomplished or Developed levels. However, only 29% of the undergraduate projects are at these levels. Mean comparisons of **types of projects** show that the empirical (3.4) and applied (2.9) projects are significantly higher than other (2.2) types of projects and not different from each other. Citation skills are present in 80% of empirical and 73% of applied projects at the Accomplished or Developed levels. However, only 40% of other types projects are at these levels. **In summary,** it appears that at the institutional level, doctoral, masters and empirical and applied projects reflect Citation skills at high levels of attainment. Undergraduate and other types of projects reflect citation skills at very low levels of attainment.

Recommendations: (a) To improve the institutional level of attainment of citation skills for undergraduate, applied and other types of projects, as demonstrated in capstone projects, faculty in various colleges should develop action plans to address the issue;(b) Individual departments across the university are encouraged to use the Writing Skills-Citation rubric to continuously assess this learning outcome in their capstone courses.

Comparison of Writing Skills Criteria

For the **overall sample** inspection of the 5 writing criteria shows that Mechanics, Organization and Project Appropriate formatting skills are present at high levels of attainment: over 70% of the capstone projects are rated at the Accomplished or Developed levels in these areas. The writing criteria of Thesis Development and Citation skills are present at moderate levels of attainment: 66% and 66%, respectively, of capstone projects are rated at the Accomplished or Developed levels in these areas. Doctoral dissertations and masters projects show high levels of attainment of all the writing skills: Over 70% of these capstone projects are rated at Accomplished or Developed levels. Undergraduate projects demonstrate low levels of attainment of all the writing skills criteria with 41% or fewer of the projects being rated as Accomplished or Developed. Thesis Development and Citation skills are particularly low: 15% and 29%, respectively, are rated Accomplished or Developed. Empirical projects show high levels of attainment (Over 70% are rated Accomplished or Developed) on all criteria except on thesis development skills being at the moderate level(64% rated Accomplished or Developed). Applied projects show high levels of attainment on all of the writing skills (Over 70% are rated at Accomplished or Developed levels). Other types of

projects (theoretical, creative and strategic analysis combined) show low levels of attainment of all the writing skills: Less than 50% are rated at the Accomplished or Developed levels. **In summary,** Mechanics, Organization and Projects Appropriate formatting appear to be at high levels of attainment, especially in graduate and empirical and applied projects, and Thesis Development and Citation skills appear to be at low levels of attainment, especially in undergraduate and other types of capstone projects.