

Core Outcome Assessment

Critical Thinking & Problem Solving

Management/Supervisory Development Program

Spring 2010

Core Outcome Assessment

Critical Thinking & Problem Solving

What is the assessment?

- **Part 1- Indirect Assessment: Student feedback**

In early April, an electronic survey was sent to 2009 recipients of the MSD AAS Degree (25) and also to recipients of the MSD Professional Program Awards (85) regarding their perspectives on their critical thinking skills as impacted by completing MSD Courses. Responses were compiled and reviewed by the SAC.

- **Part 2 – Direct Assessment: SAC evaluation of student artifacts**

During April, 4 faculty members applied a *critical thinking rubric* to student artifacts collected from MSD 279, MSD 130, MSD 105, MSD 110, MSD 157, and MSD 198B. Results were compiled, reviewed, and will be shared with faculty. Action plans will be developed if need is determined based on review.

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What is the **purpose** of the assessment?

- **The Survey:** To measure whether students, upon completion of an 18 credit hour MSD Program Award and/or the AAS degree, feel they have learned to use Critical Thinking and Problem Solving - in order for the SAC to determine whether the Program outcomes are appropriate guides for teaching these skills.
- **The Artifacts:** To assess whether students demonstrate critical thinking in their individual artifacts in order to see:
 - how the MSD program is doing in helping students achieve the PCC Core outcome.
 - how the individual courses are helping students achieve this outcome.

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Who is the intended audience of the assessment?

- The audience is varied. Audience for the survey results: SAC, Faculty, Management. Audience for the artifact review: SAC, Faculty, Management. (future potential audience = students & employers).

How will the results of the assessment be presented to the intended audience?

- The results will be presented to SAC and staff using PowerPoint slides showing visual comparisons of the survey results. The slides will be available on our MSD Faculty Groups page. Discussion prior to the next SAC meeting will be by email.

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What **definition** of critical thinking are you using?

- The ability to analyze, interpret, evaluate, infer, explain, and solve workplace problems or issues in the context of a supervisory perspective.
 - Identify and investigate problems.
 - Evaluate information and its sources.
 - Use appropriate methods of reasoning to develop creative and practical solutions to personal, professional and community issues.

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How does this assessment **integrate** with other teaching strategies or assessment strategies?

- **The survey** will provide student self-assessment feedback regarding the program as a whole. Results can be reviewed alongside course evaluations for an overview of students' perspectives.
- **The artifact review** will provide additional –external- feedback for the faculty of each of the 6 classes plus provide a tool for faculty to assist students in measuring their own achievement of the core outcomes. Concepts from the assessment rubric can be incorporated into class assignment rubrics.

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Ideally, **how often** should this assessment be implemented, given your purpose?

- **Survey** of AAS and Program Award recipients will be ongoing – the Awards can be issued at the end of every term, so the survey could be sent within a month of issuance.
- **Artifacts** will be collected during the year and reviewed in the Spring.
 - These assessments can be modified to focus on each particular core outcome, or the survey could potentially include questions regarding each of the core outcomes.
 - The artifacts could be compared to a rubric for each core outcome, one per year.

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Mapping Level Indicators: Most MSD Courses = Level 3

0. Not Applicable.

1. Limited demonstration or application of knowledge and skills.

2. Basic demonstration and application of knowledge and skills.

3. Demonstrated comprehension and is able to apply essential knowledge and skills.

- Identifies and addresses the validity of key assumptions that underlie the issue.
- Examines the evidence and source of evidence.
- Relates cause and effect.
- Illustrates existing or potential consequences.
- Analyzes the scope and context of the issue including an assessment of the audience of the analysis.

4. Demonstrates thorough, effective and/or sophisticated application of knowledge and skills.



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Results!

Using the rubric...

Critical Thinking Rubric

For each of the four criteria below, assess the work by circling a numeric score. Insert each score in the Overall Rating table below.

Adapted from Washington State University's rubric for Critical Thinking

Critical Thinking Outcomes	Emerging		Developing		Mastering	
	1	2	3	4	5	6
<p>Anticipates, identifies, and summarizes issue as well as potential problems and consequences.</p> <p>This dimension focuses on task or issue identification, including embedded or implicit aspects of an issue and the relationships integral to effective analysis.</p>	Does not attempt or does not identify and summarize accurately. No consideration of potential problems or consequences.		Summarizes issue, though some aspects are incorrect or confused; nuances and key details are missing or glossed over. Minimal anticipation of problems or consequences.		Clearly identifies and summarizes the challenge and embedded or implicit aspects of the issue. Identifies integral relationships essential to analyzing the issue. Anticipates and predicts potential problems and corresponding consequences.	
<p>Presents, assesses, and analyzes appropriate supporting data/evidence.</p> <p>This dimension focuses on evidence of search, selection, and source evaluation skills—including accuracy, relevance and completeness. High scores provide evidence of bias recognition, causality, and effective organization.</p>	No evidence of search, selection or source evaluation skills. Repeats information without question or dismisses evidence without adequate justification. Does not distinguish among fact, opinion, and value judgments. Data/evidence or sources are simplistic, not on topic or are inappropriate.		Demonstrates adequate skill in searching, selecting, and evaluating sources to meet the information need. Appropriate data/evidence or sources provided to meet the information need, though little evidence of more than routine exploration.		Evidence of search, selection, and source evaluation skills; notable identification of uniquely salient resources. Examines the evidence and source of evidence; questions its accuracy, relevance, completeness. Information need is clearly defined, related, and well integrated to meet and exceed assignment or course interests.	
<p>Identifies and assesses conclusions, implications, and consequences.</p> <p>This dimension focuses on integrating previous dimensions and extending them as they explicitly & implicitly resolve in consequences. Well developed conclusions summarize and establish new directions for consideration in light of the evidence.</p>	Fails to identify conclusions, implications, and consequences or conclusion is simplistic summary. Conclusions presented as absolute and may attribute conclusion to external authority.		Conclusions consider or provide evidence of consequences that extend beyond the borders of single discipline or single issue. Presents implications that may impact other people or issues. Presents conclusions as relative and only loosely related to consequences. Implications may follow with vague reference to conclusions.		Identifies, discusses and extends conclusions, implications, and consequences considering context, assumptions, data, and evidence. Conclusions qualified as the best available evidence within the given context; clear ties to and consideration of consequences. Implications are clearly developed.	
<p>Communicates effectively.</p> <p>This dimension focuses on the presentation. If written, it is organized effectively, cited correctly; the language use is clear and effective, errors are minimal, and the style and format are appropriate for the audience.</p>	In many places, language obscures meaning. Grammar, syntax, or other errors are distracting or repeated. Little evidence of proofreading. Style is inconsistent or inappropriate. Work is unfocused and poorly organized; lacks logical connection of ideas. Format is absent, inconsistent or distracting. Few sources are cited or used correctly.		In general, language does not interfere with communication. Errors are not distracting or frequent, although there may be some problems with more difficult aspects of style and voice. Basic organization is apparent; transitions connect ideas, although they may be mechanical. Format is appropriate although at times inconsistent. Most sources are cited and used correctly.		Language clearly and effectively communicates ideas. May at times be nuanced and eloquent. Errors are minimal. Style is appropriate for audience. Organization is clear; transitions between ideas enhance presentation. Consistent use of appropriate format. Few problems with other parts of presentation. All sources are cited and used correctly.	

Criteria	Score
Anticipates, identifies, and summarizes issue as well as potential problems and consequences.	
Presents, assesses, and analyzes appropriate supporting data/evidence.	
Identifies and assesses conclusions, implications, and consequences.	
Communicates effectively.	

MSD Program

Assessment of Student Artifacts

6 individual course results

(specific scores from 4 reviewers)

Courses	Elements of Core		Outcome for		Critical Thinking		Average		
	Anticipates		Presents		Identifies	Communicates			
MSD105	3 5	4 5	3 6	4 3	4 6	5 4	3 5	4 6	4.4
MSD110	3 6	4 5	4 5	4 5	4 6	4 5	4 5	5 4	4.6
MSD130	5 4	3 4	4 3	3 4	5 5	4 4	4 4	4 4	4.0
MSD157	4 3	3 3	2 2	1 3	3 2	3 3	3 4	4 3	3.0
MSD198B	4 2	1 3	2 3	1 2	3 2	3 3	4 3	4 4	2.8
MSD279	4 5	6 4	4 2	1 3	2 3	3 2	4 3	4 4	3.4
Average	3.8		3.0		3.7		4.0		

MSD Program

Assessment of Student Artifacts

6 individual course results

(average scores from 4 reviewers)

Critical Thinking & Problem Solving Core Outcome	MSD 105 (3 cr)	MSD 130 (3 cr)	MSD 279 (4 cr)	MSD 110 (1 cr)	MSD 157 (1 cr)	MSD 198B (1 cr)
Anticipates	4.3	4.0	4.8	4.5	3.3	2.5
Presents	4.0	3.5	2.5	4.5	2.0	2.0
Identifies	4.8	4.5	2.5	4.8	3.0	2.8
Communicates	4.5	4.0	3.8	4.5	3.5	3.8
Average	4.4	4.0	3.4	4.6	3.0	2.8

MSD Program

Overall Rating of 6 Student Artifacts

Critical Thinking Criteria	Score
Anticipates, identifies, and summarizes issue as well as potential problems and consequences.	3.8
Presents, assesses, and analyzes appropriate supporting data/evidence.	3
Identifies and assesses conclusions, implications, and consequences.	3.7
Communicates effectively.	4
Average	3.6

Rubric category:
“Developing”

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Critical Thinking & Problem Solving

Results!

Using the survey...

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Response Summary

15 respondents/85 surveys = 18%

Total Started Survey: 16
Total Completed Survey: 15 (93.8%)

Page: Questions

1. Which of the following have you earned from MSD? You can mark more than one option. [Create Chart](#) [Download](#)

	Response Percent	Response Count
I earned an AAS Degree	46.7%	7
I earned an MSD One Year Certificate	33.3%	5
I earned an 18 hour program award	13.3%	2
I earned more than one 18 hour program awards	53.3%	8
		3

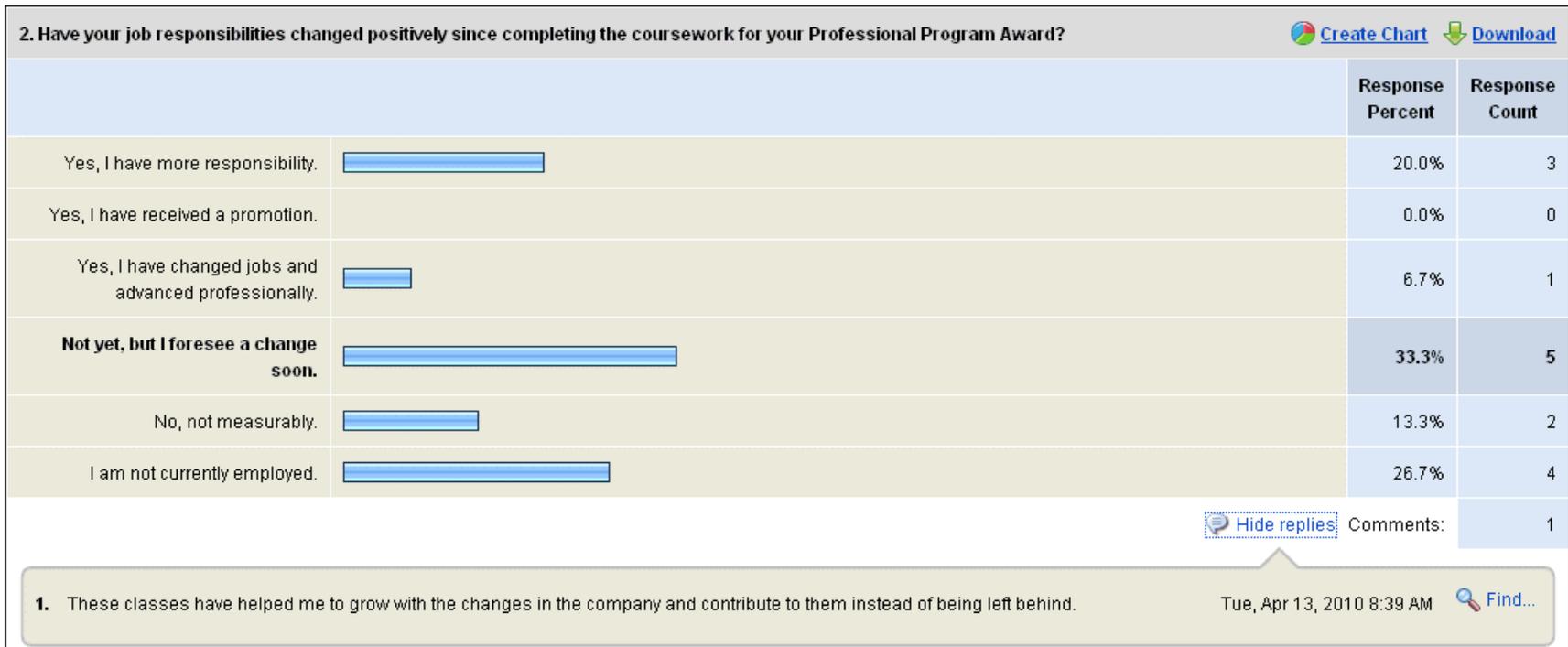
[Hide replies](#) Comments:

- I will complete my AAS degree at the end of the term but have not submitted my paperwork yet. Tue, Apr 27, 2010 11:41 AM [Find...](#)
- working on last class for AAS Wed, Apr 21, 2010 1:42 PM [Find...](#)
- I am still in the process of earning my AAS degree Wed, Apr 21, 2010 10:20 AM [Find...](#)

answered question 15

Core Outcome Assessment

Critical Thinking & Problem Solving



3. The PCC Core Outcome for Critical Thinking describes Critical Thinking in the following way: Identify and investigate problems, evaluate information [Create Chart](#) [Download](#) and its sources, and use appropriate methods of reasoning to develop creative and practical solutions to personal, professional and community issues. How well did the MSD courses you completed prepare you to use critical thinking?

		Response Percent	Response Count
I developed solid critical thinking skills that make me feel confident.		53.3%	8
I developed good critical thinking skills that help my confidence.		46.7%	7
I still need to develop confidence in my critical thinking skills.		0.0%	0
My critical thinking skills need a lot of work.		0.0%	0
		Comments:	0
		answered question	15
		skipped question	1

4. Critical Thinking Outcome: Anticipates Problems Which response most closely represents how you anticipate potential problems in work assignments, questions, or issues?

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		Response Percent	Response Count
I think ahead and anticipate and predict what problems and consequences might arise.		46.7%	7
I usually can anticipate or predict potential problems and consequences.		60.0%	9
I can sometimes anticipate or predict potential problems if I have help.		0.0%	0
I have a hard time predicting what problems might arise.		0.0%	0
		Comments:	0
		answered question	15
		skipped question	1

5. Critical Thinking Outcome: Identifies and summarizes work assignments, problems, or questions. Which response most closely represents your actions when first faced with a work assignment, problem, or question?

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		Response Percent	Response Count
I can clearly identify and summarize integral relationships essential to analyzing a work assignment, problem, or question.		60.0%	9
I can usually identify the challenge and the implicit aspects of the problem or assignment.		53.3%	8
I can summarize the issue, though some aspects, nuances, and key details may be missing or glossed over.		0.0%	0
I sometimes fail to identify and summarize the assignment accurately.		0.0%	0
Comments:			0
answered question			15

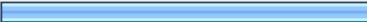
6. Critical Thinking Outcome: Identifies and investigates relevant information needed for work assignments, questions, or problems. Which response best describes how you most often find relevant information to inform your decisions?

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		Response Percent	Response Count
I know where to go to find the relevant information needed to make informed decisions.		93.3%	14
I usually find relevant information to inform my decisions.		6.7%	1
I can find good information and use it to inform my decisions if I have help.		0.0%	0
I usually make decisions based on what appears obvious in assignments/problems/questions.		0.0%	0
Comments:			0
answered question			15
skipped question			1

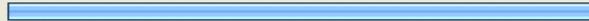
7. Critical Thinking Outcome: Analyzes, and evaluates information and sources. Which response best describes how you investigate and examine the accuracy of information and sources when considering a work assignment, question, or problem?

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		Response Percent	Response Count
I thoroughly examine the information and sources of evidence, and question accuracy, relevance, and completeness.		33.3%	5
I examine the information and sources, and often question accuracy, relevance, and completeness.		66.7%	10
I scan the information and sources, and review the accuracy, relevance, and completeness when requested.		0.0%	0
I tend to accept information and sources at face value unless otherwise instructed.		0.0%	0
Comments:			0

8. Critical Thinking Outcome: Identifies and assesses solutions, conclusions, implications, and consequences. Which response most closely represents your actions when assessing and selecting solutions to work assignments, problems, or issues?

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		Response Percent	Response Count
I identify, assess, and expand on solutions, conclusions, implications, and understand potential consequences.		53.3%	8
I usually identify and assess appropriate solutions or conclusions, and identify the implications and potential consequences.		46.7%	7
I can identify and assess appropriate solutions or conclusions if I have help.		0.0%	0
I usually try the first solution identified and hope for successful consequences.		0.0%	0
Comments:			0
answered question			15
skipped question			1

9. What else would you like to tell us about your experiences in the MSD program?

 [Download](#)

**Response
Count**

 [Hide replies](#)

15

- | | | |
|---|----------------------------|---|
| 1. Wonderful program and I believe though this is not my primary degree the core of this program has help strengthen and solidify my analytical process and will be a great addition to any other course I choose to follow. I appreciate everyone involved and wish you all the best. Thank you! -Clinten Schmidt | Mon, May 3, 2010 12:45 PM |  Find... |
| 2. It is a great program! | Tue, Apr 27, 2010 11:41 AM |  Find... |
| 3. Learning a lot of valuable information that I can take with me anywhere I go! | Mon, Apr 26, 2010 11:58 AM |  Find... |
| 4. It has been rewarding taking these classes. | Fri, Apr 23, 2010 4:39 PM |  Find... |
| 5. fast and fairly easy program | Wed, Apr 21, 2010 1:42 PM |  Find... |
| 6. I have really enjoyed all the MSD courses I have taken. I would recommend this program to anyone. | Wed, Apr 21, 2010 10:20 AM |  Find... |
| 7. Joe Wright has been of great assistance in helping me as an advisor. | Fri, Apr 16, 2010 4:21 PM |  Find... |
| 8. I thought the experiance was a very positive one. Each of the instructors is wonderful, and allow you to learn in a safe environment. If I had know before starting on my path in the BIT program, I would have started this program and had no bad taste in my mouth. Kudos to all of the MSD instructors. | Fri, Apr 16, 2010 12:19 PM |  Find... |
| 9. Good way to learn issues that may arise from lack of, poor, or mis- communication. | Fri, Apr 16, 2010 7:19 AM |  Find... |
| 10. It has been one of the most rewarding experiences that I have had. I learned so much and am glad I took this at the age range I am (45) because I got more out of the experience and learning that what I would have in my earlier years.

I also appreciate the MSD instructors and Carmen is wonderful. I always had my questions answered in a very short time. I would also like to thank Joe Wright for letting me know that I could get my BA through Eastern Oregon University completely online. I had no idea that was an option. Keep up the good work on what you are doing with this program. | Thu, Apr 15, 2010 4:56 PM |  Find... |
| 11. This is a great program for those who are looking to achieve a degree in management and supervision. | Tue, Apr 13, 2010 8:39 AM |  Find... |
| 12. Overall it has been a good experience, I just wish more of the credits were transferable towards private schools such as Pacific University. | Sun, Apr 11, 2010 10:45 AM |  Find... |
| 13. Every class that I have taken in the MSD group has held some valuable piece of information or a pleasant surprise that may or may not have had anything to do with the title of the class. Ive had super knowledgeable instructors and have appreciated the efforts of everyone involved (that includes me!). | Sat, Apr 10, 2010 2:50 PM |  Find... |
| 14. Nothing. | Thu, Apr 8, 2010 6:47 PM |  Find... |
| 15. Nothing at this time | Thu, Apr 8, 2010 11:37 AM |  Find... |



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Critical Thinking & Problem Solving

Conclusions!

Core Outcome Assessment

Critical Thinking & Problem Solving

Conclusions

- Results were not available prior to the SAC meeting so SAC members have not seen them yet.
- Preliminary conclusions:
 - The MSD program is meeting expectations for helping students achieve the core outcome for Critical Thinking & Problem Solving.
 - SAC members may need to revisit how certain courses could do a better job of helping students meet the core outcome.